
# Economic Impacts of Utah Valley University

## Fiscal Year 2010

Prepared by Jack Faucett Associates, Inc.
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# Executive Summary

The purpose of this study is to estimate the economic impacts of Utah Valley University (UVU) on its service region and the State of Utah in the 2009-10 fiscal year. UVU's service region is defined as Utah, Wasatch, and Summit Counties.

UVU is now the largest institution in the Utah System of Higher Education. During the 2009-10 school year, almost 30,000 students attended the University. UVU offers master, bachelor, and associate degrees, as well as certificates and diplomas. The economic impacts that were measured include:

- UVU operating and capital expenditures
- UVU employee compensation and spending
- Spending by UVU students
- Increased earning potential of UVU students

**2009-10 Impact of UVU**

- Over the 2009-10 Fiscal Year, the University and its students spent over $400 million in direct expenditures.
- According to IMPLAN estimates, this resulted in an estimated increase in output of $534 million at the State level and $458 million at the service region level.[1]
- Measured in terms of value-added, UVU's total economic impact was $374 million at the state level and $334 million at the service region level.
- UVU directly employs 1,529 full time employees and 2,982 part time employees. The University also indirectly supports an additional 6,399 full time equivalent jobs in the service region.
- UVU has a total tax impact of $72 million on its service region and a total tax impact of $74 million on the State of Utah. These estimates include federal, state, and local taxes.
- UVU provides an approximate increase (above a high school diploma) in lifetime earnings of $155,760 for those who earn a certificate, $325,240 for an associate degree holder, $762,840 for a bachelor degree holder, and $859,360 for a master or professional degree holder.
- The expected aggregate increase (above a high school diploma) in lifetime earnings for UVU's 2009-10 graduated cohort of students is $738 million, of which 85 percent remains in Utah's economy.[2]

[1] Value added is generally considered to be a better measure of wealth created by an activity than output. Output is a measure of the total value of all goods produced. Value added is a subset of output which measure the increase in economic value associated with the parts of the production process that take place within the region of study. This value added is used to pay labor and taxes with hopefully some remainder for profit. The measure of output is also problematic because the output of an industry requires output of other industries so output is double counted.

[2] Over 85% of UVU Alumni stay within the state, as reported on page 5 of the Fall 2009 *UVU at a Glance,* based on Alumni surveys. The report is available at: http://www.uvu.edu/iri/uvglance/at-a-glance-2009-update01apr10-opt2.pdf

**Annual Impacts and Costs of UVU**

This study has identified that UVU's impacts are significantly larger than the direct expenditures of the university. UVU provided $534 million in increased output and $374 million in increased value added to the State in the 2009-10 Fiscal Year. By comparison, the State of Utah provided UVU with about $67 million in funding that year (operating and capital). The ratio of UVU's output to costs is 7.97 to 1, which means that on average every tax dollar spent by the State government on UVU provides $7.97 dollars in additional output to the State. The ratio of UVU's value added to costs is 5.58 to 1, which means that on average every tax dollar spent by the State government on UVU provides $5.58 dollars in additional value-added to the State.

# Chapter 1: Introduction

Utah Valley University (UVU) plays an important economic and social role in the community it serves. Not only does the university provide skilled workers to the local economy, but it is a major employer and purchaser of goods and services from local businesses. This study attempts to identify the socio-economic impacts of UVU from a local perspective through quantitative and qualitative research. This chapter describes the objective of this study and the organization of the report.

**Study Objective**

The purpose of this study is to estimate the economic impacts of Utah Valley University (UVU) on the service region and State of Utah economy during the 2009-10 fiscal year. UVU's service region is Utah, Wasatch, and Summit Counties. About 66 percent of the University's students are from the service region and 88 percent of the students are from Utah.

**Organization of the Report**

The rest of this report is divided into five chapters and two appendices. The paragraphs below provide a brief description of each chapter and the appendix.

Chapter 2 provides general background information about UVU. The chapter includes information about UVU's history, students, faculty and staff, and academic programs.

Chapter 3 describes this study's approach to estimating economic impacts, provides an overview of UVU's budgetary expenditures, and provides an overview of UVU student expenditures. University and student expenditures are two of the primary drivers of economic impacts associated with UVU.

Chapter 4 provides an analysis on the impacts of UVU's budgetary expenditures and its student expenditures. The chapter identifies the economic impacts of these expenditures at the service region and state levels.

Chapter 5 provides a discussion about additional economic impact measures of UVU that are not included in the previous chapters. These impact measures include: increased earning potential for graduates, return of state investments, and the socio-economic value of various types of university related sporting and cultural events.

Chapter 6 provides detailed profiles of UVU operated and affiliated centers. These centers have impacts on the local community through the various programs they host. While it is difficult to quantify the economic value of these centers, the chapter attempts to describe their social value qualitatively.

Appendix 1 provides an estimate of UVU's economic impact using the Ryan New Jersey model used in previous studies of UVU's economic impacts. UVU used this model in its last three

economic impact studies, which were performed in FY2005, FY1999 and FY1996. Using the Ryan New Jersey model again in this report allows for comparisons with the previous studies.

Appendix 2 provides a comparison between the expenditure data used in this study with those published in the annual financial report.

# Chapter 2: Background on UVU

Chapter 2 provides general background information about UVU. The chapter includes information about UVU's history, students, faculty and staff, and academic programs.

## 2.1 Introduction to UVU

UVU is a public, state university; its main campus is located in Orem, Utah. According to the University's mission statement, "*[UVU] is a teaching institution which provides opportunity, promotes student success, and meets regional educational needs. UVU builds on a foundation of substantive scholarly and creative work to foster engaged learning. The university prepares professionally competent people of integrity who, as life-long learners and leaders, serve as stewards of a globally interdependent community."*[3]

The university currently offers 21 certificate/diploma programs, 65 associate degrees, 64 bachelor degrees, and master degrees in education, business, and nursing. In the 2010 Fall semester the school had an enrollment of 32,670 students.[4]

UVU began as a vocational school during World War II and, in the seven decades since, has evolved from a technical school to community college to state college and, finally, to comprehensive regional university. UVU is one of Utah's largest institutions of higher learning and offers programs ranging from certificates to master degrees. UVU's key facts are summarized in Table 1.

[3] UVU website, "Mission Statement." http://www.uvu.edu/planning/about/mission.html
[4] UVU website, "Factbook 2010-2011." http://www.uvu.edu/iri/factbooks/factbook1011.pdf

**Table 1 - Key Facts about UVU (Study Year 2009-10)**

| Category | Detail |
|---|---|
| Location (Main Campus) | 800 West University Parkway<br>Orem, Utah |
| President | Dr. Matthew S. Holland |
| Board of Trustees Chair | Steven J. Lund |
| Fall 2009 Student Headcount | 28,765 |
| Fall 2009 Student FTE | 19,670 |
| Fall 2009 Total Employees | 4,664 (1,452 full time, 3,212 part time) |
| Degree Offerings (Fall 2009) | Master - 2<br>Bachelor - 58<br>Associate - 66<br>Certificates and Diplomas - 21 |
| 2009-2010 Graduates | 3,739 |
| Athletics | NCAA Division I, Great West Conference |
| Basic Carnegie Classification | Baccalaureate/Diverse Fields |
| Elective Classification | Community Engagement |
| Accreditation | Northwest Commission on Colleges and Universities |

Source: UVU Factbook, 2009-10 & 2010-2011, http://www.uvu.edu/iri/factbooks/index.html

## 2.2 UVU's History

UVU was established in 1941 as Central Utah Vocational School (CUVS) with the primary function of providing war production training. CUVS was part of the Provo School District and was temporarily located in south Provo. In 1947, the school received funding as a permanent state institution. In 1948, it received a campus site in Provo. As enrollments grew, the state acquired more land for a larger campus in Orem, Utah. The first building at this new site was erected in 1977. Today, the University's facilities consist of a combined total of 312 acres with 46 buildings with campuses in Orem, Provo, and Heber City and property in Lehi, Utah.[5]

The institution was approved in 1966 to grant Associate of Applied Science degrees, in 1967 to offer general education courses, in 1971 to grant Associate of Science degrees (discontinued in 1974 and reinstated in 1981), and in 1987 to grant Associate of Arts degrees. In 1993, the mission was expanded to include the offering of bachelor's degrees. On July 1, 2008, the institution underwent another mission and name change to Utah Valley University and began offering master degree programs.

Throughout its history, UVU has responded to its service region's population changes and business/industry needs. This responsiveness is evidenced in its mission, program offerings, degree levels, and enrollment changes.

[5] UVU 2010-11 Fact Book, page 56

## 2.3 UVU Student Profile

UVU has a diverse and growing student population. In 1999, the University had an enrollment of about 20,000 students.[6] Enrollment in the 2009-10 school year was almost 30,000 students and is projected to increase to between 44,000 and 49,000 students by 2020.[7]

UVU's open admission policy, degree offerings, and academic rigor make it a unique university in its service region and in the country. UVU is located in a growing metropolitan area serviced by a number of academic institutions. Within 50 miles of UVU, there are two major research universities (University of Utah and Brigham Young University), a private liberal arts college (Westminster College), a community college (Salt Lake Community College), a non-credit granting technical college (Mountainland Applied Technology College), and two regionally accredited specialty schools (LDS Business College and Rocky Mountain University of Health Professions). UVU's open admission policy distinguishes it from nearby research and doctoral institutions, and its multiple levels of degree offerings separate it from nearby community and applied technology colleges. The significant enrollment growth experienced since UVU's transition from vocational school to community college to four-year college to regional university is evidence of the value of and need for such an institution.

**Table 2 - UVU Enrollment in the 2009 Fall Semester**

| Enrollment Category | Enrollment | Percent (%) |
|---|---|---|
| Total Headcount Enrollment | 28,765 | N/A |
| Full Time Equivalent Enrollment | 19,670 | N/A |
| Freshman | 13,068 | 45.4 |
| Sophomore | 5,682 | 19.8 |
| Junior | 4,463 | 15.5 |
| Senior | 5,505 | 19.1 |
| Graduate | 47 | 0.2 |

Source: UVU Factbook, 2010-2011, http://www.uvu.edu/iri/factbooks/factbook1011.pdf

The majority of UVU's student body is drawn from the service region and the State of Utah. About 66 percent of the students are from the service region and 88 percent are from the State. The rest of the students are out-of-state students from elsewhere in the U.S. (10 percent) and international students (2 percent).[8]

[6] Ibid.
[7] UVU website, "Factbook 2010-2011." http://www.uvu.edu/iri/factbooks/factbook1011.pdf, page 66.
[8] UVU website, "Factbook 2010-2011." http://www.uvu.edu/iri/factbooks/factbook1011.pdf
Note: There is a category of students who are classified as "Unknown" who make up 0.9 percent of the student population. The percentages do not add up to 100 percent due to rounding.

**Table 3 - UVU Student Profile in the 2009 Fall Semester**

| Student Category | Number | Percent (%) |
|---|---|---|
| Male | 16,371 | 57 |
| Female | 12,394 | 43 |
| Full Time | 15,072 | 52 |
| Part Time | 13,693 | 48 |
| White | 24,565 | 85 |
| Hispanic | 1,802 | 6 |
| Other Ethnicity | 1,323 | 5 |
| Nonresident Alien | 472 | 2 |
| Unknown | 603 | 2 |
| Utah County Origin | 18,803 | 65 |
| Service Region Origin | 19,838 | 69 |
| Utah State Origin | 25,278 | 88 |
| U.S. Students from Other States | 2,854 | 10 |
| Out of US/Unknown | 633 | 2 |
| Average Age | 23.8 | Not applicable |

Source: UVU Factbook, 2009-10, http://www.uvu.edu/iri/factbooks/factbook0910.pdf

## 2.4 UVU Faculty and Staff Profile

In order to serve its students, UVU employs not only teachers and administrators, but also information management professionals, administrative support staff, and facilities staff. The University employs 976 full-time staff, 2,148 part-time staff, as well as 476 full-time faculty members and 1,064 adjunct and part-time faculty members.[9] The University's faculty and staff numbers have grown as the University has grown. The number of full time faculty rose from 389 to 476 (22 percent) between the 2004-05 and 2009-10 academic years.[10] In many cases, the presence of UVU provides high quality, well-paying jobs that would not otherwise exist in the service region. A profile of UVU's faculty and staff is provided in Table 4.

[9] UVU Factbook, 2009-10, http://www.uvu.edu/iri/factbooks/factbook0910.pdf
[10] UVU Factbook, 2009-10, http://www.uvu.edu/iri/factbooks/factbook0910.pdf ; UVU Factbook, 2004-05 http://www.uvu.edu/iri/pdfs/factbook0405/faculty/total_employees.pdf

**Table 4 - Faculty and Staff Profile in the 2009 Fall Semester**

| Category | Male | Female | Total |
|---|---|---|---|
| **Full Time** | | | |
| Executives | 26 | 7 | 33 |
| Exempt Salaried Staff | 294 | 226 | 520 |
| Faculty | 315 | 161 | 476 |
| Nonexempt Salaried Staff | 163 | 227 | 390 |
| Early Retiree | 23 | 10 | 33 |
| Total Full Time | (57%) 821 | (43%) 631 | 1,452 |
| **Part Time** | | | |
| Adjunct/Overload Teaching | 737 | 327 | 1,064 |
| Part Time Staff | 367 | 426 | 793 |
| Student Employees | 521 | 508 | 1,029 |
| Work Study Student | 159 | 160 | 319 |
| Stipend or Temporary | 5 | 2 | 7 |
| Total Hourly/Part Time | (56%) 1,789 | (44%) 1,423 | 3,212 |

Source: UVU Factbook, 2009-10, http://www.uvu.edu/iri/factbooks/factbook0910.pdf

## 2.5 Academic Programs Offered

UVU offers a wide range of degree and non-degree programs. The types of these degree and non-degree programs and the number of students who graduated from them in 2010 are outlined in Table 5.

**Table 5 - Overview of Academic Programs in 2009-10**

| Academic Programs | Number of Programs Offered | Number of Degrees Granted in the 2009-10 Academic Year |
|---|---|---|
| Master Degree | 2 | 11 |
| Bachelor Degree | 58 | 1,980 |
| Associate Degree | 66 | 1,689 |
| Certificate / Diploma | 21 | 59 |

Source: UVU Factbook, 2009-10, http://www.uvu.edu/iri/factbooks/factbook0910.pdf

# Chapter 3: Study Methodology and Overview of UVU's Budgetary and Student Expenditures

Chapter 3 describes this study's approach to estimating economic impacts and presents an overview of UVU's budgetary expenditures and student expenditures. University and student expenditures are two of the primary drivers of economic impacts associated with UVU.

## 3.1 Economic Impact Analysis Approach Overview

This study employs a number of tools and approaches to assess the economic impact of UVU on its students, service area (Utah, Wasatch, and Summit Counties), and the State of Utah. IMPLAN, an industry leading input-output model used in a large number of recent university economic impact studies, was used to perform the analysis for this study. Other universities in Utah have used IMPLAN to measure their economic impacts, including Utah State University and Southern Utah University.[11] A second analysis was performed using the Ryan New Jersey Model, the same economic impact model used in previous UVU economic impact studies.[12] The results of the Ryan New Jersey analysis are included in Appendix 1 to allow the results of the IMPLAN model to be verified by and compared to UVU's prior economic impact studies. Finally, the study looks at some other economic and socio-economic impacts, which are difficult to quantify within the formal economic impact models, most notably by looking at the lifetime earning potentials of UVU students who might never have attained a university degree if they could not attend UVU.

Impact analyses are usually framed within the context of a "with" and "without" perspective. This means the economic impact of a system is equal to the economic loss that would occur if the system ceased to exist. The impact of an exogenous event, such as the development and operation of a university, is defined and measured in terms of the differences between the state of the economy associated with the university and its state without the university. Thus, impact analysis requires the ability to forecast a baseline condition. In ex post (i.e., after the fact) analyses, the hypothetical scenario to consider is what the economy would have been without the university, since the state with the university is directly observable. Many issues must be considered in developing the baseline, including the underlying growth in Utah's population and economic activity as well as employment levels, consumer behavior, and a host of other economic and social factors over dozens of different sectors in the state economy.

IMPLAN is able to assess not only the direct effects of UVU's budgetary and student spending, but also the indirect and induced effects of this spending. The tally of direct, indirect, and induced economic impacts equals the total economic impacts of UVU. The definition of direct, indirect, induced, and total economic impacts are provided below:

[11] IMPLAN website, "Clients." http://www.implan.com/V4/index.php?option=com_content&view=article&id=64&Itemid=25

[12] This approach was used in UVU's 1996-97, 1999-2000 and 2004-05 economic impact studies, the first two of which are available online at http://www.uvu.edu/iri/reports/eir.html

- **Direct expenditure** refers to the total amount of the expenditures made associated with UVU.
- **Direct impacts** refer to impacts from the economic activities directly associated with UVU.
- **Indirect impacts** measure output (gross sales), jobs, and labor income associated with organizations and entities that support direct activities.
- **Induced impacts** accrue when workers in the direct and indirect industries spend their wages on local goods and services. These expenditures in turn stimulate other sectors in the local economy.
- **Total impacts** are the sum of direct, indirect, and induced impacts. These represent all transactions attributable, either directly or indirectly, to UVU.

IMPLAN generates direct, indirect, induced, and total impact results that can be sorted by impact type, including economic output, employment, labor income, and value added. IMPLAN also provides a tax impact report that shows the impact on state/local government taxes and federal government taxes.

