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Economic Contribution of the University of Utah

The University of Utah casts an immense economic and societal footprint over the entire state, making it one of Utah's largest and most important economic assets.

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Economic Contribution of the University of Utah

Analysis in Brief

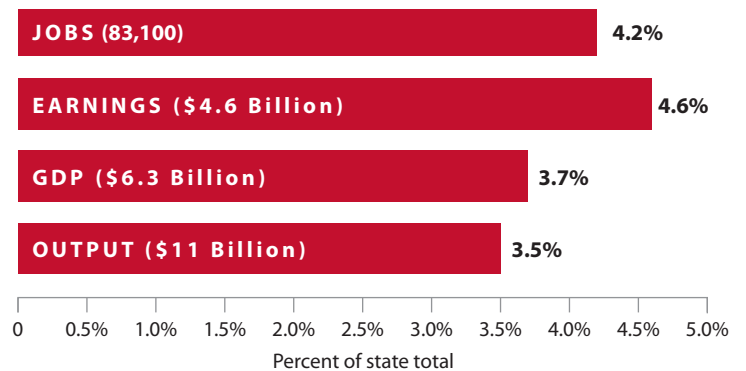
The University of Utah casts an immense economic and societal footprint over the entire state, making it one of Utah’s largest and most important economic assets.

The University of Utah directly and indirectly supported 83,100 jobs, \$4.6 billion in earnings, and \$6.3 billion in GDP in the Utah economy in 2019, making it one of the largest economic assets in the state. The U’s direct employment of 39,300 jobs makes the U the largest employer in the state. In addition, the U’s 2019 education and patient care reach includes 32,994 students, 8,268 degrees and certificates, more than 550 buildings in 16 counties and 38 cities in Utah, and approximately two million patient visits. As an institution of higher learning, the U also imparts significant societal benefits. These contributions confer an immense economic and societal impact on Utah that can only come from the state’s flagship university.

Key Findings

- **Research** – In 2019, the U received \$547 million in total research funding, making the U, by far, the largest recipient of research funding in the state.
- **Real estate** – The U owns and manages more than 550 buildings tallying 15.4 million square feet of institutional space, in 16 counties and 38 cities throughout Utah, extending into six states and Washington D.C.
- **Patient care** – The reach of U of U Health includes five hospitals, 12 community health centers, five schools and colleges, a library, one of the nation’s largest reference laboratories (ARUP Laboratories), and numerous institutes and centers.
- **Arts and entertainment** – The U is home to a variety of arts and entertainment venues, including Kingsbury Hall, Simmons Pioneer Memorial Theater (and the Pioneer Theatre Company), Red Butte Garden, the Utah Museum of Fine Arts, Rice-Eccles Stadium, and the Huntsman Center. The U joined the Pac-12 Conference in 2010 and currently has many nationally ranked athletic programs.

University of Utah Economic Contribution, 2019



Source: Kem C. Gardner Policy Institute

Utah’s 10 Largest Employers, 2019

Rank	Company Name	Employment Range
1	University of Utah (Including Hospital and Component Units)	39,300
2	Intermountain Healthcare	30,000 +
3	State of Utah	20,000 +
4	Brigham Young University	15,000-19,999
5	Wal-Mart Associates	15,000-19,999
6	Hill Air Force Base	10,000-14,999
7	Davis County School District	7,000-9,999
8	Utah State University	7,000-9,999
9	Smith’s Food and Drug Centers	7,000-9,999
10	Granite School District	7,000-9,999

Source: Department of Workforce Services and Kem C. Gardner Policy Institute

- **Societal impact** – Individual and societal benefits to Utah associated with a college education include, among others, increased earnings, increased economic mobility, healthier lifestyles, decreased crime, increased volunteerism, increased voter participation, reduced reliance on public assistance, and reduced poverty rate.

Note: For purposes of this study, the University of Utah includes its campus, hospitals and clinics as well as component units: University of Utah Research Foundation, University of Utah Health Insurance Integrated Units, and ARUP Laboratories.

University of Utah Overview

Founded in 1850, the University of Utah extends over 1,500 acres in the foothills of the Wasatch Mountain Range. Located in Salt Lake City, the state's capital, the U conducts and provides world-class research, education, and clinical care. As Utah's flagship university, the U casts an immense economic and societal footprint on the state of Utah.

The expanse of the economic contribution includes the following:

- World class research** – The U's top tier faculty conducts path breaking research that leads to new discoveries. The U is rare among its peers because of the co-location of a comprehensive research university and a vibrant academic medical center. There are less than two dozen such institutions in the country. In 2019, the U received \$547 million in research funding.¹ A capstone event for the U occurred in 2007 when geneticist Mario R. Capecchi received a Nobel Prize for his work in gene targeting. In addition to improving the human condition broadly, the U's research creates wealth, income, and jobs in the Utah economy.
- Outstanding education** – The U fulfills a vital role in educating and training a diverse student body of learners. With a 2019 enrollment of 32,994 students, the U trains a significant portion of Utah's labor force, including two-thirds of Utah physicians.² The U offers 100 undergraduate and more than 90 graduate level fields of study. Nationally ranked programs exist in law, pharmacy, mathematics, business, biomedical engineering, family medicine, social sciences and humanities, fine arts, education, architecture, entertainment arts, and engineering. In 2019, the U conferred 8,268 degrees, more than any other public college or university in the state. This includes, 5,236 bachelor's degrees, 2,197 master's degrees, and 835 doctorate and professional degrees.³ By educating and training Utah's workforce, the U contributes significantly to wealth creation in the state.
- High-value patient care and path breaking clinical research** – U of U Health is the state's only academic medical center and provides patient care for the people of Utah, Idaho, Wyoming, Montana, and much of Nevada. The reach of U of U Health includes five hospitals, 12 community health centers, five schools and colleges, a library, one of the nation's largest reference laboratories (ARUP Laboratories), and numerous institutes and centers.

In 2019, U of U Health tallied approximately two million patient visits with a staff of more than 1,600 physicians. U of U Health claims many medical firsts, including the world's

first total artificial heart transplant, the nation's first wearable artificial kidney, and the world's first comprehensive map of the retina's neuron. U of U Health makes a vital economic contribution to the state by educating and training health care professionals and caring for the health and well-being of the state's workforce.⁴

- Top employer** - The U employs a total of 39,300 people, including campus, hospitals and clinics, and component units, making the University of Utah the largest employer in the state. (see Tables 1 and 2)

Figures 1 and 2 compare employment across public PAC-12 universities and Utah System of Higher Education (USHE) peer universities respectively. Eight of the 10 public PAC-12 schools are the state's flagship university, including the U. Data was compiled using the Integrated Post-secondary Education Data System (IPEDS) in order to allow for some level of comparability. Note that these employee counts include campus and School of Medicine, but not other U of U Health employees. Exact numbers may differ from those provided elsewhere in this report due to definition differences.

- Physical footprint** - In addition to the U's employment contribution, the U also has a vast physical presence. While

Table 1: University of Utah Employment, 2019

	Jobs
Campus	22,500
Hospitals and Clinics	12,100
Component Units	4,700
Total	39,300

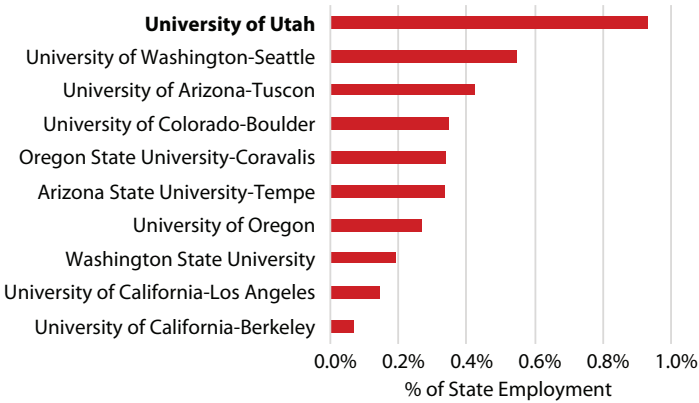
Note: Component unit jobs are estimated based on total spending.
Source: Kem C. Gardner Policy Institute analysis of University of Utah data

Table 2: Utah's 10 Largest Employers, 2019

Rank	Company Name	Employment Range
1	University of Utah (Including Hospital and Component Units)	39,300
2	Intermountain Healthcare	30,000 +
3	State of Utah	20,000 +
4	Brigham Young University	15,000-19,999
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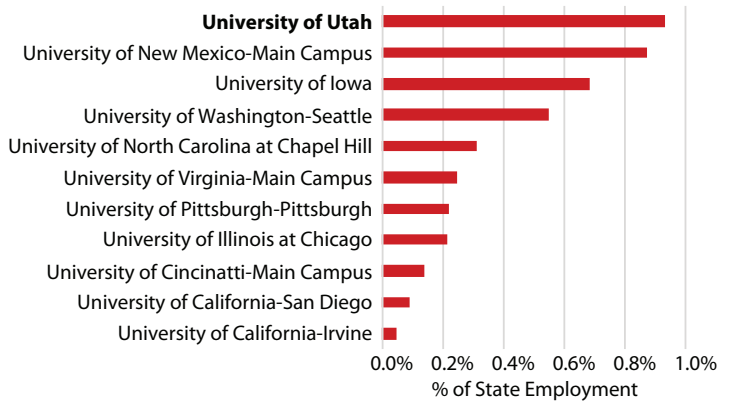
Source: Department of Workforce Services and Kem C. Gardner Policy Institute

