

NOV  
2015

The  
**ECONOMIC  
VALUE** of  
**IDAHO  
COMMUNITY  
COLLEGES**

Executive Summary

Analysis of the Economic Impact &  
Return on Investment of Education



# EXECUTIVE SUMMARY

*Idaho community colleges create value in many ways. The colleges play a key role in helping students increase their employability and achieve their individual potential. They provide students with the skills they need to have a fulfilling and prosperous career. Further, they supply an environment for students to meet new people, increase their self-confidence, and promote their overall health and well-being.*

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

The purpose of this study is to investigate the economic impacts created by Idaho community colleges on the business community and the benefits that the colleges generate in return for the investments made by their key stakeholder groups—students, taxpay-

ers, and society. Idaho community colleges serve the entire state of Idaho. The following two analyses are presented:

- **Economic impact analysis**
- **Investment analysis.**

All results reflect student and financial data for Fiscal Year (FY) 2013-14. Impacts on the state business community are reported under the economic impact analysis, and the return on investment to students, taxpayers, and society are reported under the investment analysis. Both analyses are described more fully in the following sections.

# ECONOMIC IMPACT ANALYSIS

*Idaho community colleges promote economic growth in Idaho in a variety of ways. The colleges are employers and buyers of goods and services, and the living expenses of students from outside of Idaho benefit local businesses. In addition, Idaho community colleges are primary sources of education to Idaho residents and suppliers of trained workers to Idaho industry.*

The state economic impact analysis examines the impact of Idaho community colleges on the state business community through increased consumer spending and enhanced business productivity. Results are measured in terms of GSP and are organized according to the following impacts: (1) impact of the colleges' day-to-day operations; (2) impact of the spending of students, and; (3) impact of the increased productivity of former students employed in the state workforce

## OPERATIONS SPENDING IMPACT

Idaho community colleges are important employers in Idaho. In FY 2013-14, the colleges employed **3,415** full-time and part-time faculty and staff. Of these, 96% lived in Idaho. Total payroll at Idaho community colleges was **\$117.6 million**, much of which was spent in the state for groceries, rent, eating out, clothing, and other household expenses.

Idaho community colleges are themselves large-scale buyers of goods and services. In FY 2013-14 the colleges spent **\$88.6 million** to cover their expenses for facilities, professional services, and supplies.

Idaho community colleges added **\$141.6 million** in GSP to the state during the analysis year as a result of their day-to-day operations. This figure represents the colleges' payroll, the multiplier effects generated

by the spending of the colleges and their employees, and a downward adjustment to account for funding that the colleges received from state and local sources.

## IMPACT OF STUDENT SPENDING

Around 3% of students attending Idaho community colleges originated from outside the state in FY 2013-14. Some of these students relocated to Idaho. These students would not have come to the state if the colleges did not exist. In addition, a number of in-state students would have left the area for other educational opportunities if not for the existence of Idaho community colleges. While attending the colleges, these relocator and retained students spent **\$58.1 million** to purchase groceries, rent accommodation, pay for transportation, and so on. A significant portion of these expenditures occurred in the state, generating **\$40.5 million** in GSP in the state economy during the analysis year.

## ALUMNI IMPACT

The education and training Idaho community colleges provide for state residents result in the greatest impact. Since they were established, students have

studied at Idaho community colleges and entered the workforce with new skills. Today, thousands of former students are employed in Idaho.

During the analysis year, past and present students of Idaho community colleges generated **\$627.6 million** in GSP for the state. 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.

## TOTAL IMPACT

The overall impact of Idaho community colleges on the local business community during the analysis year amounted to **\$809.6 million** in GSP, equal to the sum of the operations spending impact, the student spending impact, and the alumni impact. This GSP was equal to approximately **1.4%** of the state's GSP of Idaho. By comparison, this contribution that the colleges provide on their own is nearly as large as the entire Idaho Mining industry.

**Table 1: GSP created by Idaho community colleges in FY 2013-14**

<p><b>\$141.6 million</b> Operations spending impact</p>
<p><b>\$40.5 million</b> Student spending impact</p>
<p><b>\$627.6 million</b> Alumni impact</p>
<p><b>\$809.6 million</b> Total impact</p>

## Jobs based on income

These jobs represent full- and part-time jobs that would not have occurred in the state without the colleges. They are calculated by jobs to sales ratios specific to each industry. Based on the GSP created by Idaho community colleges, the jobs are as follows:

Operations spending impact = **3,653 jobs**

Impact of student spending = **1,157 jobs**

Alumni impact = **12,913 jobs**

Overall, the GSP created by Idaho community colleges and their students supported **17,724 jobs**.