Economic impact analysis must be performed for a defined region of analysis. The region of analysis may be as small as a neighborhood or as large as the entire world. The reason to define the region of analysis is to separate those economic impacts that occur within that region of analysis and the economic impacts that occur outside of that region. For example, if an accountant were hired from a neighboring state (outside of the region of analysis), the majority of the value added of this service would be from outside of the region of analysis, and therefore the economic impact of the purchase of these accounting services on the region will be small. In contrast, if a local accountant were to be hired, the economic impact of this transaction would be large.

The region(s) of analysis is usually determined by the purpose and audience of the study. For example, if an economic impact study will be used to discuss the economic benefits of a program or project in the state legislature, it would be appropriate to estimate what the economic impacts of that program or project would be on the state.

This study uses two regions of analysis: the UVU service region (Utah, Wasatch, and Summit Counties) and the State of Utah. The estimates of the economic impacts on these two regions of analysis will differ principally because the State of Utah includes a larger set of businesses and industries than does the service region.

Figure 1 provides the definition of the outputs derived from the IMPLAN model. These outputs help describe the various economic impacts of UVU with regard to output, value added to goods and services, employment, income, and taxes.

## Figure 1 – IMPLAN Output Definitions

**Total Expenditures** is the total expenditure undertaken related to or as a result of a program or project, regardless of the origin of the final finished goods and services.

**Total Output** is total revenue from sales or total cost of production associated with final demand for goods and services.

**Imported Finished Goods and Services** are goods and services which have been manufactured, finished or provided outside the study region, and which are simply resold within the study region without any additional value added beyond transportation, wholesale and retail related costs. For this category of goods and services, only the profit margin enters into total output.

**Employment** is average annual full-time and part-time job-years needed, directly and indirectly, throughout the economy to deliver final demand for goods and services.

**Job-years** are equal to the annual average of monthly jobs in an industry. A job-year can apply to full-time or part-time jobs. One job for two years is equal to two job-years. One job for six months is equal to 0.5 job-year. **Employee Compensation** is the total cost of labor for businesses. The estimate includes wages and salaries, other labor income (retirement, health insurance), employer and employee contributions to social security, and payroll taxes.

**Proprietor income** consists of payments received by self-employed individuals and unincorporated business owners.

**Labor income** is all forms of employment income, including employee compensation (wages and benefits) and proprietor income.

**Other property type income** includes corporate profits, capital consumption allowance, payments for rent, dividends, royalties, and interest income.

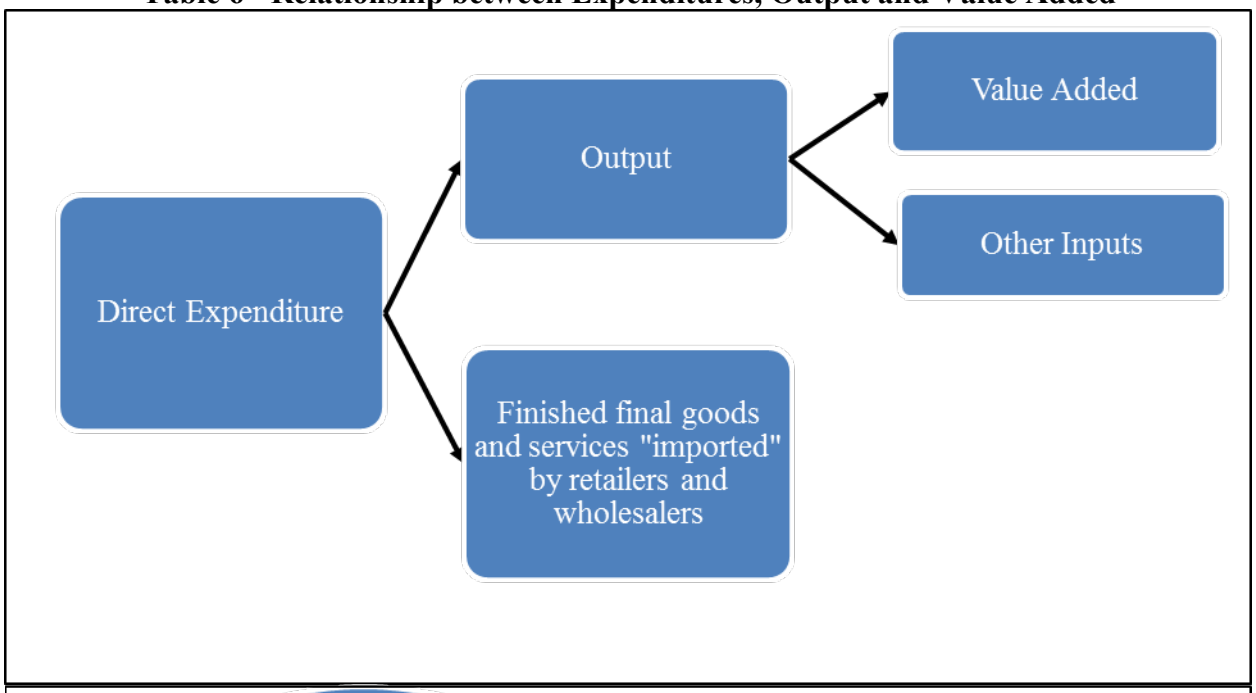
**Indirect business taxes** include excise, sales and property taxes, as well as fees, fines, licenses, and permits.

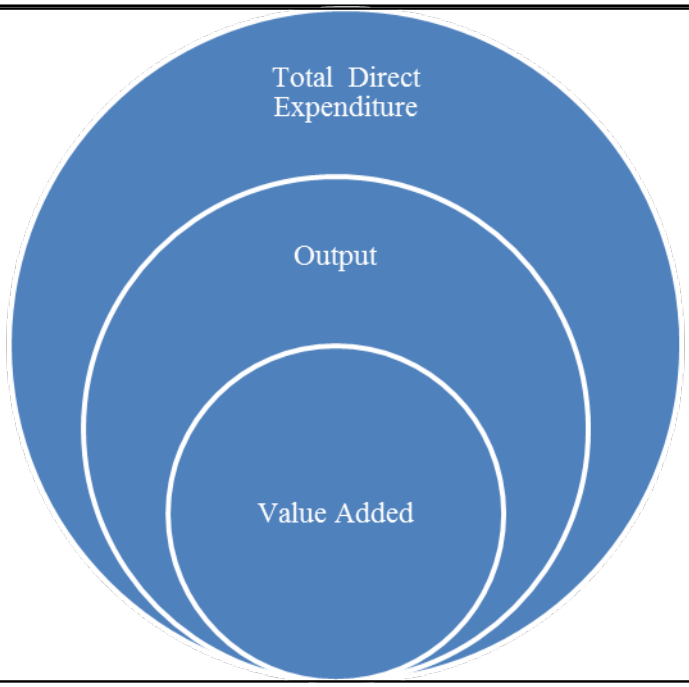
**Total value added** is the difference between total output and the cost of its intermediate inputs. It is essentially the value added to inputs to convert them into outputs. It equals gross output (sales or receipts and other operating income) minus intermediate inputs (use of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production, and imports minus subsidies.

**All other inputs** are the inputs that businesses use and add value to in order to create final outputs. All other inputs equal total revenue from sales/total cost of production associated with final demand for goods and services minus the value added to these goods and services in the region of analysis.

Source: IMPLAN website, "Glossary." http://implan.com/V4/index.php?option=com_glossary&Itemid=12

**Table 6 - Relationship between Expenditures, Output and Value Added**




**Total Direct Expenditure**
**- Imported Finished Goods and Services**
**Output**

**Output**
**- All Other Inputs**
**Value Added**

**Why IMPLAN was used for this Study**

While there are a number of different input-output models, the IMPLAN model was selected due to its wide acceptance, its versatile functionality, and the ease of interpretation of its results. IMPLAN has been used by over 250 colleges and universities, including several of comparable size to UVU.[13] Comparable universities that have used IMPLAN to perform economic impact studies include Tarleton State University in Texas, Chadron State College in Nebraska, and Jackson State University in Mississippi.

UVU's FY 1996 and FY 1999 economic impact reports were performed using the Ryan New Jersey Model. Appendix 1 of this report provides an update of UVU's economic impacts using the Ryan New Jersey Model and the exact same technique used in the earlier studies.

IMPLAN has a number of strong positive attributes, which make it more appropriate than other comparable models to assess the economic impacts of UVU. Three of the most commonly used input-output models are:[14]

- The U.S. Department of Commerce RIMS II model (RIMS II)
- The Minnesota IMPLAN Group, Inc. model (IMPLAN)
- The Regional Economic Modeling, Inc. PI+ model (REMI PI+)

The IMPLAN input-output model allows for a nuanced application of multipliers to measure the impacts of the wide range of economic activity facilitated by the University. IMPLAN is preferred over the more simplistic RIMS II input-output model, which applies a small set of multipliers, relative to the number of multipliers available in IMPLAN.

Another advantage IMPLAN has over RIMS II is that IMPLAN automatically divides impacts into the traditional subcategories: direct, indirect, and induced effects. RIMS II is a spreadsheet-based model where the user is responsible for setting up the multiplier worksheet and each time a new variable is added the worksheet must be physically changed. These additional steps increase the chance of user-induced error. IMPLAN was selected over the REMI PI+ model because of its easier data entry interface and its relative cost competitiveness. The costs to use the REMI PI+ model are up to seven times that of IMPLAN, depending on the complexity of the modeling effort. In summary, IMPLAN is a more sophisticated and less user-error prone tool than RIMS II, and more user-friendly and economical tool than REMI PI+.

[13] IMPLAN website, "Clients." http://www.implan.com/V4/index.php?option=com_content&view=article&id=64&Itemid=25

[14] U.S. Department of Transportation. 2000. "Analyzing the Economic Impact of Transportation Projects Using RIM II, IMPLAN, and REMI." http://dlis.dos.state.fl.us/bld/roi/workshop/handouts/roi_workshop_lynch_report.pdf

## 3.2 Economic Impact Analysis Approach for UVU's Budgetary Expenditure

The study uses data from the UVU expense reporting system to assess the economic impact of expenditures made by UVU. This data, supplied by the UVU Controller's Office, provides details on UVU's spending on its capital and operating budget. The expense report aggregates all expenditures into 210 detailed expense codes, classified in 21 broad categories (such as building maintenance, insurance, utilities, and capital). With the help of staff from the Controller's Office, the research team matched each of these expense codes to one or several comparable industry codes in the IMPLAN model. When multiple IMPLAN codes were assigned to a single UVU expense code, each IMPLAN code received a percentage of the spending assigned to the UVU expense code. For example, spending on the UVU expense code for Electrical Supplies (UVU code 710111) was evenly split between four IMPLAN codes, each receiving 25 percent. Those four IMPLAN codes included: Electric lamp bulb and part manufacturing (IMPLAN code 259), Lighting fixture manufacturing (IMPLAN code 260), Small electrical appliance manufacturing (IMPLAN code 261), and Electronic and precision equipment repair and maintenance (IMPLAN code 416). The research team matched these codes for both operating and capital expenditures. When completed, this coding was reviewed for accuracy with the UVU Controller's Office.

Operating expenditures were taken for FY 2010 (July 1, 2009 to June 30, 2010). The estimates of operating expenses do not include intra-campus charges and resale cost of goods sold. An example of an intra-campus charge would be one university department using another department's copy machine. These expenditures are a transfer within the university rather than a unique expenditure, and were excluded from the total expenditure for that reason. An example of a resale cost of goods sold is the sale of books to students in the bookstore. These expense categories were excluded to avoid double counting between estimates of student spending and university spending, as the value of the books and supplies purchased in the bookstore is captured in student spending.[15]

Capital expenditures were taken as an average of capital spending between FY 2004 and FY 2010. The average over several years was taken because capital budgets vary dramatically from year to year. Taking capital expenditures for a single year may lead to an overestimate of UVU's economic impact if the analysis covers a year when a large capital project was completed, or may underestimate UVU's economic impact if the analysis covers a year when there are no large capital projects underway. Taking an average over several years helps to control for these variations.

[15] Resale cost of goods sold is largely goods sold to students through the campus bookstore or other campus sales outlets. These distinctions were determined by the research team in coordination with the University Controller's Office.

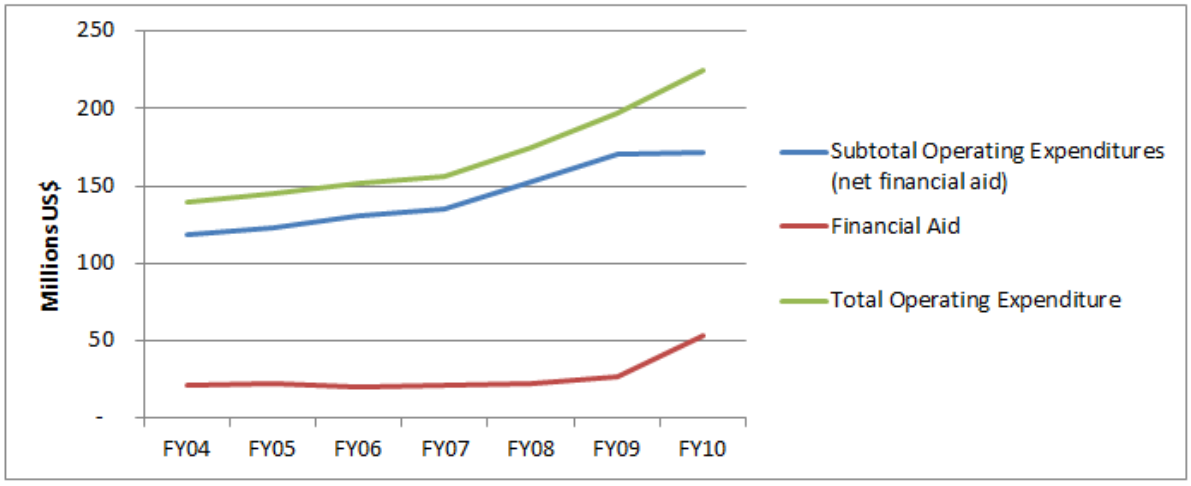
## 3.3 Overview of University Expenditure

### Operating Expenses

In fiscal year (FY) 2010, UVU spent about $224.6 million on operating expenses, which is significantly higher than the FY 2004 to FY 2010 average spending on operating expenses of $169.8 million.[16] The recent increase in operating budget has been fueled in part by a large increase in financial aid, particularly after FY 2008. The large increase in financial aid reflects the expansion of the University over recent years.

Figure 2 and Figure 3 provide more information about trends in operating expenditures and the composition of operating expenditures. As mentioned above, the estimates of operating expenses do not include intra-campus charges and resale cost of goods sold to avoid double counting.

**Figure 2 – UVU's Operating Expenditures from FY 2004 to FY 2010**

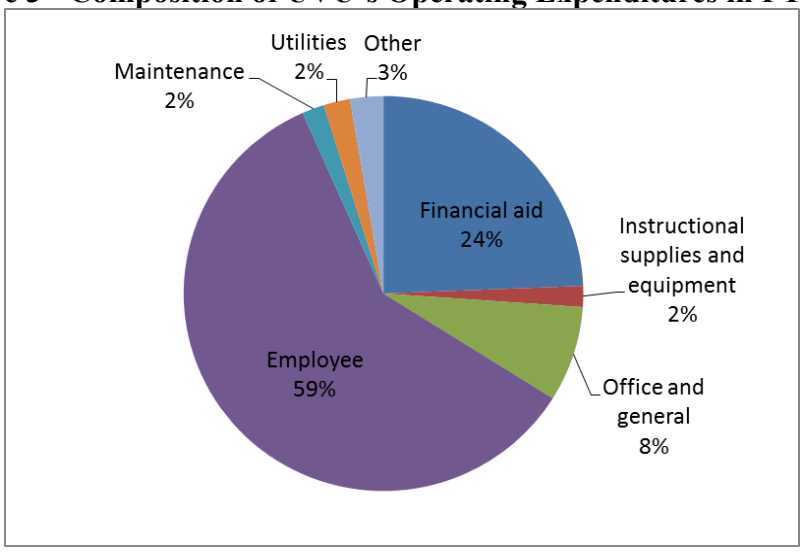



Source: UVU Expense Report for Fiscal Years 2004 - 2010, UVU Controller's Office

The largest operating expense for the University is employee compensation. The category makes up 59 percent of the university's operating expenses. The second largest category is financial aid. Financial aid makes up 24 percent of the University's operating expenses.

[16] For the purposes of this analysis, operating expenses exclude some costs such as resale cost of goods sold to avoid double counting with student expenditures. The operating expenses also include about $53 million of financial aid, which is considered a transfer. Transfers, as opposed to expenditures, are not included in economic impact analysis.

**Figure 3 - Composition of UVU's Operating Expenditures in FY 2010**

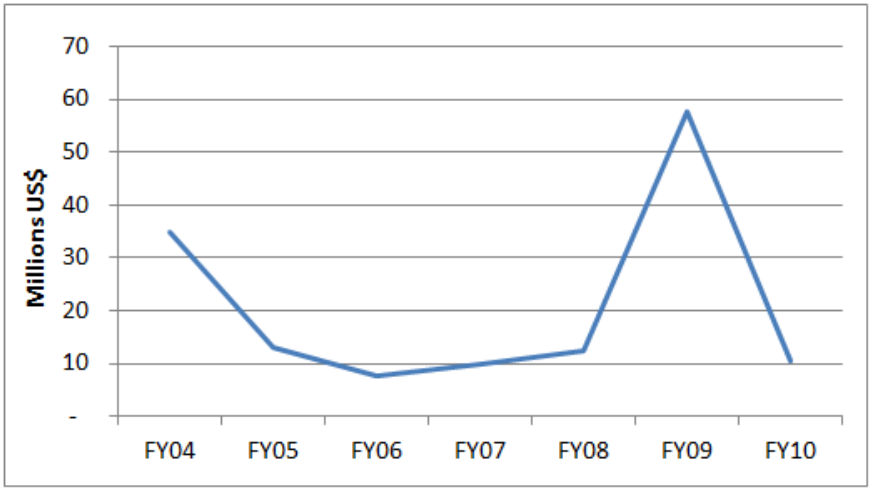



Source: UVU Expense Report for Fiscal Years 2010, UVU Controller's Office

## Capital Expenses

Capital expenditures represent an important part of UVU's annual expenditures. Average annual capital expenditure between FY 2004 and FY 2010 was about $20.8 million, but was subject to significant annual fluctuations as indicated in Figure 4.

