

January | 2018

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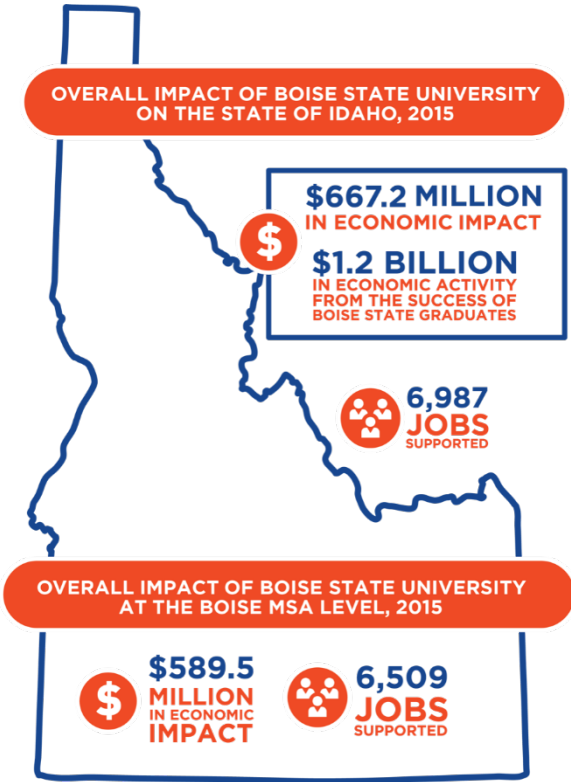
# Boise State University: Economic Impact Report

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Prepared by:



# Key Findings



economic impact of **\$35.4 million**.

- The total economic impact of Boise State University on the Boise MSA is **\$589.5 million** and on the State of Idaho is **\$667.2 million**.
- Boise State University’s employment impact on the Boise MSA is **6,509 jobs** and on the State of Idaho is **6,987 jobs**. These jobs include the university’s employees and jobs indirectly created because of the university’s activities. The university directly employs **3,349 people** in the Boise MSA and 3,521 people statewide. In FY2008 (the last time Boise State performed a similar study), the university’s total impact on employment statewide was 5,544 for a 26% increase.
- The total state and local government tax revenue impact of Boise State University’s operations in FY2015 was **\$34 million**.
- Boise State University’s research expenditures in FY2015 resulted in an overall economic impact of **\$35.4 million**.
- Boise State alumni living in Idaho in FY2015 contributed approximately **\$1.2 billion** to the state’s economy that year alone.
- Boise State awarded over 2,800 undergraduate and graduate degrees in FY2015, which equate to approximately **\$1.61 billion** of future value over 40 years for only that year’s graduates. Based on the same average workforce timeframe of 40 years, alumni from Boise State have supported **\$42.8 billion** in additional income to the Idaho economy from its alumni from 1975-2015.
- The Athletics Department of Boise State University and its visitors generated a **\$103.3 million** impact on Idaho (not including television contracts). The department supports and sustains 896 jobs in the state and generates \$6.3 million in state and local taxes.

# Introduction

Boise State University is a public doctoral research university with an enrollment of more than 24,000 students in Fall 2017. Boise State is the largest public university in the state and home of Idaho's largest graduate school. The university enrolls about one-third of all students in Idaho's public higher education system and confers more than 46 percent of all bachelor's degrees awarded by Idaho's public college and universities. The university offers about 200 degrees in 190 fields of study and has more than 100 graduate programs including areas of excellence in Arts, Health Sciences, Computer Science and Materials Sciences.

Boise State generates continuing economic impact through its campus operations<sup>1</sup> and the off-campus businesses that provide goods and services for campus operations. The results in this study are based on data from Fiscal Year 2015, but these impacts are generated annually. The economic impact in future years will be higher or lower, based on the number of students, capital expansion, increases in external research, increases in campus events and the level of state appropriations. In the two years that have followed the study year, the uhas welcomed two consecutive record-breaking first-year classes and set two new records for the number of students graduating each year.

**In FY 2015, the operations of Boise State were responsible for \$667.2 million in total economic impact and sustained 6,987 jobs throughout the State of Idaho.**

## Project Overview

In March 2016, Boise State retained Tripp Umbach to measure the economic, employment, and government revenue impacts of operations and research. Boise State's overall economic and fiscal impact on the vitality of the region and state includes the following elements:

- Business volume impacts (analysis includes collection of information regarding capital expenditures, operational expenditures, salary data, and state and regional business volumes)
- The direct and indirect employment impacts of the university
- The government revenue impact of Boise State at the local and state levels
- The impact of university alumni on the economy (wage premiums, job creation, etc.) and

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<sup>1</sup> For the purposes of this report, the term campus operation describes the spending on operational goods and services, capital upgrades and pay and benefits of the staff needed to keep the campus operating on an annual basis.

- The economic impact of university research funding; including research commercialization, patents and licensing, and business spinoffs.

