



The Economic Value of Idaho Public Universities



IDAHO PUBLIC UNIVERSITIES¹ create value in many ways. The universities play a key role in helping students increase their employability and achieve their individual potential. The universities facilitate new research and company developments and also draw visitors and students to the state, generating new dollars and opportunities for Idaho. The universities provide students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, the universities are places for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by Idaho public universities 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:



Idaho public universities influence both the **lives of students** and the **state economy**.



Economic impact analysis



Investment analysis

Results reflect employee, student, and financial data, provided by the universities, for fiscal year (FY) 2019-20.² Impacts on the Idaho economy are reported under the economic impact analysis and are measured in terms of gross state product (GSP). The returns on investment to students, taxpayers, and society in Idaho are reported under the investment analysis.

¹ Idaho public universities consist of Boise State University, Lewis-Clark State College, Idaho State University, and University of Idaho.

² Visitor data uses FY 2018-2019 in order to reflect a baseline year for events hosted by Idaho public universities.



Idaho public universities promote economic growth in Idaho through their 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, construction, and research operations. Numerous start-up and spin-off companies have formed as a result of programs and knowledge at Idaho public universities. The universities' reputation and activities attract visitors and students from outside Idaho, whose expenditures benefit state vendors. In addition, the universities are primary sources of higher education to Idaho residents and suppliers of trained workers to state industries, enhancing overall productivity in the state workforce.

Operations spending impact



Idaho public universities add economic value to Idaho as employers of state residents and large-scale buyers of goods and services. In FY 2019-20, the universities employed 7,677 full-time and part-time faculty and staff (not including research employees), 90% of whom lived in Idaho. Total payroll at Idaho public universities was \$661.1 million (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 universities spent \$278.1 million on day-to-day expenses related to facilities, supplies, and professional services (excluding research expenditures).

Idaho public universities' day-to-day operations spending added \$683.5 million in GSP 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 funding that the universities received from state sources. The \$683.5 million in added GSP is equivalent to supporting 8,038 jobs in the state.

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, Idaho public universities received 176 invention disclosures, filed 101 new patent applications, and produced 116 licenses. Total license income over the same four-year time period grew from \$1.3 million in FY 2016-17 to \$3.4 million in FY 2019-20, an approximate \$2.1 million increase.

In FY 2019-20, Idaho public universities spent \$81.8 million on payroll to support research activities. This, along with \$75 million in other research spending, created a net total of \$138.3 million in GSP for the state economy. This added GSP is equivalent to supporting 1,858 jobs.

IDAHO PUBLIC UNIVERSITIES RESEARCH DEVELOPMENTS

Fiscal year	Inventions	Patents	Licenses
2016-17	35	19	33
2017-18	38	18	29
2018-19	46	23	29
2019-20	57	41	25
Total	176	101	116

Source: Idaho public universities.

Construction spending impact



Idaho public universities invest in construction each year to maintain facilities, create additional capacities, and meet 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 FY 2019-20, Idaho public universities' construction spending generated \$29.5 million in GSP, which is equivalent to supporting 527 jobs.

Start-up and spin-off company impact



Idaho public universities create exceptional environments that foster 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 Idaho public universities' technology or knowledge, have a

IMPACTS CREATED BY IDAHO PUBLIC UNIVERSITIES IN FY 2019-20



Operations spending impact

\$683.5 million



Research spending impact

\$138.3 million



Construction spending impact

\$29.5 million



Start-up & spin-off company impact

\$157.5 million



Visitor spending impact

\$67.8 million



Student spending impact

\$128.9 million



Alumni impact

\$2.4 billion



TOTAL ECONOMIC IMPACT

\$3.6 billion

OR

Jobs supported

58,006

strong and clearly defined link to Idaho public universities. Spin-off companies, created and fostered through university programs or faculty and alumni, have a clear but weaker link to Idaho public universities.

In FY 2019-20, Idaho public universities' start-up and spin-off companies added \$157.5 million in GSP to the Idaho economy, which is equivalent to supporting 1,717 jobs. Of this added GSP, \$25.7 million was due to the start-up companies, with the remainder due to spin-off companies.

Visitor spending impact



Thousands of visitors from outside the state were attracted to Idaho public 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 \$67.8 million in GSP for the state economy in FY 2019-20. This \$67.8 million in added GSP is equivalent to supporting 1,651 jobs.

Student spending impact



Around 22% of students attending Idaho public universities originated from outside the state in FY 2019-20, and some of these students relocated to Idaho 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 Idaho if not for the existence of Idaho public universities. While attending the universities, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$128.9 million in added income for the state economy in FY 2019-20, which supported 3,098 jobs in Idaho.

