

#### USHE BOARD OF REGENTS FINANCE AND FACILITIES COMMITTEE FRIDAY, OCTOBER 11, 2019 STATE BOARD OF REGENTS OFFICE BUILDING

#### 10:00 AM – 12:00 PM FINANCE AND FACILITIES COMMITTEE Regent Wilford W. Clyde, Chair

DISCU	SSION:	
1.	USHE - Growth Funding Task Force	TAB A
2.	USHE - Tuition and State Aid Policy Baseline Assessment	TAB B
ACTIO	N:	
1.	Weber State University – Master Plan	TAB C
2.	Utah State University – Series 2019 Refunding Bonds	TAB D
INFOR	PMATION:	
	USHE – Performance Funding and Opportunity Gap	
2.	USHE – Responses for Legislative Intent Language Due October 31	TAB E
	a. ERP/IT Cloud Security	
	b. USHE Institutional Utilization Plans	
	c. Compensation in Performance Funding	
3.	USHE – Annual Institutional Residences Expense Report	TAB F
4.	USHE – Annual Contracts and Grants Report	TAB G
5.	USHE - Annual Report on Leased Space	TAB H

Projected times for the various meetings are estimates only. The Board Chair retains the right to take action at any time. In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify ADA Coordinator, 60 South 400 West, Salt Lake City, UT 84180 (801-321-7124), at least three working days prior to the meeting. TDD # 801-321-7130.

# USHE GROWTH FUNDING TASK FORCE

October 11, 2019



# **Growth Funding Model Requirements**

- •Simple
- •Transparent
- Based on FTE Growth
- Provides Institutions Adequate Resources to accommodate growth in student population

# **Growth Funding Model Update**

Funding as Institutions hit Milestones of new Student FTE

- Student FTE:
  - Budget-Related
  - Resident
  - Annualized Actual
    - Calendar Year
    - Spring/Summer/Fall
  - Course Level
    - Vocational (credit)
    - Lower Division
    - Upper Division
- Milestone: 100 FTE

- Based on USHE Instruction/Full Cost Study
  - Average across all USHE
  - Undergraduate
    - Lower Division \$3,918 average
    - Upper Division \$7,083 average
- Pro-Rated for Tax Funding
  - 50% for Research
  - 55% for Regional
  - 70% for Community Colleges
- Adjusted for Institutional Size
  - 100% for > 10,000 FTE
  - 115% for 6,000 to 10,000 FTE
  - 120% for 3,000 to 6,000 FTE

# Growth Funding Numbers 2018 and 2019

	Basel	ine - <mark>Calenda</mark> ı	<sup>.</sup> Year Annua	lized 2018 Bud	dget Related R	esident FTE		
Course Level	UU	USU	WSU	SUU	DSU	UVU	Snow	SLCC
Vocational	-	792	3,352	479	852	4,340	708	5,067
Lower Division	8,289	8,420	5,837	2,943	3,156	10,334	2,413	8,779
Upper Division	9,810	6,480	3,402	1,703	1,232	5,807	72	-

		Calendar Year	<sup>.</sup> 2019 Annua	alized Budget F	Related Reside	nt FTE		
Course Level	UU	USU	WSU	SUU	DSU	UVU	Snow	SLCC
Vocational	-	821	3,391	505	955	4,488	689	4,906
Lower Division	8,374	8,379	5 <i>,</i> 894	3,097	3,128	10,570	2,448	8,732
Upper Division	9,868	6,634	3,470	1,795	1,357	6,135	78	-

			FT	E Growth				
Course Level	UU	USU	WSU	SUU	DSU	UVU	Snow	SLCC
Vocational	-	-	-	-	100	100	-	-
Lower Division	-	-	-	100	-	200	-	-
Upper Division	-	100	-	-	100	300	-	-

# **Direct instruction vs. Full Cost**

- Full cost includes Direct Instruction costs plus:
  - Institutional Support
    - Administration, Finance, Legal, Development
  - Academic Support
    - Libraries, Media/AV/IT, Academic Administration
  - Student Services
    - Counseling, Financial Aid, Admissions, Records
  - Physical Plant
    - Utilities, Operation and Maintenance

# **Growth Funding Calculations**

Р	roportion o	f Tax Funds		Adjustment for Size							
			Comm.				Comm.				
Course Level	Research	Regional	Colleges	FTE	Research	Regional	Colleges				
Vocational	50%	55%	70%	3,000-6,000			120%				
Lower Division	50%	55%	70%	6,000-10,000		115%					
Upper Division	50%	55%		>10,000	100%	100%	100%				

Direct Inst	ruction	Full Cost					
Expenditur	e per FTE	Expenditure per FTE					
Course Level	Average	Course Level	Average				
Vocational	\$ 5,541.14	Vocational	\$10,439.71				
Lower Division	\$3,918.38	Lower Division	\$ 9,040.50				
Upper Division	\$7,083.43	Upper Division	\$12,229.00				

# **2019 Growth Funding Instruction Only**

				Gro	wth Fu	ndi	ng - Direct	Inst	ruction			
Course Level	UL	J	USU		WSU		SUU		DSU	UVU	Snow	SLCC
Vocational	\$ -	\$	-	\$	-	\$	-	\$	342,000	\$ 298,000	\$ -	\$ -
Lower Division	\$ -	\$	-	\$	-	\$	248,000	\$	-	\$ 431,000	\$ -	\$ -
Upper Division	\$ -	\$	354,000	\$	-	\$	-	\$	448,000	\$ 1,169,000	\$ -	\$ -
Total Funding	\$ -	\$	354,000	\$	-	\$	248,000	\$	448,000	\$ 1,600,000	\$ -	\$ -



# **2019 Growth Funding Full Cost**

				Growt	h F	unding - Fu	l Co	st				
Course Level	U	J	USU	WSU		SUU		DSU	UVU	Snow	1	SLCC
Vocational	\$ -	\$	-	\$ -	\$	-	\$	667,000	\$ 580,000	\$ -	\$	-
Lower Division	\$ -	\$	-	\$ -	\$	575,000	\$	-	\$ 1,000,000	\$ -	\$	-
Upper Division	\$ -	\$	615,000	\$ -	\$	-	\$	778,000	\$ 2,029,000	\$ -	\$	-
Total Funding	\$ -	\$	615,000	\$ -	\$	575,000	\$	778,000	\$ 3,029,000	\$ -	\$	-





# DISCUSSION



# MEMORANDUM

October 1, 2019

### <u> USHE – Student Aid Project</u>

In May 2018, the Board of Regents adopted three strategic priority initiatives including the request that the Commissioner and his staff engage in a comprehensive study of the Board's current tuition and student aid policies in order to create an affordability strategy and framework, recommend revisions to tuition and student aid policies; identify the economic benefit of nonresident students for the state of Utah; and create system and institution metrics and benchmarks to review system and institutional performance against the affordability strategy.

The Board assigned the Finance and Facilities committee as the steering committee for the Regents strategic initiative focused on tuition and student aid policies. After discussions with the Commissioner, his staff, and institutional representatives, a scope of work document was created in November 2018 to guide further research in 1) tuition and student aid; 2) value of nonresident students; and 3) measuring college affordability.

The scope of work document was presented and approved in the November 2018 Regents meeting, with the Kem C. Gardner Policy Institute contracted to perform research, provide periodic technical memos, and comprehensive report by July 2019. The attached report and forthcoming presentations by institute staff to the Board of Regents, represent the contracted research and completion of the contract.

#### **Commissioner's Recommendation**

The Commissioner recommends the Regents review the Kem C. Gardner Policy Institute report and discuss potential policy modifications and enhancements.

Attachment

# Utah System of Higher Education: State Aid Project

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July 2019



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## Utah System of Higher Education: State Aid Project

### **ANALYSIS IN BRIEF**

The Utah System of Higher Education (USHE) is governed by the Utah State Board of Regents and is comprised of Utah's eight public colleges and universities, including:

- University of Utah
- Utah State University
- Weber State University
- Southern Utah University
- Snow College
- Dixie State University
- Utah Valley University
- Salt Lake Community College

USHE commissioned the Kem C. Gardner Policy Institute to assess system-wide tuition and state aid policies. This report focuses on three main topics: tuition and state aid policies, the economic impacts of nonresident students, and measuring college affordability. This comprehensive report presents a baseline analysis for further policy discussion surrounding state aid in Utah.

### At-A-Glance

#### **Tuition and State Aid**

- Utah ranked seventh out of the 15 WICHE states for lowest tuition and fees.
- Since the 2008-09 academic year, net price has decreased in Utah by 13.7 percent.
- For the 2016-17 academic year, approximately 50 percent of Utah undergraduates at four-year institutions received grant aid.