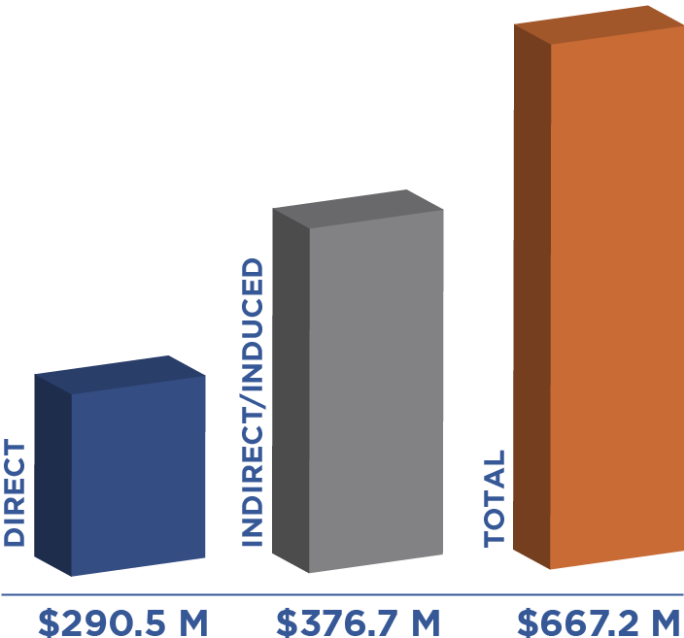
# Boise State is Vital to Idaho's Economic Success

Not including the impact of its alumni base, which is addressed later in this report, operations of Boise State directly or indirectly affect residents throughout Idaho, generating **\$667.2 million annually** in overall economic impact. Boise State affects business volume in Idaho in two ways:

- 1. Direct expenditures for goods and services by Boise State, its faculty, staff, students, and visitors. This spending supports local businesses, which in turn employ local individuals to sell the goods and provide the services that university constituencies need.
- 2. Indirect or induced spending within the State of Idaho. The businesses and individuals that receive direct payments re-spend this money within the state, thus creating the need for even more jobs.

As a result of expenditures on goods and services by Boise State, its faculty, staff, students, and visitors, the overall economic impact of Boise State University operations on the State of Idaho in FY 15 was **\$290.5 million of direct impact and \$376.7 million of indirect and induced impact (a total of \$667.2 million)**. It should also be noted that as further proof of success, Boise State graduates generate \$1.2 billion every year in economic activity in the State of Idaho.

## BOISE STATEWIDE ECONOMIC IMPACT (IN MILLIONS)



In FY 15, Boise State received slightly more than \$83 million in appropriations from the State of Idaho. As a result of the university's expenditures and operations throughout Idaho, the state realizes a significant return on its investment. **For every dollar the state appropriates to Boise State, the university returns nearly \$8 back to the state in economic activity. If the economic impact of Boise State alumni is included, the university returns nearly \$24 back to the state in economic activity.** Given Boise State's ability to effectively leverage this state appropriation beyond its fundamental education and research missions

through strategic partnerships and relationships the return on the state’s investment is much greater.

The university’s operations are specifically impactful throughout the Boise MSA where Boise State has a total impact of \$589.5 million. This impact includes both the \$220.3 million in direct expenditures throughout the Boise MSA, as well as the \$369.2 million in indirect and induced expenditures that circulated throughout the area due to the operations of Boise State University. The industries impacted by the increased economic activity that Boise State supports go beyond the higher education industry and impact many other industries throughout the area’s economy. The table below shows a few of the industries which are impacted by Boise State’s operations in the Boise MSA. Boise State’s operations not only affect the higher education industry, where the direct Boise State impact falls, but also additional indirect and induced impacts felt throughout the economy. Additional impacts due to the Boise State operations and tourism developed around the university are felt in real estate, rental activity, hotels and motels, food services, power industry, hospitals, etc. Below is a table demonstrating the top 10 industries impacted by Boise State’s operations in the Boise MSA. The impacts outlined show both the direct as well as indirect/induced impacts of the university. Boise State indirectly impacts additional higher educational institutions in the Boise MSA as well as real estate, hotels, hospitals, restaurants, and various other retail industries, as well as various other industries in the Boise MSA.

**TOP 10 INDUSTRIES IMPACTED BY BOISE STATE UNIVERSITY AT THE BOISE MSA LEVEL IN TERMS OF TOTAL ECONOMIC OUTPUT, 2015\***

Description	Output
Real estate	\$55,284,515
Hotels and motels	\$28,129,671
Owner-occupied dwellings	\$24,941,391
Hospitals	\$14,664,544
Wholesale trade	\$12,724,137
Restaurants	\$11,808,699
Electric power transmission and distribution	\$10,969,382
Financial investment activities	\$7,591,141
Limited-service restaurants	\$7,173,537
Insurance Carriers	\$7,065,868

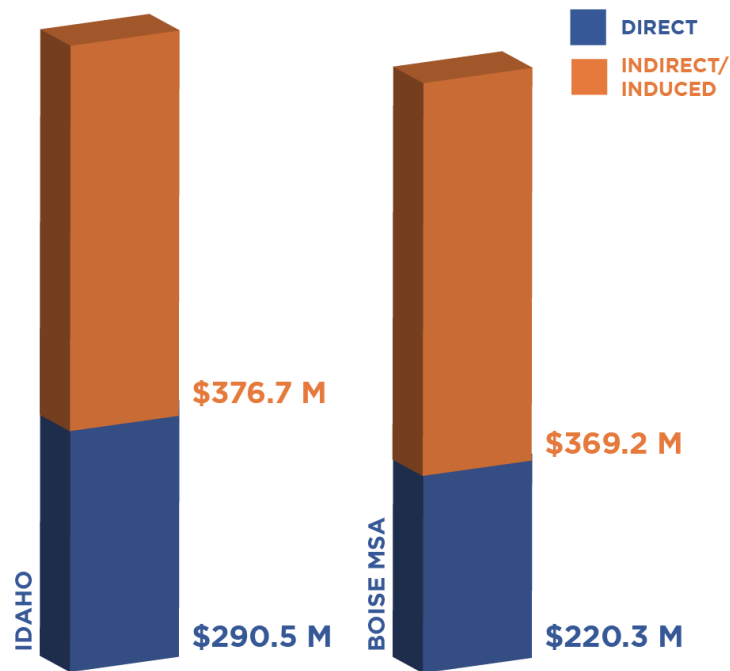
Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.  
 \*Top 10 excluding higher education

According to the gross regional product (GRP) figures used by the Minnesota IMPLAN Group,<sup>2</sup> one in every 54 dollars in economic activity in the Boise MSA is directly or indirectly attributable to the operations of Boise State.