Figure 1: Employment Comparison Among Public PAC-12 Universities, Fall 2018



Source: Kem C. Gardner Policy Institute Analysis of IPEDS and BLS data

Figure 2: Employment Comparison Among USHE Peer Universities, Fall 2018



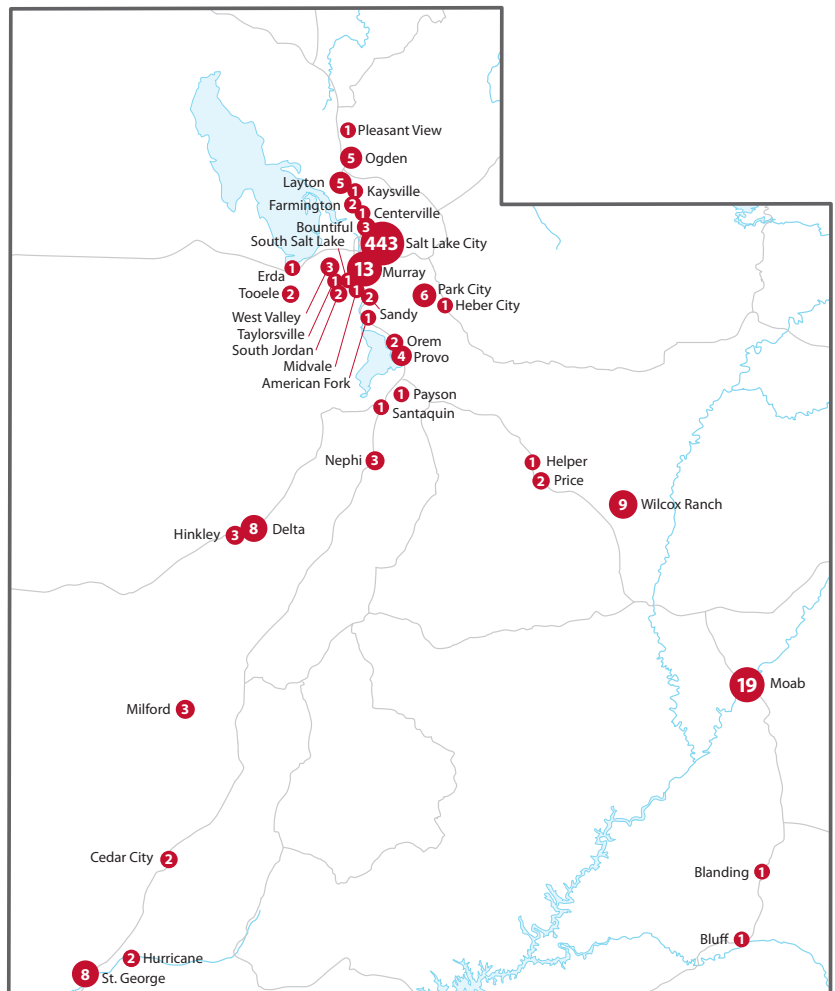
Source: Kem C. Gardner Policy Institute Analysis of IPEDS and BLS data

this presence extends beyond state lines, Figure 3 shows University of Utah facilities in Utah. The U's reach extends to 38 cities and 16 counties in Utah in addition to presence around the U.S. and worldwide.

- Service to the community** – As a public university, the U embraces a service mission to make a meaningful societal impact in Utah. This includes making social, economic, and cultural contributions. This social embeddedness is why University President Ruth V. Watkins calls the U the “University for Utah.” The U is home to a variety of arts and entertainment venues, including Kingsbury Hall, Simmons Pioneer Memorial Theater (and the Pioneer Theatre Company), Red Butte Garden, the Utah Museum of Fine Arts, Rice-Eccles Stadium, and the Huntsman Center. In 2010, the U joined the Pac-12 conference and currently has many nationally ranked programs.

The expanse and excellence of the U's mission has been recognized by the Association of American Universities (AAU). In 2019, the AAU invited the U to join its prestigious membership, which includes other well-recognized universities in North America, including Harvard University, Massachusetts Institute of Technology, Stanford University, and Yale. To understand the significance of this membership, consider that there are nearly 3,000 four-year universities in the United States. Of these, 131 are tier-one research universities, and 63 are members of the prestigious AAU. This is a tribute to the U's world-class faculty, research funding, and exceptional student outcomes.

Figure 3: University of Utah Affiliated Facilities, 2019



Source: University of Utah Office of Space Planning and Management

Functional Groups

As a public university, the U embraces a four-fold mission of teaching, research, service, and patient care. The U accomplishes this extensive mission by bringing together a comprehensive research university, a vibrant medical center and health system, outstanding athletic programs, and a variety of arts and entertainment venues. Together, these component parts create one university. Figure 4 presents the “One U” structure.

As one university, the entire U enterprise included in this report is categorized into three functional groups for modeling purposes:

Campus

This category includes the operations and capital investment associated with the provision of education, research, and student services. Activities here include many of the traditional functions of a public university, including instruction, student services, academic support, research, institutional support, operations and maintenance, scholarships and fellowships, and public service. The entire School of Medicine, including instruction and patient services, is included in the Campus group.

Hospitals and Clinics

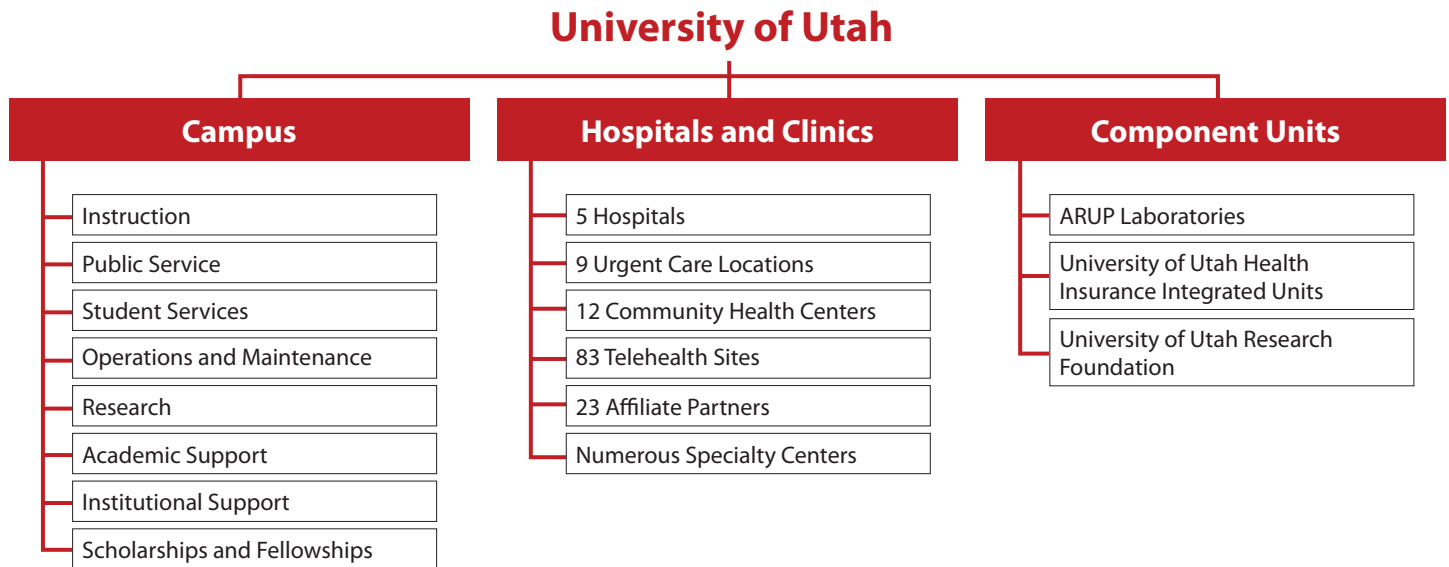
This category includes the operations and capital investment associated with patient services at U of U Health. Major activities include the operation of U of U Health’s hospitals, clinics, and medical group.

Component Units

This category includes the operations and capital investments of three component units: University of Utah Research Foundation (UURF), ARUP Laboratories, Inc. (ARUP), University of Utah Health Insurance Integrated Units, including Medicaid Accountable Care Organization (ACO) and Employee Assistance Coverage.

In addition to describing how these three groups support the Utah economy, this report also addresses the impacts of nonresident students.

Figure 4: University of Utah “One U” Structure and Component Parts



Source: Kem C. Gardner Policy Institute

Concepts and Definitions

Economic impact studies frequently mis-specify the counterfactual by making errors such as double-counting household spending, improperly identifying “new” expenditures or sources of revenue, or inconsistently defining the local area.⁵ This study focuses on economic contribution and follows the guidelines identified by the Association of Public and Land-grant Universities and the Association of American Universities.⁶

This report includes an analysis of the U’s economic significance in two ways: economic contribution and societal benefits. In addition, Appendix A provides an economic and fiscal impact analysis for the externally-financed activities of the U. A related report prepared by the Gardner Institute titled, *Economic Contribution of University of Utah Health*, breaks out the contributions of health-related schools and colleges and institutes and centers from the campus contribution in this study, in addition to hospitals and clinics and health-related component units.

Economic Contribution and Impact

Regional economic studies make a distinction between economic contribution and economic impact. Economic contribution studies assess the economic multiplier effects associated with the current or predicted level of spending of some industry, event, or policy. According to Watson et al., “an economic contribution is defined as the gross changes in a region’s existing economy that can be attributed to a given industry, event, or policy.”⁷ Economic contribution captures the economic expanse of all university spending and shows the relative reach and magnitude of the operation in the Utah economy. The authors focus on economic contribution so that reasonable comparisons can be made with economic contribution studies from other institutions of higher learning.

Economic impact studies measure the changes in the size and structure of a region’s economy that occur when goods and services are purchased from vendors within the region with

money generated outside the region. As depicted in Figure 5, economic impacts are a portion of contributions. In the strictest interpretation, economic impacts occur only when “new” money enters the regional economy and is then spent locally. Economic impacts can also be said to occur in what is called “import substitution” – a situation where residents would have to import goods and services if an industry did not exist locally. Appendix A provides an economic impact analysis of the U.

This analysis includes documentation for both “economic contribution” and “economic impact” and always makes clear which measure is being reported. The authors recommend using economic contribution when comparing with other economic contribution studies and economic impact when referencing the net new activity credited to the U.

Fiscal Impact

The Gardner Institute State Fiscal Impact model uses effective tax rates and collections and per capita government spending to estimate net fiscal impacts, i.e. new revenue less new public expense, associated with the combined direct, indirect, and induced economic effects of the U during 2019.