#### **Value of Nonresident Students**

- The total economic impacts from USHE nonresident student expenditures include 7,694 full- and part-time jobs, \$327.4 million in personal income, and \$549.8 million in GDP in Utah.
- For academic year 2017-18, combined state and local net fiscal revenues amounted to \$17.2 million.
- We created a 2012 cohort where we tracked graduates one year and six years after they graduated, to see if they were still working in Utah. Findings include:

#### Economic Impacts of Nonresident USHE Students, Academic Year 2017-18

(Millions of 2018 Dollars)

Impact	Jobs	Personal Income	GDP
Tuition	4,138	\$175.4	\$255.9
Room and Board	1,564	\$84.1	\$188.4
Other Expenses	1,848	\$61.7	\$95.4
Books and Supplies	144	\$6.2	\$10.0
Total	7,694	\$327.4	\$549.8

Note: Jobs reported are a mix of part- and full-time jobs created in Utah. Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model.

- 66.0 percent of residents and 25.9 percent of nonresidents were working in the state one year from graduating.
- 57.6 percent of residents and 21.2 percent of nonresidents were working in the state six years from graduating.
- In addition to the 2012 cohort, we created a 2017 cohort for comparison. We find that over the last five years, a greater portion of USHE students (7.9 percentage points) are deciding to live and work in Utah.
- We find evidence that a higher level of educational attainment results in higher wages for both resident and nonresident graduates.

#### **Measuring College Affordability**

- For a hypothetical family of three with two parents and one college-bound student:
  - Based on the Expected Family Contribution, the student has a surplus of \$7,457 if living off campus with family; a deficit gap of \$14,226 if living on campus; or a deficit gap of \$25,249 if living off campus, but not with family.
  - Based on the Rule of 10, the student has a surplus of \$23,749 if living off campus with family; a surplus of \$2,017 if living on campus; or a deficit gap of \$8,912 if living off campus, but not with family.
  - In all examples using net present value calculations, the return on a college degree was higher than the cost, with the exception of a 10-year timeline, a high bound discount value, and the student living off campus, not with family. This results in a loss of \$1,831.

#### Background

In this section, we summarize current policies and practices for each of the eight USHE institutions, propose common terminology for tuition and aid, provide examples of tuition policies and practices of select higher education systems in other states, and summarize our literature review identifying nationwide practices.

#### **Tuition and Fees**

The Board of Regents sets tuition, fees, and charges for each USHE institution at levels necessary to meet budget requirements. Tuition is generally categorized as resident/ nonresident and graduate/undergraduate, where nonresident and graduate tuition cost ratios are higher than resident and undergraduate.

USHE institutions are authorized to use a linear or plateau tuition model. A linear tuition model is where the incremental tuition charge per student credit hour is the same without regard to the number of hours for which a student is enrolled. A plateau (or constant) model is where students carrying a defined full-time load are charged a uniform rate within a defined range of credit hours. Tuition per credit hour between one credit hour and the beginning of the plateau range increases in linear increments. Students enrolled in credit hours beyond the plateau range are charged at the same rate-per-credit-hour as the credit hours preceding the plateau range. The plateau, may be any range between 10 and 20 credit hours.<sup>1</sup> Additional tuition charges may include online tuition and differential tuition.<sup>2</sup> The Board of Regents may authorize alternative tuition schedules for online courses and differential tuition schedules for programs on a case by case basis.

For academic year 2018-19, all tuition and general student fee schedules for USHE institutions included the categories of resident/nonresident and graduate/undergraduate (with the exception of Salt Lake Community College and Snow College not servicing any graduate level students).<sup>3</sup> General student fee categories may include the following, depending on institution: student activity/support, building support/bond, athletic, health, technology, transportation, and other. When looking at graduate and undergraduate programs collectively, all four-year institutions had differential tuition rates for select programs (e.g. business, accounting, engineering, etc.). The University of Utah is the only USHE institution that uses a linear model for determining tuition costs. See *Literature Review of Common Practices in Higher Education* section for additional information on linear and plateau tuition models.

#### **State Aid Policies**

Within the USHE system, only Utah State University, Snow College, and Dixie State University have a written policy on state aid:

- Utah State University: Policy 532, Scholarship Awarding includes definitions, scholarship awarding policies and procedures, audit processes, and references to Board of Regents policies, additional Utah State University policies, and Utah State Code references.<sup>4</sup>
- Snow College: Policy 520, Snow College Scholarship Policy includes definitions for scholarship purposes, policy, scholarship types, scholarship contract, scholarship appeals process, withdrawing of scholarship funds, duplication of awards, deferment of scholarships, and ADA accommodations for scholarships.<sup>5</sup> In addition to this comprehensive policy, Snow College also has a Satisfactory Academic Progress Policy that outlines eligibility for financial aid (e.g. minimum grade point average, cumulative credit hours, time frames, etc.).<sup>6</sup>
- *Dixie State University*: Policy 505, Financial Aid, Scholarships, and Waivers includes definitions, policies by type (e.g. institutional aid, scholarship type, deferments, tuition waivers, aid recall and appeals, graduate programs, etc.).<sup>7</sup>

Weber State University, Southern Utah University, Utah Valley University, and Salt Lake Community College were unable to provide the Gardner Institute a policy on state aid. The University of Utah provided a link to eligibility for Federal Financial Aid but did not have a formal policy on state aid.<sup>8</sup>

The lack of formal policies on state aid and tuition across USHE institutions make it difficult to adequately evaluate any systematic policies or exceptions. The state could benefit from formalized tuition and state aid policies throughout the USHE system.

#### **Common Terminology**

The Gardner Institute reviewed tuition and aid terminology from sources such as Federal Student Aid (U.S. Department of Education), the National Association of Student and Financial Aid Administrators, the State Higher Education Finance (State Higher Education Executive Officers Association), and the Integrated Postsecondary Education Data System (IPEDS). We were unable to find or determine one set of definitions that should be applied uniformly to USHE institutions. However, recommendations to guide USHE in creating a common terminology set to aid in transparency and clarity in college costs are outlined here. For students (and parents of students) considering enrolling at a USHE institution, a lack of consistent and clear definitions of common terminology related to tuition and aid may cause frustration, miscommunication, and a lack of transparency among institutions.

As an example, when looking at the IPEDS Glossary, definitions may lack transparency or overlap may exist.<sup>9</sup> For example:

- <u>Financial aid:</u> Federal Work Study, grants, loans to students (government and/or private), assistantships, scholarships, fellowships, tuition waivers, tuition discounts, employer aid (tuition reimbursement) and other monies (other than from relatives/friends) provided to students to meet expenses. This excludes loans to parents.
- <u>Scholarships:</u> grants-in-aid, trainee stipends, tuition and required fee waivers, prizes or other monetary awards given to undergraduate students.
- There are *five* categories of <u>institutional grants</u>: scholarships and fellowships granted and funded by the institution and/or individual departments within the institution, (i.e., instruction, research, public service) that may contribute indirectly to the enhancement of these programs. Includes scholarships targeted to certain individuals (e.g., based on state of residence, major field of study, athletic team participation) for which the institution designates the recipient.<sup>10</sup>
- <u>Grants by *local* government:</u> local government grants include scholarships or gift-aid awarded directly to the student.
- <u>Grants by state government</u>: grant monies provided by the state; merit scholarships provided by the state; and tuition and fee waivers for which the institution was reimbursed by a state agency.
- <u>Fees</u> can be generally categorized as a comprehensive fee, required fee, or tuition and fees.

If the Board of Regents seeks to implement a common set of terminology for tuition and aid for USHE institutions, our research supports consideration of the following:

- 1. If the term is serving the same purpose does it need a distinction?
- 2. Can the term be applied across all USHE institutions or do select institutions require an exception?
- 3. Is the term consistent with existing local, state, or federal organizations?
- 4. Does the term and definition provide ease of use and understanding by students and parents?

Terms to consider may include, but are not limited to the following:<sup>11</sup>

- <u>Definitions by student type</u> enrollment status may determine eligibility requirements for tuition or state aid. A thorough understanding of student status will provide clarity when determining if one qualifies for any financial aid.
  - a. First-time
  - b. Full-time/part-time
  - c. Resident/nonresident/international
  - d. Graduate/ undergraduate
- <u>Tuition</u> college affordability can be a major concern for students and parents. The cost of tuition may lack transparency if tuition in its totality is not included. Variations of tuition/cost should be defined for clarity.
  - a. "Sticker" or list price
- d. Room and board
- e. Books and supplies

Transfer

Returning

Degree-seeking/

non-degree seeking

e.

f.

q.

c. Cost of attendance/ net price

b. Net tuition

- 3. <u>Fees</u> fees within USHE institutions are generally categorized as general, differential/program, or as course fees, and vary widely by institution. Having so many different fee categories adds to confusion and may be difficult to calculate a student's total cost of attendance. Having uniform fees across the USHE system can aid in accountability for institutions and transparency for students.
  - a. General d. Student
  - b. Differential/program e. Other
  - c. Course
- 4. <u>Tuition discounting and aid</u> tuition discounting is usually defined as any financial aid that reduces the amount a student is required to pay. Tuition discounting takes many forms and is applied in a variety of ways. Having a uniform glossary of terms, or a limited set of aid terminology can add transparency in college costs and help students compare total cost of attendance at USHE institutions. Having a clear definition of institutional aid policies (e.g. needbased, merit-based, or a hybrid policy) and how they are applied may be desirable.
  - a. Grants b. Loans

Merit-based

f.

q.