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**ECONOMIC IMPACT OF  
BOISE STATE UNIVERSITY, 2015** (IN MILLIONS)

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Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.

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<sup>2</sup> GRP per IMPLAN data for Boise MSA.

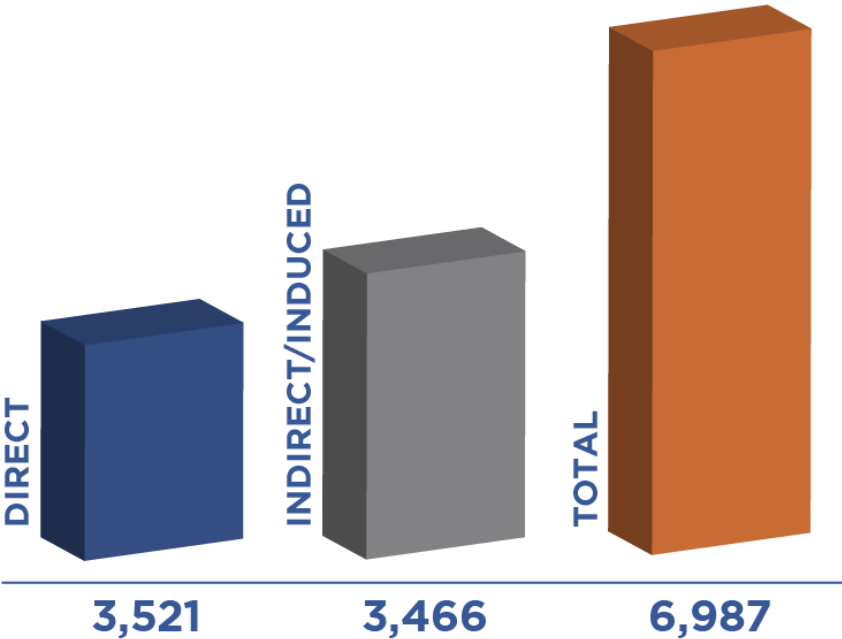
# Boise State Creates and Supports Jobs

Boise State’s employment impact is concentrated within the State of Idaho. Boise State supports **6,987 jobs** in Idaho. **One out of every 111 jobs in the state is attributable to the university.**<sup>3</sup> These jobs (both full-time and part-time) include not only direct employment by the university, but also indirect and induced jobs created by supply and equipment vendors; contractors; and laborers for the university facilities improvements; and jobs created in the community at hotels, restaurants, and retail stores in support of the university’s workforce and its visitors.

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## BOISE STATEWIDE EMPLOYMENT IMPACT (IN JOBS)

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Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.

Boise State directly employed **3,521 people** during FY 15. Boise State supports thousands of jobs statewide in virtually every sector of the Idaho economy; including construction, business and professional services, restaurants and hotels, information technology, security, and

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<sup>3</sup> Per data in the Idaho Department of Labor obtained from <https://labor.idaho.gov/dnn/Default.aspx?alias=labor.idaho.gov/dnn/idl>



temporary employment companies. These indirect/induced jobs (3,466 jobs) support the 3,521 jobs held by Idaho residents directly employed by the university.

The table below shows the top 10 industries impacted by the presence of Boise State, in terms of employment throughout the State of Idaho.

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**TOP 10 INDUSTRIES IMPACTED BY BOISE STATE UNIVERSITY AT THE STATEWIDE LEVEL IN TERMS OF TOTAL EMPLOYMENT, 2015\***

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Description	Employment
<b>Hotels and motels</b>	<b>435</b>
<b>Restaurants</b>	<b>431</b>
<b>Real estate</b>	<b>337</b>
<b>Full-service restaurants</b>	<b>124</b>
<b>Retail - Miscellaneous store retailers</b>	<b>124</b>
<b>Limited-service restaurants</b>	<b>104</b>
<b>Hospitals</b>	<b>84</b>
<b>Other educational services</b>	<b>63</b>
<b>Wholesale trade</b>	<b>60</b>
<b>Services to buildings</b>	<b>60</b>