Alumni impact



The education and training Idaho public universities provide for state residents has the greatest impact. Since the universities were established, students have studied at Idaho public universities and entered the state workforce with greater knowledge and new skills. Today, hundreds of thousands of former students are employed in Idaho. During the analysis year, past and present Idaho public university students generated \$2.4 billion in GSP for the state economy. This figure represents the higher wages that students earned during the year, the increased output of the businesses that employed the students, and the multiplier effects that occurred as students and their employers spent money at other businesses. This impact is equivalent to supporting 41,116 jobs.

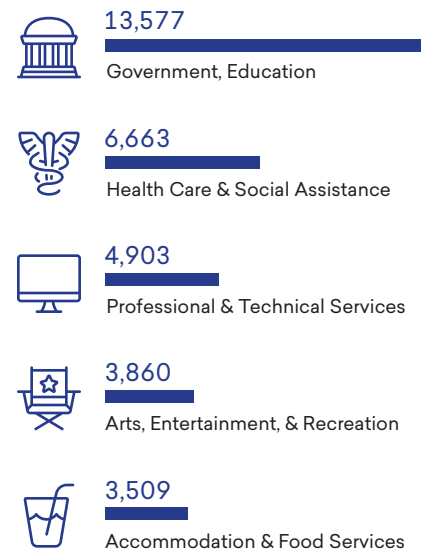
Total impact

Idaho public universities added \$3.6 billion in GSP to the Idaho economy during the analysis year, equal to the sum of operations, research, and construction spending impacts, the start-up and spin-off company impact, the visitor and student spending impacts, and the alumni impact. For context, the \$3.6 billion impact was equal to approximately 4.2% of the total gross state product (GSP) of Idaho. This contribution that the universities provided on their own was larger than the entire Real Estate & Rental & Leasing industry in the state.

One out of every 19 jobs in Idaho is supported by the activities of the universities and their students.

Idaho public universities' total impact can also be expressed in terms of jobs supported. The \$3.6 billion impact supported 58,006 state jobs, using the jobs-to-sales ratios specific to each industry in the state. This means that one out of every 19 jobs in Idaho is supported by the activities of the universities and their students. In addition, the \$3.6 billion, or 58,006 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, Idaho public universities' spending and alumni in the Health Care & Social Assistance industry sector supported 6,663 jobs in FY 2019-20. If the universities did not exist, these impacts would not have been generated in Idaho.

IDAHO PUBLIC UNIVERSITIES IMPACT BY INDUSTRY (JOBS SUPPORTED)





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 Idaho public universities as an investment from the perspectives of students, taxpayers, and society in Idaho.

Student perspective



In FY 2019-20, Idaho public universities served 65,682 credit and 17,725 non-credit 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 the universities. The total investment made by Idaho public universities' students in FY 2019-20 amounted to a present value of \$825.4 million, equal to \$383 million in out-of-pocket expenses (including future principal and interest on student loans) and \$442.4 million in forgone time and money.

In return for their investment, Idaho public universities' students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Idaho public universities bachelor's degree graduate from FY 2019-20 will see annual earnings that are \$20,900 higher than a person with a high school diploma or equivalent working in Idaho. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN IDAHO PUBLIC UNIVERSITIES



Average annual return for Idaho public universities students

16.1%



Stock market 30-year average annual return

10.6%

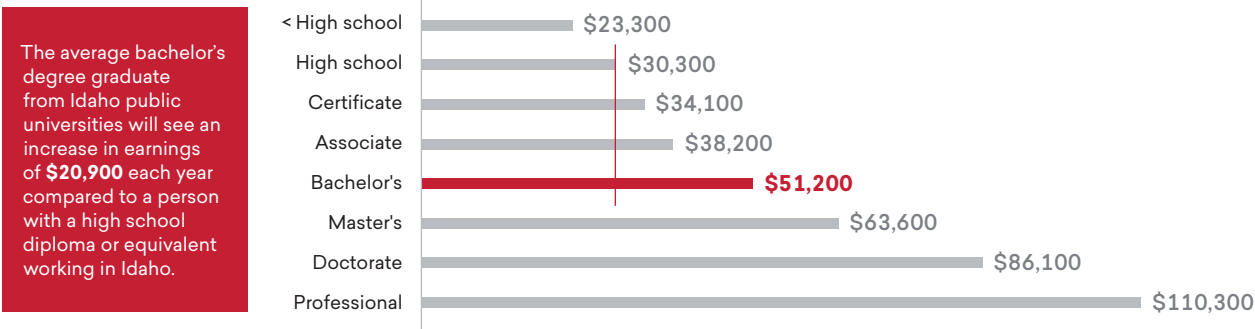


Interest earned on savings account (National Rate Cap)

0.8%

Source: Forbes' S&P 500, 1991-2020. FDIC.gov, 6-2021.

will amount to an undiscounted value of \$836 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that Idaho public universities' FY 2019-20 students will receive over their working careers is \$3.3 billion.



