State-Funded Capital Facilities Request: Engineering Building

VAL PETERSON, VP FOR FINANCE AND ADMINISTRATION
UTAH VALLEY UNIVERSITY
UVU’s New Business Building

- Design Process: November of 2018
- Bidding: October of 2019
- Ground Breaking: November 11, 2019
  - Remaining $25m fully raised
- Completion: January of 2022

THANK YOU!
The Engineering Building at UVU

More than a Smart Building: An Experience
Building Details:

$88 million Estimated Cost
Why Now?
Capacity
UVU’S ENROLLMENT: A HOME FOR ALL STUDENTS IN UTAH VALLEY
The Computer Science Building was built in 2001
- UVU fall 2001 headcount: 19,913
- UVU fall 2018 headcount: 39,941
  - CET fall 2018 headcount: 4,874

Space is the number one impediment to growth to address the needs of industry and government agencies in Utah
- Existing Computer Science building assignable square footage: 52,946 sq. ft.
- Increased space will facilitate additional offerings in software development, web development, and computer system courses
COMPARISON OF BUDGET-RELATED FTE GROWTH AND NEW CAPITAL DEVELOPMENT DOLLARS

% of USHE Total Change Since FY95

- UVU
- UofU
- USU
- WSU
- Dixie
- SLCC
- SUU
- Snow

- Budget-Related FTE
- Capital Development
SPACE UTILIZATION

UVU has the highest classroom utilization rate in all three academic semesters.

Source: USHE 2019 Data Book
UVU Change in Awards Granted

<table>
<thead>
<tr>
<th></th>
<th>2007-08</th>
<th>2012-13</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>1,500</td>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Associates</td>
<td>1,000</td>
<td>1,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Certificates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTE Associates</td>
<td>600</td>
<td>800</td>
<td>1,200</td>
</tr>
<tr>
<td>CTE Certificates</td>
<td>200</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>Total CTE Awards</td>
<td>2,100</td>
<td>3,800</td>
<td>4,000</td>
</tr>
</tbody>
</table>
The largest sector of growth for the college is upper division, which grew from 497 FTE to 760 FTE (53%) in the last five years.
COLLEGE OF ENGINEERING & TECHNOLOGY: DEGREES AWARDED

5 Yr. Award History

2014: 537
2015: 581
2016: 603
2017: 675
2018: 816

5 Yr. Award Regression Forecast

2014: 537
2015: 581
2016: 603
2017: 675
2018: 816
2019: 838
2020: 903
2021: 968
2022: 1,033
2023: 1,099

Legend:
- Master Degree
- Graduate
- Bachelor
- Associate
- Certificate/Diploma
## Graduate Change from 2016

<table>
<thead>
<tr>
<th>Institution</th>
<th>2016 (Base Year)</th>
<th>2018 (Latest Year)</th>
<th>Delta 2016-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CS</td>
<td>Eng</td>
<td>Total</td>
</tr>
<tr>
<td>UU</td>
<td>384</td>
<td>720</td>
<td>1,104</td>
</tr>
<tr>
<td>UVU</td>
<td>244</td>
<td>128</td>
<td>372</td>
</tr>
<tr>
<td>USU</td>
<td>203</td>
<td>397</td>
<td>600</td>
</tr>
<tr>
<td>DSU</td>
<td>40</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td>SUU</td>
<td>28</td>
<td>39</td>
<td>67</td>
</tr>
<tr>
<td>WSU</td>
<td>238</td>
<td>200</td>
<td>438</td>
</tr>
<tr>
<td>Snow</td>
<td>18</td>
<td>35</td>
<td>53</td>
</tr>
<tr>
<td>SLCC</td>
<td>157</td>
<td>106</td>
<td>263</td>
</tr>
<tr>
<td>Total</td>
<td>1,312</td>
<td>1,626</td>
<td>2,938</td>
</tr>
</tbody>
</table>

During 2016-2018, UVU increased its number of graduates in computer science and engineering by **109**. This increase in the number of graduates places UVU second to the University of Utah; and in terms of percentage increase (29.3%), UVU leads all USHE institutions.

Data provided by Mr. Blair Carruth (USHE)
Workforce
Between 2020-50, Utah County will see an increase of 43,714 individuals aged 19-24.
Between 2020-50, Utah County will see an increase of 164,757 individuals aged 25-44.
Utah Boasts a Highly Competitive Job Market

- No. 2 in the nation for job growth
- 6% job growth between March 2017 and March 2018 (natl. Ave. is 1.6%)
- No. 6 in the nation for the percentage increase in average weekly wages, up 9%
- Tech industry growing at 3.6%, more than double the national average

- U.S. Bureau of Labor Statistics, KSL.com
## Growth's Impact on State & Regional Needs