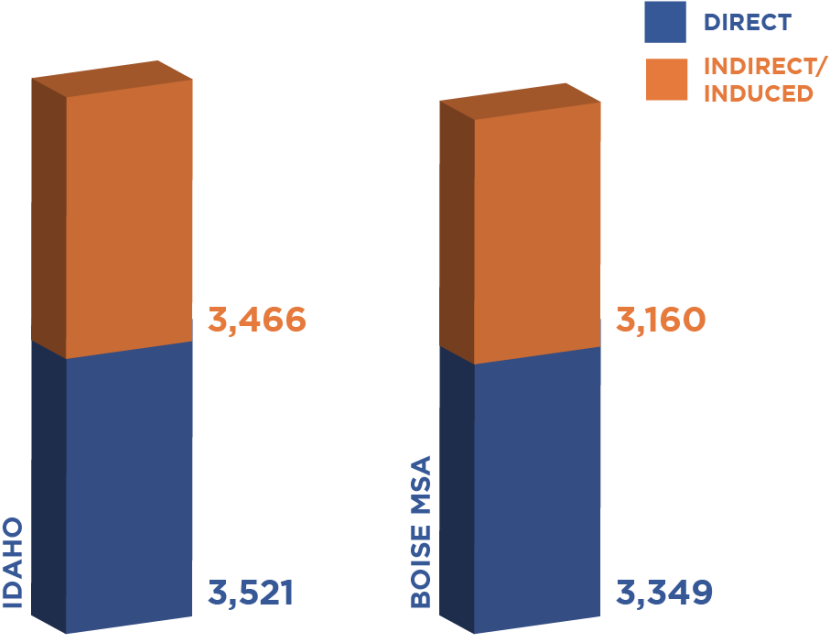
Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.  
 \*Top 10 excluding higher education

These employment numbers are even more impactful when you look at the Boise MSA where Boise State supports and sustains 6,509 jobs in total. That includes the 3,349 jobs directly held by residents of these counties at Boise State, and an additional 3,160 jobs related to Boise State operations, and student and employee spending. In this area, Boise State jobs directly or indirectly account for one in every 65 jobs.<sup>4</sup>

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**EMPLOYMENT IMPACT OF  
BOISE STATE UNIVERSITY, 2015 (IN JOBS)**

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Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.

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<sup>4</sup> Per data in the IMPLAN database for the 10 county area.

# Boise State Strengthens State and Local Governments

It is a common misperception that public universities do not generate tax revenue. State and local government revenues attributable to Boise State totaled **\$34 million** in FY 15. Through its local spending, as well as direct and indirect support of jobs, the presence of the university stabilizes and strengthens the local and statewide tax base. Boise State is an integral part of the state’s economy, generating revenue, jobs and spending.

**STATE AND LOCAL TAX IMPACTS**

Description	Employee Compensation	Tax on Production and Imports	Households	Corporations
Dividends				\$77,028
Social Ins Tax - Employee Contribution	\$295,557			
Social Ins Tax - Employer Contribution	\$577,261			
Tax on Production and Imports: Sales Tax		\$12,610,050		
Tax on Production and Imports: Property Tax		\$9,645,163		
Tax on Production and Imports: Motor Vehicle License		\$382,079		
Tax on Production and Imports: Severance Tax		\$52,576		
Tax on Production and Imports: Other Taxes		\$1,297,116		
Tax on Production and Imports: S/L NonTaxes		\$365,305		
Corporate Profits Tax				\$1,084,416
Personal Tax: Income Tax			\$5,788,696	
Personal Tax: NonTaxes (Fines- Fees)			\$738,949	
Personal Tax: Motor Vehicle License			\$411,967	
Personal Tax: Property Taxes			\$100,497	
Personal Tax: Other Tax (Fish/Hunt)			\$584,632	
<b>TOTAL STATE AND LOCAL TAX</b>	<b>\$872,818</b>	<b>\$24,352,290</b>	<b>\$7,624,741</b>	<b>\$1,161,445</b>

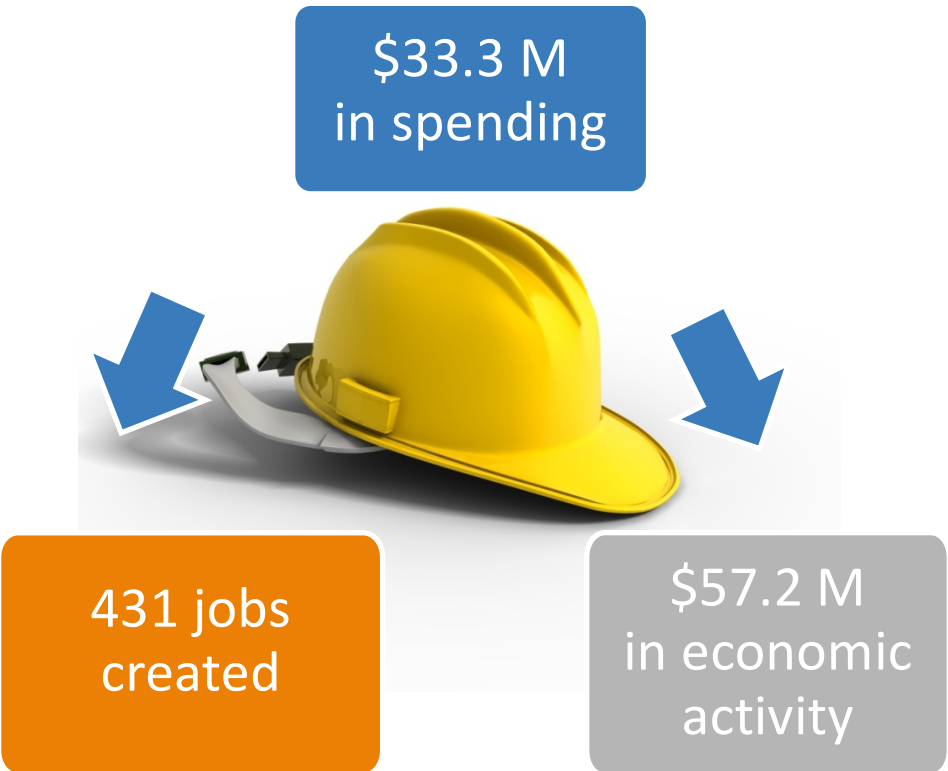
Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University

These impacts are felt at both the state and local level. Of Boise State’s state and local government revenue impact of \$34 million on the state of Idaho, \$30.7 million is generated in the Boise MSA. This current impact is expected to grow exponentially as the campus continues to expand and enrollment increases.

