



The Economic Value of
the University of Northern Iowa

EXECUTIVE SUMMARY



THE University of Northern Iowa (UNI) 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 draws visitors and students to the state, generating new dollars and opportunities for Iowa. UNI provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, UNI is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by UNI 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 (FY) 2017-18. Impacts on the Iowa 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 Iowa are reported under the investment analysis.

*The value of UNI influences both the **lives of its students** and the **state economy**.*



Economic impact analysis

IMPACTS CREATED
BY UNI IN FY 2017-18*

UNI promotes economic growth in Iowa 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, construction, and research operations. Numerous start-up and spin-off companies have formed as a result of programs and knowledge at UNI, and outreach and volunteer activities have contributed to the community. The university's reputation and activities attract visitors and students from outside Iowa, whose expenditures benefit state vendors. In addition, UNI is a primary source of higher education to Iowa residents and a supplier of trained workers to state industries, enhancing overall productivity in the state workforce.

Operations spending impact



UNI adds economic value to Iowa as an employer of state residents and a large-scale buyer of goods and services. In FY 2017-18, the university employed 2,210 full-time and part-time faculty and staff (excluding research employees), 96% of whom lived in Iowa. Total payroll at UNI was \$183.6 million¹ (excluding payroll from research employees), 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 \$62.8 million on day-to-day expenses related to facilities, supplies, and professional services (excluding construction and research expenditures).

UNI's day-to-day operations spending added \$198 million 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 \$198 million in added income is equivalent to supporting 2,425 jobs in the state.

Construction spending impact



UNI commissioned contractors to build or renovate its facilities in FY 2017-18. The quick infusion of income and jobs that occurred in the state economy as a result of this construction spending is considered short-term due to the one-time nature of such projects. Nonetheless, the university's construction spending had a substantial impact on the state economy in FY 2017-18, equal to \$2.2 million in added income and equivalent to supporting 35 jobs.

¹ Includes royalty payments to inventors related to UNI that still live in Iowa.



\$198 million
Operations Spending Impact



\$2.2 million
Construction Spending Impact



\$2.8 million
Research Spending Impact



\$67.2 million
Economic Development Impact



\$2.1 million
Visitor Spending Impact



\$18.7 million
Student Spending Impact



\$1.3 billion
Alumni Impact



\$1.6 billion
TOTAL IMPACT

- OR -

21,979
JOBS SUPPORTED

* This table excludes the positive impacts of UNI's outreach and volunteer activities.

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, UNI received 43 invention disclosures, filed 14 new patent applications, and produced eight licenses.

In FY 2017-18, UNI spent \$1.6 million on payroll to support research activities. This, along with \$2 million in other research spending, created a net total of \$2.8 million in added income for the state economy. This added income is equivalent to supporting 38 jobs.

UNI RESEARCH DEVELOPMENTS

	Inventions	Patents	Licenses
2014-15	11	3	2
2015-16	10	3	2
2016-17	11	5	2
2017-18	11	3	2
Total	43	14	8

Source: UNI.

Value of outreach programs



UNI outreach activities strengthen communities and their local economies by enhancing leadership structures, broadening engagement, teaching best practices, and providing hands-on assistance.

UNI's Business and Community Services (BCS) consists of 12 outreach programs within a single division that deliver tailored outreach services in all 99 counties across Iowa. BCS served 3,370 unique clients in FY 2017-18. For example, BCS helped companies improve their hiring process and train employees. It also aided economic developers with retention and expansion programming. Due to the specific nature of these outreach program activities, Emsi does not attempt to measure an impact. With that said, the value UNI outreach programs for state and local communities should be acknowledged.

Economic development impact



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

Green Iowa AmeriCorps helps the community with energy conservation

UNI's Center for Energy and Environmental Education (CEEE) spent last year providing technical assistance to Iowa cities, counties, schools, teachers, farmers, businesses, elected officials, state agencies, community leaders, and citizen organizations. The assistance included educational programs, training, program implementation, and leadership in energy conservation and renewable energy, environmental conservation, and community-based agriculture. The CEEE-led Green Iowa AmeriCorps sites combined to weatherize over 600 homes, conduct over 500 education programs with over 8,000 people in attendance, implement 350 team projects in the community, and garner 7,250 volunteer hours.

weaker link to UNI. In addition, companies that benefited from the UNI's Small Business Development Center (SBDC), John Pappajohn Entrepreneurial Center, and Advance Iowa are included under spin-off companies.²

In FY 2017-18, UNI start-up and spin-off companies added \$67.2 million³ in income to the Iowa economy, which is equivalent to supporting 785 jobs. The majority of this impact was due to spin-off companies, with the remainder due to start-up companies.

