

## 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 System

March 2025

### EXECUTIVE SUMMARY

The University of Illinois System (U of I System) creates value in many ways. The universities play a key role in helping students increase their employability and achieve their individual potential. Highly regarded and accessible education opportunities are offered through the three distinguished institutions that comprise the U of I System: the University of Illinois Chicago, University of Illinois Urbana-Champaign, and University of Illinois Springfield. The universities facilitate new research and company developments and also draw visitors and students to the state, generating new dollars and opportunities for Illinois. The universities provide students with the education, training, and skills they need to have fulfilling and prosperous careers. Their student volunteers support the state economy through the output and employment generated by state businesses and organizations. Furthermore, the universities are places for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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The U of I System influences both the **lives of its students** and the **state economy**.

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The U of I System influences both the lives of students and the state economy. The universities support a variety of industries in Illinois, serve state businesses, and benefit society as a whole in Illinois from an expanded economy and improved quality of life. Additionally, the benefits created by the U of I System extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by the U of I System on the business community and the benefits the universities generate in return for the investments made by their 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 U of I System, 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

*The U of I System promotes economic growth in Illinois through its direct expenditures and the resulting expenditures of visitors, students, and state businesses. The universities serve as employers and buyers of goods and services for their day-to-day operations, construction, and research activities. Numerous start-up and spin-off companies have formed as a result of programs and knowledge at the universities. The universities' reputation and activities attract visitors and students from outside Illinois, whose expenditures benefit state vendors. The universities encourage their students to volunteer in the community, helping businesses and organizations grow. In addition, the U of I System is a primary source of higher education to Illinois residents and suppliers of trained workers to state industries, enhancing overall productivity in the state workforce.*

## Operations Spending Impact

The U of I System adds economic value to Illinois as an employer of state residents and a large-scale buyer of goods and services. In FY23, payroll at the U of I System was \$2.5 billion, much of which was spent in the state for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the universities spent \$1.3 billion on expenses related to facilities, supplies, and professional services.<sup>1</sup>

The U of I System's operations spending added \$3.0 billion in income to the state during the analysis year. This figure represents the universities' payroll, the multiplier effects generated by the in-state spending of the universities and their employees, and a downward adjustment to account for

## Impacts created by the U of I System in FY23

**\$3.0 billion**

Operations Spending Impact

**\$51.2 million**

Construction Spending Impact

**\$1.6 billion**

Hospital Spending Impact

**\$1.2 billion**

Research Spending Impact

**\$511.3 million**

Start-up and Spin-off Company Impact

**\$125.3 million**

Visitor Spending Impact

**\$440.1 million**

Student Spending Impact

**\$1.6 million**

Volunteerism Impact

**\$18.0 billion**

Alumni Impact

**\$24.9 billion**

Total Impact

or

**225,171**

Jobs Supported

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

funding that the universities received from state sources. The **\$3.0 billion** in added income is equivalent to supporting **28,323 jobs** in the state.

### Construction Spending Impact

The universities invest in capital projects each year to maintain facilities, create additional capacities, and meet their 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, the U of I System’s construction spending generated **\$51.2 million** in added income, which is equivalent to supporting **530 jobs**.

### Hospital Spending Impact

The University of Illinois Hospital & Health Sciences System (UI Health) would not exist without the U of I System. UI Health provides a hands-on learning and research environment for students and employs thousands of workers. Although broader health-related impacts are outside the scope of this analysis, UI Health is known for providing quality patient care. In FY23, the UI Health spent over \$1.2 billion on its operations. These expenditures added a net impact of **\$1.6 billion** in added income to the state. This is equivalent to supporting **15,327 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, the U of I System received 1,428 invention disclosures, filed 1,212 new patent applications, and produced 366 licenses. In FY23, the U of I System spent \$609.8 million on payroll to support research activities. This, along with \$413.7 million in other research spending,<sup>2</sup> created a net total of **\$1.2 billion** in added income for the state economy. This added income is equivalent to supporting **11,710 jobs**.