# INVESTMENT ANALYSIS

Investment analysis is the process of evaluating total costs and measuring these against total benefits to determine whether or not a proposed venture will be profitable. If benefits outweigh costs, then the investment is worthwhile and considered profitable.

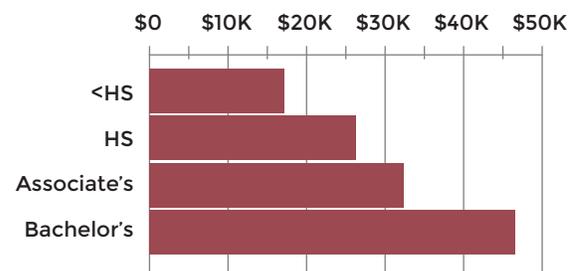
Idaho community colleges received a total of \$237.4 million in FY 2013-14. Tuition and fees comprised 15% of total revenue, student aid from government sources comprised another 63%, and all other revenue comprised the remaining 21%. This study considers Idaho community colleges as an investment from the perspectives of those whom provided these revenues - students, taxpayers, and society. The backdrop for the analysis is the entire Idaho economy.

## STUDENT PERSPECTIVE

In FY 2013-14, Idaho community colleges served 34,465 credit students and 26,639 non-credit students. In order to attend college, students paid for tuition, fees, books, and supplies. They also gave up money that they would have otherwise earned had they been working instead of attending college. The total investment made by Idaho community colleges' students in FY 2013-14 amounted to \$292.2 million, equal to \$52.2 million in out-of-pocket expenses plus \$240 million in forgone time and money.

In return for their investment, Idaho community colleges' students will receive a stream of higher future wages that will continue to grow through their working lives. As shown in Figure 1, mean income levels at the midpoint of the average-aged worker's career increase as people achieve higher levels of education. For example, the average associate's degree completer from Idaho community colleges will see an increase

Figure 1. Annual income by education level at career midpoint in Idaho



in earnings of \$5,400 each year compared to someone with a high school diploma or equivalent. Over a working lifetime, this increase in earnings amounts to an undiscounted value of approximately \$204,551 in higher income.

The present value of the higher future wages that Idaho community colleges' students will receive over

their working careers is \$788 million. Dividing this value by the \$292.2 million in student costs yields a benefit-cost ratio of 2.7. In other words, for every \$1 students invest in Idaho community colleges in the form of out-of-pocket expenses and forgone time and money, they receive a cumulative of \$2.70 in higher future wages. The average annual rate of return for students is 12.3% (Figure 2). This is an impressive return compared, for example, to the less than 1% return per annum that is generally expected from saving money in today's standard bank savings accounts.

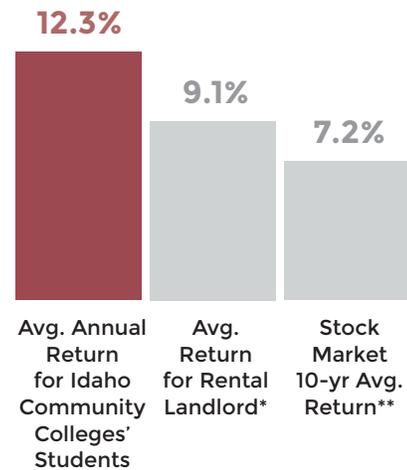
## TAXPAYER PERSPECTIVE

Idaho community colleges 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 income created in the state. As Idaho community colleges' students earn more, they will make higher tax payments. Employers will also make higher tax payments as they increase their output and purchase more supplies and services. By the end of the 2013-14 students' working careers, the state and local government will have collected a present value of \$207.9 million in added taxes.

Benefits to taxpayers consist of the savings generated by the improved lifestyles of students and the proportionally reduced government expenditures. Education is statistically correlated with a variety of lifestyle changes that generate taxpayer savings across three main categories: 1) health, 2) crime, and 3) unemployment. Improved health habits lower the students' demand for national health care services. Students are also less likely to commit crimes, so the demand for law enforcement and criminal justice services is reduced (study references are available in the main report). Students are also more employable, so the demand for welfare and unemployment benefits, such as income assistance and welfare benefits, is reduced. All of these benefits will generate a present value of \$20.2 million in savings to state and local taxpayers.

Total benefits to taxpayers equal \$228.1 million, equal to the sum of the added taxes and public sector savings. Comparing this to the taxpayer costs of \$97.6 million—equal to the funding that Idaho community

Figure 2. Student rate of return



\*RealityTrac's Q3 2014 study of 586 counties nationwide.

\*\*Forbes's S&P 500 (compounded annualized) avg. return, 1994-2014.