### Occupations Requiring a Bachelor's Degree

#### Provo-Orem Metro

<table>
<thead>
<tr>
<th></th>
<th>Annual Openings</th>
<th>Current Employment</th>
<th>1 yr Projected Employment</th>
<th>1 yr Projected New Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and mathematical occupations</td>
<td>460</td>
<td>5,741</td>
<td>9,343</td>
<td>3,602</td>
</tr>
<tr>
<td>Engineers and engineering technicians occupations</td>
<td>120</td>
<td>2,189</td>
<td>2,901</td>
<td>712</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>580</strong></td>
<td><strong>7,930</strong></td>
<td><strong>12,244</strong></td>
<td><strong>4,314</strong></td>
</tr>
</tbody>
</table>

#### Statewide

<table>
<thead>
<tr>
<th></th>
<th>Annual Openings</th>
<th>Current Employment</th>
<th>1 yr Projected Employment</th>
<th>1 yr Projected New Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and mathematical occupations</td>
<td>1,720</td>
<td>29,110</td>
<td>42,215</td>
<td>13,105</td>
</tr>
<tr>
<td>Engineers and engineering technicians occupations</td>
<td>880</td>
<td>16,220</td>
<td>20,845</td>
<td>4,625</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>2,600</strong></td>
<td><strong>45,330</strong></td>
<td><strong>63,060</strong></td>
<td><strong>17,730</strong></td>
</tr>
</tbody>
</table>
GROWTH’S IMPACT ON STATE & REGIONAL NEEDS

Fastest Growth Rate
Annual Average Percent Change of Occupations with at least 1,000 openings between 2014 and 2024

- Software Developers, Applications: 5.9%
- Health Specialties Teachers, Postsecondary: 5.7%
- Web Developers: 5.5%
- Personal Financial Advisors: 5.2%
- Market Research Analysts and Marketing Specialists: 5.1%
- Computer Systems Analysts: 5.0%
- Nurse Practitioners: 4.6%
- Computer and Information Systems Managers: 4.5%
- Personal Care Aides: 4.5%
- Home Health Aides: 4.4%
- Computer User Support Specialists: 4.4%
- Cement Masons and Concrete Finishers: 4.4%
- Management Analysts: 4.3%
- Software Developers, Systems Software: 4.3%

Utah Department of Workforce Services. July 2016
UVU IS PRODUCING MORE GRADUATES FOR 4 & 5 STAR JOBS

Degrees & Certificates Awarded in High Market-Demand Programs
Change from 2012-13 to 2017-18

UVU awarded nearly 1,000 more degrees and certificates in 4 & 5 star jobs in 2017-18 than in 2012-13 (the largest increase in USHE)

Board of Regents Strategic Plan 2025 Metrics, March 2019
AFFORDABILITY
2017-18 Tuition and Fees Per Student FTE

Source: IPEDS Data Center, Core Revenues per Student FTE

Per student FTE, UVU has the second lowest combined revenue from net tuition and fees and state appropriations within the USHE system.
Efficient Stewardship of Funds

- UVU spent 10.5% less per award granted in ‘17-18 than in 2007-08 while awarding many more four-year degrees.
- UVU has a 23% increase in awards per 100 FTE since ‘07-08.

**Average Tax Funds Expended Per Award Granted**

- 2007-08: $19,566
- 2017-18: $17,502

**Awards Per 100 FTE Students**

- 2007-08: 18.7
- 2017-18: 23
At a ratio of 5.3, UVU has the highest return on investment (ROI) for students within USHE based on the median earnings of students who received federal financial aid at 10 years after entering UVU.

**ECONOMIC IMPACT OF 2017-18 UVU GRADUATES**

<table>
<thead>
<tr>
<th>Degree Type</th>
<th>Graduates</th>
<th>Annual Earnings Above a High School Diploma</th>
<th>Total Annual Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate's Degrees</td>
<td>2,336</td>
<td>$13,120</td>
<td>$30,648,320</td>
</tr>
<tr>
<td>Bachelor's Degrees</td>
<td>3,224</td>
<td>$26,269</td>
<td>$84,691,256</td>
</tr>
<tr>
<td>Master's Degrees</td>
<td>193</td>
<td>$49,131</td>
<td>$9,482,283</td>
</tr>
</tbody>
</table>

Total Annual Earnings Difference: $124,821,859

(USDOE College Scorecard 2018)
A new engineering building at UVU will help accomplish the following:

✅ **Completion**
The College of Engineering and Technology has increased the total number of awards given from **537 in 2014 to 816 in 2018**, equaling a **52 percent increase**. The largest percentage of enrollment growth is occurring in upper division courses. The **53 percent growth in upper division** courses demonstrates that the college is more efficiently moving students towards completion.

✅ **Capacity**
The utilization of the space in the computer science building will be improved by allocating more space for **software development, web development, and computer system courses**.

✅ **Affordability**
The new building will allow UVU to assist in filling the demand for trained engineers and technology specialists at UVU's return on investment for Utah which is **$8.04 for every $1** invested by the state.

✅ **Workforce**
According to the Utah Department of Workforce Services, there are **2,600 annual openings** requiring a bachelor’s degree in engineers and engineering technician occupations and computer and mathematical occupations. These fields are projected to experience a **39 percent** statewide annual increase, while UVU’s service region is projected to have a **54 percent** annual increase. Additional space will provide the resources needed to efficiently educate the growing student population and fill the needs of the state and service region.
THANK YOU!