# Construction Impacts Investing in the Future for Idaho

Over a nearly 15-year time period, Boise State has invested nearly \$400 million in capital projects addressing the needs of a diverse and growing campus. These projects improve the environments for many faculty members, students, and staff by creating new or improved-and more modern-teaching and learning facilities.

In the year studied, the Boise State capital plan invested an average of \$33.3 million into the capital improvements or expansion projects. This spending translates to an economic impact of more than \$57.2 million dollars in statewide economic output and 431 jobs. This is in addition to Boise State’s annual operational impacts.



# Boise State University Research

Boise State expended \$19.4 million in both federal research funds as well as research funds from outside of Idaho during FY2015. This research funding is generated by a wide variety of departments and colleges throughout the university and all of this funding is from outside of the state, meaning new fresh dollars being imported to the Idaho economy.

The expenditures due to the research conducted with Boise State during FY2015 alone resulted in an overall economic impact of **\$35.4 million**. The university's research operations make tangible and quantifiable economic contributions. Along with creating jobs for research staff and support personnel, Boise State scientists are contributing to new product development and technology commercialization. Knowledge and technology transfers have helped start commercial ventures that promote entrepreneurship, economic development, and job creation.

**In FY2015, Boise State's operational and capital expenditures for sponsored research and other sponsored programs supported 210 jobs.** These jobs include not only Boise State's direct employment of research professionals, but also indirect jobs created by supply and equipment vendors; contractors, and laborers for the construction and renovation of laboratory facilities; administrators and managers who support the research infrastructure; and jobs created in the community by the disposable income of the scientific workforce.

By maintaining and growing its strong faculty base, Boise State will continue to attract, and consequently spend, increasingly higher levels of research dollars, and the number of jobs supported will see similar growth. With continued high levels of research funding and consequent expenditures, based on its research funding alone Boise State will remain a source of support for thousands of local jobs.

# Boise State University Benefits the State beyond Operations

Boise State's total impact on the State of Idaho goes beyond its annual operational expenditures. While economic impact studies often capture only the impact that can be assigned a quantitative number, the qualitative value and impact of the university goes far beyond its annual multi-billion dollar economic impact. Through its academic programs, Boise State is helping to grow the State of Idaho by educating the highly skilled workforce that will be needed to compete in a global economy while providing a firm foundation for the next generation of entrepreneurs and scholars to grow their own ideas. Moreover, Boise State provides the larger community with access to faculty experts. It adds richness and diversity to the region's cultural offerings, imports culture from outside of the country through international students, and provides research expertise. It is challenging to assign an exact dollar amount to the outreach and community activities of a major public research university such as Boise State, but on a daily basis, the lives of those in the surrounding communities are significantly enhanced by its presence in a multitude of ways. Listed below are a few examples of the community benefits that Boise State provides to the local area which we could conservatively quantify.

## **Boise State Educates the Future Workforce of both Boise and the State of Idaho**

Boise State educates the workforce that Idaho needs to successfully compete in the 21st century global economy. These graduates are essential to meeting the state's human capital and workforce needs. In FY2015, the university conferred 3,661 degrees — a number that continues to rise each year.

The contributions of Boise State graduates are critically important to the economic vitality of the state. The university's alumni total more than 135,000 and reside all over the U.S. and in foreign countries. About 68 percent of Boise State's graduates stay in Idaho and contribute to the state economy. Boise State's alumni data shows that more than 80 percent of in-state students and approximately 45 percent of out-of-state students remain in Idaho five years after they graduate.

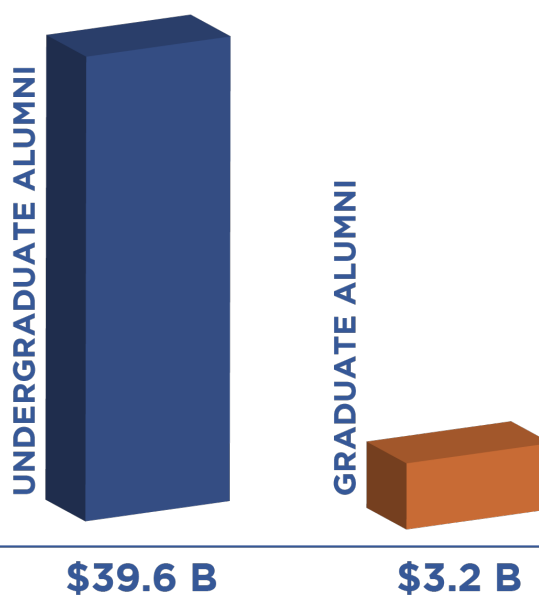
## Boise State Alumni Play a Vital Role in Idaho's Economy

By educating students, Boise State adds to the talent pool of human capital in Idaho. A Boise State degree increases a graduate's value, productivity, and earning potential in the job market. Based on 2008 data on median annual earnings for university graduates from the U.S. Department of Commerce's Bureau of Economic Analysis, a bachelor's degree earned at a university increases a graduate's salary by an average of \$21,000 a year compared with a high school graduate's salary (from \$35,400 to \$56,500), while a graduate degree earned at a university increases a graduate's salary compared to a bachelor's degree by an average of about \$13,500 a year (from \$56,500 to \$70,000 for master's).<sup>5</sup> Considering the average individual's work life is roughly

40 years, the benefit of earning a college degree provides about \$844,000 more in total lifetime wages over an individual whose education stopped with a high school diploma.