Fiscal impacts should be viewed as approximate measures of state revenue generation associated with the operation of the University of Utah. The underlying analysis relies on historical data and assumes a linear relationship between state revenue and expenditures and personal income, earnings, industry output, employment, and population. The impacts in this report represent a small portion of the U’s benefit to the Utah budget. The U both generates revenue and reduces demand for public service through its support of workforce health and productivity, innovation, technology commercialization, and public service; these effects are beyond the scope of this analysis. Appendix A provides a fiscal impact analysis of the U.

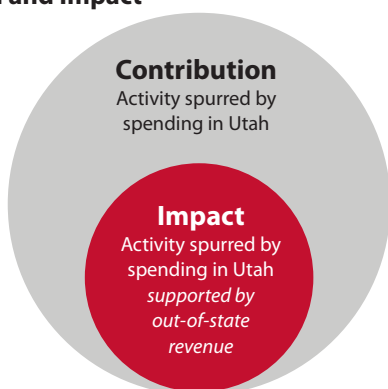
Societal Impact

In addition to economic and fiscal impacts, the authors briefly summarize the societal impact of the U on the state. While difficult to quantify, the analysis of the U’s economic contributions would be incomplete without sharing data and research on the individual and societal benefits associated with a college education, including items such as increased earnings, increased economic mobility, healthier lifestyles, decreased crime, increased volunteerism, increased voter participation, reduced reliance on public assistance, and reduced poverty rate.

Direct, Indirect, and Induced Effects

The U generates economic effects (contributions and impacts) through its spending on wages and purchases from Utah-based vendors (direct effects) and the rippling effect of this spending through the economy (indirect and induced

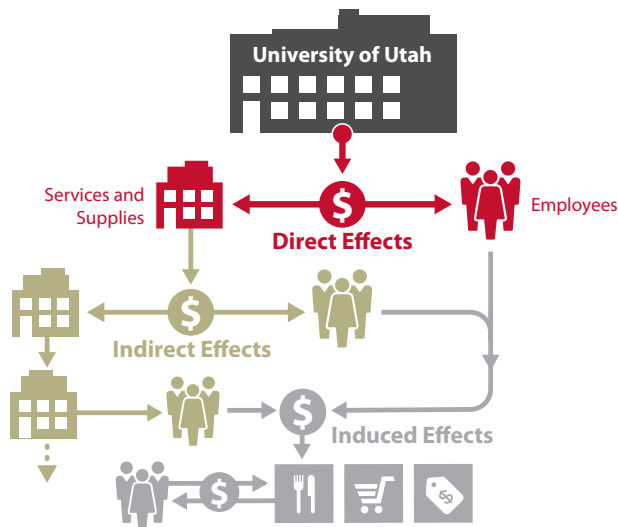
Figure 5: Visual Representation of Economic Contribution and Impact



Source: Kem C. Gardner Policy Institute

effects). The U's spending produces indirect effects when its local suppliers hire employees and make purchases from other local vendors. Finally, induced effects occur when the employees of the U and its suppliers spend their wages in the Utah economy. Figure 6 provides a visual representation of direct, indirect, and induced effects.

Figure 6: Economic Flow of Direct, Indirect, and Induced Economic Impacts



Source: Kem C. Gardner Policy Institute

Jobs, Earnings, GDP, and Output

Economic effects are measured in four ways: jobs, earnings, Gross Domestic Product (GDP), and output. These measures reflect different parts of the economy and, therefore, are not summable.

Jobs measures the annual average of both full-time and part-time jobs (not workers) counted equally. Both wage and salary positions and the self-employed are included.

Earnings are the sum of wages and salary disbursements, employer-paid benefits and payroll taxes, and the income of the self-employed.

GDP is the most commonly used measure of total economic activity in a region, reflecting the market value of all goods and services produced in Utah. GDP avoids double counting of intermediate sales and captures only the “value added” to final products by capital and labor. GDP is equal to total output less the value of intermediate inputs purchased to produce that output.

Output is a comprehensive measure of economic activity that represents the gross value of every transaction in the economy. It is equal to total industry sales, reflecting the sum of the final purchases and intermediate inputs. Thus, output double counts intermediate purchases.

Statement of Methods

University economic impact and contribution studies have been criticized for failing to properly identify the scope, first-round expenditures, models, and multipliers at the *beginning* of the report.⁸ Accordingly, the authors share the following statement and clarifications. Additional research methods are included in Appendix B.

Geographic scope or reference region

Some studies assess regional contributions and impacts at the city and county levels. In order to capture the full significance of the U, this study's reference region is the state of Utah.

Year of analysis

This study analyzes activity taking place in the U's Fiscal Year 2019, running from July 1, 2018 – June 30, 2019. The fiscal year is reported as “2019” for simplicity.

Model and multipliers

This study utilizes the 2017 version of IMPLAN and its associated multipliers for the state of Utah, the most recent model available at the time of analysis.

Units of analysis

This study analyzes the economic activity for five major categories:

1. Campus: The operations and capital investment associated with the provision of educational and student services. This category includes both the academic and patient service activities of the School of Medicine.
2. Hospitals and Clinics: The operations and capital investment associated with patient services at University of Utah Health
3. Construction: Campus and Hospitals and Clinics average annual construction expenditures.
4. Component Units: The operations and capital investments of the University of Utah Research Foundation (UURF), ARUP Laboratories, Inc. (ARUP), and Health Insurance Integrated Units
5. Nonresident spending: The off-campus expenditures of nonresident students in the Utah economy, adjusted for wages earned in Utah.

First-round expenditures

Table 3 summarizes the first round of the U's expenditures that serve as inputs to the economic contribution and impact analyses. In total, the U enterprise spent nearly \$5.6 billion in 2019. Between employee payrolls and in-state supplier purchases, an estimated 87% of this spending occurred within Utah.

In addition to enterprise expenditures, first-round expenditures in this analysis include \$56.6 million off-campus spending by nonresident students.

Table 3: Total University of Utah Expenditures, FY 2019
(\$ millions)

Category	Personnel	Non-personnel	Total
Campus	\$1,443	\$1,600	\$3,043
Hospitals and Clinics	\$915	\$685	\$1,600
Construction	\$0	\$337	\$337
Components	\$327	\$270	\$597
Total University of Utah Expenditures	\$2,685	\$2,892	\$5,577

Notes: Construction spending is a 5-year average. The allocation of Components' personnel and non-personnel expenditures is estimated.

Source: Kem C. Gardner Policy Institute analysis of University of Utah data

Economic Analysis

See Appendix B, Research Methods, for more details on the derivation of results presented in this section.

The U's economic contribution has three main drivers – operations and capital purchases, construction expenditures, and the off-campus spending of nonresident students. As shown in Table 4, together, these drivers create an economic contribution of more than 4% of all of Utah's jobs and earnings and more than 3.5% of Utah's GDP and output.

The spending of out-of-state visitors, including student and patient families and athletic and other event attendees, is also a driver of the U's economic contribution. Because visitor spending data were unavailable at the time of analysis, the estimates in this report do not include the contribution and impact of visitors; therefore, the reported estimates are likely conservative.

Note that due to rounding and other adjustments to avoid double-counting, numbers presented throughout this document may not add up precisely to the totals provided in other reports and percentages may not precisely reflect the absolute values.

Operations and Capital Expenditures

Operations and capital expenditures are responsible for over 90% of the U's total economic contribution. In 2019, the U enterprise spent a total of \$5.6 billion—\$2.7 billion on payroll and \$2.9 billion on goods, services, and non-construction capital—to provide instruction, research, student services, public services, athletics, operations and maintenance, academic and institutional support, insurance, and patient services. Non-construction capital investments, which accounted for under 2% of expenditures, included purchases of buildings, land, medical and other equipment, library materials, art, and special collections.

An estimated 87% of these expenditures occur in Utah, which constitute a direct contribution of 39,300 jobs, \$2.7 billion in earnings, \$2.7 billion in GDP, and \$4.5 billion in output. As detailed in Table 5, indirect and induced contributions bring total contributions to 79,000 jobs, \$4.5 billion in earnings, \$5.9 billion in GDP, and \$10.3 billion in output.

Construction

The U's spending on the construction of buildings and infrastructure is another driver of economic contribution. Examples of major projects completed within the last five years and currently underway include Gardner Commons, the Garff Executive Education Building, the Medical Education and Discovery Complex, and additions to the Huntsman Cancer Institute. Because construction projects often span years and the level of total activity varies from year to year, the analysis uses a 5-year average of annual expenditures.

Over the last five years, the enterprise spent, on average, \$337 million a year—\$208 million on campus and \$129 million for Hospitals and Clinics. Table 6 details the total contributions associated with these expenditures – 3,500 jobs, \$189 million in earnings, \$300 million in GDP, and \$607 million in output.