U of I System research developments			
	Inventions	Patents	Licenses
FY20	401	272	108
FY21	352	322	106
FY22	334	323	82
FY23	341	295	70
Total	1,428	1,212	366

Source: the U of I System

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

## Start-up and Spin-off Company Impact

The U of I System creates an exceptional environment that fosters innovation and entrepreneurship, evidenced by the number of start-up and spin-off companies related to the universities that have been created in the state. Start-up companies, created specifically to license and commercialize U of I System technology or knowledge, have a strong and clearly defined link to the U of I System. Spin-off companies, created and fostered through universities programs or faculty and alumni, have a clear but weaker link to the U of I System.

In FY23, U of I System start-up and spin-off companies added **\$511.3 million** in income to the Illinois economy, which is equivalent to supporting **1,214 jobs**. Of this added income, \$357.7 million was due to the start-up companies, with the remainder due to spin-off companies.

## Visitor Spending Impact

Hundreds of thousands of visitors from outside the state were attracted to the universities during the analysis year to attend commencement, sports events, and other activities sponsored by the universities. While in the state, visitors spent money for lodging, food, transportation, and other personal expenses. The off-campus expenditures of the universities' out-of-state visitors generated a net impact of **\$125.3 million** in added income for the state economy in FY23. This \$125.3 million in added income is equivalent to supporting **1,493 jobs**.

## Student Spending Impact

About 36% of students attending the U of I System originated from outside the state in FY23, and some of these students relocated to Illinois to attend the universities. These students may not have come to the state if the universities did not exist. In addition, some in-state students, referred to as retained students, would have left Illinois if not for the existence of the U of I System. While attending the universities, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated **\$440.1 million** in added income for the state economy in FY23, which supported **6,531 jobs** in Illinois.

## Volunteerism Impact

The U of I System 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 the U of I System student volunteers is equivalent to \$1.1 million in earnings. In terms of actual impact to the Illinois economy, the U of I System student volunteers generated an impact of **\$1.6 million** in added income for the state in FY23, equivalent to supporting **24 jobs**.

## Alumni Impact

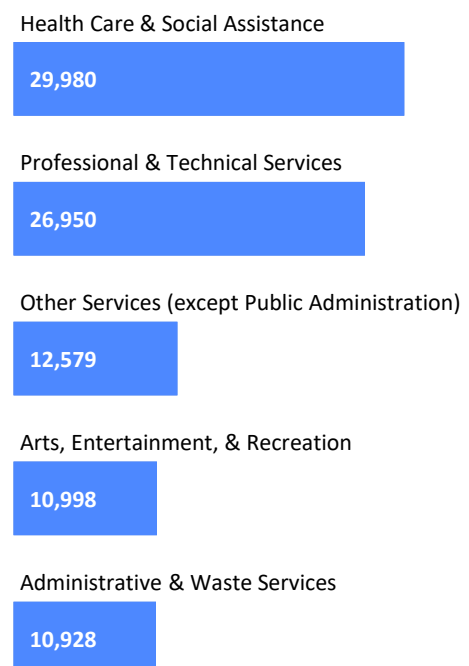
The education and training the universities provide for state residents has the greatest impact. Since the universities were established, students have studied at them and entered the state workforce with greater knowledge and new skills. Today, hundreds of thousands of former U of I System students are employed in Illinois. As a result of their education from the U of I System, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY23, alumni of the U of I System generated **\$18.0 billion** in added income for the state economy, which is equivalent to supporting **160,018 jobs**.

## Total Impact

The U of I System added \$24.9 billion in income to the Illinois economy during the analysis year, equal to the sum of the operations, construction, hospital, and research spending impacts; the start-up and spin-off company impact; the visitor and student spending impacts; the volunteerism impact; and the alumni impact. For context, the \$24.9 billion impact was equal to approximately 2.6% of the total gross state product (GSP) of Illinois. This contribution that the universities provided on their own is nearly as large as the entire Construction industry in the state.

The U of I System's total impact can also be expressed in terms of jobs supported. The **\$24.9 billion** impact supported **225,171 state jobs**, using the jobs-to-sales ratios specific to each industry in the state. This means that one out of every 37 jobs in Illinois is supported by the activities of the universities and their students. In addition, the \$24.9 billion, or 225,171 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the activities of the universities and their alumni in the Health Care & Social Assistance industry sector supported 29,980 jobs in FY23. If the universities did not exist, these impacts would not have been generated in Illinois.