The over 3,600 degrees — both graduate and undergraduate — that Boise State awarded in academic year 2015 equates to the creation of roughly \$1.61 billion of future value to the state's economy over 40 years (only counting the graduates from a single year).<sup>6</sup>

### ECONOMIC IMPACT OF GRADUATES V. THOSE WITH A HIGH SCHOOL DIPLOMA OVER THEIR CAREER (IN BILLIONS)



Source: Tripp Umbach, using IMPLAN results from data obtained through Boise State University.

To calculate the economic impact of Boise State alumni on a continuing basis in Idaho, the study assembled figures on the distribution of the alumni for whom Boise State has current

<sup>5</sup> CollegeBoard. Education Pays 2013: The Benefits of Higher Education for Individuals and Society. Trends in Higher Education Series.

<sup>6</sup> Accounting for forgone income while attending the university, future periods of unemployment, time out of the labor force for child rearing, and other life events, total earning power over 40 years of employment was adjusted down by 20 percent.

contact information and used this distribution for the body of more than 55,000 alumni<sup>7</sup> who have graduated in the past 40 years and are living in Idaho. Based on an average of 40 years in the workforce, it is estimated that Boise State alumni support \$42.8 billion in additional income in the state's economy.<sup>8</sup> In just FY2015 alone the impact of those alumni on Idaho in the increased level of wages would have been \$1.2 billion.

### **Boise State Provides Support to the Community**

It is estimated that Boise State employees and students generate nearly **\$2.1 million** annually in charitable donations and volunteer services.<sup>9</sup> These benefits are in addition to the **\$667.2 million** annual impact and include:

- Over **\$230,000** donated to local charitable organizations by Boise State students
- Nearly **\$1.9 million** in value of volunteer time provided to area communities by Boise State employees and students.

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<sup>7</sup> Per the data from Boise State on the number of alumni who remain in the State of Idaho to work and contribute to the economy.

<sup>8</sup> Per the retention statistics data provided by Boise State where 68% of the graduates stay in the State of Idaho.

<sup>9</sup> A conservative assumption of \$22.14 per hour was used to calculate the value of volunteer services. This amount was calculated independently by the Points of Light Foundation.



## Beyond the Educational Impacts - Athletics

This economic impact analysis for athletics includes the expenditures of the Boise State Athletics Department, the employment figures related to the athletics department, and the taxes generated in the region from the athletics department.

Tripp Umbach collected financial data based on where the Boise State Athletics Department spends money in the Boise MSA and the State of Idaho. Additional data was collected on visits to athletic events and attendance data from Boise State in order to look at a clear picture of the impact that athletics have on the Boise MSA and state overall.

The Boise State Athletics Department is a significant generator of economic impact in the State of Idaho and, as such, a significant generator of personal income for state residents. Businesses operating within Idaho in the wholesale, retail, service and manufacturing sectors benefit from the direct expenditures of the organization and of its staff and visitors. In addition, many of these direct expenditures are re-circulated in the economy as first round income recipients re-spend a portion of this income, benefitting other businesses and individuals within the state. This re-spending is termed the "multiplier" or "indirect" effect.

This economic impact analysis measures the effect of direct and indirect/induced business volume, employment and government revenue impacts for all of the Boise State Athletic Department in both the State of Idaho as well as the Boise MSA.

Boise State Athletics' economic impact is generated through the spending of the organization, its employees, and its out-of-area visitors. The spending of the organization as well as the spending of its employees is dependent upon the revenue the athletic department receives each year. A significant portion of this revenue comes from out-of-state sources and therefore represents true economic expansion to Idaho's economy. Throughout the year, thousands of people from Idaho and other states visit Boise State in support of its athletics program. Visitors from out-of-state bring with them dollars to spend in the local and state economy for accommodations, food, services, souvenirs and entertainment during their stay. Also included in this impact study are combined impacts of athletic conferences and meetings, clinics, camps, visiting athletic teams, referees, and press.

The Boise State athletics department and the visitors the athletics bring to the Boise MSA and Idaho have a significant impact on the economic activity in the area. In 2015, Boise State Athletics had a total impact on the Boise MSA of \$102 million. This impact was slightly larger when looking at the entire State of Idaho at \$103.3 million. Much of this impact comes from

the payroll and department spending with additional impact generated by the visitors who are drawn to the area by sports and athletic programming.

In 2015, the employment impacts of the Boise State athletics totaled over 827 jobs in the Boise MSA. When looking at the state, the total employment impact was 896 jobs. This means that there were a significant number of jobs supported and or sustained by the economic activity of athletics at Boise State University.

Boise State athletics also impact state and local tax bases. In 2015, the state and local governments received an additional \$6.3 million in revenue due to the direct, indirect, and induced impacts of the athletics departments and programs as well as the visitors these programs brought to the State of Idaho.