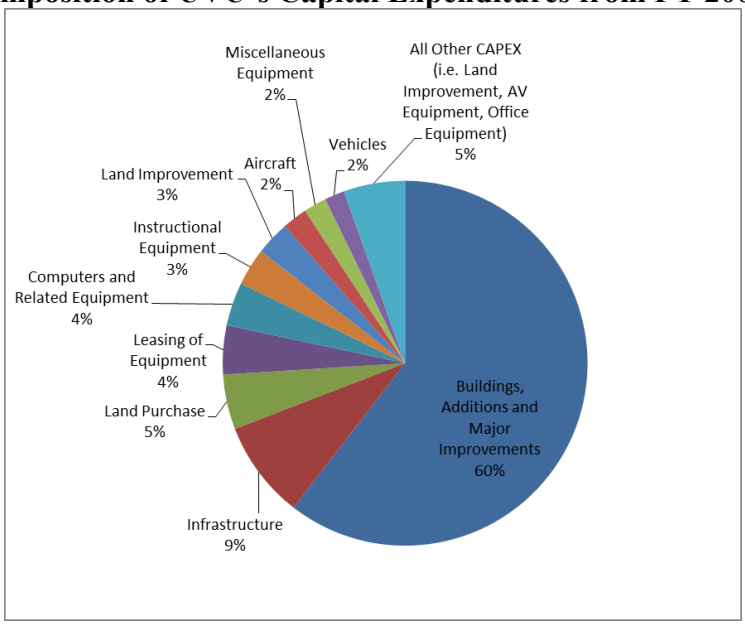
**Figure 4 – UVU Capital Expenditures from FY 2004 to FY 2010**




Source: UVU Expense Report for Fiscal Years 2004 - 2010, UVU Controller's Office

As shown in Figure 5, the majority of this spending was on buildings and major improvement projects, such as the newly constructed library in FY 2009. Other important capital expenditure categories include infrastructure, land purchases, as well as the leasing and purchase of computers and other equipment.

**Figure 5 - Composition of UVU's Capital Expenditures from FY 2004 to FY 2010**




Source: UVU Expense Report for Fiscal Years 2004 - 2010, UVU Controller's Office

## 3.4 Economic Impact Analysis Approach for Student Expenditure

Student spending represents another source of impacts to the local economy, which are in addition to the money spent by UVU through its operating and capital expenditure. This portion of the study discusses how the IMPLAN model was used to assess the economic impacts of student spending, based on the estimated costs of living for students as provided by the UVU Department of Financial Aid, as well as the more detailed profiles provided in the UVU Cost of Attendance Survey.

Table 7 provides a summary of major student spending categories by type of student at UVU. Tuition and room and board are the largest spending categories. Other major categories include books and supplies, transportation, and personal expenses. Undergraduate tuition for a full time student ranges from $4,584 for in-state undergraduates to $12,940 for out-of-state undergraduates. Graduate tuition ranges from $4,622 for in-state education degree students to $16,646 for out-of-state nursing degree students.

**Table 7 - UVU Student Cost of Living Estimates for FY 2010**

| Student Category | Tuition & Fees | Room & Board | Books & Supplies | Transport | Personal Expenses |
|---|---|---|---|---|---|
| Undergrad. resident non-commuter | $4,584 | $7,147 | $1,371 | $2,103 | $1,703 |
| Undergrad. resident commuter | $4,584 | $3,300 | $1,371 | $2,103 | $1,703 |
| Undergrad. non-resident non-commuter | $12,940 | $7,147 | $1,371 | $2,103 | $1,703 |
| Undergrad. non-resident commuter | $12,940 | $3,300 | $1,371 | $2,103 | $1,703 |
| Masters of Business resident | $7,610 | $8,904 | $1,738 | $2,148 | $3,262 |
| Masters of Business non-resident | $15,764 | $8,904 | $1,738 | $2,148 | $3,262 |
| Masters of Education resident | $4,622 | $8,904 | $1,738 | $2,148 | $3,262 |
| Masters of Education non-resident | $12,884 | $8,904 | $1,738 | $2,148 | $3,262 |
| Masters of Nursing resident | $7,106 | $8,904 | $1,738 | $2,148 | $3,262 |
| Masters of Nursing non-resident | $16,646 | $8,904 | $1,738 | $2,148 | $3,262 |

Source: UVU Department of Financial Aid website, "Cost of Attendance." http://www.uvu.edu/financialaid/pnp/cost.html

Based on these cost of living estimates, the research team constructed a detailed average spending profile for students to enter into the economic impact model. This spending profile is designed to measure additional spending in the UVU service region that would not have occurred if UVU were not in existence. It is important to consider only the extra spending that would not have occurred if UVU were not in existence to determine UVU's unique economic impact. For example, a current UVU student may have attended another university in the service region if UVU did not exist, and his/her spending on books and supplies may have simply been spent at a different institution. Also, if a UVU student who is from the local service region were not enrolled at UVU, he/she would still spend money on room, board, transportation, and personal expenses. For this reason, the profile includes the following spending:

- Spending on books and supplies for any students who would not have otherwise attended a college or university in the service region.
- Room and board for students who are from outside of the service region.
- Transportation for students who are from outside of the service region.
- Personal expenses for students who are from outside of the service region.

The research team worked with the UVU Office of Institutional Research & Information to derive reasonable assumptions regarding the percentage of students who would not have otherwise attended a college or university in the service region. Information regarding the proportion of students originating from the service region was taken from the *2009-10 UVU Factbook*.[17]

On this basis, the research team estimated the total additional spending on room and board, books and supplies, transportation, and personal expenses for all UVU students. Tuition is not included in the total, as this represents a transfer from students to UVU and counting both tuition and UVU expenditures would lead to double counting.

[17] UVU website, "Factbook 2010-2011." http://www.uvu.edu/iri/factbooks/factbook1011.pdf

The research team linked estimates of spending on room, board, transportation, and personal expenses to the more detailed spending profiles identified in UVU's Cost of Attendance Survey. This survey is conducted annually to capture additional costs that students must pay to attend the university. This survey covers the following categories of spending:

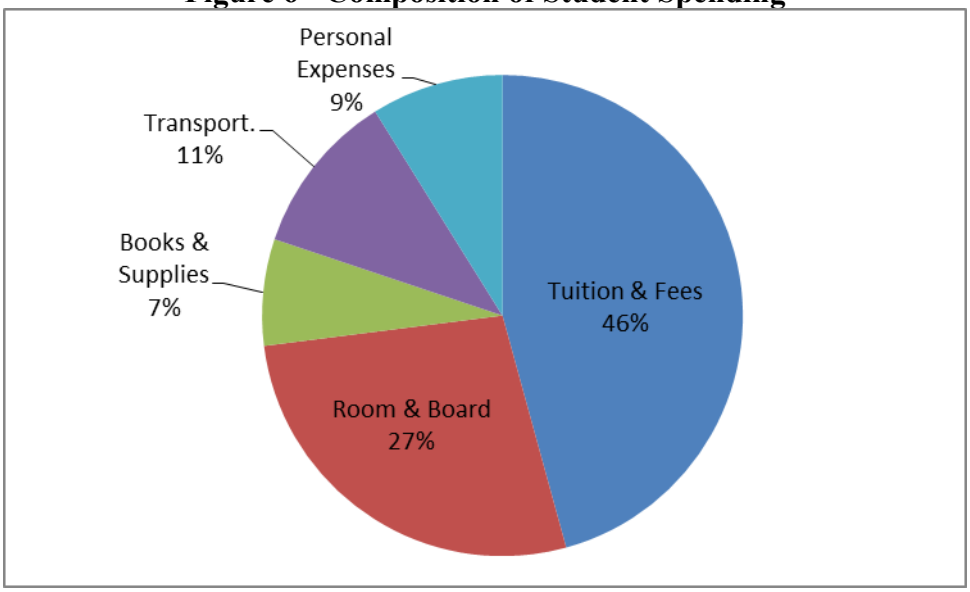
- **Books & Supplies:** books, supplies and software
- **Room & Board**: rent or mortgage, utilities, food, phone, internet access, cable or satellite
- **Transportation:** vehicle payments, vehicle insurance, gas & repairs, and parking
- **Miscellaneous & Personal**: Clothing, Laundry, Personal care costs, Entertainment
- **Computers**: only for first time freshmen and transfer students
- **Additional costs for specialized programs:** additional annual costs for students in select majors, including visual arts & drafting, performing arts, medical sciences, aviation, auto, and fire fighting

Spending on the major categories (Books & Supplies, Room & Board, Transportation, and Miscellaneous & Personal) is relevant to all students. For financial aid purposes, the University allows all students to claim the purchase of one computer during the course of their studies, therefore only first-time freshmen and transfer students may claim this expense. Some fields of study, such as aviation and the arts, may require the purchase of significant specialized supplies and materials that other majors would not require. Therefore, a specialized cost estimate is applied to each of these students. On the basis of the categories and sub-categories defined in this survey, the research team was able to link this spending to the 440 categories used in the IMPLAN model.

## 3.5 Overview of Student Expenditure

According to Cost of Attendance estimates from the UVU Office of Financial Aid, tuition and fees and room and board are the two largest categories of student expenditure, comprising 42 percent and 31 percent of total student expenditures respectively. These two categories are followed by personal expenses (such as communication, apparel, and entertainment) at 11 percent of expenditure, transportation at 9 percent, and books and supplies at 7 percent. The composition of student spending is shown in Figure 6.

**Figure 6 - Composition of Student Spending**




Source: UVU Office of Financial Aid

Of the estimated budget of about $5,220 for room and board, the Cost of Attendance Survey indicates that the average UVU student would spend about 33 percent on food, and 48 percent on rent or mortgage, and the remaining 19 percent on utilities and telephone, internet and cable. Meanwhile, the survey suggests that the students' expenditures on personal expenses of about $1,700 would include clothing (31 percent), entertainment (35 percent), personal care costs (29 percent), and laundry (5 percent). The estimated budget of about $2,100 on transportation is composed of spending on gasoline and repairs (45 percent), car payments (29 percent), vehicle insurance (23 percent) and parking (3 percent). The budget of about $1,370 on books and supplies is divided between books (53 percent), other educational fees (34 percent), software (7 percent), supplies and materials (1 percent), and remaining 6 percent distributed among a number of small categories such as program related events, tools and equipment, and technology.

# Chapter 4: UVU's Economic Impacts

Chapter 4 provides an analysis on the impacts of UVU's budgetary expenditures and its student expenditures. The chapter examines the economic impacts of these expenditures at the service region and state levels. The bullets below summarize the overall economic impacts of UVU found in this study:

- Over the 2009-10 Fiscal Year, the University and its students spent over $400 million in direct expenditures.
- According to IMPLAN estimates, this resulted in an estimated increase in output of $534 million at the State level and $458 million at the service region level.[18]
- Measured in terms of value-added, UVU's total economic impact was $374 million at the state level and $334 million at the service region level.
- UVU directly employs 1,529 full time employees and 2,982 part time employees. The University also indirectly supports an additional 6,399 full time equivalent jobs in the service region.
- UVU has a total tax impact of $72 million on its service region and a total tax impact of $74 million on the State of Utah. These estimates include federal, state, and local taxes.

The following sections provide detailed information on these impacts.

## 4.1 Economic Impact of UVU's Operating and Capital Expenditures

In most instances the impacts of university spending from the state perspective are larger than the impacts from the service region perspective. This is because the smaller the geographic region of analysis, the more likely the goods and services purchased in a specific location came from outside that location and less likely they had value added to them within the local region. To illustrate the point, all the goods and services purchased by UVU come from and have value added to them somewhere in the world. A small portion of those goods and services come from the U.S., a smaller portion come from the State of Utah, and an even smaller portion come from the UVU service region.

The economic impact of UVU student expenditure captures the unique spending by students that would otherwise not occur in the service region or State in the absence of UVU. Estimates of student expenditure impacts at the state-level are lower than the impacts at the service region level in most instances. There are few, if any, comparable alternatives to UVU at the service region level and many service region students would not attend another university if UVU did not exist. Therefore a larger proportion of student spending at the local level can be considered unique to UVU's existence. At the state level, there are a few comparable options to UVU.

[18] Value added is generally considered to be a better measure of wealth created by an activity than output. Output is a measure of the total value of all goods produced. Value added is a subset of output which measure the increase in economic value associated with the parts of the production process that take place within the region of study. This value added is used to pay labor and taxes with hopefully some remainder for profit. The measure of output is also problematic because the output of an industry requires output of other industries so output is double counted.

Therefore, a smaller percentage of student spending could be considered unique to UVU at the state level.

To illustrate the point in the paragraph above, imagine Fred and Alice are two students currently attending UVU. Both are residents of the State of Utah. Fred is from the service region. Alice is outside the service region. While attending UVU, both of them are spending money in the service region. However, if UVU ceased to exist, Fred might not be able to attend another institution of higher education in the service region or elsewhere in the state. He would therefore not spend money on tuition, textbooks, and school supplies. Alice, who was willing to relocate to the service region for UVU, has a higher likelihood of attending another university in the state that is outside the service region. In the absence of UVU, Alice will likely still spend money on tuition, textbooks, and school supplies in Utah somewhere outside in the service region. As a result, the theoretical loss of UVU would affect the service region more than the State. Therefore, the impacts of UVU student spending at the service region level are higher than they are at the state level.

The total increase in output in the service area related to UVU Expenditures in 2009-10 school year was about $261 million. This level of activity is associated with a total economic impact in terms of value added of $209 million from the service area perspective. The total output and value from the state perspective are $302 million and $232 million, respectively. UVU's capital and operating expenditures support 3,876 job years when the impacts are considered from the service region perspective and 3,857 full time equivalent jobs when the impacts are considered from the state perspective. The higher employment impacts in the service region relative to the State impacts are due to the higher regional purchasing coefficient in the service region relative to the State. The service region level economic impacts of UVU budget expenditures are summarized in Table 8. The economic impacts are summarized by direct, indirect, induced, and total impacts.

**Table 8 - Service Region Economic Impacts of University Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 192.0 | NA | NA | 192.0 |
| Output | 168.3 | 6.9 | 85.9 | 261.1 |
| Total Value Added | 153.1 | 3.9 | 51.5 | 208.6 |
| All Other Inputs | 15.2 | 3.0 | 34.3 | 52.5 |
| Employment* | 2,909 | 65 | 902 | 3,876 |
| Labor Income | 130.8 | 2.5 | 28.3 | 161.6 |
| Employee Compensation | 128.9 | 2.0 | 24.4 | 155.3 |
| Proprietors Income | 1.9 | 0.5 | 3.9 | 6.3 |
| Other Property Type Income | 20.3 | 1.1 | 17.6 | 39.0 |
| Indirect Business Taxes | 2.0 | 0.3 | 5.6 | 7.9 |

Notes: * All values in million $ except employment is in number of job years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output - Total Value Added
Totals may not be additive due to rounding

The state-level economic impacts of UVU's institutional expenditures are summarized in Table 9.

**Table 9 - State-Level Impacts of University Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 192.0 | NA | NA | 192.0 |
| Output | 173.6 | 12.4 | 116.7 | 302.7 |
| Total Value Added | 156.4 | 6.9 | 68.3 | 231.6 |
| All Other Inputs | 17.2 | 5.5 | 48.4 | 71.1 |
| Employment* | 2,675 | 101 | 1,081 | 3,857 |
| Labor Income | 132.3 | 4.3 | 37.2 | 173.8 |
| Employee Compensation | 130.2 | 3.7 | 32.9 | 166.9 |
| Proprietors Income | 2.1 | 0.6 | 4.2 | 6.9 |
| Other Property Type Income | 21.6 | 2.1 | 23.9 | 47.6 |
| Indirect Business Taxes | 2.5 | 0.5 | 7.2 | 10.2 |

Notes: * All values in million $ except employment is in number of job years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output - Total Value Added
Totals may not be additive due to rounding

The federal, state, and local tax impacts of UVU budget expenditures were also examined from the service region and state perspective. A tax impact is the estimated amount of revenue generated for the federal, state, and local governments from employee compensation, proprietor income, indirect business taxes, households, and corporations. Five categories of taxes were examined: employee compensation, proprietor income, indirect business, household, and corporation tax. UVU's capital and operating expenditures result in about $30 million of federal tax impacts from the service region perspective. That value increases to about $31 million when the state perspective is considered. The university's expenditures result in almost $12 million in state and local taxes from the service region perspective and almost $11 million in state and local taxes from the state perspective. Accordingly, total university expenditure impacts on federal, state, and local taxes are $41.3 million from the service region perspective and $42.1 million from the State perspective. The service region level tax impacts of UVU with regard to university expenditures are summarized in Table 10.

**Table 10 - Service Region Tax Impacts of University Region Expenditures (Thousands $)**

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 18,579.8 | 354.0 | 1,054.0 | 8,137.0 | 1,567.0 | 29,691.7 |
| State and Local Gov. | 25.8 | -- | 6,880.0 | 4,703.2 | -- | 11,609.0 |
| Total | 18,605.6 | 354.0 | 7,934.0 | 12,840.2 | 1,567.0 | 41,300.7 |

The state-level tax impacts of UVU with regard to university expenditures are summarized in Table 11.The same set of summary impacts is provided in the table.