- (meritorious) Need-based
- c. Financial aid
- d. Scholarships
- e. Tuition waivers

(impecunious)

#### Tuition Policies and Practices in Other Higher Education Systems: WICHE States<sup>12</sup>

Similar to the rest of the nation, Utah is one of 46 U.S. states that delegates a tuition setting authority for two- and fouryear institutions via legislative statute. In most cases, these are single- or multi-institutional boards that then have the authority to set the tuition rate for public institutions in the state. All WICHE states grant tuition setting authority to a state board for four-year institutions.<sup>13</sup> As a representative sample, the Gardner Institute compared public, Title IV, four-year degree-granting institutions across states in the WICHE Region.

Despite each state in the WICHE region having a governing board reviewing and setting tuition policies for institutions in their respective states, tuition can vary widely. For most students, the first estimate of the cost of attendance at a postsecondary institution is the published tuition, or "sticker price" of a school. These rates are the amount of tuition and fees covering a full academic year most frequently charged to students.<sup>14</sup> While these are the first estimated costs of attendance a prospective student may encounter, the values are merely a representation of what a typical student may have to pay, and is not the same for all students at the institution.

Using the latest published tuition and fees data from IPEDS, for the 2017-18 academic year, Utah's average published in-state tuition and fees were right in the middle of the WICHE region. Utah ranked seventh out of the 15 WICHE states for lowest tuition and fees, and 8 percent less than the WICHE average, less Utah (Figure 1.1). Since 2008, inflation adjusted tuition and fees for resident students in Utah have risen 40 percent, 10 percent more than the average for all other states in the WICHE region.

#### Figure 1.1: Published Tuition and Fees at Public Four-Year Degree Granting Institutions

(2018 dollars)



Source: The U.S. Department of Education's Integrated Postsecondary Education Data System and the U.S. Bureau of Labor Statistics

#### Figure 1.2: Prevalence of Alternative Tuition Payment Plans at Public Four-Year Institutions



Source: The U.S. Department of Education's Integrated Postsecondary Education Data System

Increasingly, postsecondary institutions are implementing alternative tuition payment plans. These payment plans are not considered aid, nor do they affect the tuition charged to students. They do offer students some flexibility in payment of their final tuition costs. For the 2017-18 academic year, seven of Utah's public four-year institutions reporting to IPEDS have some form of alternative tuition payment plan. A tuition payment plan is "a program that allows tuition to be paid in installments spread out over an agreed upon period of time, sometimes without interest or finance charges."<sup>15</sup> This is the most popular form of alternative tuition payment plans among the states in the WICHE region. Figure 1.2 shows the prevalence of alternative tuition payment plans at four-year institutions in the WICHE region.

It is unlikely that a student pays the sticker price to attend a postsecondary institution. A more accurate measure of what students actually pay is to look at the net price, or the average yearly price actually charged to students. Using IPEDS data, which tracks the average yearly price for first-time, fulltime undergraduates that receive aid, less the amount of aid received, is a more accurate picture to the cost of attendance.<sup>16</sup> While published tuition and fees at postsecondary institutions has been steadily increasing over the last few years, net price has remained relatively consistent. In the case of Utah's fouryear institutions, net price for students receiving aid has even decreased in recent years (Figure 1.3). Since the 2008-09 academic year, net price has decreased in Utah by 13.7 percent. Overall, the net price for students awarded aid at Utah institutions is below the average of the other WICHE states.

One of the reasons students rarely pay the sticker price of an institution is the prevalence of financial aid, namely grants and scholarships. Grant aid is a form of financial aid that is awarded to students to help offset the cost of tuition, fees, and expenses

#### Figure 1.3: Average Net Price for Students Awarded Grant or Scholarship Aid, Weighted by Full-time Equivalent Enrollment at Four-Year Institutions

(2017 dollars)



Note: Net price reflects the average yearly price actually charged to first-time, full-time undergraduate students receiving student aid at an institution of higher education after deducting such aid only, not necessarily all students at an institution. Source: The U.S. Department of Education's Integrated Postsecondary Education Data

System and the U.S. Bureau of Labor Statistics

#### Figure 1.4: Share of Undergraduate Students Awarded Federal, State, Local, Institutional, or Other Sources of Grant Aid at Four-Year Institutions



Source: The U.S. Department of Education's Integrated Postsecondary Education Data System

associated with attending higher education institutions. There are many sources of grant aid, which can include grants and scholarships awarded by the federal government, a state or local government, the institution, or other public or private sources. For the 2016-17 academic year, 49.9 percent of Utah undergraduates at four-year institutions received grant aid (Figure 1.4). Comparatively, 57.9 percent of undergraduates in other WICHE states received aid. This is an improvement from academic year 2008-09 when only 40.0 percent of Utah undergraduates were receiving aid. While students receiving aid rose during the Great Recession, there has been a plateau in the share of students receiving aid in recent years.

Differential tuition has become an increasingly more common practice among postsecondary institutions as a way to offset the varying costs for individual degree programs. A 2011 survey from Cornell University states no prior research has been conducted on differential tuition policies or how they are spread across the nation.<sup>17</sup> The results of the survey show that many postsecondary institutions began implementing differential tuition policies starting in the late 1980s and have continued to do so into the 2000s. The survey also shows that the prevalence of differential tuition policies increased based on the highest level of degree granted, with doctoral granting institutions have the highest rate of differential tuition policies.

Currently, there remains little research and no comprehensive source for detailed information on differential tuition practices among public postsecondary institutions. Researchers studying differential tuition among postsecondary institutions have noted a few impediments to gathering data on this topic including: difficulty in finding the data, inconsistency in the data and its location, lack of transparency, and even differences in terminology used.<sup>18</sup>

New York University hosts a publicly available data source: "Differential Tuition Database, Four Year Public Institutions: 1991, 1999, 2007, 2015" which is a longitudinal dataset covering 165 surveyed universities.<sup>19</sup> Of these institutions, 5.5 percent are shown to have a differential tuition policy in 1991 (Figure 1.5). By 2015, 52 percent had a differential tuition policy.

# Figure 1.5: Share of Surveyed Institutions with Differential Tuition Policies



Note: This dataset does not included all institutions and is a sample set of public four-year institutions across the country with a sample size of 165 institutions. Utah's sample size is two: Utah State University and the University of Utah.

Source: New York University, Center for Research on Higher Education Outcomes.<sup>20</sup>

#### **Recent Examples of Tuition Policies in Other States**

Arizona State University

In an effort to address the complexity of tuition policies and the practice of charging differential tuition, course fees, and other non-transparent charges to students, Arizona State University (ASU) awaits approval from the Arizona State Board of Regents to implement a new tuition policy for academic year 2019-20. For the past seven years, ASU's tuition has risen approximately 2.8 percent for resident students, fulfilling a commitment made seven years ago to keep tuition raises below three percent.<sup>21</sup> This is partially an effort to simplify the more than 6,000 individual course and program fees for undergraduate students.

The model will have three base tuitions (resident, nonresident, and international). On top of the base tuitions there are four proposed undergraduate course fee levels based on the college and department a student is enrolled. There are some exceptions to this tuition plan including: fees for the Barrett honors fee, aviation fees, a fee for the post-baccalaureate Bachelors of Science in nursing, and for students in the W. P. Carey collaboration with Draper University.<sup>22</sup> Graduate students will not see a change in their program fee schedule. According to ASU President Michael Crow, some students might initially end up paying more as the fees are spread across the student body, but the tuition increases will remain as some of Arizona's lowest, and "financial aid tactics" will be used to keep individual student tuition increases below 3 percent.

#### Nevada System of Higher Education

In March 2019, the Nevada Board of Regents, which oversees eight public postsecondary institutions in the state, approved a Predictable Pricing Program.<sup>23</sup> This program is meant to help ensure students are aware of the base tuition fees they will be expected to cover for at least four years by basing future registration fees and tuition on the Higher Education Price Index, an inflationary measure that tracks college costs on a four-year cycle. This program was chosen after a 2018 recommendation by the Nevada System of Higher Education (NSHE) Guaranteed Tuition Working Group which proposed two policy options.

The following principles were used to guide the creation of the Predictable Pricing Policy: a shared responsibility, access and affordability, and predictable pricing.<sup>24</sup> The alternative option was a "Registration Fee Guarantee Program" where eligible students would receive a guaranteed registration fee for either two or four years, based on the respective institution, starting with their initial enrollment as a degree-seeking student at an NSHE institution. In both cases, the policies were intended to improve predictability in college costs for student and families and proposed to apply to all NSHE member institutions.

#### University of Minnesota

Currently, the University of Minnesota, which lies outside the WICHE region, has a plateau tuition model for degree-seeking undergraduate students. This policy, called the 13-credit policy, includes some exemptions, but charges an undergraduate student a 13-credit flat tuition rate regardless of actual credit load.<sup>25</sup> Some exemptions for this include non-degree seeking students, university employees, disabilities, significant family or financial responsibilities, and more. Despite the exemptions the 13-credit policy applies to the average degree-seeking undergraduate student, transfers included. The 13-credit base rate is determined by: degree or other program registration, enrollment level, residency status, and residency in a region with a reciprocity agreement.<sup>26</sup> Graduate and professional level students are charged a graduate tuition rate that includes a 6-14 credit band for full-time registration with each credit hour above or below assessed on a per-credit basis. Credit plateaus also vary by school and program within the university.