# Methodology Employed in the Economic Impact Study

This economic impact analysis measures the effect of direct and indirect/induced business volume and government revenue impacts for all of Boise State's operations throughout the Boise MSA<sup>10</sup> as well as the State of Idaho. The methodology employed in the calculation of these impacts is IMPLAN.<sup>11</sup> Primary data utilized to conduct the analysis were collected from Boise State University. Data included: capital expenditures, operational expenditures, jobs, payroll and benefits, and taxes. The approach taken on this study was decidedly conservative. Economic impact begins when an organization spends money. Studies measuring economic impact capture the direct economic impact of an organization's spending, plus additional indirect and induced spending in the economy as a result of direct spending. Economic impact has little to do with dollars collected by institutions. Total economic impact measures the dollars that are generated within Idaho due to the presence of Boise State. This includes not only spending on goods and services with a variety of vendors within the state and the spending of its faculty, staff, students, and visitors; but also the business volume generated by businesses within Idaho that benefit from Boise State's spending.



Direct expenditures are for goods and services by the university, its employees, its students, and visitors. This spending supports local businesses, which in turn employ local individuals to sell the goods and provide the services that university constituencies wish to purchase.

<sup>10</sup> For the purposes of this study the Boise MSA is defined as the 10 county area comprised of Ada County, Adams County, Boise County, Canyon County, Elmore County, Gem County, Idaho County, Owyhee County, Payette County, and Washington County.

<sup>11</sup> Minnesota IMPLAN Group, Inc. (MIG) is the corporation that is responsible for the production of IMPLAN (IMpact analysis for PLANning) data and software. IMPLAN is a micro-computer-based, input-output modeling system. With IMPLAN, one can estimate Input-Output models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model.

Indirect and induced expenditures are spending within the local area. The businesses, vendors, and individuals who receive direct payments from the university re-spend this money within the area, thus creating the need for even more jobs.

It is important to remember that not all dollars spent by a university remain in its home state. Dollars that “leak” out of the state in the form of purchases from out-of-state vendors are not included in the university’s economic impact on the state. The multipliers utilized in this study are derived from the IMPLAN software.

Key economic impact findings presented within the summary include the total current (FY2015)<sup>12</sup> impact of Boise State’s operations on employment in each of the geographies, as well as the revenue impact on state and local governments.

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<sup>12</sup> Unless otherwise noted this analysis is for Fiscal Year 2015 or FY ’14-’15.

# Appendix A: Definition of Terms

Study Year	Fiscal Year 2015 (FY '14-'15)
Study Geography	The analysis for this research was conducted at both the State of Idaho level as well as looking at the 10 county area known as Boise MSA or Boise Area.
Multiplier Effect	The multiplier effect is the additional economic impact created as a result of the organization's direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier.
Direct Impact	Direct impact includes all direct effects the organization has on the regional area due to the organization operations. These items include direct employees, organization spending, employee spending, and spending by visitors to the organization.
Indirect Impact	The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added. The impacts are calculated by applying direct effects to the Type I Multipliers.
Induced Impact	The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee-compensation and proprietor-income components of value added) is not leakage to the regional economy. This money is recirculated through the household spending patterns, causing further local economic activity.
Indirect Tax Payments	Government revenue that is collected by governmental units in addition to those paid directly by an organization, including taxes paid directly by employees of the organization, visitors to the organization, and vendors who sell products to the organization.
Indirect Employment	Indirect employment is the additional jobs created, as a result of the organization's economic impact. Local companies that provide goods and services to an organization increase their number of employees as purchasing increases, thus creating an employment multiplier.
Total Economic Impact	The total economic impact of an organization includes both the direct impact and the indirect impact generated in the economy, because of the organization. Direct impact includes items such as organizational spending, employee spending, and spending by visitors to the organization. Indirect impact, also known as the multiplier effect, includes the re-spending of dollars within the local economy.

# Appendix B: Methodology

## **IMPACT ON STATE BUSINESS VOLUME AND GOVERNMENT REVENUE**

Boise State University is a major employer in the state and, as such, is a major generator of personal income for state residents. Businesses operating within Idaho in the wholesale, retail, service, and manufacturing sectors benefit from the direct expenditures of the institutions and their faculty, staff, students, and visitors on goods and services. Additionally, many of these “direct” expenditures are re-circulated in the economy as recipients of the first-round of income re-spend a portion of this income with other businesses and individuals within Idaho.

## **METHODOLOGY AND DATA UTILIZED FOR THE ESTIMATION OF THE ECONOMIC IMPACT OF THE BOISE STATE UNIVERSITY**

The economic impact of Boise State was estimated using IMPLAN (IMpact Analysis for PLANning), an econometric modeling system developed by applied economists at the University of Minnesota and the U.S. Forest Service. The IMPLAN modeling system has been in use since 1979 and is currently used by over 500 private consulting firms, university research centers, and government agencies. The IMPLAN modeling system combines the [U.S. Bureau of Economic Analysis’ Input-Output Benchmarks](#) with other data to construct quantitative models of trade flow relationships between businesses and between businesses and final consumers. From this data, one can examine the effects of a change in one or several economic activities to predict its effect on a specific state, regional, or local economy (impact analysis). The IMPLAN input-output accounts capture all monetary market transactions for consumption in a given time period. The IMPLAN input-output accounts are based on industry survey data collected periodically by the U.S. BEA and follow a balanced account format recommended by the United Nations.

IMPLAN’s Regional Economic Accounts and the Social Accounting Matrices were used to construct state-level multipliers, which describe the response of the state economy to a change in demand or production as a result of the activities and expenditures of Boise State. Each industry that produces goods or services generates demand for other goods and services; and this demand is multiplied through a particular economy until it dissipates through “leakage” to economies outside the specified area. IMPLAN models discern and calculate leakage from local, regional, and state economic areas based on workforce configuration, the inputs required by specific types of businesses, and the availability of both inputs in the economic area. Consequently, economic impacts that accrue to other regions or states as a consequence of a change in demand are not counted as impacts within the economic area.

