#### **Draft review guidelines**

This draft version of the report gives you an opportunity to review the initial findings and report any concerns you may have. It is also an opportunity to suggest any edits to the text that you would like us to incorporate into the final version.

Please note that the results found in this draft report are preliminary and subject to change. Because of this, we recommend against publishing or publicizing the findings presented below until you have your finalized results.

#### **Editing Guidelines**

- Please provide suggested revisions as one electronic document or digital comments on a single copy
  of each of the reports. Please send either as a word document or PDF file. Do not make unmarked
  changes in the text, as this makes it difficult for us to find and track changes.
- It is only necessary to indicate iterative revisions (for example, capitalizing a word that we have consistently not capitalized) at the first instance, not at every instance.
- Before sending us suggested revisions, if you have received feedback from multiple people, please be sure that their suggestions do not contradict each other.

#### **Formatting**

This draft version does not include the customized colors and pictures you have sent for inclusion. When the draft process is over, a finalized report will be sent to Lightcast's graphic designer, who will incorporate those elements.

# Analysis of the Economic Impact and Return on Investment of Education

## The Economic Value of the University of Illinois Urbana-Champaign

March 2025

#### **EXECUTIVE SUMMARY**

The University of Illinois Urbana-Champaign (UIUC) creates value in many ways. The university plays a key role in helping students increase their employability and achieve their individual potential. The university facilitates new research and company developments and also draws visitors and students to the state, generating new dollars and opportunities for Illinois. UIUC provides students with the education, training, and skills they

UIUC influences both the **lives of its students** and the **state economy**.

need to have fulfilling and prosperous careers. Its student volunteers support the state economy through the output and employment generated by state businesses and organizations. Furthermore, UIUC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

UIUC influences both the lives of its students and the state economy. The university supports a variety of industries in Illinois, serves state businesses, and benefits society as a whole in Illinois from an expanded economy and improved quality of life. Additionally, the benefits created by UIUC extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by UIUC 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 the university, for fiscal year (FY23) (July 1, 2022 through June 30, 2023). Impacts on the Illinois 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 Illinois are reported under the investment analysis.



#### **ECONOMIC IMPACT ANALYSIS**

UIUC promotes economic growth in Illinois through its direct expenditures and the resulting expenditures of visitors, students, and state businesses. The university serves as an employer and buyer of goods and services for its day-to-day operations, construction, and research activities. Numerous spin-off companies have formed as a result of programs and knowledge at UIUC. The university's reputation and activities attract visitors and students from outside Illinois, whose expenditures benefit state vendors. UIUC encourages its students to volunteer in the community, helping businesses and organizations grow. In addition, UIUC is a primary source of higher education to Illinois residents and a supplier of trained workers to state industries, enhancing overall productivity in the state workforce.

#### **Operations Spending Impact**

UIUC adds economic value to Illinois as an employer of state residents and a large-scale buyer of goods and services. In FY23, payroll at UIUC was \$1.3 billion, much of which was spent in the state for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the university spent \$655.3 million<sup>1</sup> on expenses related to facilities, supplies, and professional services.

UIUC's operations spending added \$1.6 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 \$1.6 billion in added income is equivalent to supporting 15,604 jobs in the state.

## Impacts created by UIUC in FY23

\$1.6 billion
Operations Spending Impact

\$27.3 million
Construction Spending Impact

\$788.9 million
Research Spending Impact

\$153.6 million
Spin-off Company Impact

\$116.9 million Visitor Spending Impact

\$253.6 million
Student Spending Impact

\$1.3 million

Volunteerism Impact

\$9.3 billion
Alumni Impact

\$12.2 billion

Total Impact

or

109,212
Jobs Supported

<sup>&</sup>lt;sup>1</sup> Research employees and their payroll, as well as non-pay expenses for research and construction, are excluded from this impact as they are measured in the following impacts.



#### **Construction Spending Impact**

UIUC invests in capital projects each year to maintain its facilities, create additional capacities, and meet its growing educational demands. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the state economy. In FY23, UIUC's construction spending generated \$27.3 million in added income, which is equivalent to supporting 280 jobs.

#### Research Spending Impact

Research activities impact the economy by employing people and requiring the purchase of equipment and other supplies and services. Over the last four years, UIUC received 868 invention disclosures, filed 824 new patent applications, and produced 205 licenses.

In FY23, UIUC spent \$366.7 million on payroll to support research activities. This, along with \$289.1 million in other research spending,<sup>2</sup> created a net total of **\$788.9** million in added income for the state economy. This added income is equivalent to supporting **7,729 jobs.** 

#### **UIUC research developments**

	Inventions	Patents	Licenses
FY20	215	201	60
FY21	211	216	61
FY22	215	215	43
FY23	227	192	41
Total	868	824	205

Source: UIUC

#### Spin-off Company Impact

UIUC creates an exceptional environment that fosters innovation and entrepreneurship, evidenced by the number of UIUC spin-off companies created in the state. Spin-off companies, created and fostered through university programs or faculty and alumni, have a clear but weaker link to UIUC. In FY23, UIUC spin-off companies added \$153.6 million in income to the Illinois economy, which is equivalent to supporting 505 jobs.