#### **Literature Review of Common Practices in Higher Education** *Linear vs. Plateau Tuition Models*

As noted earlier, linear tuition models charge students an incremental rate regardless of how many credits are enrolled by an individual, while a plateau model charges a set tuition price for all students enrolled within a set range of credits. This essentially allows a student to take one to two additional classes without paying more in tuition.

Postsecondary institutions that champion plateau tuition claim it financially incentivizes students to take more credits leading to quicker graduation. Students may benefit from this by potentially entering the workforce sooner or perhaps continuing on to complete additional educational offerings.<sup>27 28</sup>

We found evidence that students attempting more than 12 credits in their first semester of college have a higher probability of finishing school. Full-time undergraduates attending community college or a four-year institution enrolling in 12 instead of 15 credits were 5.9 percentage points less likely to earn an associate's or bachelor's degree.<sup>29</sup> A number of states such as Indiana, North Carolina, Massachusetts, and Mississippi have adjusted their state-level financial aid to accommodate 30 credit hour accumulation for the academic year.<sup>30</sup>

While Gardner Institute was unable to find recent peer reviewed analyses on this subject, we did review a student thesis that analyzed linear and plateau models using multiple and panel regression techniques.<sup>31</sup> The study's researchers surveyed 106 R1 research institutions and found 82 of these universities (77 percent) used plateau tuition schedules.<sup>32</sup> The study found that research institutions offering plateau tuition schedules see higher overall rates in student graduation

(5 percent) as well as higher rates of students graduating within 3.75 years (8 percent). While more research corroborating these results would be ideal, the results in this study show significant positive impacts in favor of using plateau tuition scheduling to improve student outcomes.

#### Nonresident Education

To compensate for decreases in state funding, institutions have turned their attention to increasing the share of nonresident (out-of-state and international) student enrollment to help mitigate lost revenue. Nonresident tuition prices are typically two times as high as resident tuition prices.<sup>33</sup> For USHE institutions, the minimum tuition price for nonresident students is set at least three times the resident (in-state) rate. One study analyzed whether public universities increased nonresident freshman enrollment in response to declines in state appropriations and found a 1 percent decline in state appropriations was associated with a 0.27 percent increase in nonresident freshman enrollment; this association increased to 0.50 percent at top tier public research institutions.<sup>34</sup> From 2004 to 2014, at least 74 prominent public universities, including the University of Utah and Utah State University, had increased the share of nonresident enrollments of total enrollments.<sup>35</sup>

The popularity of states turning to nonresidents as a form of revenue has potential drawbacks. Traditionally, flagship state colleges have primarily served high performing resident students with special focus on those in lower income brackets.<sup>36</sup> However, with increasing interest in nonresident enrollment, state stakeholders are concerned that nonresident enrollments will crowd out access for their state residents. Furthermore, increasing nonresident enrollments may harm underrepresented students such as minorities and low-income earners.<sup>37</sup> Some states have taken serious strides to curb increasing out-of-state enrollments by introducing nonresident caps and tying state appropriations to resident enrollments.<sup>38</sup>

A recent study used econometric modeling to determine if there was a causal link between increased nonresident enrollments leading to the crowding out of in-state students.<sup>39</sup> The study found that most public systems have few issues with accommodating both in-state and out-of-state students with the exception being the most prestigious universities in high demand. At these institutions, about every two nonresident students enrolled will crowd out one potential resident student.<sup>40</sup> These findings suggest that policymakers should not be too concerned with nonresident enrollment crowding out resident enrollment with the exception of top tier research institutions in high demand.

#### Online Education

There are more students enrolled in online coursework than ever before. Students taking at least one online course has experienced double-digit growth over the past two decades reaching 31.6 percent in Fall 2016.<sup>41</sup> In the same year, of the 3,338 degree granting institutions in the U.S. that offered distance education, only 140 schools were distance only institutions.<sup>42</sup> In 2017, nearly 80 percent of all non-profit four-year institutions offered online courses.<sup>43</sup>

Surveys have found the vast majority of institutions offer online courses to improve student access and not as a strategy to contain tuition increases.<sup>44</sup> However, in recent years revenue generation has gained significance.<sup>45</sup> Higher education institutions that turn to online education as a new revenue stream may be disappointed. Higher education institutions with established online coursework and programs and with high enrollment are expected to continue to capture the majority of future new enrollees compared to universities with new programs or those that are smaller in terms of online enrollment.<sup>46</sup> Institutions with a higher share of online students tend to charge lower tuition rates for online coursework.<sup>47</sup>

While greater access and flexibility are notable advantages of online programs, they tend to have higher dropout rates for students who have trouble adapting to technology or are less academically prepared (such as achieving lower marks in high school).<sup>48</sup>

Having higher education institutions offer online coursework is highly dependent on the goals of the system's long-term strategies. Online education has significant upfront costs and its benefits in terms of student outcomes is debatable. On the other hand, online education can be a valuable tool for ensuring higher access to institutions (especially for rural Utahns), greater flexibility for those who may not have the means of attending in traditional classrooms, and as a potential tool to help control rising tuition costs.

#### Performance-based Funding

A growing number of states are adopting accountability policies that tie institutional funding to outcomes they produce. These practices are known as performance-based or outcomes-based policies. Currently, 31 states (including Utah) use performance-based funding for at least a portion of higher education funding and more.<sup>49</sup> The benefit of performance-based systems is that they have the potential to drive state objectives that lawmakers intend for higher education while also providing a way to justify institutional need through tuition increases and state aid.

To ensure that institutions are incentivized to meet performance-based objectives set by lawmakers, it is important to ensure that adequate funding is tied to the program. Most states are setting aside 5 to 25 percent of higher education dollars for performance-based funding.<sup>50</sup> Common measures that states track are those that count the number of degrees awarded by a college (28 states), use some form of course completion (16 states), include retention rates (12 states), incorporate graduation rates (12 states), and emphasize post-graduation outcomes such as licensure test passing rates, job placement, and earnings (11 states).<sup>51</sup> Many states have only recently adopted performance-based measures; however, early research is showing promising results.<sup>52 53</sup>

In terms of mitigating tuition increases, some strategies are preferable. States that link tuition increases to financial aid policy and provide incentives to limit tuition increases tend to be negatively associated with tuition increases.<sup>54</sup> Even if "sticker prices" of tuition increase, it is usually offset by a larger share of aid available to students, causing an overall reduction in the net price a student pays.

On the other hand, evidence suggests that tuition caps, curbs, and freeze policies actually increase tuition rates.<sup>55</sup> <sup>56</sup> When institutions hear of possible tuition caps from policymakers, they tend to preemptively raise tuition. Also, most states that have implemented tuition caps have maximums that generally range from 3 to 10 percent, well above rates of inflation. Institutions in these states generally apply for tuition increases near or at the allowable maximum to act as a buffer in case future limits do not match increases in unavoidable expenses. There is also evidence that tuition is more likely to increase when individual institutions have tuition setting privileges rather than a centralized governing authority.<sup>57</sup>

Utah currently has adopted five performance-based metrics that are tied to funding for USHE institutions.<sup>58</sup> They include:

- 1. Completion: degrees and certificates awarded
- 2. Underserved student completion: degrees and certificates awarded
- 3. Responsiveness to workforce: degrees and certificates awarded in high market demand fields
- 4. Institutional efficiency: degrees and certificates awarded per FTE student
- 5. Research: research expenditures

In order to earn performance-based funding, institutions are required to improve performance in these metrics. Over the last three to four years of tracking, many of these metrics have improved (completion, responsiveness to workforce, and research) suggesting that performance-based metrics may be valuable. However, more research and analysis is needed to determine any direct impact of this approach.

Each state that participates in performance-based policy tends to have between four and 10 metrics that lawmakers want to improve. We find that Utah's chosen performance measures align closely to what the majority of other states have implemented.<sup>59</sup> Additional metrics for policymakers to consider include tying tuition increases to financial aid policy and incentives to moderate tuition increases.

#### Background

In this section, we assess the benefit of nonresident students attending USHE institutions for academic year 2017-18, including estimated economic and fiscal impacts, analysis of graduates working in Utah, a brief literature review, and our methodology.

#### **Enrollments at USHE Institutions**

Economic impacts arise when "new" dollars enter Utah from outside the state. USHE nonresident students generate economic impacts through their tuition and living expenditures while attending school in Utah. From academic year 2010-11 to 2017-18, USHE institutions increased their share of nonresident students by 4.9 percentage points (Figure 2.1).

The nonresident share of enrollment varies across USHE institutions (Table 2.1). The institutions with the highest nonresident full-time equivalent (FTE) enrollments were the University of Utah (6,414) and Utah State University (4,525). The institutions with the highest share of nonresident FTE enrollments were Southern Utah University (22.6 percent) and Dixie State University (21.2 percent).