The model accounts for substitution and displacement effects by deflating industry-specific multipliers to levels well below those recommended by the U.S. Bureau of Economic Analysis. In addition, multipliers are applied only to personal disposable income to obtain a more realistic estimate of the multiplier effects from increased demand. Importantly, IMPLAN's Regional Economic Accounts exclude imports to an economic area, so the calculation of economic impacts identifies only those impacts specific to the economic impact area, in this case, the State of Idaho. IMPLAN calculates this distinction by applying Regional Purchase Coefficients (RPC) to predict regional purchases based on an economic area's particular characteristics. The RPC represents the proportion of goods and services that will be purchased regionally under normal circumstances, based on the area's economic characteristics described in terms of actual trade flows within the area.

### **MODEL INPUTS AND DATA SOURCES**

Model inputs included actual FY 14-15 expenditures provided by Boise State University.

# Appendix C: FAQs Regarding Economic Impact Assessment

## **What is economic impact?**

Economic impact begins when an organization spends money. Economic impact studies measure the direct economic impact of an organization's spending, plus additional indirect spending in the economy as a result of direct spending. Economic impact has nothing to do with dollars collected by institutions, their profitability, or even their sustainability, since all operating organizations have a positive economic impact when they spend money and attract spending from outside sources.

Direct economic impact measures the dollars that are generated within Idaho due to the presence of Boise State University. This includes not only spending on goods and services with a variety of vendors within the state, and the spending of its employees and visitors, but also the business volume generated by businesses within Idaho that benefit from spending by Boise State. It is important to remember that not all dollars spent by Boise State stay in Idaho. Dollars that "leak" out of the state in the form of purchases from out-of-state vendors are not included in the economic impact that Boise State has on the state of Idaho.

The total economic impact includes the "multiplier" of spending from companies that do business with Boise State. Support businesses may include lodging establishments, restaurants, construction firms, vendors, temporary agencies, etc. Spending multipliers attempt to estimate the ripple effect in the state economy where the spending occurs. For example: Spending by Boise State with local vendors provides these vendors with additional dollars that they re-spend in the local economy, causing a "multiplier effect."

## **What is the multiplier effect?**

Multipliers are a numeric way of describing the secondary impacts stemming from the operations of an organization. For example, an employment multiplier of 1.8 would suggest that for every 10 employees hired in the given industry, eight additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region. The multipliers used in this study range from 1.8 to 2.0.

The Multiplier Model is derived mathematically using the input-output model and Social Accounting formats. The Social Accounting System provides the framework for the predictive Multiplier Model used in economic impact studies. Purchases for final use drive the model.



Industries that produce goods and services for consumer consumption must purchase products, raw materials and services from other companies to create their product. These vendors must also procure goods and services. This cycle continues until all the money is leaked from the region's economy. There are three types of effects measured with a multiplier: the direct, the indirect, and the induced effects. The direct effect is the known or predicted change in the local economy that is to be studied. The indirect effect is the business-to-business transactions required to satisfy the direct effect. Finally, the induced effect is derived from local spending on goods and services by people working to satisfy the direct and indirect effects.

- **Direct effects** take place only in the industry immediately being studied.
- **Indirect effects** concern inter-industry transactions: because Boise State is in business, it has a demand for locally produced materials needed to operate.
- **Induced effects** measure the effects of the changes in household income: employees of Boise State and suppliers purchase from local retailers and restaurants.
- **Total Economic Impacts** the total changes to the original economy as the result of the operations of Boise State. i.e., Direct effects + Indirect effects + Induced effects = Total Economic Impacts

### **What methodology was used in this study?**

IMPLAN (IMpact analysis for PLANning) data and software. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model for its users. The IMPLAN database contains county, state, zip code, and federal economic statistics which are specialized by region, not estimated from national averages and can be used to measure the effect on a regional or local economy of a given change or event in the economy's activity.

### **What is employment impact?**

Employment impact measures the direct employment (employees, staff, faculty, administration) plus additional employment created in the economy as a result of the operations of Boise State.

Indirect and Induced employment impact refers to other employees throughout the region that exist because of the university's economic impact. In other words, jobs related to the population – city services (police, fire, EMS, etc.), employees at local hotels and restaurants, clerks at local retail establishments, and residents employed by vendors used by Boise State.

**What is the difference between direct and indirect taxes?**

Direct tax dollars include sales taxes and net corporate income taxes paid directly by the institution to the state, while indirect taxes include taxes paid to the state by vendors that do business with Boise State and individuals.

**Is this a one-time impact or does the impact repeat each year?**

The results presented in the Boise State University economic impact study are generated on an annual basis. The economic impact in future years can either be higher or lower based on number of employees, students, capital expansion, increases in external research, and state appropriations.

**What are Tripp Umbach's qualifications to perform an Economic Impact Study for the Boise State University?**

Tripp Umbach is the national leader in providing economic impact analysis to leading health care organizations, universities, and academic medical centers. We have completed more than 150 economic impact studies over the past 20 years for clients such as: The Penn State University, The University of Pittsburgh, The Ohio State University, the University of Washington, The University of Iowa, The University of Minnesota, The University of Alabama at Birmingham, the Cleveland Clinic, the University of Florida Health Shands Hospital, the University of North Carolina Hospitals, the University of Idaho Health System, and The Ohio State University Medical Center.