**Table 11 - State-Level Tax Impacts of University Region Expenditures (Thousands $)**

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 19,584.3 | 414.7 | 1,367.7 | 7,880.6 | 1,918.4 | 31,165.8 |
| State and Local Gov. | 69.7 | -- | 8,829.0 | 2,084.8 | -- | 10,983.5 |
| Total | 19,654.0 | 414.7 | 10,196.8 | 9,965.4 | 1,918.4 | 42,149.2 |

## 4.2 Economic Impact of UVU Student Expenditures

Over the 2009-10 school year, UVU students spent about $236 million in direct expenditures in the local economy. This level of economic activity is associated with an increase in total output in the local service region of $198 million and an increase in value added of $125 million. The respective total economic impact from the state perspective is about $231 million in output or $142 million per year in value added. UVU student expenditures support 2,368 full time equivalent jobs in the service region and 2,542 full time equivalent jobs in the State. These jobs provide $63 million in employee compensation in the service region and about $70 million in the state. The service region level economic impacts of UVU with regard to student expenditures are summarized in Table 12.

**Table 12- Service Region Economic Impacts of Student Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 235.9 | NA | NA | 235.9 |
| Output | 127.4 | 30.8 | 39.4 | 197.6 |
| Total Value Added | 84.1 | 17.4 | 23.7 | 125.1 |
| All Other Inputs | 43.3 | 13.4 | 15.7 | 72.5 |
| Employment* | 1,677 | 276 | 415 | 2,368 |
| Labor Income | 51.4 | 9.8 | 13.0 | 74.2 |
| Employee Compensation | 43.2 | 8.0 | 11.2 | 62.5 |
| Proprietors Income | 8.2 | 1.7 | 1.8 | 11.7 |
| Other Property Type Income | 21.6 | 6.4 | 8.1 | 36.0 |
| Indirect Business Taxes | 11.1 | 1.2 | 2.6 | 14.9 |

Notes: * All values in million $ except employment is in number of job-years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output -Total Value Added
Totals may not be additive due to rounding

The state-level economic impacts of UVU student expenditures are summarized in Table 13. Like the service region impacts, the state-level economic impacts can also be disaggregated by direct, indirect, induced, and total impacts.

**Table 13 - State-Level Impacts of State Student Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 227.3 | NA | NA | 227.3 |
| Output | 130.9 | 46.2 | 54.6 | 231.7 |
| Total Value Added | 83.8 | 26.5 | 32.0 | 142.3 |
| All Other Inputs | 47.1 | 19.7 | 22.6 | 89.4 |
| Employment* | 1,635 | 400 | 507 | 2,542 |
| Labor Income | 48.6 | 14.8 | 17.4 | 80.8 |
| Employee Compensation | 41.2 | 12.9 | 15.4 | 69.5 |
| Proprietors Income | 7.4 | 1.9 | 2.0 | 11.3 |
| Other Property Type Income | 24.0 | 9.7 | 11.2 | 44.9 |
| Indirect Business Taxes | 11.3 | 2.0 | 3.4 | 16.6 |

Notes: * All values in million $ except employment is in number of job-years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output - Total Value Added
Totals may not be additive due to rounding

The federal, state, and local tax impacts of UVU student expenditures were also examined from the service region and state perspective. The same tax categories as the University budget analysis were examined to measure student expenditure tax impacts: employee compensation, proprietor income, indirect business, household, and corporation tax. UVU student expenditures result in $15 million of federal tax impacts from the service region perspective. That value is $17 million when the state perspective is considered. Student expenditure results in $15 million in state and local taxes from the service region perspective and $15 million in state and local taxes from the State perspective. Accordingly, student expenditure impacts on federal, state, and local taxes are about $31 million from the service region perspective and about $32 million from the State perspective. The service region level tax impacts of UVU with regard to student expenditures are summarized in Table 14.

**Table 14 - Service Region Federal, State & Local Tax Impacts of Student Expenditures (Thousands $)**

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 7,473.0 | 654.0 | 1,982.6 | 3,767.4 | 1,447.3 | 15,324.3 |
| State and Local Gov. | 10.4 | -- | 12,941.2 | 2,177.5 | -- | 15,129.1 |
| Total | 7,483.4 | 654.0 | 14,923.7 | 5,945.0 | 1,447.3 | 30,453.4 |

The state-level tax impacts of UVU with regard to student expenditures are summarized in Table 15. These impacts are disaggregated by the same categories as the service region level impacts.

**Table 15 - State-Level Federal, State & Local Tax Impacts of Student Expenditures (Thousands $)**

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 8,155.6 | 678.0 | 2,228.5 | 3,715.8 | 1,808.5 | 16,586.4 |
| State and Local Gov. | 29.0 | -- | 14,385.4 | 983.0 | -- | 15,397.4 |
| Total | 8,184.6 | 678.0 | 16,613.9 | 4,698.8 | 1,808.5 | 31,983.8 |

## 4.3 Total Annual Economic Impact of UVU

The total economic impact of UVU equals the sum of university expenditure impacts and student expenditure impacts. This calculation has to be performed at the service region and state level separately. UVU's total service region level economic impacts are summarized in Table 16. From the service region perspective, the total annual economic impact of UVU is $460 million in terms of output, and $334 million in terms of value added. Additionally, university and student expenditures support 6,243 full time equivalent jobs in the service region.

**Table 16 - Service Region Economic Impacts of University and Student Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 427.9 | NA | NA | 427.9 |
| Output | 295.7 | 37.7 | 125.3 | 458.7 |
| Total Value Added | 237.2 | 21.3 | 75.2 | 333.7 |
| All Other Inputs | 58.5 | 16.4 | 50.1 | 125.0 |
| Employment* | 4,586 | 341 | 1,317 | 6,243 |
| Labor Income | 182.2 | 12.3 | 41.3 | 235.8 |
| Employee Compensation | 172.1 | 10.0 | 35.7 | 217.7 |
| Proprietors Income | 10.1 | 2.3 | 5.7 | 18.1 |
| Other Property Type Income | 41.9 | 7.5 | 25.7 | 75.1 |
| Indirect Business Taxes | 13.1 | 1.5 | 8.2 | 22.9 |

Notes: * All values in million $ except employment is in number of job-years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output -Total Value Added
Totals may not add up due to rounding

UVU's total state level economic impacts are summarized in Table 17. The total annual economic impact of UVU on the State of Utah is about $534 in terms of additional output, $374 million in terms of additional value added in the state. University budgetary expenditures and student spending also support 6,399 full time equivalent jobs in the State.

**Table 17 - State Level Region Economic Impacts of University and Student Expenditures (Millions $)**

| Impacts | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Direct Expenditure | 419.3 | NA | NA | 419.3 |
| Output | 304.5 | 58.5 | 171.3 | 534.3 |
| Total Value Added | 240.2 | 33.4 | 100.3 | 373.9 |
| All Other Inputs | 64.3 | 25.2 | 71.0 | 160.5 |
| Employment* | 4,310 | 501 | 1,588 | 6,399 |
| Labor Income | 180.9 | 19.1 | 54.6 | 254.5 |
| Employee Compensation | 171.4 | 16.6 | 48.4 | 236.3 |
| Proprietors Income | 9.5 | 2.5 | 6.2 | 18.2 |
| Other Property Type Income | 45.6 | 11.8 | 35.1 | 92.5 |
| Indirect Business Taxes | 13.8 | 2.5 | 10.6 | 26.8 |

Notes: * All values in million $ except employment is in number of job-years
Labor Income = Employee Compensation + Proprietors Income
Total Value Added = Labor Income + Other Property Type Income + Indirect Business Taxes
All Other Inputs = Output - Total Value Added
Totals may not be additive due to rounding

UVU's total federal, state and local tax impacts on the service region are summarized in Table 18. University and student expenditures lead to about $45 million in federal tax impacts and $27 million in state and local tax impacts. UVU's total tax impact on the service region is about $72 million per year.

**Table 18 - Service Region Level Tax Impacts of University and Student Expenditures (Thousands $)**

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 26,052.8 | 1,008.0 | 3,036.6 | 11,904.4 | 3,014.3 | 45,016.0 |
| State and Local Gov. | 36.2 | -- | 19,821.2 | 6,880.7 | -- | 26,738.1 |
| Total | 26,089.0 | 1,008.0 | 22,857.7 | 18,785.2 | 3,014.3 | 71,754.1 |

UVU's state level tax impacts are summarized in Table 19. These impacts are disaggregated by the same categories as the service region level impacts. From the state perspective, university and student expenditures result in about $48 million in federal tax impacts and about $26 million in state and local tax impacts per year. In total, UVU has an annual tax impact of about $74 million on the State of Utah.

Table 19 - State-Level Tax Impacts of University and Student Expenditures (Thousands $)

| Taxing Agency | Tax | | | | | |
|---|---|---|---|---|---|---|
| | Employee Compensation | Proprietor Income | Indirect Business Tax | Households | Corporations | Total |
| Federal Government | 27,739.9 | 1,092.7 | 3,596.2 | 11,596.4 | 3,726.9 | 47,752.2 |
| State and Local Gov. | 98.7 | -- | 23,214.4 | 3,067.8 | -- | 26,380.9 |
| Total | 27,838.6 | 1,092.7 | 26,810.7 | 14,664.2 | 3,726.9 | 74,133.0 |

# Chapter 5: Other Economic Impacts

Chapter 5 provides a discussion on additional socio-economic impacts of UVU that are not included in the previous chapters. These impacts include: UVU's return on state investments, increased earning potential for students, and the socio-economic benefits of various types of university related sporting and cultural events.

## 5.1 Return on State Investment

### Overall University Return on Investment

UVU revenues come from several sources including tuition and fees, the federal and state government, sales and services, auxiliary enterprises, state appropriations, and private donations and gifts.

While student tuition pays for a large portion of the cost of educating a student at UVU, state and other sources[19] also contribute to covering the cost of education. According to the 2011 Utah System of Higher Education Data Book, in 2009-10, UVU expended $7,184 per FTE student. Tax fund revenues per FTE were $3,161(43.5%) and tuition revenues per FTE were $4,098 (56.5%). During the 2009-10 academic year, the state provided about 27 percent of the revenues for operating the University.[20]

The state obtains a high return on their investment in UVU. The ratio of the college's total economic impact measured in terms of output in the State of Utah to state funds is as follows:

Total Economic Impact: $534,346,191
Divided by State Aid: $67,033,954[21]
State Aid's Return on Investment: $7.97

The ratio of the college's total economic impact measured in terms of value added in the State of Utah to state funds is as follows:

Total Economic Impact: $ 373,872,024
Divided by State Aid: $67,033,954[22]
State Aid's Return on Investment: $5.58

[19] Such as grants, gifts and investment income
[20] UVU website, "UVU 2010 Annual Financial Report." http://www.uvu.edu/finance/reports-forms-files/UVU-2010-Financial-Report.pdf
[21] This includes state appropriations, state grants and contracts, and capital appropriations. All values are from the 2010 Annual Financial Report with the exception of Capital appropriations, which are the average from the 2004-10 Annual Financial Reports. The average was taken in order to avoid problems with large fluctuations in the capital budget. The same approach was taken with regard to capital spending.
[22] This includes state appropriations, state grants and contracts, and capital appropriations. All values are from the 2010 Annual Financial Report with the exception of Capital appropriations, which are the average from the 2004-10 Annual Financial Reports. The average was taken in order to avoid problems with large fluctuations in the capital budget. The same approach was taken with regard to capital spending.

In other words, for every dollar invested by the state in UVU during 2009-10, there was a total return of $7.97 in output and $5.58 in value added to the local economy. Value added is generally considered to be a better measure of economic impact than output, because it captures only the economic value of the production activities that take place within the area studied, and therefore more accurately assesses the economic benefits unique to that area. Return on investment in terms of output is reported, however, because it is more comparable to the return on investment calculations undertaken in the past using the Ryan New Jersey model.

UVU's return on investment, as measured in this study, is similar to results from economic impact studies performed at similar universities. For example, economic impact studies for Tarleton State University and Chadron State College measured their return on investment as $6.93 and $5.33 respectively.[23,24] A more detailed comparison of these studies is included in Table 20. However, caution should be used when comparing economic impact and return on investment estimates from different studies. There is not one standard way to perform all university impact studies. Unless two or more studies are performed using the exact methodology, comparing their results may lead to apples-to-oranges comparisons. Nevertheless, if the economic impacts of two or more similar entities are somewhat similar it lends more confidence to the results achieved in the studies than if their results varied widely.

**Table 20 –Economic Impacts Studies of Comparable Institutions, using IMPLAN**

| | Tarleton State | Jackson University | Chadron State |
|---|---|---|---|
| | State Level Impacts | Service Region Impacts | Service Region Impacts |
| Output Multiplier | 1.48 | 1.57 | 1.51 |
| Jobs per $Million in Output | 23.11 | 12.32 | 30.73 |
| Return on Investment | 6.93 | N/A | 5.33 |

Sources: Hussain et al (2000), Kumar et al (2007), and Nebraska Business Development Center (1999)[25]

## Return on Investment for In-State Students

The return on investment for in-state students is slightly lower than the return on investment rate for the entire university system. If measured in terms of value added, the total economic impact of UVU is about $373 million. UVU has 19,670 full-time equivalent students and the University's economic impact per student, both in-state and out-of-state, is $19,007. The State of Utah provided $3,784 in state aid per in-state student in the 2009-10 academic year,[26] which

[23] Jafri, Hussain Ali, Jay Dudley, and David Buland. 2000. "Economic Impact of Tarleton State University."
[24] Nebraska Business Development Center. 1999. "Chadron State College Impact Study Final Report."
[25] Jafri, S. Hussain Ali, Jay D. Dudley, and David Buland. "Economic Impact of Tarleton State University." May 9, 2000.
Kumar, Mukesh, Vincent E. Mangum, Gregory N. Price, Jerry Watson. "The Economic Impact of Jackson State University." The MURC Digest Vol. 3, Issue 1, February 2007.
Nebraska Business Development Center, "Chadron State College Impact Study Final Report" Chadron State College, Chardron, NE, December 6, 1999.
[26] In State Student State subsidy = (Total Operating Subsidy / Total In State Student) + (Total Capital Subsidy / Total In State and Out of State Student)

results in a return on investment of 5.02.[27] Thus, for every dollar invested by the state during 2009-10 on in-state students, there was a return of $5.02 to the local economy.

**Return on Investment for Out-of-State Students**

The return on investment for out-of-state students is very high compared to the University system's overall return on investment and in-state student return on investment. Out-of-state student return on investment is high because out-of-state students receive very little subsidy from the State of Utah but contribute just as much, if not more, positive impacts to the state relative to in-state students.[28] As mentioned earlier, the University's economic impact per student is $19,007. The state provides $624 in state aid per out-of-state student.[2930] Since out-of-state students do not receive subsidized tuition, they benefit primarily from state expenditure on capital projects, which is a small portion of the overall state spending on UVU. Consequentially, for every dollar invested by the state during 2009-10 on out-of-state students, there was a return of $30.47 to the local economy.

## 5.2 Increased Earning Potential for Students

This study uses a variety of tools to examine UVU's impact on the surrounding communities and on the State of Utah. One way in which the University contributes to the community is by helping its graduates to obtain better paying employment over the course of their lives than they might otherwise have been able to do. The average annual salaries for different levels of education in Utah are summarized in Table 21.

**Table 21 - Average Annual Salaries for Different Levels of Education in Utah**

| Level of Education | Average Annual Salary | Observations |
|---|---|---|
| Less than High School Degree | $11,089 | 1,668 |
| High School Degree | $17,464 | 4,740 |
| Some College | $21,358 | 5,690 |
| Associate Degree | $25,595 | 1,679 |
| Bachelor Degree | $36,535 | 3,455 |
| Master or Professional Degree | $58,019 | 1,377 |
| Ph.D. | $77,823 | 231 |
| Any Graduate Study Beyond Bachelor Degree | $60,864 | 1,608 |

Source: U.S. Census Bureau, American Community Survey 5% PUMS, 1 year estimates, 2009[31]

[27] UVU website, "UVU 2010 Annual Financial Report." http://www.uvu.edu/finance/reports-forms-files/UVU-2010-Financial-Report.pdf

[28] For example, out of state student spending on room and board and transportation is spending that would not occur in the service area in the absence of UVU. Whereas in-state student spending on these cost categories is not unique to the University.

[29] Out of State Student State subsidy = (Total Capital Subsidy / Total In State and Out of State Student)

[30] UVU website, "UVU 2010 Annual Financial Report." http://www.uvu.edu/finance/reports-forms-files/UVU-2010-Financial-Report.pdf

[31] For more information on this data set please refer to the U.S. Census Bureau's American Fact Finder website at: http://factfinder.census.gov/home/en/acs_pums_2009_5yr.html

This increase in annual income associated with higher educational attainment may contribute to a significant improvement in lifetime earnings for UVU graduates. A university education is associated with an approximate increase in lifetime earnings (compared to a high school graduate) of $155,760 for those who earn a certificate, $325,240 for an associate degree holder, $762,840 for a bachelor degree holder, and $859,360 for a master or professional degree holder. For the 2010 UVU graduating class, this represents a total of about $2 billion over their lifetime.