#### **Modeling the Direct Inputs of Student Expenditures**

This study begins with the direct inputs of USHE out-of-state student expenditures. Students enrolled at USHE institutions spend money on tuition, supplies, and other education-related expenses. They also spend in the local community, such as shopping for clothes, meals, and entertainment. The money these students spend while attending USHE institutions supports the growth of Utah's economy. However, to be considered new economic activity in a region, the source of the spending needs to originate outside of Utah. To satisfy this condition, we analyze the spending patterns of nonresident students, whose sources of income are largely out of state. We also remove any nonresident wages earned within Utah from total nonresident expenditures, as these wages are not an economic impact.

The nonresident student direct inputs include net tuition revenue (provided by USHE), estimates of what a student spends for room and board, books and supplies, and other expenses from IPEDS (obtained from financial aid offices at USHE institutions).<sup>60</sup> For ease of classification, we split the "other expense" estimate equally across four categories: retail, restaurants, personal care, and recreation.<sup>61</sup> We scaled perstudent estimates for each category by each USHE institution's annualized FTE nonresident enrollment for academic year 2017-18. Table 2.2 provides the gross expenditures in each category, which total \$549.1 million.

Spending estimates from financial aid offices are likely conservative, representing something close to the minimum cost of living for a student. Nonresident students, especially those from affluent backgrounds, may spend much more than what financial aid offices estimate. For example, it is reasonable to expect that some students buy new cars and other expensive



Figure 2.1: Nonresident Share of Total Enrollments at USHE Institutions

Note: Data series for academic years 2010-11 through 2017-18. Based on annualized FTE total (budget-related and self-support) enrollment.

Source: Kem C. Gardner Policy Institute analysis of Utah System of Higher Education data.

## Table 2.1: FTE Enrollments by Residency at USHEInstitutions, Academic Year 2017-18

Institution	Resident	Nonresident	Total	Nonresident Share of Total
University of Utah	24,280	6,414	30,693	20.9%
Utah State University	18,989	4,525	23,513	19.2%
Weber State University	16,282	1,787	18,069	9.9%
Southern Utah University	6,375	1,865	8,240	22.6%
Snow College	3,502	413	3,915	10.6%
Dixie State University	5,750	1,547	7,298	21.2%
Utah Valley University	22,714	3,750	26,464	14.2%
Salt Lake Community College	16,277	1,382	17,659	7.8%
Total	114,169	21,682	135,851	16.0%

Note: Annualized FTE reported for summer, fall, and spring academic year 2017-18. FTE includes budget-related and self-support enrollment.

Source: Kem C. Gardner Policy Institute analysis of Utah System of Higher Education data.

#### Table 2.2: USHE Nonresident Student Expenditures,

#### Academic Year 2017–18

(Millions of Dollars)

Category	Gross Expenditures	Margin Adjustment	Wages	Net Direct Expenditures
Tuition	\$210.8		-\$65.0	\$145.8
Room and Board	\$201.0		-\$62.0	\$139.0
Books and Supplies	\$28.9	31.8%	-\$2.8	\$6.4
Retail	\$27.1	33.1%	-\$2.8	\$6.1
Restaurants	\$27.1		-\$8.3	\$18.8
Personal Care	\$27.1		-\$8.3	\$18.8
Recreation	\$27.1		-\$8.3	\$18.8
Total	\$549.1	-\$37.9	-\$157.5	\$353.7

Note: 2017–18 refers to the annualized academic year for estimated student expenditures and tuition while wages are for the working period from Q3 2017–Q2 2018. Tuition includes net tuition and miscellaneous fees. Net direct expenditures are gross expenditures with margins and wages removed. Margin adjustments for books and supplies and retail goods include transportation adjustments obtained from the Bureau of Economic Analysis (BEA). Source: Kem C. Gardner Policy Institute analysis using data from the Utah System of Higher Education, Utah Data Research Center, and the U.S. Bureau of Economic Analysis.

goods while attending school in Utah. Adding these purchases would raise our total student expenditures estimates. We have chosen to use financial aid offices estimations, therefore our results may represent a lower bound. We further detail tuition and spending estimates in the methodology section.

Before we are ready to model student expenditures, there are a couple of adjustments to consider. For retail sales, including books and supplies and the retail portion of other purchases, some of this spending is paid to the manufacturer (likely based out of the state) by the retailer. We keep the retailer's margin to isolate money that stays in Utah. Similarly, there are transportation costs involved in delivering goods to retailers, which are reflected in retail prices. Our margin adjustment also accounts for those transportation costs that stay within Utah. To determine these margins, we use final demand retail and transportation margins obtained from the U.S. Bureau of Economic Analysis (BEA). We margin books and supplies at 31.8 percent and other retail expenditures at 33.1 percent, resulting in a \$37.9 million adjustment.

We also take into account the wages that nonresident students earn while working in Utah. Since these wages originate from within the state, they cannot be counted as economic impacts. We must remove them from our student expenditure estimates or risk introducing bias into the study's results. To remedy this, we obtained wage data from the Utah Data Research Center (UDRC) for all USHE students employed from the third quarter of 2017 to the second quarter of 2018 (to best align with the academic year). For this period, nonresident students earned \$157.5 million in wages. In Table 2.2, we reduce each category of student expenditure by a portion of wages earned to reach

## Table 2.3: Economic Impacts of Nonresident USHE Students, Academic Year 2017-18

(Millions of 2018 Dollars)

Impact	Jobs	Personal Income	GDP
Tuition	4,138	\$175.4	\$255.9
Room and Board	1,564	\$84.1	\$188.4
Other Expenses	1,848	\$61.7	\$95.4
Books and Supplies	144	\$6.2	\$10.0
Total	7,694	\$327.4	\$549.8

Note: Jobs reported are a mix of part- and full-time jobs created in Utah. Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model.

\$353.7 million in net direct student expenditures. This is the economic activity directly generated from USHE nonresident students, also referred to as the direct impact. We cover additional wage analysis in the methodology section.

#### **USHE Nonresident Economic Impacts**

With students' retail spending margined and their in-state wages accounted for, we are ready to calculate the economic impacts of nonresident student expenditures using the REMI PI+ economic impact model. The total economic impacts from USHE nonresident student expenditures include 7,694 full- and part-time jobs, \$327.4 million in personal income, and \$549.8 million in GDP in Utah (Table 2.3). We present total impacts by spending category. Tuition was the largest component (between 46.5 and 53.7 percent of total impacts), consisting of 4,138 jobs, \$175.4 million in personal income, and \$255.9 million in GDP. The next largest impacts category was room and board, followed by other expenses and books and supplies.

Total impacts are the sum of USHE's direct inputs (student expenditures) and the indirect and induced impacts generated by the REMI economic model. Businesses that receive money from student spending (universities, bookstores, local restaurants, etc.) purchase goods and services in the local economy; these are the indirect effects. The employees of the businesses that receive student spending, and of their in-state suppliers, spend a portion of their wages and salaries in Utah; this is the induced effect. The combination of these three sources of spending rippling throughout the economy produces total impacts.

#### **USHE Nonresident Fiscal Impacts**

The Gardner Institute estimated the state and local government revenues and expenditures arising from the economic and demographic impacts calculated by REMI. These impacts occur through changes in employment, income, industry output, and population generated by USHE student spending in Utah. For academic year 2017-18, combined state and local net revenues amounted to \$17.2 million (Tables 2.4 and 2.5).

## Table 2.4: Estimated State Fiscal Impacts, Academic Year2017-18

(Millions of 2018 Dollars)

Impact	Amount
Personal Income Tax Revenues	\$8.7
Corporate Income Tax Revenues	\$0.7
State Sales Tax Revenues	\$9.4
Total State Revenues	\$18.8
State Non-Education Expenditures	\$4.9
State Public Education Expenditures	\$2.5
State Higher-Education Expenditures	\$2.0
Total State Operating Expenditures	\$9.4
Net State Operating Revenue (Expenditure)	\$9.4

Note: Fiscal impacts do not include direct state expenditures for nonresident students. Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model.

## Table 2.5: Estimated Local Fiscal Impacts, Academic Year2017-18

(Millions of 2018 Dollars)

Impact	Amount
Personal Income Tax Revenues	\$8.7
Corporate Income Tax Revenues	\$0.7
State Sales Tax Revenues	\$9.4
Total State Revenues	\$18.8
State Non-Education Expenditures	\$4.9
State Public Education Expenditures	\$2.5
State Higher-Education Expenditures	\$2.0
Total State Operating Expenditures	\$9.4
Net State Operating Revenue (Expenditure)	\$9.4

Note: Local revenues and operating expenditures include local counties and school districts. Cities and towns are not included. Fiscal impacts do not include direct state expenditures for nonresident students.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model.

For state-level fiscal impacts (Table 2.4), Utah collected tax revenues amounting to \$18.8 million. This revenue came from personal income, corporate income, and state sales taxes collected from individuals and businesses supported by student expenditures. These individuals and businesses also consumed state resources, such as using public roads and sending their children to public schools and universities. These state expenditures amounted to \$9.4 million in academic year 2017-18. Overall, the effects of USHE nonresident students contributed to a net positive operating balance of \$9.4 million in revenues to the state.