Source: Emsi Burning Glass employment data.

The students' benefit-cost ratio is 4.0. In other words, for every dollar students invest in an education at Idaho public universities in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.00 in higher future earnings. Annually, the students' investment in Idaho public universities has an average annual internal rate of return of 16.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.6%.

Taxpayer perspective



Idaho public universities generate more in tax revenue than they take. 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 Idaho public universities' 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 2019-20 students' working lives, the state and local government will have collected a present value of \$630.9 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Idaho public universities' students and the corresponding reduced government services. The educations that the universities' students receive will generate savings in three main categories:

1) healthcare, 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. Idaho public universities' 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 Idaho State Board of Education for a copy of the main report. Altogether,

For every dollar of public money invested in Idaho public universities, taxpayers will receive a cumulative value of **\$1.80** over the course of the students' working lives.

the present value of the benefits associated with an Idaho public universities education will generate \$118.9 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$749.8 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$419.9 million, equal to the amount of state and local government funding Idaho public universities received in FY 2019-20. These benefits and costs yield a benefit-cost ratio of 1.8. This means that for every dollar of public money invested in Idaho public universities in FY 2019-20, taxpayers will receive a cumulative present value of \$1.80 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 4.5%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



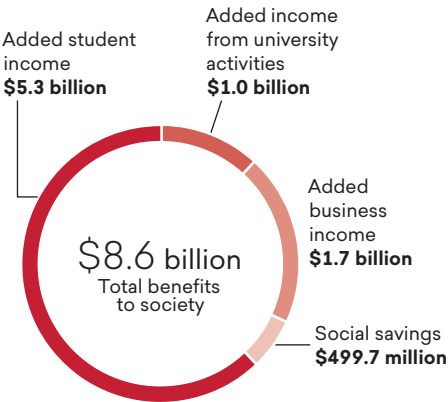
Society as a whole in Idaho benefits from the presence of Idaho public universities in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business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

Benefits to society also consist of the savings generated by the improved lifestyles of Idaho public universities' 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. Justice system savings include avoided costs to the government and society due to less judicial activity. For a list of study references, contact Idaho State Board of Education for a copy of the main report.

Altogether, the social benefits of Idaho public universities equal a present value of \$8.6 billion. These benefits include \$5.3 billion in added student income, \$1.7 billion in added business income, \$1.0 billion in added income from the universities' activities, as well as \$499.7 million in social savings related to health, crime, and income assistance in Idaho. People in Idaho invested a present value total of \$1.7 billion in Idaho public universities in FY 2019-20. The cost includes all the universities' expenditures and student costs.

The benefit-cost ratio for society is 5.1, equal to the \$8.6 billion in benefits divided by the \$1.7 billion in costs. In other words, for every dollar invested in Idaho public universities, people in Idaho will receive a cumulative value of \$5.10 in benefits. The benefits of this investment will occur for as long as Idaho public universities' FY 2019-20 students remain employed in the state workforce.




SOCIAL BENEFITS IN IDAHO FROM IDAHO PUBLIC UNIVERSITIES



Source: Emsi Burning Glass impact model.

Summary of investment analysis results

The results of the analysis demonstrate that Idaho public universities are 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 Idaho public university education. At the same time, taxpayers’ investment in Idaho public universities returns more to government budgets than it costs and creates a wide range of social benefits throughout Idaho.

 STUDENT PERSPECTIVE		 TAXPAYER PERSPECTIVE		 SOCIAL PERSPECTIVE	
Present value benefits \$3.3 billion		Present value benefits \$749.8 million		Present value benefits \$8.6 billion	
Present value costs \$0.8 billion		Present value costs \$419.9 million		Present value costs \$1.7 billion	
Net present value \$2.5 billion		Net present value \$329.9 million		Net present value \$6.9 billion	
Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return
4.0	16.1%	1.8	4.5%	5.1	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.

CONCLUSION

The results of this study demonstrate that Idaho public universities create 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. Idaho public universities enrich 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, Idaho public universities benefit society as a whole in Idaho 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 2019-20 academic and financial reports from Idaho public universities, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi Burning Glass'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 Idaho State Board of Education for a copy of the main report.

The results of this study demonstrate that Idaho public universities create value from **multiple perspectives**.



Emsi Burning Glass 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 Emsi Burning Glass 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 economicmodeling.com/higher-education to learn more or connect with us.