The increase in expected lifetime earnings is calculated in a multistep process:

- First, data about the average annual salary for graduates by level of education for the State of Utah was obtained from the U.S. Census Bureau American Community Survey for 2009. For the purposes of this study, a UVU certificate is considered comparable to the U.S. Census Bureau's "some college" category.
- Second, the marginal benefit of each level of educational attainment was calculated. The marginal benefits of each degree are measured against a high school diploma, except for master and professional degrees. The marginal benefit of a master or professional degree was measured against a bachelor degree. For example, the marginal benefit of getting a bachelor degree is $19,071 in average expected additional income per year relative to only getting a high school diploma.
- Third, each graduated student is assumed to work 40 years between the age of 23 and the age of 63. Using this assumption, a university education is associated with an approximate increase in lifetime earnings of $155,760 for those who earn a certificate, $325,240 for an associate degree holder, $762,840 for a bachelor degree holder, and $859,360 for a master or professional degree holder.
- Fourth, the marginal income benefit estimate was multiplied by the number of UVU graduates by degree level in the 2009-10 academic year. This calculation estimates improvements to aggregate student earnings per year. It is impossible to know UVU's contribution to its students' previous levels of educational attainment. Therefore, this study measures the marginal income benefit of the UVU degrees attained by the graduating cohort of students.
- Finally, UVU's IRI Office estimates that 92.5 percent of UVU students would not attend another university in the absence of UVU. Thus, the $2.07 billion value is reduced by 7.25 percent to achieve a final estimate of $1.92 billion which is UVU's unique contribution to the expected lifetime earnings of its 2009-10 graduates.

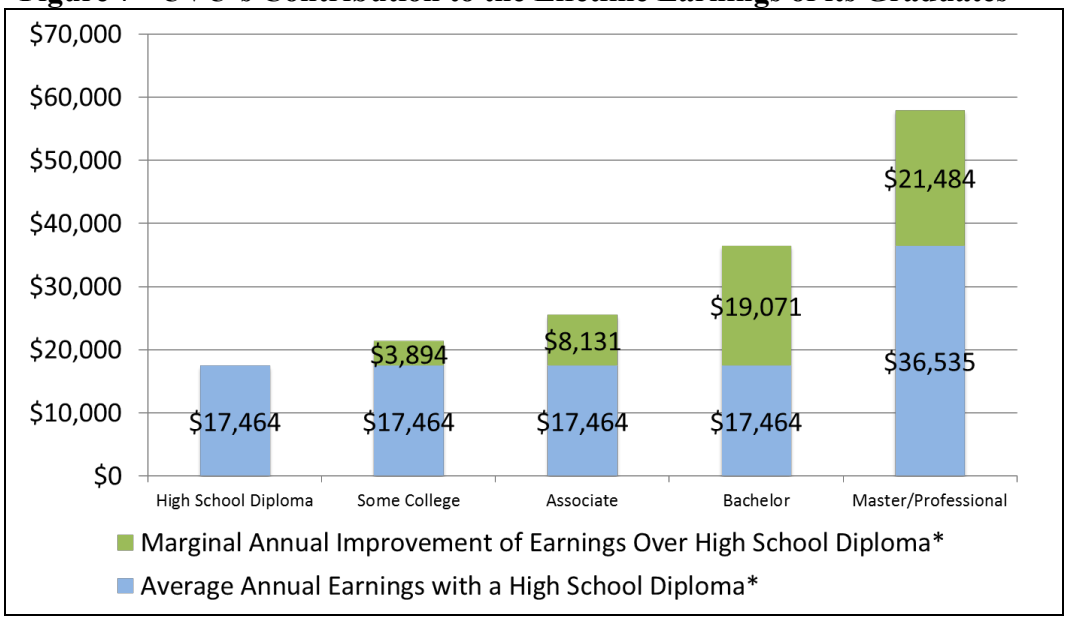
The result of these calculations of UVU's contribution to its students' lifetime earnings is summarized in Table 22. The columns follow the steps described above sequentially.

## Table 22 - UVU's Contribution to the Lifetime Earnings of its Graduates

| Highest Level of Educational Attainment | Average Annual Salary* | Marginal Annual Improvement of Earnings over High School Diploma** | Marginal Improvement of Lifetime Earnings per Student | Number of Degrees Granted in 2009-10 | Improvement of Aggregate Student Earnings per Year (US$ Millions) | Improvement of Aggregate Student Earnings over Lifetime (US$ Millions) | Improvement of Aggregate Student Earnings over Lifetime for Students who Would Not Attend University Without UVU (US$ Millions) |
|---|---|---|---|---|---|---|---|
| High School Diploma | $17,464 | NA | NA | NA | NA | NA | NA |
| Some College or Certificate | $21,358 | $3,894 | $155,760 | 59 | $0.2 | $9.2 | $8.5 |
| Associate Degree | $25,595 | $8,131 | $325,240 | 1,689 | $13.7 | $549.3 | $508.1 |
| Bachelor Degree | $36,535 | $19,071 | $762,840 | 1,980 | $37.8 | $1,510.4 | $1,397.1 |
| Master or Professional Degree*** | $58,019 | $21,484 | $859,360 | 11 | $0.2 | $9.5 | $8.7 |
| TOTAL | NA | NA | NA | NA | $52.0 | $2,078.4 | $1,922.5 |

* Source: U.S. Census Bureau, American Community Survey, 5% PUMS, 1 year estimates
** The marginal benefits of each degree are measured against a high school degree, except for master and professional degrees. The marginal benefit of a master or professional degree is measured against a bachelor degree.
*** Note that Some College of Certificate does not include non-returning students.

## Figure 7 - UVU's Contribution to the Lifetime Earnings of its Graduates




Source: U.S. Census Bureau, American Community Survey, 2009
* The marginal benefits of each degree are measured against a high school diploma, except for master and professional which is measured against a bachelor degree.

## 5.3 Athletic, Cultural, and Other School Related Events

UVU hosts a large number of athletic, cultural, and other school related events throughout the year. There are three main facilities available for students, faculty, staff, and local community members to use for various activities. These three facilities are the Sorensen Student Center, UCCU Events Center, and Brent Brown Ballpark. The remainder of this section provides a description of each of these facilities.

### Sorensen Student Center

The Sorensen Student Center is a dynamic facility used by UVU students, faculty, staff, and outside community members. The facility features a 5,773 square foot multi-purpose performance center (the Centre Stage), a 10,384 square foot ballroom (the Grande Ballroom), a theater that can seat 400 people (the Ragan Theater), two lounge areas for studying and relaxation (the Commons and the Parlour), and several well-equipped conference rooms. The facility also provides a wide range of services and resources to individuals and groups, such as a bookstore and computer room and various clubs and student health services.

The Sorensen Student Center hosted 568,500 individuals at 5,053 separate events at the facility during 2010 calendar year. The facility hosted as many as 25 events per day and 150 events per week. These events include banquets, student government meetings, dances, concerts, club activities, dining, bookstore activities, outdoor barbeques, and weddings and receptions. UVU students, faculty, and staff constitute roughly 75 to 80 percent of all attendees at all events at the facility, while the remaining 20 to 25 percent of attendees are members of the outside community.[32]

### UCCU Events Center

The Utah Community Credit Union (UCCU) Events Center is an 8,500-seat multi-purpose venue established in 1996. It is home for UVU's NCAA Division 1 Athletics. The facility hosts a wide range of athletic, entertainment, business, and academic events.

Detailed information on different types of events at the facility in 2010 is provided in Table 23. The facility hosted a total of 132 events in 2010, including expos, concerts, sports, dances, luncheons/dinners, high school graduations, and other activities. The total number of attendees at these events was 292,020. The average number of attendees per event was 2,212.

[32] Leslie Farnsworth, the scheduler for the Sorensen Student Center, provided this information to the research team.

**Table 23 - Events and Attendance at UCCU Events Center in 2010**

| Type | Number of Events | Total Number of Attendees | Average Number of Attendees |
|---|---|---|---|
| Expos/Shows | 6 | 29,600 | 4,933 |
| Concerts | 6 | 11,463 | 1,911 |
| Sports | 78 | 123,564 | 1,584 |
| Dances | 1 | 500 | 500 |
| Luncheons/Dinners | 18 | 7,146 | 397 |
| Graduations | 12 | 100,500 | 8,375 |
| Miscellaneous | 11 | 19,247 | 1,750 |
| **Total** | **132** | **292,020** | **N/A** |

Source: Mark Hildebrand, Director of the UCCU Events Center and Lindsay Von Forell, Business Manager of the UCCU Events Center.

**Brent Brown Ballpark**

Brent Brown Ballpark is a 5,000-seat baseball stadium on the campus of UVU. It is primarily used for baseball and is the home field of UVU's baseball team and the minor-league Orem Owlz, the Pioneer League rookie team for the Los Angeles Angels. The ballpark has assisted in recruiting for the baseball team at UVU and has helped the program become the school's most competitive NCAA Division 1 team.

# Chapter 6: Profiles of University Centers and Affiliates

Chapter 6 provides detailed profiles of UVU centers and affiliates, which have impacts on the local community through various programs they host. While it is difficult to quantify the economic value of these centers, the chapter provides a qualitative analysis that describes their social value.

## 6.1 Introduction of UVU Centers and Affiliates

There are a number of groups, organizations, centers, and initiatives affiliated with UVU that generate economic impacts beyond those associated with the direct impacts of UVU's operations. Many of these are directly tied to UVU's major community engagement initiative, which places a particular emphasis on economic development. This emphasis is highly correlated with Utah State Governor Gary R. Herbert's top two priorities for the state--economic development and education--which were shared with his constituency during his January 26, 2010 State of the State Address.

The populations served by the groups, organizations, centers, and initiatives affiliated with UVU are varied, including small manufacturers, UVU faculty, entrepreneurs, UVU students with new business concepts, restaurateurs, and Spanish-speaking childcare providers. The nature of the organizations' affiliations with UVU are also varied, including some that are partially to fully funded by UVU to others that receive no funding from UVU but have strong linkages to campus activities.

Descriptions of some of the groups or initiatives associated with UVU and the nature of their economic impacts are presented below. Information regarding services provided focuses on the FY 2009-10 time frame where available, to retain consistency with the UVU economic impact analysis for FY 2009-10.

These groups include the following:

- Small Business Development Center (SBDC)
- Manufacturing Extension Partnership of Utah (MEP)
- Utah Science Technology and Research Initiative (USTAR)
- USTAR Technology Commercialization Grants (TCGs)
- Utah Cluster Acceleration Partnership (UCAP)
- UVU Office of Technology Commercialization
- Business Resource Center

Other groups or efforts with strong ties to economic development are the Woodbury School of Business Entrepreneurship Institute and the Woodbury School of Business's "Doing Business with China" conference. Other groups within UVU present additional opportunities to generate economic impacts beyond those measured by the University's operations alone. These include the Volunteer and Service-Learning Center (V&SL), Child Care Resource and Referral Mountainland, and Grants for Engaged Learning. Some of these groups or initiatives have a long

history of service, while others have evolved in recent years as a result of the strengthening of ties between the State of Utah and its institutions of higher education that focus on coordinating job creation with business development and growth.

## 6.2 Profile and Economic Impact of UVU Centers and Affiliates

**Small Business Development Center**

***Service Area and Mission.*** The Small Business Development Center (SBDC) is located in Orem, Utah. As of fall 2011, the SBDC will be jointly located with many other local economic development-based organizations at a new facility being developed primarily by UVU (see Business Resource Center). Prior to fall 2011, the SBDC was independently housed in Orem. Serving small businesses in Utah and Wasatch counties, the mission statement for the SBDC is as follows:

"The number one goal of the Orem SBDC is to help entrepreneurs get started in business and to help small business grow from one level to the next. We will do a superior job in accomplishing this most important task of helping small businesses to succeed and contribute to the economy in Central Utah. We will be the most important partner with our stakeholders in providing assistance to small business."[33]

***Service Population/Services Provided.*** In keeping with its mission, the SBDC has two primary clientele groups– entrepreneurs seeking to establish new businesses and existing businesses seeking to improve and grow their businesses. There is a wide array of planned and existing businesses represented by the clientele seeking SBDC assistance. These businesses include restaurants, tire stores, consumer goods retailers, hair dressers, manufacturers, Internet sales-based businesses, computer software developers, marketing consultants, and high tech businesses.

In FY 2009-10 the SBDC had 640 new clients, 54 percent of which were people who have never been in business and 46 percent of which were existing businesses. On average SBDC staff spends 5.5 hours with each client seeking services. All services are provided to SBDC clients at no cost. These services include helping start-up businesses file business registration papers required by various governmental bodies, supporting businesses to develop business plans, directing businesses to potential funding resources (including Small Business Administration loans), and providing training classes on a wide array of topics such as Quickbooks, estate planning, strategic marketing, search engine optimization, running a family business, and financial statement analysis, among others. There are approximately 50 classes offered annually, with 600 to 700 attendees, and a monthly newsletter sent out to approximately 5,000 recipients. The SBDC also helps businesses get involved in area networking groups, such as the Chamber of Commerce, CEO Space, Startup Princess, and Entrepreneur Launchpad.

***Funding Source(s).*** The SBDC has three funding sources including federal grants through the U.S. Small Business Administration and funding through the Utah Governor's Office of Economic Development (GOED). UVU matches 50 percent of the funding collectively

[33] UVU website, "Mission Statement." http://www.uvu.edu/sbdc/about/mission.html

contributed by the SBA and GOED, resulting in UVU providing 33 percent of SBDC's annual budget. The budget, which totals less than $250,000, funds a full-time Director, two part-time Counselors, one part-time administrative staff, and one part-time Hispanic Counselor, whose efforts are exclusively focused on serving the SBDC's Hispanic clientele. In addition, many business professionals throughout the community provide in-kind services teaching the classes provided by the SBDC.

***Linkage with UVU.*** The SBDC has strong and growing linkages with UVU. There are approximately five professors who have developed student class projects around SBDC client needs, averaging about three to four classes annually. These include classes on Marketing and Advertising. For each class, the SBDC compiles a list of approximately 35 to 40 businesses interested in being the subject of a class project. The students are divided into approximately three to four groups per class, with each group picking a business as the subject of its class project. Throughout the course the student groups then prepare relevant business-related materials for the businesses, such as strategic marketing or advertising plans. The subject businesses therefore receive free services through their connection with the SBDC. The SBDC has future plans to grow this important linkage with UVU by taking this program to UVU's Graphic Arts school, which includes web designers. Thus, there may be future opportunities for student-selected businesses to also get web sites designed for free as a student learning experience.

***Economic Contributions.*** In FY 2009-10, the SBDC supported the creation of 45 new business starts. Through the SBDC's efforts during this time period new and existing businesses obtained $6,400,000 in funding and increased sales by $3,750,000. These results indicate that the SBDC helped grow the regional economy by the $6,400,000 million invested in Utah and Wasatch county businesses. While the job generation associated with this level of investment is not tracked by the SBDC, it is likely that the $3,750,000 in increased sales have contributed to new regional job growth. This is a strong return on the program's annual budget of less than $250,000, indicating that UVU, along with the SBA and GOED, is contributing economic impacts to the region beyond those associated with the University's direct impacts.

## Manufacturing Extension Partnership of Utah

***Service Area and Mission.*** The Manufacturing Extension Partnership of Utah is an extension service offered by the U.S. Department of Commerce's National Institute of Standards and Technology (NIST). MEP Utah provides assistance to small- and medium-sized manufacturers throughout the State, in the form of helping modernize their operations and become more competitive, productive, and efficient. There are 64 MEP centers serving all 50 states and Puerto Rico, all linked through the NIST.

***Service Population/Services Provided.*** MEP Utah provides companies with services and access to public and private resources that enhance profitability and growth, improve productivity, and develop companies into a sustainable enterprise. It assesses the individual needs of a manufacturer, identifies the roadblocks to success, identifies opportunities for improvement and growth, and helps the company to leverage private/public resources and to access a consistent set of services to maximize their potential and grow their business. MEP field staff customize plans

to fit the individual needs and goals of its clients. Services are available to help a company tackle short-term issues and long-term transformation plans. The MEP focuses on five critical areas:

- Continuous Improvement
- Technology Acceleration
- Sustainability (Green)
- Supplier Development
- Workforce Development

The target market for MEP Utah is manufacturers with 500 employees or fewer. In Utah this comprises the majority of manufacturers. The average manufacturer in Utah has 26 employees, and of the 4,500 manufacturers in the State of Utah only 27 have 500 or more employees. This provides a deep client base for MEP Utah.

Services to manufacturers are provided on a project basis, with a fixed scope and fee determined based upon each manufacturer's needs. MEP Utah's intent is to provide cost-competitive or below-competitive services that might otherwise not be available to the small or medium-sized manufacturer precisely because of their size.

MEP Utah has a staffing complement of 12.5 full-time equivalent (FTE) employees, many of whom are manufacturing engineers. One of the great benefits of the MEP system is that these employees and manufacturing engineers have access to approximately 3,000 additional MEP employees throughout the country, providing a very broad-based solution network. These MEP resources have additional access to thousands of additional trained professionals. Thus, if MEP Utah assesses a client's needs and determines that additional resources are necessary, these resources are identified through the MEP network and incorporated into the project.

MEP Utah has assisted many small- to medium-sized manufacturers in improving and growing their business. Two recent examples include the following:

- ***AMEDICA Corporation, an emerging orthopedic implant company focused on using silicon nitride ceramic technologies to develop and commercialize a broad range of innovative, high-performance spine and joint implants for the orthopedic devise market.*** AMEDICA identified a need for continuous improvement for their operations and reached out to MEP Utah for assistance with implementing Lean, a manufacturing production approach that strives to eliminate the wasteful expenditure of resources that do not support the creation of value for the end customer.[34] AMEDICA attributes the following results to MEP Utah's assistance implementing Lean and related efforts: lead time reduction from 75 to 45 days; material R&D project lead time reduction of 50 percent; and increased employee involvement/skill levels.

- ***Dustless Technologies, inventor and manufacturer of the ash vacuum and other "dustless" products, designed to remove ashes from wood stoves, fireplaces, and***

[34] This is an oversimplification of the Lean approach, which is multifaceted and includes many applications across industries, but is strongly focused on manufacturing.