Table 4: University of Utah Economic Contributions, FY 2019
Percent of Utah jobs, labor income, GDP, and output

	Contribution	Percent of Utah Total
Jobs	83,100	4.2
Earnings	\$4.6 B	4.6
GDP	\$6.3 B	3.7
Output	\$11 B	3.5

Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Table 5: University of Utah Operations and Capital Investment Economic Contribution, FY 2019
(\$ millions)

	Jobs	Earnings	GDP	Output
Campus	45,600	\$2,424	\$3,360	\$6,018
Direct	22,500	\$1,443	\$1,443	\$2,595
Indirect and Induced	23,100	\$981	\$1,917	\$3,423
Hospitals and Clinics	23,800	\$1,437	\$1,848	\$3,031
Direct	12,100	\$915	\$915	\$1,341
Indirect and Induced	11,700	\$522	\$933	\$1,690
Components	9,600	\$554	\$727	\$1,258
Direct	4,700	\$327	\$328	\$527
Indirect and Induced	4,900	\$227	\$399	\$731
All University of Utah Total	79,000	\$4,415	\$5,935	\$10,307
Direct	39,300	\$2,685	\$2,686	\$4,463
Indirect and Induced	39,700	\$1,730	\$3,249	\$5,844

Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Table 6: University of Utah Construction Economic Contribution, FY 2019
(\$ millions)

	Jobs	Earnings	GDP	Output
Campus	2,100	\$114	\$182	\$376
Direct	0	\$0	\$0	\$208
Indirect and Induced	2,100	\$114	\$182	\$168
Hospitals and Clinics	1,400	\$75	\$118	\$231
Direct	0	\$0	\$0	\$129
Indirect and Induced	1,400	\$75	\$118	\$102
All University of Utah Total	3,500	\$189	\$300	\$607
Direct	0	\$0	\$0	\$337
Indirect and Induced	3,500	\$189	\$300	\$270

Notes: Construction contribution is a 5-year average; initial construction expenditure is shown as direct output while associated jobs, earnings, and GDP are included as indirect effects.
Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Nonresident Student Spending

The U's commitment to diversity, research, and high-quality education attracts students beyond state lines. This brings new money to Utah as students spend money off campus on things like housing, food from local grocery stores and restaurants, transportation, and entertainment and recreation at local venues. Just under 20% of the U's 2019 student population, 6,400 students are classified as nonresident students. Each nonresident student spent an estimated average of \$10,650 off campus in Utah; this estimate excludes spending for tuition, on-campus housing, and other on-campus expenditures like food and books because it is accounted for in the U's operations. After offsetting total off-campus spending with wages earned in state, the estimated net off-campus expenditure of nonresident students was \$56.6 million in 2019. The total economic contribution associated with these expenditures, as shown in Table 7, was 600 jobs, \$22 million in earnings, \$46 million in GDP, and \$79 million in output.

Visitor Spending

In addition to operations and capital expenditures, construction activity, and the spending of nonresident students, the spending of out-of-state visitors to the U is also a significant driver of economic contribution and impact. The University of Utah attracts visitors outside of students and staff for a variety of reasons. These visitors support the local economy by spending money on lodging, food, and other recreational activities.

One reason out-of-state visitors come to the U is for campus tours. Based on data from the Office of Admissions, more than 3,500 students attended a campus tour in 2019. Most of these students (about 68%) come from out-of-state. These students also generally attend with guests, bringing additional out-of-state funds to the region.

Athletic events also draw out-of-state visitors to the U. For example, as a rule of thumb provided by University of Utah Athletics, visiting football teams generally spend \$80,000-\$100,000 in Utah for a single football game. Given the four out-of-state teams that played against the U in 2019, this likely resulted in \$320,000-\$400,000 added to the Utah economy. This estimate is conservative as it does not include spending by out-of-state fans and is only from the visiting football team. The University of Utah has several other NCAA sports drawing team visits and attending guests including baseball, basketball, cross country, golf, gymnastics, lacrosse, skiing, soccer, softball, swimming and diving, tennis, track and field, and volleyball.

There are myriad other reasons for visitors to come to the U, including conference and camp attendees, visitors to students and patients, and visitors to university affiliated centers such as Red Butte Garden or Pioneer Memorial Theater.

Table 7: University of Utah Nonresident Student Spending Economic Contribution, FY 2019

(\$ millions)

	Jobs	Earnings	GDP	Output
Nonresident Student Total	600	\$22	\$46	\$79
Direct	0	\$0	\$0	\$57
Indirect and Induced	600	\$22	\$46	\$22

Note: Initial net nonresident student spending is shown as direct output while associated jobs, earnings, and GDP are included as indirect effects.

Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Table 8: University of Utah Full Economic Contribution, FY 2019

(\$ millions)

	Jobs	Earnings	GDP	Output
Campus Operations	45,600	\$2,424	\$3,360	\$6,018
Direct	22,500	\$1,443	\$1,443	\$2,595
Indirect and Induced	23,100	\$981	\$1,917	\$3,423
Hospitals and Clinics Operations	23,800	\$1,437	\$1,848	\$3,031
Direct	12,100	\$915	\$915	\$1,341
Indirect and Induced	11,700	\$522	\$933	\$1,690
Components Operations	9,600	\$554	\$727	\$1,258
Direct	4,700	\$327	\$328	\$527
Indirect and Induced	4,900	\$227	\$399	\$731
Construction	3,500	\$189	\$300	\$607
Direct	0	\$0	\$0	\$337
Indirect and Induced	3,500	\$189	\$300	\$270
Nonresident Students	600	\$22	\$46	\$79
Direct	0	\$0	\$0	\$57
Indirect and Induced	600	\$22	\$46	\$22
University of Utah Total	83,100	\$4,626	\$6,281	\$10,993
Direct	39,300	\$2,685	\$2,686	\$4,857
Indirect and Induced	43,800	\$1,941	\$3,595	\$6,136

Note: Construction contribution is a 5-year average.

Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Because the economic contribution and impact estimates in this report do not include the effects of visitor spending on account of lack of data, they are likely conservative.

Summary of Economic Contributions

Table 8 details the U's total economic contribution. Accounting for operations and capital expenditures, construction activity, and nonresident student spending, the U's footprint on the Utah economy, i.e. economic contribution, is substantial:

- 83,100 jobs, 4.2% of all Utah jobs
- \$4.6 billion in earnings, 4.6% of all Utah earnings
- \$6.3 billion in GDP, 3.7% of all Utah GDP
- \$11.0 billion in output, 3.5% of all Utah output

Summary Societal Analysis

Utah derives significant societal benefits from the University of Utah that extend beyond quantifiable economic contributions. While these intangible contributions can be difficult to quantify, they are important to describe, even in summary form, because they comprise an important component of the U's mission and contribution to the state of Utah.

The authors examined five categories of societal impact:

- Workforce quality and development (including the health and training of the workforce)
- Research and commercialization
- Diversity
- Community support and services
- Quality of life

Workforce Quality and Development

Economies grow when a lower value input is transformed into a higher value output. This occurs through what economists refer to as factor accumulation (which includes capital and labor, or factors of production) and productivity (which measures the rate at which an economy transforms inputs into outputs). Factor accumulation and productivity are referred to as the "proximate causes of growth."⁹ Figure 7 provides a summary of this theoretical construct.

Table 9: Individual and Societal Benefits of Receiving a College Education

Individual Benefits	Societal Benefits
Increased Earnings	Decreased Crime
Increased Chance of Climbing SES ladder	Increased Volunteering
Healthier Lifestyle	Increased Voter Participation
More likely to receive employer-provided health insurance	Increased Tax Contributions
Lower Smoking Rates	Lower Unemployment Rate
More exercise	Reduced Reliance on Public Assistance
Children more likely to have education activities at home	Reduced Healthcare Costs
	Decrease Poverty Rate

Source: Ma, et al, 2016

Within this theoretical construct, labor, also called human capital, plays a vital role as one of the factors of production. The amount of labor in the Utah economy is determined by population growth. The quality of labor in the Utah economy is determined by education and health. Utah's economic output will be higher when the state's labor force is better educated and healthier. Well-educated people create value in the economy and healthy people have the ability to work harder and longer, and think more clearly.

The U contributes to workforce quality and development by training the workforce (including the health workforce) and helping to keep Utah workers healthy.

The training mission of the U contributes to the quality of labor in the Utah economy. Utah's economic output will be higher when the state's labor force is better educated. The U trains a significant portion of Utah's labor force by offering 100 undergraduate and more than 90 graduate level fields of study. In 2019 the U conferred 8,268 degrees, more than any other public college or university in the state, including two-thirds of Utah physicians.

Table 9 summarizes the positive impacts associated with receiving a college education. In addition to the benefits listed, students are taught and prepared to enter a variety of professions. Beyond the transmission of knowledge, university edu-

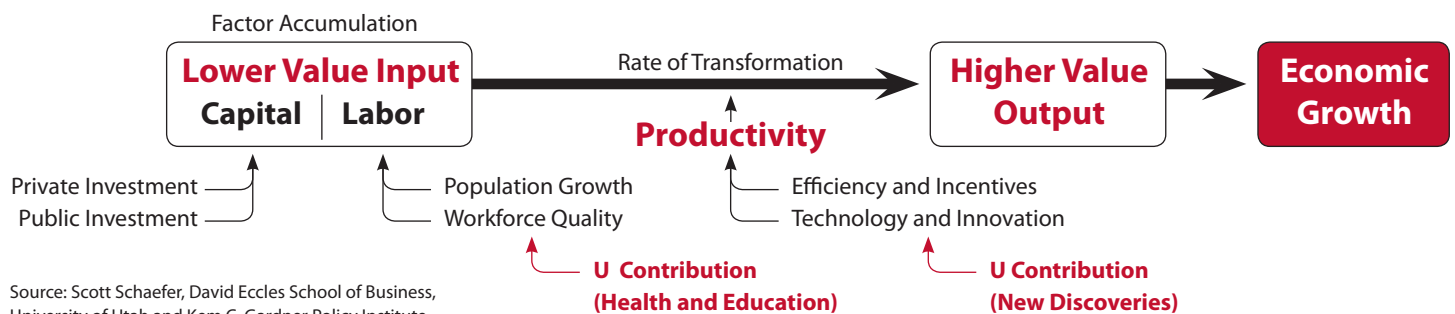
Table 10: Median Income by Educational Attainment for Utah Residents, 2017

Educational Attainment	Median Income	Margin of Error
Less than high school graduate	\$24,925	+/- \$623
High School Graduate (or equivalent)	\$30,916	+/- \$260
Some College or Associate's Degree	\$34,043	+/- \$505
Bachelor's Degree	\$47,035	+/- \$522
Graduate or Professional Degree	\$68,331	+/- \$1,318

Source: U.S. Census Bureau 2013-2017 American Community Survey 5-year estimates in 2017 adjusted dollars.

Figure 7: Theoretical Construct for Economic Growth

What makes an economy grow?



Source: Scott Schaefer, David Eccles School of Business, University of Utah and Kem C. Gardner Policy Institute

Table 11: Health Indicators for Utah and the U.S.