### The U of I System impacts by industry (jobs supported)



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**One out of every 37 jobs** in Illinois is supported by the activities of the universities and their students.

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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

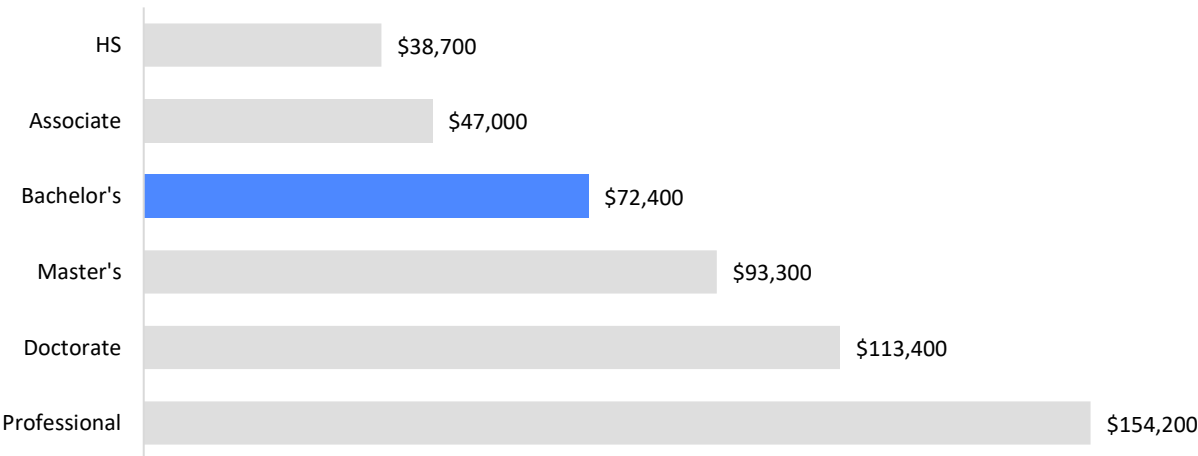
*An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. The analysis presented here evaluates the U of I System as an investment from the perspectives of students, taxpayers, and society in Illinois. As with the economic impact analysis, this analysis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

## Student Perspective

In FY23, the U of I System served 104,628 students. In order to attend the universities, 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 U of I System students in FY23 amounted to a present value of \$2.5 billion, equal to \$1.5 billion in out-of-pocket expenses (including future principal and interest on student loans) and \$1.0 billion in forgone time and money.

In return for their investment, the U of I System's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average U of I System bachelor's degree graduate from FY23 will see annual earnings that are \$33,700 higher than a person with a high school diploma or equivalent working in Illinois. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$1.4 million in higher earnings per graduate. The present value of the cumulative higher future earnings that the U of I System's FY23 students will receive over their working careers is \$12.2 billion.

The average bachelor's degree graduate from the U of I System will see an increase in earnings of **\$33,700** each year compared to a person with a high school diploma or equivalent working in Illinois.



The students' benefit-cost ratio is 4.8. In other words, for every dollar students invest in the U of I System in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.80 in higher future earnings. Annually, the students' investment in the U of I System has an average annual internal rate of return of 18.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.1%.

## Taxpayer Perspective

The U of I System 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 U of I System 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 \$4.6 billion in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of U of I System students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that U of I System students receive will generate savings in three main categories: 1) health care, 2) justice system, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, costs related to the justice system will decrease. U of I System 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 U of I System for a copy of the main report. Altogether, the present value of the benefits associated with an education from the U of I System will generate \$924.6 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$5.6 billion, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$1.5 billion, equal to the amount of state and local government funding the U of I System received in FY23. These benefits and costs yield a benefit-cost ratio of 3.6. This means that for every dollar of public money invested in the U of I System in FY23, taxpayers will receive a cumulative present

## Students see a high rate of return for their investment in the U of I System

**18.1%**

Average annual rate of return  
for the U of I System

**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.

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

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value of \$3.60 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 13.3%, which compares favorably to other long-term investments in the public sector.