The same individuals and businesses mentioned in the previous paragraph also paid local taxes and consumed local resources. Counties (Table 2.5) collected \$9.9 million in revenue from local sales and property taxes, while paying about \$2.2 million for county operations and public education to serve the population supported by nonresident student expenditures. The net result was \$7.8 million in revenue for school districts and county governments.

#### **USHE Graduates Working In Utah**

The Gardner Institute also researched what happens to USHE graduates after they have completed their education. We requested additional data from UDRC, this time looking at the percentage of graduates who stay in Utah to work and what these graduates earn.

We created a 2012 cohort where we tracked graduates one year and six years after they graduated, to see if they were still working (and thus living) in Utah. The 2012 cohort represented 23,141 students who graduated in calendar year 2012 (Table 2.6). For the one-year cohort, 66.0 percent of residents and 25.9 percent of nonresidents remained working in the state. Overall, 62.1 percent of all 2012 graduates were still working in the state. To measure the long-term residency of graduated students, we also tracked whether graduates were working in Utah six years out. For the six-year cohort, 57.6 percent of residents and 21.2 percent of nonresidents were still working in Utah. In total, 54.1 percent of 2012 graduates (a decrease of 8.0 percentage points) still worked in Utah in 2018.

To establish a sense of how this trend may be changing over time, we created a 2017 cohort that corresponds to the oneyear 2012 cohort. Table 2.7 shows that 73.9 percent of resident and 39.3 percent of nonresident graduates were still working in Utah in 2018. This suggests that over the last five years, a greater of portion USHE students are deciding to live and work in Utah; this is especially true for nonresident students whose share increased 13.4 percentage points.

#### Table 2.6: USHE Graduate Cohort, 2012

Residency	Total Graduates	Employed in Utah One Year After Graduation	Share of Residency Total	Employed in Utah Six Years After Graduation	Share of Residency Total
Resident	20,905	13,790	66.0%	12,046	57.6%
Nonresident	2,236	579	25.9%	473	21.2%
Total	23,141	14,369	62.1%	12,519	54.1%

Note: Includes latest graduation date and the highest award level for each individual who graduated in calendar year 2012; also includes individuals that may have continued their education. Source: Kem C. Gardner Policy Institute analysis of data from Utah Data Research Center.

#### Table 2.7: USHE Graduate Cohort, 2017

Residency	Total Graduates	Employed in Utah One ar After Graduation	Share of Residency Total	Difference from 2012 Cohort (percentage points)
Resident	14,977	11,067	73.9%	7.9%
Nonresident	3,552	1,396	39.3%	13.4%
Total	18,529	12,463	67.3%	5.2%

Note: Includes latest graduation date and the highest award level for each individual who graduated in the first seven months of calendar year 2017; also includes individuals that may have continued their education.

Source: Kem C. Gardner Policy Institute analysis of data from Utah Data Research Center.

#### Table 2.8: USHE Graduate Annual Median In-State Wages for 2012 and 2017 Cohorts

(2018 Dollars)

		2012 Cohort			2017 Cohort*		
Award Level	Residency	One Year Post-Graduation	Six Years Post-Graduation	Change	One Year Post-Graduation	Change from 2012 One-Year	
Less Than Bachelor's Degree	Resident	\$24,898	\$38,224	53.5%	\$22,248	-10.6%	
Less Than Bachelor's Degree	Nonresident	\$18,326	\$34,868	90.3%	\$18,388	0.3%	
Bachelor's Degree	Resident	\$35,445	\$52,328	47.6%	\$37,600	6.1%	
Bachelor's Degree	Nonresident	\$29,845	\$50,272	68.4%	\$31,872	6.8%	
Graduate Certificate or Degree	Resident	\$53,092	\$72,848	37.2%	\$54,776	3.2%	
Graduate Certificate or Degree	Nonresident	\$48,318	\$67,360	39.4%	\$53,004	9.7%	

Note: Measured time of employment after graduation. Nonresidents defined as ever being listed as an out-of-state student prior to graduation. We determine primary employment by taking the highest paying employer for each graduate in the dataset. A graduate is considered employed if they posted wages in any of the 4 or 24 quarters following the quarter of their graduation. \*Only includes students graduating in the first seven months of 2017.

Source: Kem C. Gardner Policy Institute analysis of data from Utah Data Research Center.

Lastly, we tracked annual median wages for the 2012 and 2017 cohorts (Table 2.8). For all cohorts, a higher level of educational attainment resulted in higher wages for both resident and nonresident subcategories. Given the same level of education, resident graduates make more than nonresident graduates do. Comparing the one-year and six-year periods, graduates at every education level earn more the longer they are in the workforce. We expect individuals to earn more as they build their careers. Those with less than a bachelor's see the fastest gains, while nonresident graduates with bachelor's degrees show the largest absolute increases. Interestingly, resident graduates with less than a bachelor's degree in the 2017 cohort are making less one year out compared with the 2012 cohort; while those with a bachelor's or higher all experience increasing wages over time.

#### **Literature Review**

The majority of academic literature assessing the benefits of nonresident students consists of how their expenditures create economic impacts.<sup>62 63 64</sup> We also find institutions turn to nonresident tuition as a source of revenue.<sup>65</sup> One study found a 1.0 percent decline in state appropriations was associated with a 0.27 percent increase in nonresident freshman enrollment; this association increased to 0.50 percent at top-tier public research

institutions.<sup>66</sup> From 2004 to 2014, at least 74 prominent public universities, including the University of Utah and Utah State University, had increased their share of nonresident enrollments.<sup>67</sup>

A potential cost of increasing nonresident enrollment is the crowding out of residents. This issue affects schools that implement enrollment caps (USHE institutions do not apply enrollment caps). Historically, flagship state institutions have primarily served high-performing resident students giving special focus on those in lower income brackets.<sup>68</sup> However, with increasing interest in nonresident enrollment, state stakeholders are concerned that nonresident enrollments will limit access for their state residents. Furthermore, increasing nonresident enrollments may harm underrepresented students, such as low-income earners and minorities.<sup>69</sup>

A study used econometric analysis to determine if there was a causal link between increased nonresident enrollments leading to the crowding out of in-state students.<sup>70</sup> The study found evidence suggesting that at prestigious institutions, such as state flagship universities, every two nonresident students enrolled would crowd out one potential resident student.<sup>71</sup>

Outside economic impacts and tuition, research on the benefits of nonresident students is sparse. The literature we found suggests that nonresident students offer unique cultural backgrounds, traditions, and skillsets that benefit the entire student body.<sup>72</sup> A study found that diverse campuses had a positive effect on educational outcomes through its effects on diversity-centric student activities and experiences.<sup>73</sup> Another report mentions that students feel a greater sense of belonging and support at campuses with higher levels of student diversity.<sup>74</sup>

#### **Methodology and Supporting Data**

#### **REMI Economic Model**

The Gardner Institute used the Regional Economic Models, Inc. PI+ model to estimate the economic impacts of USHE nonresident students. REMI is a dynamic model that incorporates inputoutput, economic geography, econometric, general equilibrium, and demographic components. The REMI inputs and results were for the 2017 calendar year.

#### Gardner Institute Fiscal Model

The increased economic activity from student expenditures produces new income and sales tax revenues, while the greater population supported by this increased activity creates additional government expenditures. The Gardner Institute estimates fiscal impacts based on multiyear historical relationships between personal income, employment, industry output, population, government expenditures, and tax revenues. Consistent with the REMI economic model, our fiscal impact model was for the 2017 calendar year.

#### Economic Impact Analysis

Economic impacts arise when "new" dollars enter a region from external sources. The region of interest for this study is the state of Utah. To isolate economic impacts, the Gardner Institute adjusted the inputs to include only money that originated from outside of the Utah region. We achieved this by focusing on nonresident students, whose spending is largely funded by out-of-state sources.

If we were to include all student spending, regardless of where it originated from, we would measure the economic footprint of USHE institutions. This would include both money that originates from outside of Utah as well as money that is already circulating within the state's economy (e.g., in-state student wages and in-state family support). While measuring an economic footprint is useful in analyzing how USHE affects the structure of Utah's economy, it is the economic impacts that bring new resources into Utah.