	Utah	U.S.	Year	Notes
Breast Cancer Death Rate	20.2	19.9	2017	Age-adjusted death rate per 100,000 women
All Cancer Death Rate	120.8	152.5	2017	Age-adjusted death rate per 100,000 population
Diabetes	8.2	10.4	2017-2018	Age-adjusted percentage of adults with diabetes
Obesity	28.4	31.1	2018	Age-adjusted percentage of adults with obesity (defined as a body mass index (BMI) of 30 or more)
Opioid abuse	15.5	14.9	2017	Age-adjusted death rate per 100,000 population
Life expectancy (males)	78.0	76.1	2017	Age in years
Life expectancy (females)	81.8	81.1	2017	Age in years
Health insurance costs*	\$4,594	\$5,431	2018	Average Employee Premium Contribution for Family Coverage, by State
Asthma	9.3	9.3	2018	Age-adjusted percentage of adults with asthma
Coronary Heart Disease Death Rate	66.8	92.9	2017	Age-adjusted death rate per 100,000 population
Depression	22.5	19.3	2017	Age-adjusted percentage of adults with depression
Poor Mental Health	18.2	18.8	2018	Age-adjusted percentage of adults with poor mental health (seven or more days of poor mental health in past 30 days)
Smoking	9.2	16.1	2018	Age-adjusted percentage of adults that smoke

Source: Utah Department of Health. (Unless noted otherwise)

* Source: Medical Expenditure Panel Survey–Insurance Component (MEPS–IC), 2018.

cation can fundamentally change student’s ways of thinking. The contribution associated with lives changed can add to the contribution discussed in dollars.

One of the most cited benefits for college attendees is increased wages. Numerous studies have shown that those with exposure to a college education have higher average salaries. This includes both college graduates and those who have attended some college. Table 10 shows median income by educational attainment for Utah residents.

Utah’s population is also healthier than the U.S. average. Utah has a lower cancer death rate, a lower diabetes rate, lower rate of coronary heart disease deaths, lower level of obesity, and a longer life expectancy (for both males and females). The U.S. Employee health insurance costs for family coverage are also lower in Utah than the U.S. average. While the U, through U of U Health, is not exclusively responsible for these outcomes, the services provided by U of U Health certainly help. Table 11 provides the data and sources for these indicators, as well as a few indicators where Utah performs worse than the U.S.

Research and Commercialization

The U includes the rare combination of a research university and an academic medical center. This collaboration improves research, education, community partnerships, and knowledge transfer. The Milken Institute ranked the University of Utah as #1 in the U.S. for Best Universities for technology transfer. Recognized as a Top-Tier 1 research university, the U conducts high-quality and impactful research activities. This is evidenced

by the \$547 million in research funding in 2019, the most the U has ever seen in a single year, up more than \$30 million from the previous year. Approximately 64% of research funding comes from federal sources bringing new money to the state. More than 4,200 U employees are funded through research projects.¹⁰ Table 12 shows the breakdown of federal research funding received by the U.

Additionally, the U offers more than 963,000 square feet of research space. The U’s excellence in research can also be seen through the researchers it produces. This includes:

- 16 Guggenheim Foundation Fellows
- 14 National Academy of Arts & Sciences Members
- 13 National Academy of Science Members
- 8 Howard Hughes Medical Institute Fellows
- 4 National Academy of Medicine Members
- 4 National Academy of Engineering Members
- 4 National Endowment of Humanities Fellowship Awardees
- 1 Nobel Prize Winner

With all this research comes the opportunity to create inventions and release them to the market, positively impacting many lives. The Center for Technology & Venture Commercialization (TVC) leads this mission and provides students and employees with the support they need for invention management including patents and licensing, startup formation, equity management, and early-stage funding. TVC transforms great ideas into applications that will improve quality of life for residents of the state of Utah and beyond. In 2019, TVC reported 218 invention disclosures, 404 inventors, five new start-up companies, 54 new issued U.S. patents, and 63 new license agreements.¹¹

Table 12: Federal Research Funding received by the U, FY 2019
(\$ millions)

Federal Agency	Amount
National Institute of Health	\$209
National Science Foundation	\$39
U.S. Department of Defense	\$32
U.S. Department of Energy	\$28
Other DHHS	\$17
Other Federal Agencies	\$17
U.S. Department of Federal Affairs	\$14
Total	\$356

Source: University of Utah Office of the Vice President for Research

Table 13: Racial/Ethnic Breakdown of University of Utah Students, Fall 2018

Race/ethnicity	% of Student Population
American Indian or Alaskan Native	0.4%
Asian	6.2%
Black or African American	1.5%
Hispanic/Latino	13.3%
Native Hawaiian or other Pacific Islander	0.5%
White	70.0%
Two or more races	5.9%
Race/ethnicity unknown	2.3%

Note: Students who are in the United States on a visa or other temporary basis (accounting for about 4.5% of all students) are excluded from this analysis.

Source: IPEDS Fall 2018

While these numbers help portray the breadth of impact, several examples drive home the depth of impact:

- **Tetraplegia sports equipment**—Jeff Rosenbluth, Medical Director of the Spinal Cord Injury Acute Rehabilitation program at the University of Utah Health Sciences Center, created sports equipment for people with tetraplegia that provides them full control.
- **Nanotechnology that helps with crops**—Warren and Clark Bell and their Aqua-Yield colleagues teamed up with the University of Utah’s Nano Institute, to create nanotechnology to grow healthier, more productive crops using less fertilizer, herbicides, and pesticides.
- **Text-based crisis app**—Barry Rose, UNI Crisis Services Manager, collaborated with the Utah Attorney General, the Utah Legislature, and the University Information Technology Center to create a text-based crisis app for Utah youth. Most of Utah’s public schools have enrolled in SafeUT, the program has an average of 600 distinct tips and more than 1200 text-based chats each month.

Not only do these inventions stimulate the local economy, they directly impact the lives of those they directly serve. In addition to the TVC, students have access to the Lassonde Entrepreneur Institute. This institute is nationally ranked and has a mission to give students transformative experiences through entrepreneurship.

Diversity

One of the U’s seven stated values is diversity. Diverse students, faculty, and research teams result in stronger education. The U focuses on celebrating the diversity of people by being inclusive in all respects. The U is committed to both attracting and retaining students, faculty, and staff from diverse backgrounds and maintaining a culture of inclusion. This commitment to diversity is shown in a myriad of ways, one of which is the many campus resources devoted to diverse populations. These resources include:

- Office for Equity and Diversity
- Center for Ethnic Student Affairs
- Women’s Resource Center
- LGBT Resource Center
- American Indian Resource Center
- Staff Diversity
- Office of Equal Opportunity and Affirmative Action
- Diversity and Careers

In addition, the U offers academic programs through the school for Cultural and Social Transformation including Disability Studies, Ethnic Studies, and Gender Studies. The U also welcomes a diverse student population. Approximately 81% of students attending the University of Utah are in-state residents, leaving about 19% of the student population coming from out-of-state. The student population in 2019 was 47% female, 53% male.¹² A racial/ethnic breakdown is provided in table 13.

Table 14: University of Utah Bennion Center Volunteering, 2019

Program Name	# of Participants	# of Hours
Alternative Breaks	229	15,572
Bennion Center Scholars	55	7,797
Communications/Marketing	17	216
Community Engaged Learning	3,905	78,100
Community Engaged Learning Abroad	83	2,490
Development, Advisory Board & Committees	83	1,328
Fellowships, Scholarships & Awards	31	733
First-Year Service Corps	35	542
Issue Education	337	531
Office Support Volunteers & Administration	107	2,265
Project Youth	225	2,398
Saturday Service Projects	1,390	4,186
Service Corner	732	2,691
Service House	12	2,284
Student Board	7	260
Student-Directed Programs	1,095	33,068
Utah Reads	81	16,357
Total	8,424	170,818

Source: University of Utah Bennion Center

Community Support and Services

The U takes its role as the University for Utah seriously. What that means, in part, is that the university works to provide access to a college degree at the state’s flagship institution and to lift all members of our community through service and reciprocal partnerships. This occurs through numerous entities and programs at the U, including the Bennion Center; University Neighborhood Partners, which partners with Salt Lake City’s underserved neighborhoods; the First Ascent Scholars Program that helps students from challenging personal and socioeconomic backgrounds come to and succeed at the U; and the newly launched For Utah Scholarship, which provides a funded, four-year education for eligible students. The U also provides health care for the underserved and charitable care for Utahns in need.

Bennion Center

The Bennion Center at the University of Utah has a mission to “inspire and mobilize people to strengthen communities through learning, scholarship, and advocacy.”¹³ This results in numerous service projects and programs that benefit students, university employees, and the community at large. In 2019,

the center had 8,424 participants who volunteered a total of 170,818 hours. Table 14 details various programs supported by the Bennion Center with a breakdown of the number of participants and the number of hours volunteered. In 2018, the Bennion Center celebrated 30 years since its creation. Since it began, the Bennion Center has had 174,298 participants volunteering 3,742,5400 hours.

University Neighborhood Partners

Through University Neighborhood Partners, the U builds engaged partnerships with Salt Lake City’s underserved neighborhoods. Over the past decade, University Neighborhood Partners and its supporters have done incredible work to give more students access to the U—raising more than \$330,000 and awarding 122 scholarships. Many of the students who have received this financial support will be future leaders in their communities and serve as models of how a college education makes a lifetime difference.

First Ascent Scholars Program

The First Ascent Scholars program, offered through the David Eccles School of Business, helps students from challenging personal and socioeconomic backgrounds succeed in college. These students have the talent, drive and creativity to succeed, but may not have access, support and a network to guide them. The program, created and sustained by generous donors, provides financial support for four years as well as mentoring, academic support, and international and domestic travel opportunities. Since its start in 2015, 56 students have come to the U as First Ascent Scholars; this fall, the U will welcome 14 students—its largest cohort.