## Social Perspective

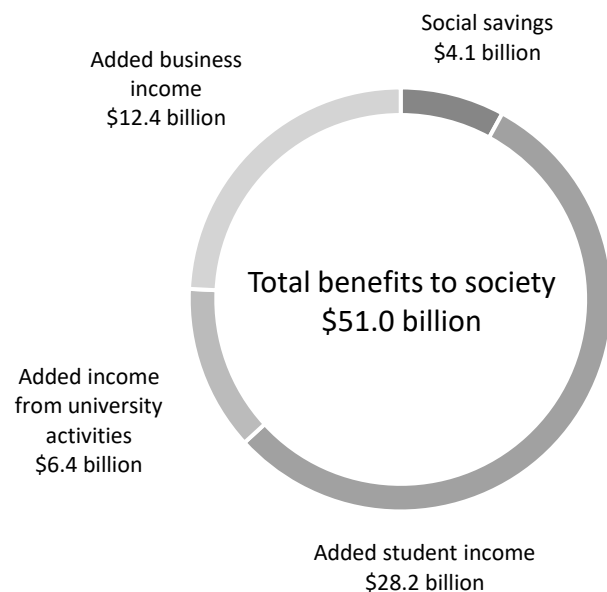
Society as a whole in Illinois benefits from the presence of the U of I System in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output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

Benefits to society also consist of the savings generated by the improved lifestyles of U of I System 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 U of I System for a copy of the main report.

Altogether, the social benefits of the U of I System equal a present value of \$51.0 billion. These benefits include \$28.2 billion in added student income, \$12.4 billion in added business income, \$6.4 billion in added income from the universities' activities, as well as \$4.1 billion in social savings related to health, the justice system, and income assistance in Illinois. People in Illinois invested a present total of \$7.3 billion in the U of I System in FY23. The cost includes all the universities' expenditures and student costs.

The benefit-cost ratio for society is 7.0, equal to the \$51.0 billion in benefits divided by the \$7.3 billion in costs. In other words, for every dollar invested in the U of I System, people in Illinois will receive a cumulative value of \$7.00 in benefits. The benefits of this investment will occur for as long as the U of I System's FY23 students remain employed in the state workforce.

**Social benefits in Illinois from the U of I System**



## Summary of Investment Analysis Results

The results of the analysis demonstrate that the U of I System 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 the U of I System. At the same time, taxpayers’ investment in the U of I System 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

**\$12.2 billion**

Present value benefits

**\$2.5 billion**

Present value costs

**\$9.6 billion**

Net present value

**4.8**

Benefit-cost ratio

**18.1%**

Rate of return

#### TAXPAYER PERSPECTIVE

**\$5.6 billion**

Present value benefits

**\$1.5 billion**

Present value costs

**\$4.0 billion**

Net present value

**3.6**

Benefit-cost ratio

**13.3%**

Rate of return

#### SOCIAL PERSPECTIVE

**\$51.0 billion**

Present value benefits

**\$7.3 billion**

Present value costs

**\$43.7 billion**

Net present value

**7.0**

Benefit-cost ratio

**n/a\***

Rate of return

\* 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 the U of I System creates value from multiple perspectives. The universities benefit state businesses by increasing consumer spending in the state and supplying a steady flow of qualified, trained workers to the workforce. The U of I System enriches the lives of students by raising their lifetime earnings and

helping them achieve their individual potential. The universities benefit state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, the U of I System 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.

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The results of this study demonstrate that the U of I System creates value from **multiple perspectives**.

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## About the Study

Data and assumptions used in the study are based on several sources, including the FY23 academic and financial reports from the U of I System, 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 U of I System for a copy of the main report.



Lightcast provides colleges and universities with labor market data that help create better outcomes for students, businesses, and communities. Our data, which cover more than 99% of the U.S. workforce, are compiled from a wide variety of government sources, job postings, and online profiles and résumés. Hundreds of institutions use Lightcast to align programs with regional needs, drive enrollment, connect students with in-demand careers, track their alumni's employment outcomes, and demonstrate their institution's economic impact on their region. Visit [lightcast.io/solutions/education](https://lightcast.io/solutions/education) to learn more or connect with us.