#### **Visitor Spending Impact**

Over 100,000 visitors from outside the state were attracted to UIUC 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 \$116.9 million in added income for the state economy in FY23. This **\$116.9** million in added income is equivalent to supporting **1,386** jobs.

<sup>&</sup>lt;sup>2</sup> Excludes indirect costs because indirect costs are not necessarily spent during the analysis year.



#### Student Spending Impact

About 47% of students attending UIUC originated from outside the state in FY23, and some of these students relocated to Illinois to attend UIUC. 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 Illinois if not for the existence of UIUC. While attending the university, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$253.6 million in added income for the state economy in FY23, which supported 3,832 jobs in Illinois.

#### Volunteerism Impact

UIUC encourages its students to volunteer in Illinois, where they can work with businesses and organizations to help meet their goals. The work of these student volunteers allows businesses and organizations to grow, increasing their output and impacting the economy at large. The work of UIUC student volunteers is equivalent to \$851.9 thousand in earnings. In terms of actual impact to the Illinois economy, UIUC student volunteers generated an impact of \$1.3 million in added income for the state in FY23, equivalent to supporting 16 jobs.

#### Alumni Impact

The education and training UIUC provides for state residents has the greatest impact. Since the establishment of the university, students have studied at UIUC and entered the state workforce with greater knowledge and new skills. Today, thousands of former UIUC students are employed in Illinois. As a result of their education from UIUC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY23, UIUC alumni generated \$9.3 billion in added income for the state economy, which is equivalent to supporting 79,859 jobs.

#### **Total Impact**

UIUC added \$12.2 billion in income to the Illinois economy during the analysis year, equal to the sum of the operations, construction, and research spending impacts; the spin-off company impact; the visitor and student spending impacts; the volunteerism impact; and the alumni impact. For context, the \$12.2 billion impact was equal to approximately 1.3% of the total gross state product (GSP) of Illinois. This contribution that the university provided on its own is larger than the entire Agriculture, Forestry, Fishing & Hunting industry in the state.

UIUC's total impact can also be expressed in terms of jobs supported. The **\$12.2 billion** impact supported **109,212 state jobs**, using the jobs-to-sales ratios specific to each industry in the state. This means that one out of every 76 jobs in Illinois is supported by the activities of UIUC and its students. In addition, the \$12.2 billion, or 109,212 supported jobs, stemmed from different industry sectors. For instance, among non-



education industry sectors, the activities of UIUC and its alumni in the Health Care & Social Assistance industry sector supported 6,893 jobs in FY23. If the university did not exist, these impacts would not have been generated in Illinois.

One out of every 76 jobs in Illinois is supported by the activities of UIUC and its students.

## UIUC impacts by industry (jobs supported)

**Professional & Technical Services** 

14,892

Health Care & Social Assistance

6,893

Other Services (except Public Administration)

6,544

Retail Trade

5,778

Arts, Entertainment, & Recreation

5,744

Note that Lightcast considers added income as a more accurate measure of impact than sales because added income does not include the money that leaked out of the state economy to out-of-state suppliers and does not include intermediary transactions, whereas sales includes these leakages and intermediary transactions. Added income is also synonymous with gross state product.



#### INVESTMENT ANALYSIS

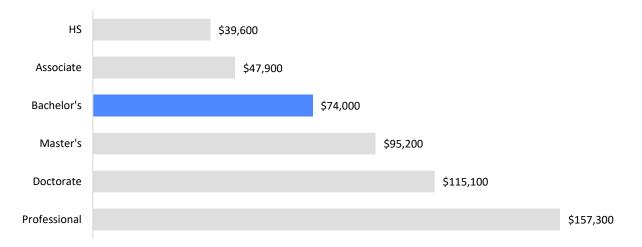
An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. The analysis presented here evaluates UIUC as an investment from the perspectives of students, taxpayers, and society in Illinois. As with the economic impact analysis, this analysis considers only FY23 activities.

#### **Student Perspective**

In FY23, UIUC served 58,692 degree-seeking and 3,725 non-degree seeking students. In order to attend the university, the students paid for tuition, fees, books, and supplies. They also took out loans and will incur interest on those loans. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by UIUC's students in FY23 amounted to a present value of \$1.6 billion, equal to \$993.2 million in out-of-pocket expenses (including future principal and interest on student loans) and \$632.3 million in forgone time and money.

In return for their investment, UIUC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average UIUC bachelor's degree graduate from FY23 will see annual earnings that are \$34,400 higher than a person with a high school diploma or equivalent working in Illinois. Over a working lifetime, the benefits of a bachelor's degree over a high school diploma will amount to an undiscounted value of \$1.5 million in higher earnings per graduate. The present value of the cumulative higher future earnings that UIUC's FY23 students will receive over their working careers is \$7.4 billion.