Visitor spending impact



Thousands of visitors from outside the state were attracted to UNI 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 \$2.1 million in added income for the state economy in FY 2017-18. This \$2.1 million in added income is equivalent to supporting 52 jobs.

Value of volunteerism



Beyond positively impacting the state through the activities occurring at the university, such as research, UNI also directly impacts the state economy through its facilitation and support of student and employee volunteer activities. Volunteers are an important part of any society because they positively impact those less fortunate. In FY 2017-18 alone, more than 12,000 UNI student and employee volunteers supported non-profit organizations and causes across the state. These students and employees volunteered 1.3 million hours of their time. Their volunteer activities added \$31.5 million in value⁴ for the state and local communities. The impact of volunteerism is not measured in this analysis; however, the value they offer should not be overlooked.

Martin Luther King Day— a day to make a difference

The Student and Leadership Council donates hours of their time packaging over 40,000 meals to provide for those in need on Martin Luther King Day. The council aims to make this a make-up day “on” rather than a day “off” to help make a difference.

Student spending impact



Around 14% of students attending UNI originated from outside the state in FY 2017-18, and some of these students relocated to Iowa to attend UNI. 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 Iowa if not for the existence of UNI. While

- ² The number of employees included is limited to the employees hired as a direct result of the spin-off companies and the growth in employees at companies supported by the SBDC, John Pappajohn Entrepreneurial Center, and Advance Iowa.
- ³ To maintain an acceptable level of data reliability, this impact is limited to those companies that were created in FY 2017-18. It is therefore conservative.
- ⁴ Value per volunteer hour per state provided by Independent Sector. See https://independentsector.org/resource/vovt_details/.

attending the university, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$18.7 million in added income for the state economy in FY 2017-18, which supported 447 jobs in Iowa.

Alumni impact



The education and training UNI provides for state residents has the greatest impact. Since its establishment, students have studied at UNI and entered the state workforce with greater knowledge and new skills. Today, thousands of former UNI students are employed in Iowa. As a result of their UNI educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2017-18, UNI alumni generated \$1.3 billion in added income for the state economy, which is equivalent to supporting 18,197 jobs.

Total impact

UNI added \$1.6 billion in income to the Iowa economy during the analysis year, equal to the sum of the operations, construction, and research spending impacts, the economic development impact, the visitor and student spending impacts, and the alumni impact. For context, the \$1.6 billion impact was equal to approximately 0.8% of the total gross state product (GSP) of Iowa. This contribution that the university provided on its own is larger than the entire Arts, Entertainment, & Recreation industry in the state. Note that the \$1.6 billion impact does not include the value that UNI's outreach and volunteer activities are adding to the state and local communities.

UNI's total impact can also be expressed in terms of jobs supported. The \$1.6 billion impact supported 21,979 state jobs, using the jobs-to-sales ratios specific to each industry in the state. This means that one out of every 94 jobs in Iowa is supported by the activities of UNI and its students. In addition, the \$1.6 billion, or 21,979 supported jobs, stemmed from different industry sectors. UNI's spending and alumni in the Government, Education industry sector supported 6,615 jobs in FY 2017-18. These are impacts that would not have been generated without the university's presence in Iowa.

UNI IMPACTS BY INDUSTRY (JOBS SUPPORTED)



One out of every 94 jobs in Iowa is supported by the activities of UNI 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 UNI as an investment from the perspectives of students, taxpayers, and society in Iowa.

Student perspective



In Fall 2017, UNI served 11,907 students. Expanding to the annual unduplicated headcount across FY 2017-18, UNI served more than 14,000 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 UNI's students in FY 2017-18 amounted to a present value of \$171.7 million, equal to \$74.9 million in out-of-pocket expenses (including future principal and interest on student loans) and \$96.9 million in forgone time and money.

In return for their investment, UNI's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average UNI bachelor's degree graduate from FY 2017-18 will see an increase in earnings of \$21,800 each year compared to a person with a high school diploma or equivalent working in Iowa. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$959.2 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that UNI's FY 2017-18 students will receive over their working careers is \$752 million.