For Utah Scholarship

The For Utah Scholarship, launched in November 2019, provides a fully funded path to a degree at the state’s flagship research university for eligible Utah students. It combines federal, state and university funds to cover tuition and fees for academically qualified, Pell Grant-eligible first-time freshmen who are Utah residents. No loans are part of this program. Students who are eligible will be able to attend the U with no tuition or fees. The program is the first of its kind in the state. The Utah Promise Scholarship, offered through the Utah System of Higher Education, and Pell Grant funding will be used to cover the first two years of attendance at the U. The For Utah Scholarship and Pell Grant money will be applied to tuition and fees during the final two years of enrollment at the U.

The U identified 964 first-time freshmen admitted for 2020-21 who were eligible for the program. More than half have accepted the scholarship so far.

Health Care for the Underserved

U of U Health's South Main Clinic provides primary care services, including comprehensive obstetric, pediatric, family medicine, and dental care for underserved populations. Through a collaboration between multi-disciplinary care teams, and partners in government, non-profit, and community organizations, care is provided for more than 5,000 patients annually, speaking more than 30 languages.

In addition, in 2019 the School of Dentistry opened a dental clinic at a local community learning center. This clinic serves adults and students from four nearby elementary schools. These types of efforts increase the accessibility of health care and improve the health of Utah communities.

Charitable Health Care

U of U Health offers financial assistance for those who are unable to cover the full cost of their care. As a result of these programs, U of U Health offers a significant amount of charitable care. In 2019, U of U Health contributed \$190.6 million in uncompensated care.¹⁴

In addition to uncompensated care, U of U Health provides additional services to the community. In 2019, these services included the delivery of 426,987 meals to the Utah Food Bank and 24,386 patient visits to incarcerated youth.^{15,16} One hundred

and twenty-three people received Global Health experience in 115 countries. There are 81 active projects in 42 countries, representing 54 specialties.¹⁷ In 2019, College of Health faculty and students made 44,788 community contacts through a variety of community engagement programs including but not limited to, University of Utah Center for Community and Nutrition, Speech-Language-Hearing Clinic, and the Life Skills Clinic.¹⁸

Quality of Life

The U's societal impacts have far-reaching effects for the students, staff, and community in which it resides. Life outcomes for those with some college or college degrees improve greatly, and society enjoys numerous benefits. Research and commercialization bring new and innovative inventions to the market, positively impacting the lives of those that use them. The focus on diversity leads to valuing new and different perspectives and increases empathy and open-mindedness. The community engagement and service provided by university students and staff impacts large numbers of people from school children to local businesses. All of this leads to improved quality of life for university students, university staff, local communities, and Utah residents.

Appendix A: Impact Analysis

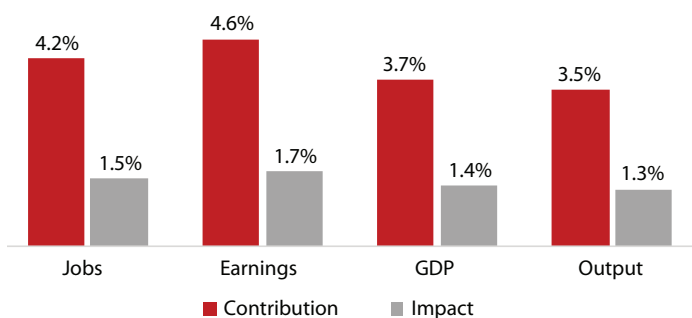
Economic Impact

Many university “economic impact studies” capture activity beyond a true economic impact; that is, these studies often call economic contributions impacts.¹⁹ Because of this, the results of the economic contribution analysis presented in this report will often be best suited for comparison with other studies. The authors recommend using the economic impact analysis results given here to understand the actual net-new economic activity credited to the U.

The economic impact of some firm, industry, event, or policy is the portion of its economic contribution that is financed with out-of-region revenue. Put another way, economic impacts occur when “new money” from outside of the regional economy is spent within the regional economy. Therefore, the U’s economic impact represents the piece of the Utah economy that would not exist if the U did not exist; absent the operation of the U, the revenue it currently brings in from outside of Utah’s borders would not be a part of the Utah economy.

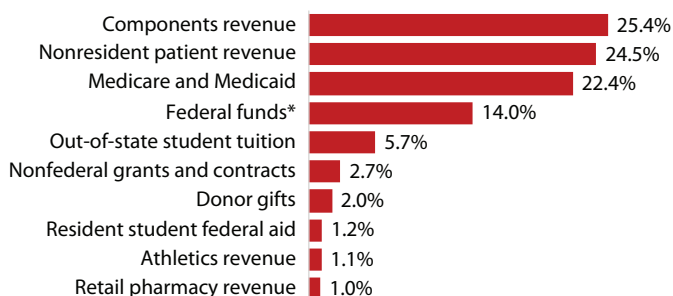
Approximately a third of the U’s revenue represents new money in Utah’s economy. Figure 9 details the sources of this revenue. Nonresident patient service payments make up the enterprise’s largest single source of out-of-state revenue. Between Medicaid and Medicare payments, federal funds for research and other activities, and student federal aid, approximately half of the U’s new revenue is from Washington, DC (this analysis assumes that other universities and hospitals in the state would not supplant the level of University of Utah activity that is financed with federal funds). Out-of-state student tuition is another relatively large source, accounting for just under 8% of out-of-state revenue. (Out-of-state tuition totaled \$136 million in FY 2019, which includes about \$13 million in medical, dental, and pharmacy school tuition; this analysis assumes that if the U did not exist, all students currently pursuing these health doctoral degrees would take their tuition dollars to schools outside of Utah.) Royalties collected by the University of Utah’s Research Foundation and ARUP’s out-of-state revenue are the sources of components’ revenue from outside of Utah.

Figure 8: University of Utah Economic Contribution and Impact, FY 2019



Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

Figure 9: University of Utah Out-of-State Revenue by Source, FY 2019



*Including grants and contracts

Source: Kem C. Gardner Policy Institute analysis of University of Utah data

Table 15: University of Utah Economic Impact, 2019

(\$ millions)

	Jobs	Earnings	GDP	Output
Campus Operations	15,100	\$818	\$1,120	\$1,964
Direct	7,600	\$500	\$500	\$856
Indirect and Induced	7,500	\$318	\$620	\$1,108
Hospitals and Clinics Operations	10,800	\$650	\$836	\$1,372
Direct	5,500	\$414	\$414	\$607
Indirect and Induced	5,300	\$236	\$422	\$765
Components Operations	5,100	\$301	\$393	\$678
Direct	2,500	\$179	\$179	\$286
Indirect and Induced	2,600	\$122	\$214	\$392
Construction	3,500	\$189	\$300	\$607
Direct	-	\$0	\$0	\$337
Indirect and Induced	3,500	\$189	\$300	\$270
Nonresident Students	600	\$22	\$46	\$79
Direct	-	\$0	\$0	\$0
Indirect and Induced	600	\$22	\$46	\$79
University of Utah Total	35,100	\$1,980	\$2,695	\$4,700
Direct	15,600	\$1,093	\$1,093	\$2,086
Indirect and Induced	19,500	\$887	\$1,602	\$2,614

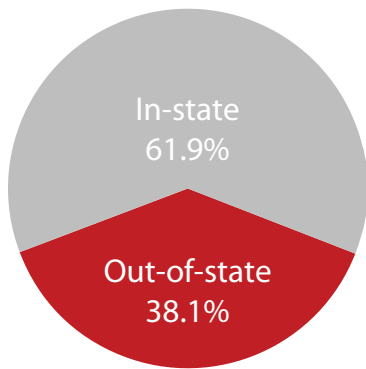
Note: Construction impact is a 5-year average.

Source: Kem C. Gardner Policy Institute analysis of University of Utah data using IMPLAN 2017

The U's total economic impact is comprised of its out-of-region-financed operations and non-construction capital expenditures, spending of nonresident students, and construction activity. Figure 8 and Table 15 summarize this economic impact, which, by definition, is a portion of the U's economic contribution. Still, the impact results illustrate that the U is a significant generator of economic activity in the state, accounting for:

- 35,100 jobs, 1.5% of all Utah jobs
- \$2.0 billion in earnings, 1.7% of all Utah earnings
- \$2.7 billion in GDP, 1.4% of all Utah GDP
- \$4.7 billion in output, 1.3% of all Utah output

Figure 10: University of Utah Revenue by Origin, FY 2019



Source: Kem C. Gardner Policy Institute analysis of University of Utah data

Table 16: University of Utah State Fiscal Impact, FY 2019
(\$ thousands)

Impact	Amount
Total state revenue	\$133,829
Personal income tax	\$70,093
Corporate income taxes	\$57,770
Sales tax and other General Fund	\$5,966
Total state expenditures	(\$66,546)
Public education	(\$32,568)
High education	(\$10,655)
All other	(\$23,323)
NET FISCAL IMPACT	\$67,283

Source: Kem C. Gardner Policy Institute

Fiscal Impact

Fiscal impact estimates are based on economic impacts and thus represent net new revenue, associated with \$2.7 billion in net new GDP.

The combined direct, indirect, and induced impacts of the U produced about \$67 million in net revenue for the state General Fund and Education Fund coffers in 2019. This estimate was derived using the Gardner Institute State Fiscal Impact Model, which makes use of effective tax rates and collections and per capita government spending to estimate net fiscal impacts.

The net new economic activity of the U in 2019 generated Education Fund revenue through income tax and corporate income tax collections and General Fund revenue through sources including sales taxes, liquor profits, insurance premium taxes, and beer, cigarette, and tobacco taxes.

The economic activity also increases demand for government services funded by the Education and General Funds. An estimated 35,000 jobs would not exist if the U did not exist. These jobs are filled by otherwise unemployed Utahns and migrants from other states. All else equal, Utah's population includes an estimated 30,800 more people than it would if the U did not exist, and therefore the state spent an additional estimated \$66.5 million on public education, higher education, and other government services in 2019.

Table 16 details the net fiscal impacts generated by the U enterprise in 2019. Net new revenue of \$67.3 million represents a small portion of the U's benefit to the Utah budget. The U both generates revenue and reduces demand for government services through its support of workforce health and productivity, innovation, technology commercialization, and public service; these effects are beyond the scope of this analysis.