***barbeques, and dust from sheet rock, paint scraping, and sanded concrete***. When Dustless Technologies reached out to MEP Utah, the company had a 6-month backlog to fill orders. Production was difficult to keep going because interim products were hard to find and inventory inaccuracies resulted in unexpected shortages. Dustless Technologies obtained Lean training through MEP Utah, and implemented Lean strategies including assembly line improvements and inventory control systems. Dustless Technologies attributes the following to the Lean training and implementation they received: increase their output capacity by five times with no increase in labor; implement better inventory control and a more efficient ordering process resulting in 30 percent inventory reduction savings, reduced turnaround time more than 50 percent; and condensed assembly line work areas.

***Funding Source(s)***. MEP centers are non-profit, university- or state-based organizations. Funding for MEP Utah, consistent with all MEPS, is provided by three sources, with one third provided by the Federal government through NIST. These funds are primarily intended to cover administrative costs. The remaining two thirds are realized from state funds, other regional partners, and revenue from users' fees paid by manufacturers for the services they receive. These are the revenues that fund MEP's manufacturing engineers. For MEP Utah, the remaining two-thirds are provided equally by the State of Utah and user fees. MEP Utah a staff of 12.5 FTE employees and a budget of $2.7 million. None of the MEP Utah's funding is provided by UVU; however, UVU does provide space, information technology, and financial/human resource processing services.

***Linkage with UVU.*** MEP Utah began operating in the mid-1990s. At that time, the Federal funding stipulated that MEPs had to partner with a university. Accordingly, MEP Utah located at UVU. This Federal requirement was lifted in 2005, but MEP Utah has remained at UVU, where 11.5 of its 12.5 FTE employees are located. The remaining employee is located at Utah State University.

***Economic Contributions.*** MEP Utah conducts mandatory follow-up surveys with its clientele one year after the completion of service. The survey includes standard questions asked of all MEP clients nationwide. The MEP of Utah uses this information to have its own economic impact study conducted. The most recent study was completed for calendar year 2009 for clients assisted during 2009. This study, titled "The Economic Impacts of the MEP of Utah, Study Year 2009," estimates that MEP Utah's activities in just 2009 generated the following total (direct, indirect, and induced) economic impacts for Utah's economy in 2009:

- 3,844 additional jobs
- More than $716 million of additional industrial output
- More than $17.6 million of additional indirect business taxes (taxes occurring during normal operation of the business)

The total tax revenue generated, including the aforementioned additional indirect business tax, is over $62.3 million, including over $38.9 million in federal taxes and $23.3 million in state taxes.[35] [36]

If sustained, these impacts could recur annually, adding to the economic impacts of businesses served by MEP in prior years, as well as those served in subsequent years. Thus, while the cumulative effect of MEP Utah's impacts are unknown, the figures for just 2009 indicate that the impacts are very substantial, providing a significant boost to Utah's economic base, personal wealth, and tax revenues.

## The Utah Science Technology and Research Initiative

***Service Area and Mission.*** The Utah Science Technology and Research initiative (USTAR) is a long-term, state-funded investment to strengthen Utah's "knowledge economy," created by the Utah State Legislature in 2006. The USTAR program is authorized for 30 years, with funding to be approved annually by the legislature. The initiative invests in innovation teams and research facilities at the University of Utah and Utah State University, public research universities in Utah, to create novel technologies that are subsequently commercialized through new business ventures.[37] A primary USTAR objective is to raise the average salary in Utah by creating more opportunities for high-tech jobs in advanced technology companies.

USTAR is linked to UVU through the Technology Outreach Innovation Program (TOIP), which is USTAR's engine to drive commercialization activities. The TOIP's mission is to support the accomplishment of USTAR's financial, employment, and research objectives by lending experienced leadership, deep business understanding, and functional expertise to the most promising opportunities and focus areas. The program is led by four directors deployed across Utah, with each director heading an outreach center located at one of the State's higher educational institutions, including UVU.[38]

***Service Population/Services Provided.*** The TOIP acts as a resource to look for opportunities for commercialization of technologies that the University of Utah and Utah State University are generating through their professors. The TOIP connects researchers, entrepreneurs, and service providers through collaborative efforts and engages them by connecting them to Utah's research universities. This includes connecting the resources and expertise of the research universities with regional campuses like UVU and communities such that local entrepreneurs and businesses have access to emerging technologies for the benefit of regional economies. The TOIP also brokers ideas, new technologies, and services to entrepreneurs and businesses throughout each respective service area.[39]

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[35] Ruby Ward and Anne Whyte, 2010. "The Economic Impacts of the MEP of Utah." (Pages 1 and 2).
[36] The results of the 2009 MEP study do not enter directly into the analysis performed for this economic impact analysis.
[37] Innovation UTAH website, "About USTAR." http://www.innovationutah.com/aboutustar.html
[38] Ibid.
[39] Ibid.

***Funding Source(s).*** USTAR is funded through the Utah State Legislature. This includes state funding for the TOIP and the Director of USTAR for Technology Outreach at UVU.

***Linkage with UVU.*** UVU is home to one of the USTAR TOIP's. Accordingly, opportunities for technology commercialization and intellectual growth are brought to the faculty of UVU by connecting them to USTAR research and development projects and other resources. The TOIP helps UVU researchers reach the marketplace through the commercialization of technologies.

***Economic Contributions.*** As a result of USTAR, UVU faculty gain opportunities to collaborate with leading researchers in technology to conduct applied research. This is also the case with linking local industry with applied research findings. The result is collaborative opportunities to create new businesses and jobs, fueling the regional economy. A strong example of successful collaborative opportunities is represented by a specific program created by USTAR in 2009: the Technology Commercialization Grant program. A description of this program and its relevancy to UVU is presented below.

## The Utah Science Technology and Research Initiative, Technology Commercialization Grants

***Service Area and Mission.*** In an effort to bring innovative new technologies to market, USTAR launched the Technology Commercialization Grant (TCG) program in 2009. Funded by approximately $1.0 million from the Federal American Recovery and Reinvestment Act (ARRA), the TCG program was designed as a short-term grant program intended for use in higher education as part of an overall strategy to promote commercialization of higher education innovation. The USTAR TCG grants were intended for use at five Utah institutions of higher education, including UVU.

***Service Population/Services Provided.*** Between late 2009 and the end of 2010 the TCG grants were awarded on a competitive basis to UVU faculty or students who partnered with Utah-based companies and other third parties. The purpose of these grants was to assist applicants to develop and test prototypes, assess markets, and commercialize new products and services in high-growth markets. There were four rounds of grant awards within an 18-month period, during which time nine UVU-based applicants received grant funds totaling approximately $300,000 to $400,000, with the average applicant receiving a $45,000 grant. The most common use for the grant funds was for prototyping, especially industrial scale prototypes.

Examples of grant winners from UVU include the following:

- WaterJet, an innovative water drill technology for dentistry, which is currently in the industrial prototype development stage of business development
- Learning Components, a business that is developing an on-line interactive method of teaching and monitoring student performance, now being piloted at the university level at UVU
- A protein-based identification technology, which is developing a method of using proteins from hair samples for identification purposes even if DNA is not present; this

technology is in the validation stage, with the potential for getting to market in two to three years

- Pixelture, Inc., a business developing a software solution that allows users to share content from their laptop to one or more displays wirelessly, now being pilot tested at UVU and another university in Utah.

***Funding Source(s).*** The TCGs were funded through the Federal ARRA. Grantees are expected to repay the original grant amount in full to a foundation at the granting public institution if the grant leads to the establishment of a commercially successful business.

***Linkage with UVU.*** The TCG program included four Technology Outreach Directors, responsible for liaising between the campuses for the purpose of commercializing technology and for evaluating the overall potential of each grant opportunity. Each Technology Outreach Director was hosted by a university, including UVU. In addition, all grant applications had to include a university partner, either faculty or staff.

***Economic Contributions.*** The TCG grants provided an opportunity to further the commercialization of new products and services. The approximately $300,000 to $400,000 in grant funds received by UVU-based grantees contributed to business growth and development, which ultimately has the potential to generate many times this amount in annual revenues for the grant recipients. These revenues will in turn generate jobs and multiplier effects within the regional and State economies. Moreover, as the grant funds are repaid, opportunities will be generated for yet additional business ventures to be developed, which in turn could generate yet additional rounds of wage, jobs, and sales impacts.

## Utah Cluster Acceleration Project

***Service Area and Mission.*** The Utah Cluster Acceleration Project (UCAP) is an initiative jointly created by the Utah System of Higher Education (USHE), Utah's Department of Workforce Services (DWS), and the Governor's Office of Economic Development (GOED) "to improve the coordination and leveraging of Utah's economic development endeavors and resources." The objective of UCAP is "to accelerate key industry clusters and engines of job creation and economic growth."[40] First approved for FY 2009-10, the initiative seeks to align the activities of university and college campuses with the economic needs of the State. In FY 2009-10 this was initiated through three cluster-specific pilot projects, one at each public institution of higher education. UVU was selected for the pilot project in the digital media cluster. This selection was due to UVU's excellence and strength in digital media, especially in digital audio production, as well as proximity to other higher educational programs with digital media strength, such as Brigham Young University's digital animation program.

***Service Population/Services Provided.*** The intent of the UCAP is to look at industry clusters in the State of Utah with growth potential, to bring together industry players with the universities, and to see how best to move the industry forward in the State. From an education perspective, the intent of UCAP is to determine how a better partnership can be built with industry to align

[40] Utah System of Higher Education website, "Utah Cluster Acceleration Partnership, 2010-2011 Projects." http://www.higheredutah.org/wp-content/uploads/2009/11/2010-2011-UCAP-Projects.pdf.

the curriculum and to build the talent pool. Through UCAP industries have the opportunity to identify labor deficiencies or weaknesses and then inform curriculum development, leading to curriculum improvements and updates as well as the provision of more classes focused on any required skill sets. The UCAP initiative is a counterpart to USTAR. "Whereas USTAR focuses on research of discovery and development new technologies to transfer into the marketplace, the UCAP initiative focuses on applied research that accelerates businesses already in the marketplace."[41] UCAP is designed to address numerous objectives, including providing "students with an expanded learning experience that includes working directly with business partners."[42]

UVU is in its second year of UCAP implementation. During the first year UVU engaged in the UCAP model's pre-phase activities, which included the completion of a stewardship audit. This audit was designed to strengthen relationships between UVU and its stakeholders, to build UVU's network of services, to increase UVU's capability of meeting regional needs, and to identify specific UCAP projects to launch and sustain. To further this goal, UVU established a Business Engagement Strategy Committee, comprised of business and industry representatives from across Utah and Wasatch counties, which identified strategic initiatives to guide UVU's UCAP project and prioritized institutional resources. The industries most highly represented in this Committee include video gaming, film, and web development. As a next step in the formative process, which includes a total of four phases in addition to UVU's completed pre-phase activities, UVU will be hiring a facilitator on a consultancy basis, who will assist with curriculum realignment to meet cluster needs, identifying cluster opportunities, and other critical functions. Through the facilitator's efforts UVU will then be ready to implement curriculum changes to better develop the talent pool to meet regional employment and training needs in digital media.

***Funding Source(s).*** UCAP funds are provided primarily by Utah's Department of Workforce Services (DWS), with additional funds provided by the Utah System of Higher Education (USHE). Funding is tied to the stage of UCAP project development. Successive rounds of funding are contingent upon approval of prior phase efforts. Funding to UVU will cease once the fourth phase of development is completed, which includes a review of the proposed outcome of the UCAP activities and a description of the tools and data to evaluate and measure outcomes, such as potential wages, projected openings per year, and projected occupational growth. The State Legislature expectation is that UVU and engaged businesses will repurpose existing resources to sustain long-term outcomes.

***Linkage with UVU.*** The UCAP project was awarded directly to UVU for implementation, and UVU is a key participant in the UCAP project and process designed to address the need of the digital media cluster for talent and innovation support.

***Economic Contributions.*** The goal of UVU's UCAP project is to directly contribute to the acceleration of the digital media targeted industry as well as the wide spectrum of economic growth opportunities across the state. Because the project is still in its formative stages these

[41] Ibid.
[42] Utah System of Higher Education website, "Utah Cluster Acceleration Partnership (UCAP): Aligning Higher Education with Industry, Talent and Innovation Needs." http://www.higheredutah.org/utah-cluster-acceleration-partnership-ucap-aligning-higher-education-with-industry-talent-and-innovation-needs

economic contributions have not yet been realized, but program specifications require the formulation of measurable outcomes that UVU can use to assess UCAP's impact on the region and State.

## UVU Office of Technology Commercialization

***Service Area and Mission.*** The UVU Office of Technology Commercialization was created by UVU in January 2011. The Office's initial staff includes a Director, a newly formed position within the University. The Office is charged with identifying and cultivating entrepreneurial and informational technology properties developed at UVU and throughout the region and facilitating the transfer of those technologies into commercially viable enterprises. The overall mission of the Office is to have a strong economic impact on the region and State of Utah by strengthening the economy through development and application of new technologies. The Office seeks to create value for UVU through the revenues associated with the licensing of technologies and royalties.

***Service Population/Services Provided.*** The Office of Technology's primary service group comprises faculty and students within UVU. Additional outreach and services are provided to local businesses to help develop or strengthen their technologies, in turn strengthening their employment base and reach within the world marketplace.

The Director of the Office of Technology Commercialization conducts outreach within UVU to identify and attract potential inventors and technologies suitable for commercialization. The Director speaks to University departments and faculty and also identifies and speaks to student groups. For example, in the Spring of 2011 the Director made a presentation to a physics group within the College of Sciences. Ultimately four student inventions were showcased after this presentation, including one invention involving electrical distribution. A patent was subsequently filed for this invention with the support of the Office of Technology Commercialization, and the inventor is now being supported by the Office in looking for a local company to help manufacture a prototype.

Regional businesses are also supported by the UVU Office of Technology Commercialization. These may include businesses referred by the SBDC or businesses that independently contact the Office. These businesses request assistance with taking the technologies they invent, own, or know about to the marketplace using UVU's opportunities. Some of this assistance is provided by UVU faculty and students as well as the Office of Technology Commercialization. For example, during the Fall semester of 2011, select Business School classes will provide opportunities for inventors and local companies to receive market research specific to their technology. Through coursework and activities the students will help these inventors and businesses, comprising start-up to well-established companies, understand marketing opportunities and sales potential.

***Funding Source(s).*** The UVU Office of Technology Commercialization is funded directly by UVU. The Office's goal is to ultimately be self-supporting, funded by the revenues accruing to the University from licensing technology efforts or royalties. In addition, once sufficient funds

have been accumulated, the Office will promote and fund additional research within the University to support commercialization of promising technologies.

***Linkage with UVU.*** The Office of Technology Commercialization is fully funded by UVU and its primary goal is to help UVU faculty, students, and staff develop technologies suitable for commercialization.

***Economic Contributions.*** Since January 2011 the UVU Office of Technology Commercialization has facilitated the filing of four patents. These patents are individually owned by their inventors but UVU will participate in the downstream financial rewards from commercialization. Another four or five patents are in process as of August 2011. This is a strong record of success within just seven months. As the Office of Technology Commercialization becomes more established within UVU there is the demonstrated potential for numerous inventions to be fostered and ultimately create economic opportunities through manufacturing and sales benefiting the inventors, UVU, and the regional and State economies.

## Business Resource Center

***Service Area and Mission.*** The Business Resource Center, serving the Mountainland Region of Utah, Summit, and Wasatch counties, was started in the late 2000s as a collaborative council for local economic development agencies and service providers hosted by UVU. The purpose of the Business Resource Center is to consolidate economic development activities and events, find ways to support local entrepreneurs, and help them enhance their business success.

***Service Population/Services Provided.*** The Business Resource Center, which started as a loose network of member agencies and service providers, has become increasingly formalized since its inception. During its second year of operations pilot funding became available through the State legislature, administered by the Governor's Office of Economic Development (GOED), formalizing the creation of three Business Resource Centers throughout the State, including the one serving the Mountainland Region. Now in its third year, the Business Resource Center will soon become more formalized, housed in a 20,000-square-foot former Saturn car dealership located across from the main entrance to UVU. Completion of the Business Resource Center is anticipated for November 2011.

The new Business Resource Center will bring together in a shared space many agencies and service providers serving the economic development needs of the Mountainland Region (e.g., defined as Utah, Summit, and Wasatch counties). These groups include the Small Business Development Center (SBDC), the Commission for Economic Development in Orem (CEDO), the Manufacturing Extension Partnership (MEP), the Procurement Technical Assistance Center (PTAC), USTAR, Service Corps of Retired Executives (SCORE), and the University's new Technology Commercialization Officer. CEDO, a non-profit organization whose mission is to ensure the economic vitality of the city of Orem, also runs an incubator that will collocate in the Business Resource Center. Of the Center's 20,000 square feet, 9,000 feet will be occupied by the incubator.

Collectively the Business Resource Center groups are all dedicated to providing business and economic development assistance to aspiring and existing businesses. The Center will be staffed

by an Administrator and Project Manager, who will conduct intake and prescreening, and then will refer clients to the group within the Center most appropriate to meet their needs.

***Funding Source(s)***. Funding for the Business Resource Center has been provided by the Utah State legislature, administered by GOED. Funding for construction of the new Business Resource Center, expected to open November 2011, was provided by UVU, CEDO, and a grant from the U.S. Economic Development Administration (EDA). The largest portion of the construction funds was provided by UVU, which also purchased the development site. Once operational, all of the non-UVU Business Resource Center tenants will be responsible for paying rent.

***Linkage with UVU.*** UVU was the driving force behind the formation of the Business Resource Center and the development of the new Center facility. UVU's involvement with the Business Resource Center supports the University's major initiative of community engagement.