The average bachelor's degree graduate from UIUC will see an increase in earnings of \$34,400 each year compared to a person with a high school diploma or equivalent working in Illinois.





The students' benefit-cost ratio is 4.6. In other words, for every dollar students invest in UIUC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.60 in higher future earnings. Annually, the students' investment in UIUC has an average annual internal rate of return of 17.2%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.1%.

#### **Taxpayer Perspective**

UIUC generates more in tax revenue than it receives. These benefits to taxpayers consist primarily of taxes that the state and local government will collect from the added revenue created in the state. As UIUC 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 FY23 students' working lives, the state and local government will have collected a present value of \$2.4 billion in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of UIUC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that UIUC students receive will generate savings in three main categories: 1) health care, 2) justice system, and 3) income assistance. Improved health will lower students'

## Students see a high rate of return for their investment in UIUC

#### 17.2%

Average annual rate of return for UIUC students

#### 10.1%

Stock market 30-year average annual return

0.5%

Interest earned on savings account (national deposit rate)

Source: Forbes' S&P 500, 1994-2023. FDIC.gov, March 2023.

For every dollar of public money invested in UIUC, taxpayers will receive a cumulative value of \$4.50 over the course of the students' working lives.

demand for national health care services. In addition, costs related to the justice system will decrease. UIUC students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers. 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 education from UIUC will generate \$533.1 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$3.0 billion, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$661.0 million, equal to the amount of state and local government funding UIUC received in FY23. These benefits and costs yield a benefit-cost ratio of 4.5. This means that for every dollar of public money invested in UIUC in FY23, taxpayers will receive a cumulative present value of \$4.50



over the course of the students' working lives. The average annual internal rate of return for taxpayers is 16.1%, which compares favorably to other long-term investments in the public sector.

#### Social Perspective

Society as a whole in Illinois benefits from the presence of UIUC in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business income), which raise economic prosperity in Illinois.

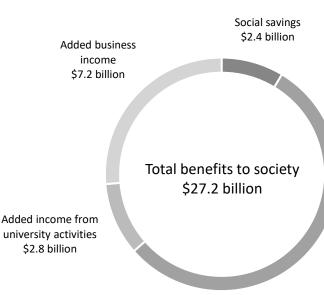
Benefits to society also consist of the savings generated by the improved lifestyles of UIUC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Health care savings include avoided medical costs associated with smoking, obesity, substance abuse, and depression. Justice system savings include avoided costs to the government and society due to less judicial activity. 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.

Altogether, the social benefits of UIUC equal a present value of \$27.2 billion. These benefits include \$15.0 billion in added student income, \$7.2 billion in added business income, \$2.8 billion in added income from

university activities, as well as \$2.4 billion in social savings related to health, the justice system, and income assistance in Illinois. People in Illinois invested a present value total of \$3.4 billion in UIUC in FY23. The cost includes all the university and student costs.

The benefit-cost ratio for society is 8.1, equal to the \$27.2 billion in benefits divided by the \$3.4 billion in costs. In other words, for every dollar invested in UIUC, people in Illinois will receive a cumulative value of \$8.10 in benefits. The benefits of this investment will occur for as long as UIUC's FY23 students remain employed in the state workforce.

### Social benefits in Illinois from UIUC



Added student income \$15.0 billion



#### Summary of Investment Analysis Results

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

## Summary of investment analysis results

#### STUDENT PERSPECTIVE

\$7.4 billion

Present value benefits

\$1.6 billion

Present value costs

\$5.8 billion

Net present value

4.6

17.2%

Benefit-cost ratio

Rate of return

#### **TAXPAYER PERSPECTIVE**

\$3.0 billion

Present value benefits

\$661.0 million

Present value costs

\$2.3 billion

Net present value

4.5

16.1%

Benefit-cost ratio

Rate of return

#### **SOCIAL PERSPECTIVE**

\$27.2 billion

Present value benefits

\$3.4 billion

Present value costs

\$23.9 billion

Net present value

8.1

n/a\*

Benefit-cost ratio

Rate of return



<sup>\*</sup> The rate of return is not reported for the social perspective because the beneficiaries are not necessarily the same as the original investors.

## **Conclusion**

The results of this study demonstrate that UIUC creates value from multiple perspectives. The university benefits state businesses by increasing consumer spending in the state and supplying a steady flow of qualified, trained workers to the workforce. UIUC enriches the lives of students by raising their lifetime earnings and helping them achieve their individual

The results of this study demonstrate that UIUC creates value from **multiple perspectives**.

potential. The university benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, UIUC benefits society as a whole in Illinois by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.

## **About the Study**

Data and assumptions used in the study are based on several sources, including the FY23 academic and financial reports from UIUC, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Lightcast'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.

## Lightcast

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