Appendix B: Research Methods

Key Concepts

Economic Contribution and Impact

Regional economic studies make a distinction between economic contribution and economic impact. Economic contribution studies assess the economic multiplier effects associated with the current or predicted level of spending of some industry, event, or policy. According to Watson et al., “an economic contribution is defined as the gross changes in a region’s existing economy that can be attributed to a given industry, event, or policy.”²⁰ Economic contribution captures the economic expanse of all university spending and shows the relative reach and magnitude of the operation in the Utah economy. Economic impact studies measure the changes in the size and structure of a region’s economy that occur when goods and services are purchased from vendors within the region with money generated outside the region.

Direct, Indirect, and Induced Effects

The U generates economic effects (contributions and impacts) through its spending on wages and purchases from Utah-based vendors (direct effects) and the rippling effect of this spending through the economy (indirect and induced effects). The U’s spending produces indirect effects when its local suppliers hire employees and make purchases from other local vendors. Finally, induced effects occur when the employees of the U and its suppliers spend their wages in the Utah economy.

Modeling Economic Contributions

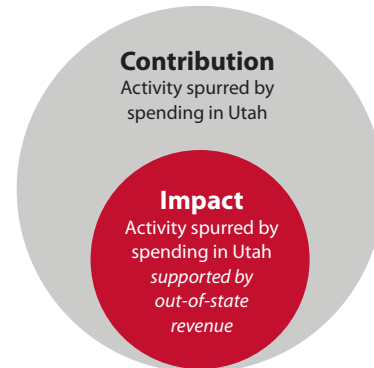
Model Construction

The analysis uses a custom, single-region 536-sector economic model for the state of Utah that the authors constructed using the IMPLAN system and its 2017 database. The model uses input-output (I-O) and social account matrix (SAM) frameworks to estimate how activity in one industry affects the entire economy.

IMPLAN, REMI PI+, and RIMS II are all widely used for economic impact and contribution analysis and, dependent on calibration, produce similar results. The authors chose to use IMPLAN because it is most commonly used to estimate university contributions and impacts. Other benefits of using IMPLAN include timely underlying data, the ability to isolate the value of retail and wholesale purchases that is created in the region of analysis, and—with 536 sectors—a lower probability of aggregation bias.

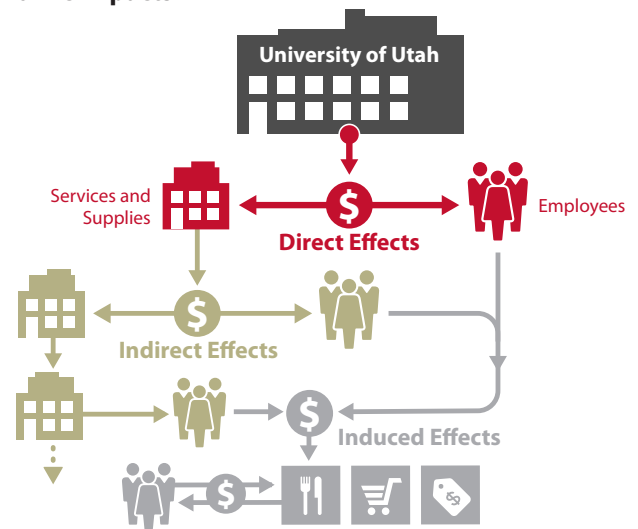
Like any economic model, IMPLAN-derived results are dependent on the fidelity of model assumptions and the quality of input data.

Figure 11: Visual Representation of Economic Contribution and Impact



Source: Kem C. Gardner Policy Institute

Figure 12: Economic Flow of Direct, Indirect, and Induced Economic Impacts



Source: Kem C. Gardner Policy Institute

The IMPLAN model is underpinned by traditional I-O model assumptions, which the authors believe are reasonable for this analysis:²¹

1. Constant returns to scale – the amount of inputs per unit of output does not vary
2. Zero supply constraints – access to in-region and out-of-region raw materials and labor is unlimited
3. Fixed input demand mix and technology – the mix of inputs and technology necessary to produce a unit of output does not vary
4. Fixed output mix – an industry will produce the same mix of outputs at any level of production
5. Static model – prices and industry relationships do not change

Input Data and Geographic Scope

The economic contribution and impact analyses in this report use FY 2019 revenue and expenditure data from the U's Office of Budget and Institutional Analysis, the University of Utah Hospitals and Clinics Controller's Office, and the 2019 Annual Financial Report of the University of Utah. The authors adjusted revenues and expenditures to eliminate double counting. For example, insurance reimbursements from Health Insurance Integrated Units are a source of revenue for and support additional expenditures of the hospital; the authors eliminated this activity from the Health Insurance Integrated Units' budgets.

In order to capture the full significance of the U, this study's reference region is the state of Utah.

Identifying First-Round Expenditures and Direct Contributions

The analysis employs an analysis-by-parts (ABP) technique, also known as a bill-of-goods approach. In ABP, analysts isolate and model the economic ripple effects of the subject's purchases of goods and services (intermediate demand) and labor, that is, its first-round expenditures. The alternative to ABP is to model the ripple effects based on final demand (sales) for the subject's output. When detailed expenditure data are available, the ABP approach can allow for better model customization, and therefore more reliable results.²²

The subject's direct contributions are the jobs, earnings, GDP, and output associated with its in-region, first-round expenditures. Direct jobs are the subject's average annual jobs; direct earnings are the subject's total payroll expenditures—wages and salary disbursements and employer-paid benefits and payroll taxes. Direct GDP, or value-added, is the sum of the subject's payroll, profit, other property income, and taxes on production. Direct output is the sum of the subject's GDP and in-region intermediate demand.

Based on conversations with university finance staff, the authors assume all payroll is paid in Utah; direct contributions may be overstated if a significant portion of payroll goes out-of-state. Because the University of Utah is a component unit of the State of Utah, the authors exclude profit, property, income, and taxes from direct GDP and output. Assessing the profit, property income, and business taxes of component units is outside the scope of this analysis and therefore, direct economic contribution estimates may be conservative.

In addition to the direct contributions associated with the U's operating budget, the authors count a five-year average of construction expenditures and in-state capital expenditures as direct contributions. Because of this, payments for debt are excluded from the analysis.

Estimating Indirect and Induced Contributions

In ABP, the subject's direct payroll is used to model a change in labor income that results in induced effects and the subject's direct non-labor expenses are used to model intermediate demand changes that spur additional induced and indirect effects.

The authors used the payroll figures provided by the U for this step; because the authors did not have full payroll data for component units, the authors used the IMPLAN model's earnings-to-output ratios to derive payroll inputs for this portion of the enterprise.

After examining the U's individual transaction data, the authors determined that it was appropriate to use the IMPLAN model's industry spending patterns to categorize operational expenditures into intermediate demand for 536 sectors. The authors modeled a total of seven industry spending patterns to estimate indirect and induced contributions associated with university operations:

1. Insurance Carriers, IMPLAN 437
2. Lessors of Real Estate, IMPLAN 440
3. Colleges, Universities, and Professional Schools, IMPLAN 473
4. Scientific Research and Development Services, IMPLAN 456
5. Medical and Diagnostic Laboratories, IMPLAN 479
6. Medical and Surgical Hospitals, IMPLAN 482
7. Spectator Sports, IMPLAN 489

A benefit of using industry spending patterns is that they more comprehensively capture the activity associated with retail and wholesale purchases. If the authors were to just model the value of these purchases, the authors only capture the margins—the difference between price and cost of goods sold; with the spending pattern approach, the authors also capture activity associated with in-state production of these goods. For example, in addition to capturing the retail margin of the subject's retail gasoline purchases, the authors also capture the value of in-region crude oil production and refining.

The authors used the IMPLAN model's capital investment spending pattern, adjusted to reflect actual expenditures on buildings, land, and equipment, to assess the indirect and induced contributions supported by the U's capital purchases. Using the default spending pattern without adjustments could overstate results as universities and hospitals often have a greater concentration of spending on specialized equipment, which is often imported from outside of the region.

Finally, the authors modeled the indirect and induced contributions of construction expenditures as changes to final demand in IMPLAN's construction sectors for new health care buildings (IMPLAN 52) and new education buildings (IMPLAN 55).

Estimating Nonresident Student Contributions

In order to estimate the economic contribution supported by nonresident students, the authors first had to identify their total in-state expenditures, excluding tuition. The authors reduced these expenditures by nonresident students' earnings in Utah to be consistent with the exclusion of off-campus spending of resident students from the analysis; therefore, the economic contribution of nonresident students is equivalent to their economic impact. The authors further reduced this net-new expenditure total by nonresidents' on-campus housing, food, and supply purchases (which are already accounted for in the operations contribution analysis) to derive direct contribution. Finally, the authors used IMPLAN to model indirect and induced contributions.

The authors estimated initial in-state nonresident student expenditures by multiplying the Fall 2018 nonresident student headcount by the Office of Financial Aid's nonresident cost of attendance estimate. The authors use the headcount because the authors assume that living expenses do not scale with course load; for example, the food expenses for a full-time student are the same as those for a part-time student. Out-of-state students are classified as residents for tuition purposes after they have lived in Utah for 12 continuous months. The estimate of initial nonresident spending, and therefore total economic contribution, is likely understated because the authors can only identify nonresident students based on current tuition residency status.

After identifying initial expenditures, the authors subtracted estimated Utah wages of nonresident students. The estimate of total wages was derived using data provided by the Utah Data Research Center, which links higher education student data with the Department of Workforce Service's wage data. Before subtracting wages from initial expenditures, the authors eliminated estimates of federal and state income taxes to approximate actual disposable income.

To identify the portion of net-new nonresident student spending that happened off-campus, the authors worked with the Office of Student Housing to estimate the portion of nonresident students living off-campus and scale expenditures accordingly. Using total cost of attendance data, the authors allocated expenditures to several categories: off-campus housing, on-campus room and board, books and supplies, and miscellaneous. To simplify the analysis, the authors assume that all book and supply purchases happen on campus, and identify off-campus housing and miscellaneous expenditures as direct contributions.