***Economic Contributions.*** The Business Resource Center itself is not a direct source of contributions to the regional economy. However, all the many constituent organizations that comprise the Center contribute to the establishment and growth of businesses, fueling the economy through business and job growth, encouraging business investment, and supporting the region's economic development.

**Woodbury School of Business Entrepreneurship Institute**

***Service Area and Mission.*** In 2003 UVU started the Entrepreneurship Institute, which is fully housed within the Woodbury School of Business. The Entrepreneurship Institute "coordinates academic teaching, research, and community outreach programs for entrepreneurship at UVU." The Institute is a leader in the Central Utah community, with regard to entrepreneurship education, because of its local focus on business development, strategic relationships, applied teaching method, and network of support at UVU.

***Service Population/Services Provided.*** The Entrepreneurship Institute offers nine classes to UVU students. These classes comprise a concentration within the University's Business Management Department. A minor is also offered in "Entrepreneurship Across the Curriculum" for non-business majors. The development of an Associate Degree is underway, with the potential to be available as a UVU degree program by Fall 2012.

The most common manner of student involvement in the entrepreneurship program is through enrollment in the curriculum's intro class, which is an elective. There are typically 110 students enrolled in this class, divided into four sections. The course is additionally offered in the summer, during which 30 students are typically enrolled. Another popular class is the Entrepreneurial Lecture Series, which attracts approximately another 100 students. Beyond these elective classes, there are approximately 50 students currently pursuing the Entrepreneurship concentration, with approximately 25 graduating each year. Between the students pursuing the concentration and students enrolled in the elective classes the program sees about 200 students per semester.

In addition to supporting and fostering student entrepreneurship through coursework, the Entrepreneurship Institute provides services to the local community. Three significant examples of this outreach include the Entrepreneurial Business Conference held on the UVU campus, a monthly breakfast series, and a high school entrepreneurship program. The Conference has been an annual, one-day event for three years, and on average attracts 150 to 200 participants comprising practicing entrepreneurs and small business managers. Guest speakers are brought in for the Conference to address a number of topics, which for the 2011 Conference included the following: direction of the U.S. economy, identifying business opportunities, sources of working capital, marketing strategies, and empowering employees. Conference fees were $149 for business professionals and $25 for students. The monthly breakfast series includes breakfast and a range of single topic presentations, typically attracting 20 people per month, with a modest registration fee to help defray costs. Finally, after a two-year hiatus due to funding limitations, the Entrepreneurship Institute offers a one-week high school entrepreneurship summer program, during which students learn about entrepreneurship and develop a business concept and business plan, complemented by developing and selling products at a Farmer's Market. Historically 20 to 30 students participate in this program, although given the hiatus enrollment was 11 during Summer 2011.

***Funding Source(s)***. There are no institutional funds made available to the Entrepreneurship Institute other than UVU faculty salaries and overhead. Local businesses, such as accounting firms and banks, provide contributions to fund the local community outreach activities, such as the Entrepreneurship Conference and the Breakfast Series. Most recently these contributions totaled $5,000 a year. In addition, student interns have sometimes provided support to the Entrepreneurship Institute and a new full-time position has just been developed starting with the 2011-2012 academic year to direct the Institute's outreach activities, working with students within UVU and businesses in the community. Expectations with this new position are that the Entrepreneurship Institute's outreach activities will expand and strengthen. Finally, the Institute often has a volunteer Entrepreneur in Residence. In addition to volunteering his efforts, the most recent Entrepreneur in Residence has donated $10,000 to the program.

***Linkage with UVU.*** The Entrepreneurship Institute is fully housed within the Woodbury School of Business at UVU and coordinates community outreach programs for entrepreneurship for the School of business. All faculty associated with the Institute are University employees.

***Economic Contributions.*** The Entrepreneurship Institute has helped foster the formation of successful businesses started by students or former students. Data are not tracked regarding student success in creating and launching new business ventures, but there is a rich amount of supportive anecdotal information. For example, a student who participated in the early days of the Entrepreneurship Institute went on to create, with other family members, Longboards Vintage Ice Cream, a successful ice cream bar company. Students in the UVU Entrepreneurship Institute often compete in the statewide Utah Entrepreneur Challenge. The student founder of Longboards participated in this challenge in 2004, winning first place and a $40,000 cash prize. This same student then competed globally, winning first place of 2004 The Global Student Entrepreneur Awards, with an additional $10,000 cash award. The founders of Longboards catapulted these successes into a strong business enterprise. By 2011, Longboards was headquartered in Southern California, with sales occurring primarily through its "Longboards Ice

Cream Truck." This form of food sales is very popular in California, with customers following Longboards on Facebook and Twitter. A large portion of Longboards sales is generated from catering big events, fundraisers, corporate parties, and weddings. Demand for Longboards is continually growing and the ownership is very optimistic about the company's future. While the economic impacts of this company ultimately left Utah, the company's success is a testament to the strong support, encouragement, and guidance provided by the Entrepreneurship Institute.

There are additional examples of successful business ventures created by UVU Entrepreneurship Institute students, including a lawn care company owned by a current student that has grown through acquisition of other lawn care companies and provides commercial and residential services in northern Utah County and southern Salt Lake County, and WaterJet, an innovative water drill technology for dentistry, whose two student creators initially received $60,000 in grants for prototype funding (including the aforementioned USTAR Technology Commercialization Grant and one other), with more investment anticipated and product launching within the next five years.

Thus, while data are not maintained regarding the impacts associated with student learning through the Entrepreneurship Institute, there are clear examples of the economic impacts created within the State of Utah as well as other national locations, resulting in new product sales and job generation. In addition, the program is reinforcing the reputation of UVU's School of Business. As a testament to the strong training provided by the Entrepreneurship Institute, UVU student teams continue to place high in the rankings of the Utah Entrepreneur Challenge. On previous occasions UVU student teams have placed second in this competition, with other UVU teams consistently ranking in the top 10 out of approximately 200 competing teams. Thus, the skills gained by UVU students through their Entrepreneurship Institute instruction are garnering objective appreciation and validation.

**Woodbury School of Business "Doing Business with China" Conference**

***Service Area and Mission.*** Starting in 2011, the Woodbury School of Business has convened an annual conference on "Doing Business with China." This conference was a key component of UVU's Strategic China Initiative, which seeks to shed light on China's growing influence as a world cultural, social, and economic power. The purpose of the "Doing Business with China" Conference, which is a half day event intended to recur on an annual basis, is to serve businesses throughout the State of Utah in their efforts to do business with China.

***Service Population/Services Provided.*** The half day informational conference was open to any interested attendee. The conference was informational, and featured seven to eight speakers, including business representatives from Hawaii, China, Houston, and Utah, all with direct business experience in China. Topics covered during the conference included issues salient to do business in China, such as arranging financing, legal issues, entry strategy, outsourcing, and cultural and political sensitivity. In addition to the informational content of the Conference, the purpose of the event was to create a networking space for companies currently doing business in China or seeking to do so. The Conference attracted 157 paid registrants, plus additional UVU faculty and staff. The Conference attendees represented a wide range of businesses and service

providers, such as nutraceutical manufacturers, financial institutions, handbag manufacturers, and consultants with China expertise.

***Funding Source(s)***. The School of Business's efforts supporting the University's Strategic China Initiative are funded through the University. The $35 registration fees for the Conference primarily covered Conference food-related expenses. In the future, the School of Business aspires to attract sponsors for the Conference.

***Linkage with UVU.*** The "Doing Business with China" Conference is one component of UVU's Strategic China Initiative. Other components involving the School of Business include UVU's growing relationship with the University of Science and Technology of China, in Hefei, China. The School of Business is building a relationship with this University, which includes a faculty exchange, with UVU School of Business MBA faculty initiating teaching assignments in Hefei beginning Fall 2011. This relationship building is pursuant to UVU being selected in January 2011 as one of 10 U.S. higher education institutions to participate in the International Academic Partnership Program (IAPP), which seeks to increase the number of international partnerships between higher education institutions in the U.S. and those in China during 2011. The School of Business hopes to further link this relationship back to UVU by hosting a visiting assemblage of University of Science and Technology of China (USTC) MBA students and businesses in 2012, during their planned visit to three U.S. institutions of higher education, including Stanford University, UVU, and University of Utah. The School of Business hopes a strong connection can be built with USTC during this visit, and that the visit will recur on an annual basis, allowing UVU to highlight its faculty, students, and the broader business community and further creating business opportunities for Utah businesses.

***Economic Contributions.*** The first "Doing Business with China" Conference was held in May 2011. At the time this program information was collected it was too soon to determine if any immediate business opportunities emerged from the Conference. However, anecdotal information suggests some consulting contracts resulted, fueling economic activity in the State's service sector. The long term goal is to support the creation of business opportunities in China for Utah businesses, which will provide jobs and wages for Utah residents.

## Volunteer & Service Learning Center

***Service Area and Mission.*** "The Volunteer & Service-Learning Center (V&SL) is dedicated to providing service and service-learning opportunities for UVU students, faculty, and staff. Through programs and projects in the classroom, the community, and the world, the Center works to increase social and cultural awareness, build a sense of community commitment, and extend meaningful educational opportunities that increase knowledge and enhance academic skill."[43]

***Service Population/Services Provided.*** V&SL Center staff work closely with deans, department chairs, and the campus-wide service-learning committee to identify, recruit, and support faculty interested in adding a service component to their curriculum. UVU faculty work with the V&SL

[43] Program materials prepared by the UVU Volunteer & Service-Learning Center.

Center to have their courses designated as service-learning courses. Examples of classes with a service-learning component include the following:

- MGMT 3550: Organizational Development & Change, during which students have hands-on experience with organization development and change, including work the four primary areas of the organization development process, i.e., entering and contracting, diagnosing/analysis, planning and implementing change, and evaluating /institutionalizing change
- SW 1010: Introduction to Social Work, during which students provide 20 hours of volunteer service in a human service agency or school of their choice
- PES 4400: Exercise Promotion in the Community, in which students promote physical activity in settings that address assessment and exercise prescription in the elderly

V&SL Center staff help faculty in establishing community partnerships, finding opportunities for research and publishing, and providing training opportunities with other service-learning practitioners throughout the State of Utah.

The VS&L Center staff includes a full-time director, full-time program coordinator, and part-time administrative assistant. A faculty member is also involved part-time to coordinate academic service-learning. There are 19 different academic departments with designated service-learning classes. In addition, the V&SL Center receives grant funding annually in AmeriCorps service education awards. AmeriCorps is a network of national service programs that engages Americans in multiple opportunities each year, and the grant funds provide AmeriCorps slots for UVU students whose service meets critical needs in education, public health & safety, and community strengthening.

The VS&L Center works diligently to provide individuals and groups with meaningful engaged learning experiences and community involvement activities that encourage student development, learning, and civic engagement. A number of additional programs sponsored by the V&SL Center include youth mentoring, food drive, blood drives, Meals on Wheels, Adopt a Grandparent, and Sub for Santa. In FY 2009-10, there were 10,839 participants in V&SL Center programs, including service-learning classes.

***Funding Source(s)***. The VS&L Center is primarily funded by student fees, although a small amount of pass through funds from the Corporation for National Service is provided to assist in supporting the AmeriCorps program. Additionally, the V&SL Center also receives some funding from the UVU Office of Academic Affairs to assist in the training and development of service-learning faculty.

***Linkage with UVU.*** The V&SL is a Center and service directly provided by UVU.

***Economic Contributions.*** The level of student involvement in the V&SL Center's activities has increased steadily over the years. In FY 2004, student involvement totaled 5,270, with 52,001 hours of volunteer & service-learning. These figures increased substantially by FY 2009-10, when 10,839 students devoted 102,665 hours to volunteering and service-learning. The VS&L Center values this level of student involvement at $2.0 million, based on a $19.51 per hour value

of volunteer time as estimated by Independent Sector, a leadership forum for charities, foundations, and corporate giving programs committed to advancing the common good in America and around the world. This is a significant infusion of in-kind services to the community and regional economy, which in turn likely fueled yet additional economic impacts attributable to UVU.

## Child Care Resource and Referral Mountainland

***Service Area and Mission.*** Child Care Resources & Referral Mountainland (CCR&R) serves Juab, Utah, Summit, and Wasatch counties. Housed at UVU, the CCR&R assists parents, providers, and community partners by providing referrals, education, collaboration, and resources. Child care providers comprise child care centers and child care providers who work out of their homes.

***Service Population/Services Provided.*** CCR&R provides professional development and training to child care providers. This occurs in many ways, including through the provision of over 80 training classes a year. During FY 2011, about 1,200 child care providers attended these classes. These classes are part of a professional development program administered by the Child Care Professional Development Institute, which is a program that has helped generate quality improvements in child care settings. Many other services are provided to childcare providers. These include the Peer Mentoring System, through which home child care providers just entering the field are assigned to an experienced provider to gain professionalism, understanding of best practices, and self-esteem. Another major service provided by CCR&C includes Start-up Grants, which provide grants to new providers to help them establish their home business. During FY 2011, these grants were provided to 20 new providers. Additional services offered to child care providers include once monthly access to resources available at CCR&C such as copy machine, laminator, and die cuts. There are also boxes of enrichment materials or grants made available to home providers who complete 40 hours of endorsement training at the Utah State Career Ladder program. The enrichment boxes include toys and educational books addressing many different phases of childhood learning. In FY 2011, CCR&R awarded 37 of these boxes to providers.

CCR&R provides a referral system to parents seeking a childcare provider. Parents can call CCR&R's referral line and share information regarding their child care needs, including days of the week, number of children, etc. CCR&R then generates a personalized referral list generated for the parent based on their needs. Alternatively, parents can also generate an on-life referral through CCR&R's website. Parents are also provided information regarding how to choose quality child care. During FY 2009, CCR&C provided 1,850 referrals. This was a near peak year for referrals, which dropped due to the economy to 1,223 in FY 2011.

Doing its part to support UVU's mission of engagement, CC&RC collaborates with many other programs throughout the region to promote early childhood projects and to advocate for children. These other programs include United Way and their Welcome Baby program, Centro Hispano, and the Partners for Infants and Children Utah County Early Childhood Council.

***Funding Source(s)***. CCR&R is funded by Utah Department of Workforce Services – Office of Work and Family Life, Office of Child Care. It is also federally funded through the Child Care

Development Block Grant Fund. CCR&R has six full-time staff, two part-time consultants, and 16 part-time trainers who teach over 80 early childhood classes annually.

***Linkage with UVU.*** CCR&R is a program of UVU. In the early 1990s a Request for Proposals (RFP) was released to support the creation of CCR&R. UVU was awarded the contract and CCR&R has been located at UVU ever since. CCR&R pays 10 percent of its budget to UVU as a partial contribution to overhead.

***Economic Contributions.*** There are many ways CCR&R creates economic impacts, primarily through skills enhancement, job growth, income earnings, and child development. Childcare providers who attend CCR&R's training classes gain information and skills that enhance their ability to provide childcare. CCR&R also provides grants designed to help providers gain entry to the marketplace, fueling job creation. Parents who use CCR&R to find childcare providers are typically then able to contribute to the workforce, earning wages to support their own household. Through multiplier effects, their household spending in turn creates additional economic impacts. The childcare providers who obtain jobs through the referrals also experience increases in household income and also support additional economic impacts. Finally, and perhaps most critically, research findings indicate that an investment in quality early childhood programs give back a high rate of return. Studies show that if a child's early childhood includes support for growth in language, motor skills, adaptive abilities, and social-emotional functioning, the child is more likely to succeed in school and to later contribute to society.[44] CCR&C is helping to ensure that Utah's young children receive this critical start to being contributing and productive members of Utah's economy.

## Grants for Engaged Learning Program

***Service Area and Mission.*** "The Grants for Engaged Learning Program (GEL) supports projects that promote collaborative learning and problem-solving resulting in solutions, outcomes, and benefits to the local, regional, national, or international communities."[45] Through the grant program, faculty, students, and staff are encouraged to obtain funding for projects that will cultivate a culture of engagement across the University. These projects are intended to build collaborative partnerships and expand engaged learning opportunities. GEL is a new program at UVU, started during academic year 2010-2011. GEL provides successor services to the UVU Center for Engaged Learning (CEL), which was created by the Office of the President in 2007 to raise the profile of engaged learning and to initiate partnerships and projects that model this approach to teaching and learning.

***Service Population/Services Provided.*** GEL grants are available to students and faculty of UVU, but students require a faculty sponsor for grant fund distribution purposes. The application process to obtain a GEL grant is competitive. The evaluation process includes consideration of five criteria. Relative to economic impacts, the most relevant criterion is that the project has a community benefit, with the applicant specifically required to identify the depth and breadth of

[44] Arthur Rolnick and Rob Gruenwald. "Early Intervention on a Large Scale." http://www.minneapolisfed.org/publications_papers/studies/earlychild/early_intervention.cfm.
[45] UVU website, "What is the Grants for Engaged Learning (GEL) program?" http://www.uvu.edu/gel/faq/index.html

the anticipated impact and value to the community being served. Other grant selection criteria include depth and breadth of student involvement with significant learning conditions, the extent to which the project connects academic theory and learning to practical applications, and the extent to which potential student and community outcomes will be measured and communicated.

There is a wide variety of projects funded with GEL grants, with seed grants (see below), comprising grants for projects completed in the academic year for which funding was received, ranging from $1,015 to $10,000, with just under half the grants awarded in the amount of $10,000. Summary descriptions of some of these GEL projects include the following:

- Paramedic students will utilize airway management equipment and become proficient in the intubation skill, thus improving clinical outcomes and engaging emergency service providers by having UVU students teach the intubation skill to partnering agencies.
- Service learning will be promoted at the University of Bamako, Mali through a collaborative project in which elevated groundwater arsenic and its health effects in the high-poverty neighborhoods of Bamako and the rural villages of Ouelessebougou will be studied.
- UVU students will collaborate with local schools to conduct programs for their at-risk families that are proven to be effective in increasing resilience and reducing risk factors for behavioral, emotional, academic, and social problems.