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



16.7%

Average annual return for UNI's students



9.9%

Stock market 30-year average annual return

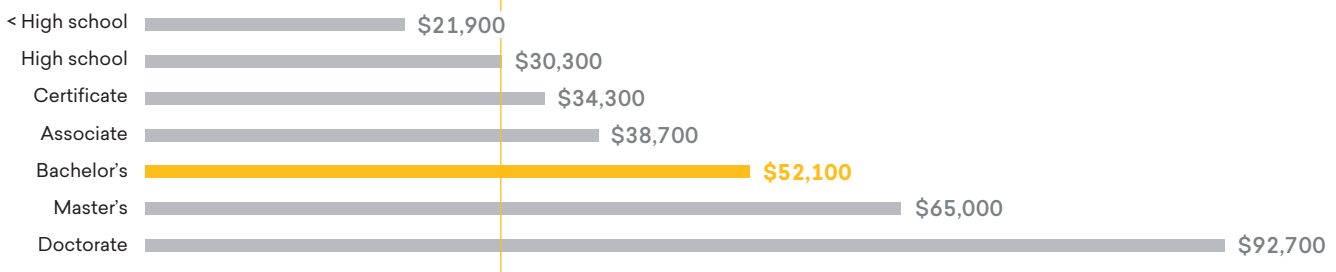


0.8%

Interest earned on savings account (National Rate Cap)

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

The average bachelor's degree graduate from UNI will see an increase in earnings of **\$21,800** each year compared to a person with a high school diploma or equivalent working in Iowa.



Source: Emsi employment data.

The students' benefit-cost ratio is 4.4. In other words, for every dollar students invest in UNI, 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. Annually, the students' investment in UNI has an average annual internal rate of return of 16.7%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



UNI generates more in tax revenue than it takes. These benefits to taxpayers consist primarily of taxes that the state government will collect from the added revenue created in the state. As UNI students 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 2017-18 students' working lives, the state government will have collected a present value of \$278.1 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of UNI students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle

changes. Students' UNI educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. 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. UNI 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 a UNI education will generate \$53.9 million in savings to state taxpayers.

Total taxpayer benefits amount to \$331.9 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$108.4 million, equal to the amount of state government funding UNI received in FY 2017-18. These benefits and costs yield a benefit-cost ratio of 3.1. This means that for every dollar of public money invested in UNI in FY 2017-18, taxpayers will receive a

*For every dollar of public money invested in UNI, taxpayers will receive a cumulative value of **\$3.10** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$752 million
Present value benefits

\$171.7 million
Present value costs

\$580.3 million
Net present value

Benefit-cost ratio	Rate of return
4.4	16.7%



TAXPAYER PERSPECTIVE

\$331.9 million
Present value benefits

\$108.4 million
Present value costs

\$223.5 million
Net present value

Benefit-cost ratio	Rate of return
3.1	7.3%



SOCIAL PERSPECTIVE

\$3.2 billion
Present value benefits

\$384.1 million
Present value costs

\$2.8 billion
Net present value

Benefit-cost ratio	Rate of return
8.4	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.

cumulative value of \$3.10 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 7.3%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



Society as a whole in Iowa benefits from the presence of UNI in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to higher student earnings and increased business output, which raise economic prosperity in Iowa.

Benefits to society also consist of the savings generated by the improved lifestyles of UNI 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. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Savings related to crime include reduced security expenditures 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.

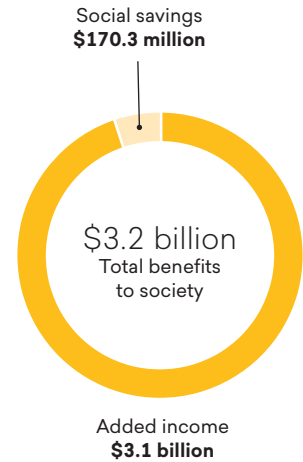
Altogether, the social benefits of UNI equal a present value of \$3.2 billion. These benefits include \$3.1 billion in added income through students' increased lifetime earnings and increased business output, as well as \$170.3 million in social savings related to health, crime, and income assistance in Iowa. People in Iowa invested a present value total of \$384.1 million in UNI in FY 2017-18. The cost includes all the university and student costs.

The benefit-cost ratio for society is 8.4, equal to the \$3.2 billion in benefits divided by the \$384.1 million in costs. In other words, for every dollar invested in UNI, people in Iowa will receive a cumulative value of \$8.40 in benefits. The benefits of this investment will occur for as long as UNI's FY 2017-18 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN IOWA FROM UNI



Conclusion

The results of this study demonstrate that UNI 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. UNI enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The university benefits state taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, UNI benefits society as a whole in Iowa 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 FY 2017-18 academic and financial reports from UNI, 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.

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



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. For more information about Emsi's products and services, visit www.economicmodeling.com.