#### Counterfactual

A critical assumption when classifying spending as economic impacts is whether nonresident student spending would exist in Utah in the absence of public colleges and universities. This question is known as the counterfactual. We believe that without USHE institutions, most nonresident students—

# Table 2.9: USHE Nonresident Tuition Revenue, AcademicYear 2017-18

(Millions of Dollars)

Category	Undergraduate	Graduate	Nonresident Total
Gross Tuition	\$242.7	\$70.7	\$313.3
Employee Benefits	-\$0.2	-\$16.2	-\$16.5
Total Waivers	-\$81.6	-\$5.8	-\$87.4
Miscellaneous Fees	\$1.1	\$0.3	\$1.4
Net Tuition Revenue	\$161.9	\$48.9	\$210.8

Note: Data consists of tuition revenue from summer, fall, and spring semesters for academic year 2017–18. Employee benefits include tuition-reduction benefits and T/A benefits Source: Kem C. Gardner Policy Institute analysis of Utah System of Higher Education data.

who would have otherwise attended a USHE school—would instead go somewhere outside of Utah for their education. There are only two other premier universities in Utah, Brigham Young University (BYU) and Westminster College. While both institutions appeal to students in their own right, they do not provide competitive substitutes for many of the programs and course offerings that attract nonresident students to USHE schools. Even if BYU and Westminster were perfect substitutes, the two institutions would not be able to accommodate the number of nonresident students that USHE attracts. Eventually, private sector higher education would presumably grow to meet at least in-state demand. Our single-year analysis avoids tenuous assumptions regarding such growth or the corresponding change in appeal of private institutions to nonresident students.

#### Tuition

The tuition inputs of interest for this study are nonresident net tuition and fee revenue. Table 2.9 breaks out tuition revenue by student enrollment level. For academic year 2017-18, students were assessed \$313.3 million in gross tuition. Removing sources of in-state funding (such as employee benefits and waivers) and adding miscellaneous fees yields net tuition revenue of \$210.8 million. Undergraduate students paid 77.5 percent of total nonresident tuition revenue while graduates contributed 22.5 percent. Graduates make up 9.5 percent of the nonresident student population, indicating that, on average, nonresident undergraduate students.<sup>75</sup>

#### Additional Student Spending Estimates

Outside of tuition, students buy an array of goods and services including rent, personal care, entertainment, food, and school supplies. To estimate total student spending, we turn to estimates obtained from USHE institutions' financial aid offices.<sup>76</sup> Student spending estimates that we include in this study are

room and board, books and supplies, and other expenses. These estimates are based on the average expenditure per undergraduate student and are presented by USHE institution in Table 2.10. The average estimate for total student cost less tuition for USHE institutions ranges from \$9,200 per student at Snow College to \$15,656 at Dixie State University for academic year 2017-18.<sup>77</sup>

Note that the Integrated Postsecondary Education Data System (IPEDS) student expenditure estimates do not exist for graduate students. However, we expect that room and board and other expenses would be the same for both undergraduate and graduate nonresident students in Utah; we also expect books and supplies to be similar. Therefore, we use undergraduate spending estimates for both levels of instruction.

We do not have information about the ratio of nonresident students living on- versus off campus for each USHE school. We erred on the side of caution by using on campus estimates for most schools, as they were smaller than off campus estimates.<sup>78</sup> We base estimated student expenditures on averages pulled from IPEDS (obtained from financial aid offices at USHE institutions). An ideal scenario would be if each USHE institution performed a comprehensive student survey on a range of spending habits.

The College Board publishes low and moderate student living expense budgets.<sup>79</sup> Table 2.11 provides average budgets for the U.S., western states region, and the Denver-Aurora, Colorado metropolitan statistical area (MSA).<sup>80</sup> Three USHE institutions' spending averages are less than all three areas' low nine-month budgets, and all USHE institutions are lower than the areas' moderate nine-month budgets.

#### Wages

A key concern with the cost of attendance setup so far is that we assume that the majority of funding that pays for the cost of attendance originates from outside of Utah. If nonresident students are earning wages working at Utah firms, then our student expenditure estimate is upwardly biased. The solution

#### Table 2.10: USHE Student Budgets, Academic Year 2017-18

Institution	Room and Board	Books and Supplies	Other Expenses	Total
University of Utah	\$9,867	\$1,232	\$3,690	\$14,789
Utah State University	\$7,080	\$824	\$3,840	\$11,744
Weber State University	\$8,400	\$1,200	\$5,052	\$14,652
Southern Utah University	\$7,067	\$1,600	\$4,800	\$13,467
Snow College	\$4,200	\$2,000	\$3,000	\$9,200
Dixie State University	\$6,328	\$950	\$8,378	\$15,656
Utah Valley University	\$5,960	\$976	\$3,398	\$10,334
Salt Lake Community College	\$10,200	\$1,300	\$3,750	\$15,250
Average	\$7,388	\$1,260	\$4,489	\$13,137

Note: Estimates using IPEDS nine-month (fall and spring) academic year. Estimates are for on campus spending except Salt Lake Community College and Utah Valley University, which do not have on campus dormitories. IPEDS includes first-time undergraduate students enrolled full-time for academic year 2017–18.

Source: Kem C. Gardner Policy Institute analysis of data from the U.S. Department of Education's Integrated Postsecondary Education Data System.

## Table 2.11: Low and Moderate Nine-Month Living ExpenseBudgets, Academic Year 2017-18

Area	Low	Moderate
Denver, Colorado	\$12,298	\$18,365
Western States	\$12,816	\$19,138
United States	\$11,940	\$17,830

Note: The budgets are based on data from the Consumer Expenditure Survey and the Indexes of Comparative Costs, both produced by the U.S. Bureau of Labor Statistics. Denver, Colorado refers to the Denver–Aurora, Colorado metropolitan statistical area (MSA). Mountain and Utah regions/MSAs were not available. Source: The College Board.

to this issue is to reduce our student expenditure estimate by the amount of wages nonresident students earn in Utah. The UDRC provided wage and salary data of nonresident students enrolled at USHE institutions for a one-year period between 2017 and 2018. Wage data is available by quarter. To adhere to the academic year as closely as the data would permit, wage data is from the third quarter of 2017 through the second

#### Table 2.12: USHE Nonresident Student Wages, Academic Year 2017-18

Origin/Enrollment Level	Total Students	Total Students Working	Percent of Total Student Working	Wages	Percent of Total Wages	Average wage
Domestic	23,133	10,453	91.0%	\$162,737,193	88.4%	\$15,568
Graduate	2,450	978	8.5%	\$22,320,723	12.1%	\$22,823
Undergraduate	20,683	9,475	82.5%	\$140,416,470	76.2%	\$14,820
International	6,516	1,037	9.0%	\$21,427,739	11.6%	\$20,663
Graduate	1,842	615	5.4%	\$14,460,521	7.9%	\$23,513
Undergraduate	4,674	422	3.7%	\$6,967,218	3.8%	\$16,510
Grand Total	29,649	11,490	100.0%	\$184,164,932	100.0%	\$16,028

Note: Gross wages pulled for the 2017–18 working year cover Q3 2017 through Q2 2018. Source: Kem C. Gardner Policy Institute analysis of Utah Data Research Center data. quarter of 2018. We present this data by student origin and enrollment level in Table 2.12.

Of the 29,649 nonresident USHE students matched to employment data, 11,490 (38.8 percent) worked at least parttime in Utah. Gross wages/salaries amounted to \$184.2 million for students working during academic year 2017-18. Domestic nonresident students earned 88.4 percent of total wages paid to nonresident students. Similarly, undergraduate students earned 80.0 percent of total wages compared with 20.0 percent for graduates. These results are not surprising as there are more domestic and undergraduate than international or graduate students.

For average wages per domestic student, graduate students earn \$22,823 compared with undergraduate students at \$14,820; international wages by enrollment were similar. We expect there is a higher percentage of graduate students who work full-time and are employed in an industry related to their field of study. International students earned more than domestic students on average, \$20,663 compared with \$15,568. This is due to there being a higher ratio of international graduate to international undergraduate students compared with the ratio of domestic graduate to domestic undergraduate students.

Before we remove in-state wages from our student expenditure estimate, we need to account for taxes and employee contributions. To do this, we turn to the Consumer Expenditure Survey, which is a nationwide household survey performed by the U.S. Bureau of Labor Statistics asking Americans how they spend their money.

In Table 2.13, we removed personal taxes paid (i.e., federal, state, and local income tax) and employee contributions to social security and retirement (such as 401K contributions) from gross wages. Respondents between 18 and 25 years of age (which we expect is the age range of most USHE students) reported paying 6.7 percent of their wages in personal taxes and 7.7 percent of their wages towards social security and retirement. This amounted to \$26.5 million that we subtract from gross wages to reach net wages of \$157.6 million.

#### Headcount and FTE

Table 2.14 presents headcount, annualized USHE full-time equivalent (FTE), and calculated IPEDS FTE enrollment for academic year 2017-18. IPEDS bases its student expenditure estimates on undergraduate students who earned 24 credit hours for spring and fall semesters. To make consistent comparisons, we converted USHE annualized undergraduate FTE enrollment of 30 credit hours and annualized graduate FTE enrollment of 20 credit hours earned for the academic year to 24 credit hours to match IPEDS. This yields the calculated IPEDS FTE enrollment of 25,647.

## Table 2.13: USHE Nonresident Student Wage Adjustments,Academic Year 2017-18

(Millions of Dollars)

Category	Share of Gross Wages	Wages
Gross Wages		\$184.2
Personal Taxes	6.7%	-\$12.3
Social Security and Pension	7.7%	-\$14.2
Total Adjustments	14.4%	-\$26.5
Net Wages		\$157.6

Note: Gross wages pulled for the 2017–18 working year cover Q3 2017 through Q2 2018. Personal taxes and social security and pension data pulled from CES July 2017–June 2018 midyear tables.