Finally, the authors modeled nonresidents' net-new, off-campus spending as changes to final demand to estimate indirect and induced contributions. The authors modeled off-campus housing expenditures as a change in final demand in IMPLAN's Real Estate Sector 440 and used IMPLAN's \$15,000-\$30,000 Household Spending Pattern, adjusted for housing and tax payments, to model miscellaneous expenditures as a multi-sector change in final demand.

Modeling Economic Impacts

Identifying Counterfactual

When the authors model economic impacts, the authors are essentially estimating the economic activity that would not exist if the subject did not exist. To do this, the authors must establish a counterfactual. The analysis assumes that the portion of economic activity generated by the U supported with revenue coming from outside Utah's borders would not exist if the U did not exist. The authors assume that other universities and hospitals would not supplant this activity. With the exception of the tuition payments of medical, dental, and pharmacy students, the enterprise's in-state revenue would circulate in other places of the economy and therefore the associated activity is not part of the economic impact.

Identifying First Round Expenditures and Direct Impacts

The authors used the same ABP technique used to identify economic contributions to identify economic impacts. The authors estimated direct impacts by scaling the first round of in-state operations and capital expenditures to reflect the portion of university revenues that come from out-of-state. These out-of-state revenue sources are discussed in Appendix A, Impact Analysis, and include:

1. Nonresident patient revenue
2. Medicare and Medicaid payments
3. Federal funds, including grants and contracts
4. Out-of-state student tuition, including all medical, dental, and pharmacy student tuition
5. Nonfederal, out-of-state grants and contracts
6. Out-of-state donor gifts
7. Resident student federal aid
8. Out-of-state athletics revenue
9. Out-of-state patient retail pharmacy revenue
10. Research Foundation royalty revenue
11. ARUP revenue from out-of-state

The authors count all construction expenditures as direct impacts, assuming they are largely financed with donor gifts that could be allocated out-of-state and bond proceeds that accelerate and concentrate spending activity.

Estimating Indirect and Induced Impacts

The authors carried out the ABP analysis for estimating indirect and induced impacts just as the authors did for economic contributions, using the scaled direct spending as inputs to the IMPLAN model.

Estimating Nonresident Student Impacts

As discussed in the description of methods for estimating nonresident student contributions, the economic contributions and impacts associated with the off-campus spending of nonresident students are equivalent.

Modeling Fiscal Impact

The Gardner Institute Fiscal Impact Model uses effective tax rates and per capita government spending to estimate the net state revenue, or fiscal impact, associated with the economic impacts of some firm, industry, event, or policy. The fiscal impact estimates in this report reflect the net-new General Fund and Education Fund revenue attributable to the U in FY 2019. The estimates should be viewed as broad (as opposed to precise) measures; the underlying analysis relies on historical data and assumes a linear relationship between revenue and expenditure and economic activity.

The fiscal impacts in this report represent a small portion of the U's benefit to the Utah budget. The U both generates revenue and reduces demand for public service through its support of workforce health and productivity, innovation, technology commercialization, and public service; these effects are beyond the scope of this analysis.

The fiscal impact analysis encompasses three steps: estimation of gross state revenue, estimation of additional state expenditures, and identification of net revenue impact.

Estimating Gross State Revenue Impact

The authors estimated gross state revenue impacts for income taxes, corporate income taxes, and earnings-driven general fund revenue (all general fund revenue, excluding severance taxes). The authors used the tax collection data from the 2020 Economic Report to the Governor and earnings and GDP data from the Bureau of Economic Analysis to derive historical

relationships. The authors then used these relationships to model income tax impacts as a function of earnings impacts, general fund revenues as a function of earnings impacts, and corporate income tax impacts as a function of GDP impacts.

Estimating State Expenditure Impact

All else equal, Utah's population is larger than it would be if the U did not exist. The jobs impact generated by the U spurs an additional population impact by drawing new workers and their dependents into the state. This additional population increases demand for government services and, therefore, increases state expenditures.

Using population data from the Gardner Institute's Utah Population Committee and jobs data from the Bureau of Economic Analysis, the authors derived a ratio of new population to new jobs. The authors applied this ratio to the U's total jobs impact to estimate the total population impact. The authors then used age distributions from the Utah Population Committee to estimate school-age (5-17) and college-age (18-29) population impacts.

After identifying population impacts, the authors used Utah Population Committee estimates and state appropriations data from the Office of the Legislative Fiscal Analyst to establish real, annual public education expenditures per school-age capita, higher education expenditures per college-age capita, and non-education expenditures per capita. The authors applied these per capita figures to the population impacts to arrive at a total state expenditure input.

Total fiscal impact

The U's total fiscal impact is the net state revenue associated with its total economic impacts—that is, the difference between its gross state revenue and state expenditure impacts.

Endnotes

1. University of Utah Office of the Vice President for Research
2. University of Utah Office of Budget and Institutional Analysis
3. *ibid*
4. University of Utah Health Marketing and Communications
5. For an instructive analysis of the common pitfalls in college and university impact analyses, see Association of Public Land Grant Universities, 2014-2015
6. *ibid*
7. Watson, P., Wilson, J., Thilmany, D., & Winter, S., 2007
8. Siegfried, John J. & Sanderson, Allen R. & McHenry, Peter, 2007
9. Weil, 2016
10. University of Utah Office of the Vice President for Research
11. University of Utah Center for Technology & Venture Commercialization
12. Office of Budget and Institutional Analysis
13. University of Utah Bennion Center Mission Statement, found here: <https://bennioncenter.org/about/index.php>
14. University of Utah Hospitals and Clinics, Finance Department & University Medical Billing
15. University of Utah Hospitals and Clinics Human Resources
16. University of Utah College of Nursing
17. Office of Global Health, University of Utah Health
18. Good Notes: Voices of U of U Health 2019 Year in Review
19. Duy, T.A., 2015
20. Watson, P., Wilson, J., Thilmany, D., & Winter, S., 2007
21. See Key Assumptions of IMPLAN & Input-Output Analysis, <https://implanhelp.zendesk.com/hc/en-us/articles/115009505587-Key-Assumptions-of-IMPLAN-Input-Output-Analysis> for further discussion.
22. See ABP: Introduction to Analysis-by-Parts, <https://implanhelp.zendesk.com/hc/en-us/articles/360013968053-ABP-Introduction-to-Analysis-By-Parts> for further discussion.

References

- Association of Public Land Grant Universities, (2014-2015). Economic Engagement Framework Reports. Retrieved from <https://www.aplu.org/projects-and-initiatives/economic-development-and-community-engagement/economic-engagement-framework/>
- Community Attributes Incorporated, (2015). *Washington State University Economic Reach and Impact*. Retrieved from <https://economicdevelopment.wsu.edu/documents/2015/06/wsu-economic-impact.pdf/>
- Duy, T. (2015). The Economic Impact of the University of Oregon: A Comprehensive Revision. *Department of Economics University of Oregon*. Retrieved from https://pdfs.semanticscholar.org/a92c/887c7a6eb73841abdd6088b1ae66d791fb5.pdf?_ga=2.110891653.1035122594.1581476472-526056439.1581476472.
- Ma, J., Pender, M., & Welch, M. (2016). *Education Pays 2016: The Benefits of Higher Education for Individuals and Society*. College Board. Retrieved from <https://research.collegeboard.org/pdf/education-pays2016-full-report.pdf>.
- Tripp Umbach and University of Washington, (2014). *2014 Economic and Community Impact Report of the University of Washington*. Retrieved from <https://facilities.uw.edu/files/media/14-economic-impact-report.pdf>
- Tripp Umbach, (2014). *Economic and Social Contribution of the University of Arizona*. Retrieved From <http://factbook.arizona.edu/sites/default/files/Final%20UA%20EIR%2006202014%20pdf%20-%20Adobe%20Acrobat%20Pro.pdf>
- University of Arkansas Office of the Vice Chancellor for Economic Development, (2019). *The Economic Impact of the University of Arkansas*. Retrieved from <https://www.uark.edu/about/economic-impact/resources/Economic-Impact-of-University-of-Arkansas.pdf>
- University of California Los Angeles, (2018). *UCLA Economic Impact Report 2018*. Retrieved from <http://www.ucla.edu/economic-impact/>
- University of Colorado Vice President for Budget and Finance and Chief Financial Officer, (2017). *Economic Impact Study: Economic Contribution of the University of Colorado on the State and Counties of Operations*. Retrieved from https://www.colorado.edu/business/sites/default/files/attachedfiles/cu_impact_study_2017.pdf
- University of Utah Bennion Center. (2019). *2018-2019 Annual Report*. Retrieved from https://bennioncenter.org/_resources/documents/annual-reports/annual-report2019-2020.pdf.
- University of Utah Center for Center for Technology & Venture Commercialization. (2019). *TVC Annual Report 2018*. Retrieved from https://d182hggomw8pjd.cloudfront.net/wpcontent/uploads/sites/2/2018/10/26123717/2018_TVC_Annual_Report.pdf.
- University of Utah Health, Marketing and Communications. (2019). *Transforming Health Care Overview and System Summary 2019*. Retrieved from <https://uofuhealth.utah.edu/health-care-transformation/files/value-booklet.pdf>.
- University of Utah Office of the Vice President for Research. (2019). *Research at the U: Fast Facts 2019*. Retrieved from https://research.utah.edu/_documents/Fast-Facts-2019.pdf.
- Utah System of Higher Education. (2019). *2019 Data Book*. Retrieved from <https://ushe.edu/wpcontent/uploads/pdf/databook/2019/DataBook2019.pdf>.
- Watson, P., Wilson, J., Thilmany, D., & Winter, S. (2007). Determining Economic Contributions And Impacts: What is the difference and why do we care? *Regional Analysis & Policy*, 37(2), 140-146. Retrieved from <http://www.jrap-journal.org/pastvolumes/2000/v37/F37-2-6.pdf>
- Weil, D. N. (2016). *Economic Growth* (3rd ed.). New York, NY: Routledge.

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