***Funding Source(s)***. The GEL grant funds are provided through the Office of the President, reflecting funds appropriated to the University by the State of Utah. The Program has $400,000 annually available in funding. From 2007-08 through 2009-10 all $400,000 was allocated as seed grants. Beginning in 2010-11, grants are divided into three categories; $200,000 for seed grant projects; $150,000 for phased grant projects, and $50,000 for University initiative projects, such as top engaged-learning initiatives. The phased grants are for high profile, multi-year projects in which University units (deans and Student Services) partner with GEL in a collaborative funding model over a three-year period. Examples of these grants funded through the beginning summer 2011 include the following:

- A $20,000 grant to the Business Marketing Research Center to fund a new UVU student market research program wherein students will set up a marketing research center in a local mall and collaborate with local businesses providing valuable information for their marketing practices
- A $9,000 grant to the Community Writing Center, to provide writing-related community service directly in the community
- A $7,000 grant to the UVU ESL Program for working closely with Latino initiatives to improve Latino outreach efforts in the Heber Valley

***Linkage with UVU.*** The GEL program is generated from within UVU, and is exclusively available to UVU faculty, students, and staff.

***Economic Contributions.*** The focus of GEL grants is providing opportunities for engaged student learning, which enhance student experiences and strengthen their skill sets. This will provide a competitive edge for graduate school applications and boost student labor force

marketability, potentially translating into higher salaries and wages. Equally, if not more importantly, reflecting the community benefit evaluation criteria for GEL grant applications, every project funded by a GEL grant has some positive impact on its constituent community, some of which will translate into future economic benefits. These communities vary widely, and in the first year of GEL grant administration included the communities referenced above plus many others such as at-risk Latino Junior High students, children and youth attending UVU's Noorda Theatre Summer Camp, and a village in Central Mexico where a system of slow sand filtration will be field tested. This indicates that the GEL's economic contributions are far-reaching, including communities close to UVU as well as other, more global communities.

# Appendix 1: Ryan New Jersey Model Estimations of Economic Impact

This appendix estimates the economic impact that UVU has on the service region using the Ryan New Jersey model. This model has been applied by numerous other colleges and universities to estimate their economic impact, and was used by UVU, which at the time was the Utah Valley State College, for its last three economic impact studies. To allow for comparability with the previous UVU studies (FY 1996, 1999, and 2004), the research team has also used this model to estimate the total economic impact of UVU on the local economy. This model sums the total expenditures of the university, employees, and students, and applies a single multiplier to estimate the indirect effects of the spending on the local economy. The application of the model yields the following results:

| | | |
|---|---|---|
| College Expenditure | | 10,538,602 |
| | Plus | |
| Employee Expenditures | | 60,028,653 |
| | Plus | |
| Student Expenditures | | 185,823,664 |
| | Equals | |
| Total Expenditures | | 256,390,919 |
| | Times | |
| Multiplier | | 1.82900 |
| | Equals | |
| Total Economic Impact | | 468,938,991 |

As shown above, UVU's current total economic impact when estimated using the Ryan New Jersey economic impact model is $469 million at the service region level. In comparison, UVU's total economic impact was $153 million in the FY 1999 study and $113 million in the FY 1996 study. The University's economic impact has increased over time largely due to expansion of the University's enrollment. Enrollment at UVU was about 16,000 in 1997, about 20,000 in 2000, and about 32,000 in 2010.

The difference between the estimated current economic impacts measured by the IMPLAN model and Ryan New Jersey model is attributable to a number of reasons. On average the IMPLAN model applies a multiplier of about 1.7 compared to the Ryan New Jersey model multiplier of 1.8, which is taken directly from the previous study. The different multipliers account for about 20 percent of the difference between the two measures of UVU's economic

impacts. The other 80 percent of the difference is attributable to different regional purchasing coefficients used in the two models and a number of methodology variances. For example, in the case of employee spending, the Ryan New Jersey model assumes 65 percent of the impact of all purchases is captured within the service region. The IMPLAN model assigns a different percentage to each good or service expenditure category, referred to as a regional purchasing coefficient.

The Ryan New Jersey Worksheet used to derive UVU's economic impact estimate in this Appendix is included in Table 24. This worksheet provides the sources of data used to calculate the economic impact above as well as the formulas and assumptions applied in the analysis. The first column provides the data element analyzed. The second column describes the formula used to develop the results in the third column. The fourth column provides the source of the data used or assumption made to perform the analysis.

In an effort to determine the change in economic impact of UVU since its last study in 2004, the information from this analysis was used as an anchor between the two methods. Had the 2004-05 study used the IMPLAN model, it is estimated that UVU's impact would have been $4.60*. Comparing this estimate with the current IMPLAN results, the economic impact of UVU in 2009-10 is 21.4% higher than in 2004-05.[46]

*This constant of variability is based on the ratio of the 2009-10 IMPLAN economic impact divided by the Ryan New Jersey 2009-10 impact. This constant is then multiplied by the 2004-05 Ryan New Jersey impact.

[46] This constant of variability is based on the ratio of the 2009-10 IMPLAN economic impact divided by the Ryan New Jersey 2009-10 impact. This constant is then multiplied by the 2004-05 Ryan New Jersey impact. This method attempts to normalize the difference in estimation technique between the IMPLAN and Ryan New Jersey model, but will not control for slight variations in the application of these models over time.

**Table 24 - Ryan New Jersey Worksheet**

| Data Element | Formula | Result | Source: |
|---|---|---|---|
| 1. College Expenditures: | | 94,136,694 | |
| 3. Percentage of College Expenditures | | | |
| a. in county: | | 52% | from 2004-05 Study |
| b. in state: | | 64% | from 2004-05 Study |
| c. out-of-state | | 36% | from 2004-05 Study |
| 4. Number of College Employees | | | |
| a. full-time: | | 1,452 | 2009-10 UVU Factbook |
| b. part-time: | | 3,212 | 2009-10 UVU Factbook |
| c. TOTAL: | L4a+L4b (i.e. 1,452+3212) | 4,664 | |
| d. FTE for above: | | 2,512 | 2009-10 UVU Factbook and ratio used in 1999-2000 Study |
| 5. College Employees Who Live in Sponsoring County | | | |
| a. full-time: | | 708.89 | 2009-10 UVU Factbook and ratio used in 1999-2000 Study |
| b. part-time: | | 2,634 | 2009-10 UVU Factbook and ratio used in 1999-2000 Study |
| c. TOTAL: | L5a+L5b | 3,343 | 2009-10 UVU Factbook and ratio used in 1999-2000 Study |
| d. FTE for above: | | 1,578 | 2009-10 UVU Factbook and ratio used in 1999-2000 Study |
| In State | | | |
| e. full-time | | 1,452 | 2009-10 UVU Factbook |
| f. part-time | | 3,212 | 2009-10 UVU Factbook |
| g. TOTAL | L5e+L5f | 4,664 | 2009-10 UVU Factbook |
| h. FTE for above | | 2,512 | 2009-10 UVU Factbook |
| 6. Total Employee Disposable Income Available: | | 94,368,696 | UVU Expense Report |
| 7. Number of Students | | | |
| a. full-time: | | 15072 | 2009-10 UVU Factbook |
| b. part-time: | | 13693 | 2009-10 UVU Factbook |
| c. TOTAL: | L7a+L7b | 28765 | 2009-10 UVU Factbook |
| d. Students Employed at UVU | | 1348 | 2009-10 UVU Factbook |
| e. Percent of UVU Students in Utah County | | 90% | from 1999-2000 Study |

| | | | |
|---|---|---|---|
| 8. Average Annual College-Related Expenditures by Full-time Students | | $8,477 | Based on Cost of Attendance from Financial Aid Office |
| 9. Average Annual College Related Expenditures by Part-time Students | | $4,240 | Based on Cost of Attendance from Financial Aid Office |
| 10. Revenue From Students: | | | |
| 11. Revenue From Local Governments: | | | |
| 12. State Aid: | | 67,033,954 | UVU Finance Report 2010 |
| 13. Revenue From Other Sources Within State: | | | |
| 14. Revenue From Out-of-state Sources: | | | |
| 15. Estimate of Percent of Employee Expenditures in County: | | 65% | from 2004-05 Study |
| 16. Total Number of Out-of-county | | | |
| a. full-time employees: | L4a-L5a | 743 | Calculated value |
| b. part-time employees: | L4b-L5b | 578 | Calculated value |
| 17. Total Number of Out-of-state | | | |
| a. full-time employees: | | 0 | Calculated value |
| b. part-time employees: | | 0 | Calculated value |
| 18. Annual Expenditures in Service Area by Employees Residing Out of Service Area | | | |
| a. full-time employee expenditures: | | 1759 | Based on Ryan NJ Estimates (1989) escalated for inflation (BLS CPI base year 1989) |
| b. part-time employee expenditures: | | 879 | Based on Ryan NJ Estimates (1989) escalated for inflation (BLS CPI base year 1989) |
| 19. Percent Who Rent in County: | | 26% | from 2004-05 Study |
| 20. Mean Monthly Rent in County: | | 873 | 2007 Average Rental Rates as reported by BYU for a 3 bedroom apartment |

| | | | |
|---|---|---|---|
| | | | (http://housing.byu.edu/offcampus/compdata/averageHousingCosts.html) |
| 21. Utah County Multiplier: | | 1.8276 | from 2004-05 Study |
| 22. Utah State Multiplier: | | 2.893 | from 2004-05 Study |
| 23. Job Multiplier For Utah County: | | 1.4195 | from 2004-05 Study |
| 24. Countywide Data for Individual College | | | |
| 26. College Expenditures in County: | L3a*L1 | 48,951,081 | |
| 28. Disposable Income of In-county Employees Spent in County on Non-housing Items: | L6*(L5d/L4d)*L15 | 38,540,582 | |
| 29. Expenditures of Out-of-county Employees in County on Non-housing Items | | | |
| a. full-time: | L16a*L18a | 1,306,773 | |
| b. part-time: | L16b*L18b | 507,781 | |
| 30. Rental Expenditures by Full-time College Staff Living in County | L5a*L19*L20*12 | 1,930,843 | |
| 31. Total Employee Expenditures: | L28+L29a+L29b+L30 | 42,285,979 | |
| 32. Total Expenditures by Full-time Students: | L7a*L8 | 127,765,344 | |
| 33. Total Expenditures by Part-time Students: | L7b*L9 | 58,058,320 | |
| 34. Total Expenditures by Students: | L32+L33 | 185,823,664 | |
| 35. Total Direct Economic Impact of the College on the County: | L27+L31+L34 | 277,060,724 | |
| 36. Utah County Multiplier Effect: | L21 | 1.8276 | from 2004-05 Study |
| 37. Total Estimated Economic Impact: | L35*L36 | 506,356,179 | |
| 38. Total Jobs Related to | (L5c+L7d*7e)*L23 | 6,468 | |

| | | | |
|---|---|---|---|
| College in County: | | | |
| 39. Indirect Jobs Related to College in County: | L38-L5c-(L7d*7e) | 1,911 | |
| 40. Ratio of Sponsor Contribution to Total Economic Impact: | L37/L12 | 7.55 | |

# Appendix 2: Comparison of Financial Statement Data to Data from Expense Report

The Expense Reports for Fiscal Years 2004-2010 were the main source of information on spending by the University. This data was provided to the research team by the UVU Controller's Office. Table 25 provides a summary of the expenditure report data set.

**Table 25 – Summary of Expense Report Data**

| | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY04-FY10 Average |
|---|---|---|---|---|---|---|---|---|
| Building Maintenance | $3,153,286 | $2,152,810 | $2,355,279 | $2,158,178 | $4,280,842 | $4,292,540 | $3,965,062 | $3,193,999 |
| Insurance | 608,451 | 728,881 | 688,310 | 789,952 | 826,246 | 500,700 | 714,596 | 693,877 |
| Motor Vehicle | 260,646 | 185,010 | 239,788 | 231,610 | 302,581 | 346,089 | 331,172 | 270,985 |
| Utilities | 4,204,186 | 4,386,784 | 4,523,607 | 4,298,497 | 4,574,686 | 4,780,517 | 4,686,403 | 4,493,526 |
| Conferences & Seminars | 262,715 | 269,817 | 228,721 | 301,368 | 811,763 | 601,326 | 405,859 | 411,653 |
| Copy & Printing | 889,468 | 578,822 | 452,049 | 566,438 | 510,415 | 691,712 | 621,905 | 615,830 |
| Instructional Equipment | 953,305 | 575,561 | 573,383 | 749,372 | 1,051,583 | 731,922 | 775,593 | 772,960 |
| Instructional Supplies | 1,929,450 | 1,443,004 | 1,807,124 | 1,776,610 | 1,719,905 | 4,279,263 | 2,977,908 | 2,276,181 |
| Operating Leases | 1,102,708 | 916,644 | 940,103 | 545,932 | 665,952 | 627,367 | 554,090 | 764,685 |
| Services | 4,169,828 | 4,385,613 | 4,979,563 | 5,261,613 | 4,259,686 | 4,733,049 | 5,491,352 | 4,754,386 |
| Salaries and Wages | 64,703,625 | 66,297,613 | 70,865,571 | 74,581,613 | 83,152,507 | 91,765,164 | 94,368,696 | 77,962,113 |
| Benefits | 23,429,878 | 25,290,752 | 28,018,945 | 28,036,058 | 31,418,533 | 35,200,023 | 35,952,333 | 29,620,932 |
| Office & General | 7,298,154 | 11,804,447 | 10,463,316 | 10,267,143 | 12,312,705 | 12,620,237 | 12,924,666 | 11,098,667 |
| Office Equipment and Furniture | 3,737,708 | 2,112,878 | 2,590,275 | 2,224,278 | 3,303,164 | 5,301,519 | 3,570,800 | 3,262,946 |
| Rentals | 287,953 | 351,039 | 453,907 | 404,455 | 486,231 | 652,008 | 675,395 | 472,998 |
| Travel | 1,603,872 | 1,974,794 | 1,964,560 | 2,470,112 | 3,169,091 | 2,853,112 | 3,204,835 | 2,462,911 |
| **Subtotal Operating Expenditures (net financial aid, depreciation and resale cost of good sold)** | **118,595,233** | **123,454,468** | **131,144,501** | **134,663,228** | **152,845,890** | **169,976,550** | **171,220,667** | **143,128,648** |
| Financial Aid | 21,362,647 | 22,139,011 | 20,511,765 | 21,172,879 | 21,763,116 | 26,604,944 | 53,440,117 | 26,713,497 |
| **Subtotal Operating Expenditures (net depreciation and resale cost of good sold)** | **139,957,879** | **145,593,479** | **151,656,266** | **155,836,107** | **174,609,007** | **196,581,493** | **224,660,784** | **169,842,145** |
| Depreciation | 5,771,102 | 6,112,068 | 6,483,546 | 6,778,235 | 7,081,286 | 8,638,586 | 9,968,580 | 7,261,915 |
| Resale Cost of Goods Sold | 7,790,247 | 8,264,615 | 8,663,102 | 9,518,443 | 9,977,590 | 10,393,151 | 10,373,726 | 9,282,982 |
| **Total Operating Expenditure** | **153,519,228** | **159,970,162** | **166,802,914** | **172,132,785** | **191,667,883** | **215,613,230** | **245,003,090** | **186,387,042** |
| **Grand Total** | **188,217,022** | **172,859,952** | **174,322,869** | **182,073,944** | **204,032,452** | **273,183,039** | **255,538,175** | **207,175,350** |

Source: UVU Comptroller's Office

Out of this data set, certain categories of expenses were excluded, including Depreciation, Resale Cost of Goods Sold, and Financial Aid. Depreciation was excluded because it represents an accounting measurement rather than an actual expenditure. Average Capital Spending was included instead. Resale Cost of Goods Sold was excluded because, consistent with discussions with the Comptroller's Office, these expenditures principally include the goods sold in the bookstore to students and these expenditures would be captured through student spending. Financial Aid is excluded for a similar reason, as it is allocated to the University to pay for operations and to Students to subsidize their cost of attendance. The spending associated with this budget line is captured through student and university spending.

Table 26 provides a summary of the comparison between Financial Report, Expense Report and Economic Impact Analysis direct expenditure estimates.

**Table 26 – Comparison between Financial Report, Expense Report and Economic Impact Analysis Numbers**

| ***Operating Expenses*** | **Totals from 2010 Financial Report** | **Totals from 2010 Expense Reports** | **Categories Included in Economic Impact Analysis** |
|---|---|---|---|
| Salaries | $94,368,696 | $94,368,696 | $94,368,696 |
| Fringe Benefits | 35,952,333 | 35,952,333 | 35,952,333 |
| Student Financial Aid | 32,921,334 | 53,440,117 | - |
| Maintenance and Utilities | 8,472,132 | 8,651,465 | 8,651,465 |
| General and Administrative | 34,938,689 | 32,248,173 | 32,248,173 |
| Cost of Goods Sold | 10,292,723 | 10,373,726 | - |
| Depreciation | 9,968,580 | 9,968,580 | - |
| **Total** | **$226,914,487** | **$245,003,090** | **$171,220,667** |

Source: UVU Comptroller's Office, UCU 2010 Financial Report, pg 17

Capital expenditures are not directly compared because the economic impact report takes a four year average of capital spending in order to smooth out the impacts of major construction projects. The average 2004-2010 capital expenditures were $20,788,308. This combined with the Economic Impact Analysis operating expense estimates makes the total estimate of direct university spending in FY 2010 $192,008,975.