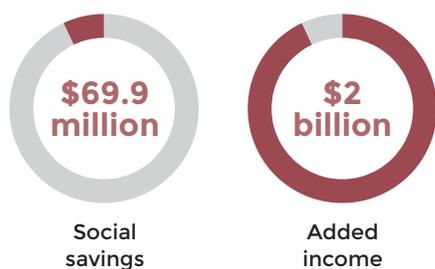
colleges received from the state and local government during the analysis year—yields a benefit-cost ratio of 2.3. This means that for every \$1 of public money invested in Idaho community colleges, taxpayers receive a cumulative value of \$2.30 over the course of the students' working lives. The average annual rate of return is 7.6%, a solid investment that compares favorably with other long-term investments in both the private and public sectors.

## SOCIAL PERSPECTIVE

Society as a whole within Idaho benefits from the presence of Idaho community colleges in two major ways. The first and largest benefit that society receives is the added income created in the state. As discussed in the previous section, students earn more because of the skills they acquire while attending college. Businesses also earn more because the enhanced skills of students make them more productive. Together, higher student wages and increased business output stimulate increases in income across the state, thereby raising prosperity in Idaho and expanding the economic base for society as a whole.

Benefits to society also consist of the savings generated by the improved lifestyles of students. Similar to

**Figure 3. Present value of added income and social savings in Idaho**



the taxpayer section above, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers, and are distinct from the costs avoided by taxpayers outlined above. Health savings include avoided medical costs associated with smoking, alcoholism, obesity, drug abuse, and mental disorders. Crime savings include reduced security expenditures and insurance administration, lower victim costs, and reduced criminal justice system expenditures. Unemployment savings include the reduced employer contributions towards unemployment claims. For a list of study references to these statistical benefits, please contact the Idaho State Board of Education for a copy of the main report.

Figure 3 shows the present value of the added income and social savings that will occur in Idaho over the working lifetime of the 2013-14 student population at Idaho community colleges. Added income amounts to a present value of \$2 billion due to the increased lifetime incomes of students and associated increases in business output. Social savings amount to \$69.9 million, the sum of health, crime, and unemployment savings in Idaho. Altogether, total benefits to society equal \$2.1 billion (in present value terms).

Society invested \$461.8 million in Idaho community colleges educations during the analysis year. This includes all expenditures by Idaho community colleges, all student expenditures, and all student opportunity costs. For every dollar of this investment, society as a whole in Idaho will receive a cumulative value of \$4.50 in benefits, equal to the \$2.1 billion in benefits divided by the \$461.8 million in costs. These benefits will occur for as long as Idaho community colleges' 2013-14 students remain employed in the state workforce.

## SUMMARY OF INVESTMENT ANALYSIS RESULTS

Table 2 presents the results of the investment analysis for all three of Idaho community colleges' major stakeholder groups—students, taxpayers, and society. As shown, students receive great value for their educational investment. At the same time, the investment made by state and local taxpayers to the colleges creates a wide range of benefits to society and returns more to government budgets than it costs.

**Table 3: Summary of investment analysis results**

STUDENT PERSPECTIVE	
<b>\$788,022</b>	Benefits (thousands)
<b>\$292,202</b>	Costs (thousands)
<b>\$495,820</b>	Net present value (thousands)
<b>2.7</b>	Benefit-cost ratio
<b>12.3%</b>	Rate of return
TAXPAYER PERSPECTIVE	
<b>\$228,137</b>	Benefits (thousands)
<b>\$97,604</b>	Costs (thousands)
<b>\$130,533</b>	Net present value (thousands)
<b>2.3</b>	Benefit-cost ratio
<b>7.6%</b>	Rate of return
SOCIAL PERSPECTIVE	
<b>\$2,074,425</b>	Benefits (thousands)
<b>\$461,835</b>	Costs (thousands)
<b>\$1,612,590</b>	Net present value (thousands)
<b>4.5</b>	Benefit-cost ratio
<b>NA</b>	Rate of return*

\* 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 community colleges create value from multiple perspectives. The colleges benefit local businesses by increasing consumer spending in the state and supplying a steady flow of qualified, trained workers into the workforce. They enrich the lives of students by raising their lifetime incomes and helping them achieve their individual potential. They benefit state and local taxpayers through increased tax receipts across the state and a reduced demand for government-supported social services. Finally, they 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 2013-14 academic and financial reports from the colleges, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of EMSI's Social Accounting Matrix (SAM) 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 investment effectiveness and economic impact. 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 technical report.

## ABOUT EMSI

Economic Modeling Specialists International, a Career-Builder company, is a leading provider of economic impact studies and labor market data to educational colleges, workforce planners, and regional developers in the U.S. and internationally. Since 2000, EMSI has completed over 1,200 economic impact studies for educational colleges in four countries. Visit [www.economicmodeling.com](http://www.economicmodeling.com) for more information about EMSI's products and services.