Source: Kem C. Gardner Policy Institute analysis of Utah Data Research Center and Consumer Expenditure Survey data.

# Table 2.14: USHE Nonresident Student Headcount and FTEEnrollment, Academic Year 2017-18

Headcount	USHE FTE	IPEDS FTE*
29,602	21,682	25,647

Note: Headcount and USHE FTE reported for summer, fall, and spring academic year 2017-18. USHE FTE includes budget-related and self-support enrollment. \*IPEDS FTE is the USHE FTE enrollment (30 credit-hours undergraduate and 20 credit-hours graduate) converted to 24 credit-hours to match IPEDS FTE enrollment used for room and board, books and supplies, and other expenses estimates.

Source: Kem C. Gardner Policy Institute analysis of Utah System of Higher Education data.

#### Definitions

- <u>Direct impacts</u> are the changes in economic activity within the region during the first round of spending. In this study, these include USHE nonresident student spending in Utah.
- Indirect impacts are the changes in sales, labor income, and employment within the region in backward-linked industries that supply goods and services to the business or industry under analysis. For example, businesses that receive money from student spending (universities, bookstores, local restaurants, etc.) purchase goods and services from local firms, who in turn may purchase additional goods and services from local firms. This "supply chain" activity creates the indirect impacts.
- <u>Induced impacts</u> are the increased activity within the region from household spending of the income earned by employees of the direct businesses and all indirect supporting businesses. Induced impacts arise, for example, when the employees of the businesses that receive student spending (e.g. tuition paid to universities) also spend a portion of their wages and salaries locally.
- <u>Total impacts</u> are the sum of direct, indirect, and induced impacts as described above. They represent the economic changes that occur when "new" money enters the state's economy and is then spent locally. This inflow has the

potential to expand the size and strength of Utah's economy. In this report, economic impacts are presented in terms of employment, personal income, and state GDP.

- <u>Fiscal impacts</u> are changes in state and county government revenues and expenditures resulting from changes in economic activity. The estimated revenue impacts consist of state personal and corporate income taxes, state and county sales taxes, and property taxes. Estimated expenditure impacts comprise state and county public education expenditures, state higher education expenditures, and state and county non-education expenditures.
- <u>Employment</u> is the number of full- and part-time jobs, counted equally. It covers employees earning wages and salaries as well as self-employed sole proprietors and partners.
- <u>Gross domestic product (GDP)</u> is the most commonly used measure of the contribution of a region to the national economy. It avoids the double counting of intermediate sales and measures only the "value added" by the region (or business) to final products. It can be thought of as total economic output or sales less the value of intermediate goods used to produce that output.
- <u>Personal income</u> consists of income a person receives from all sources: wage and salary disbursements, employer contributions for pensions and insurance, proprietors' income, rent, dividends, interest, and net transfer receipts. Personal income is measured by place of residence rather than place of work, and as such includes an adjustment for cross-regional commuting.

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#### Background

In this section, we highlight recent and relevant research on college affordability in the United States, focusing on public, four-year institutions which comprise a bulk of the national discussion surrounding college affordability. We also use existing demographic and economic data to provide examples of select methodologies as they apply to Utah.

#### **Review of Common Methodologies**

College affordability is an often discussed topic with no concrete definition. As a result, measuring college affordability and mapping trends over time is difficult. The lack of a clear and consistent definition leaves many students, families, policymakers, and college administrations wondering if postsecondary education is affordable, to who is it affordable, and how affordability has changed over time. We highlight some of the leading contemporary practices in measuring and determining college affordability. This includes: the implementation of the federally mandated Net Price Calculator and the subsequent Expected Family Contribution (EFC); the Rule of 10, an EFC alternative proposed by the Lumina Foundation; the application of a return on investment approach and using net present value calculations; and a discussion on a holistic approach by applying comparative metrics to provide context for measuring college affordability. Using existing Utah demographic and economic data, the EFC, Rule of 10, and net present value approaches are used to provide examples of how these quantitative methods could be applied to frame the discussion of college affordability in Utah.

#### Net Price Calculator

The Higher Education Opportunity Act (Public Law 110-315) enacted in 2008 amended the Higher Education Act of 1965 (HEA) and required any postsecondary institution that participates in Title IV federal student aid programs and enrolls full-time, firsttime degree, or certificate-seeking undergraduate students is required to post a net price calculator on its website.<sup>81</sup> Net price, as defined by the U.S. Department of Education, is the amount that a student pays to attend an institution in a single academic year after subtracting scholarships and grants the student receives. Scholarships and grants are forms of financial aid that a student does not have to pay back.<sup>82</sup> Institutions may not factor loans into consideration in their net price calculators.<sup>83</sup>

The U.S. Department of Education requirements are the basis for all net price calculator considerations. Using institutional data, net price calculators estimate the net cost of attendance to current and prospective students and their families based on their circumstances. The minimum required elements include a student's Expected Family Contribution (EFC), other estimated expenses, aid, and net price.<sup>84</sup>

#### Expected Family Contribution

The EFC is used and mandated by the Higher Education Opportunity Act in net price calculators for schools receiving Title IV federal aid. The EFC is a number that determines a student's eligibility for federal student aid. Financial aid administrators subtract the EFC from student's cost of attendance to determine their need for federal student financial assistance, including Pell Grants and other federal aid.<sup>85</sup>

The calculator uses data compiled from the Free Application for Student Aid (FAFSA) to identify median EFC based on four factors: dependency status, number in family, number in college, and income level.<sup>86 87</sup> The EFC is used to identify the median amount of grant and scholarship aid a student may receive. The EFC calculation is a needs-based approach for determining the gap (difference) between the estimated cost of postsecondary education and a student's reasonable expected contribution.

The EFC is a point-in-time calculation measured by a single year and ignores any variance over time.<sup>88</sup> The FAFSA calculates an EFC that assumes the amount a family should be able to contribute to a student's education, but not their willingness or ability. As Goldrick-Rab points out, the financial situation of lower income families tends to be more complicated than the FAFSA can reveal, and describes situations where parents of lower income students were skeptical about providing income tax information when they were not providing financial support to the student.<sup>89</sup>

Some argue current financial aid process favors traditional students and does not account for the challenges of nontraditional students.<sup>90</sup> Others note the changes in federal aid have moved toward higher-income families, reducing the support they have to draw upon to afford a degree.<sup>91</sup> The EFC is a formula based on the federal government's definition of adjusted gross income which is designed for tax purposes and does not necessarily translate to calculating a family's ability to contribute to postsecondary education expenses.<sup>92</sup> Similarly, the FAFSA does not consider financial obligations not reported on income tax forms.<sup>93</sup> Another limitation of the EFC is that it is based on a consumption good.<sup>94</sup> Additional considerations beyond pre-college resources ought to factor into determining college affordability.

#### The Rule of 10

The Lumina Foundation developed the Rule of 10 as a benchmark to assist in policy discussions on measuring college affordability.<sup>95</sup> The Rule of 10 is a student-centric model that is meant to serve as a market for how much, on average, students and families can reasonably afford to pay. The model differs from the EFC in that it accounts for family savings over time and includes part-time employment while a student is enrolled in postsecondary education. The design principles used to develop this measure include:

- 1. Make college more affordable.
- 2. Focus on the transparency of prices and subsidies.
- 3. Embed incentives for students and institutions.
- 4. Align across federal, state, and institutional systems.

The Rule of 10 suggests that students should pay no more than the savings generated from saving 10 percent of discretionary income for 10 years and the earnings from working 10 hours per week while enrolled in school.<sup>96</sup> The benchmark focuses on four critical design elements:<sup>97</sup>

- 1. <u>Time:</u> The benchmark provides a timeline, making the payment process seem more manageable. The Rule of 10 assumes a student should not pay more than what their families can reasonably save in 10 years, plus the income from working 10 hours a week while enrolled.
- 2. Income exclusion: The Rule of 10 defines the ability to save as 10 percent of a family's discretionary income. Assuming families making 200 percent of the poverty rate can be reasonably expected to be able to afford 10 percent of their income above that rate. This assumption provides an exclusion for families making less than 200 percent of the poverty rate as it recognizes that it may be unattainable for families making less than this threshold to afford to save any amount for college expenses. The poverty rate accounts for varying family sizes, and the 10 percent savings rate applies to families regardless of the number of college-bound students.
- 3. <u>Work:</u> The benchmark accounts for a student's potential for part-time work during postsecondary education without interfering with their education program. This model allows students to work 10 hours per week while in college to help afford expenses.
- 4. <u>Understandable</u>: The benchmark should be understandable and relatable to students and families. The U.S. Department of Housing and Urban Development defines cost-burdened households as families who pay more than 30 percent of their income for housing.<sup>98</sup> While housing costs are specific to every family, some may pay much more, others less, it provides an easily understandable and calculable metric for understanding housing affordability. The Rule of 10 argues a similar approach for defining college affordability.

The Rule of 10 functions as a consumption-based model and is not without drawbacks. For one, the benchmark ignores any

concept of return on investment (ROI) from attending college or opportunity costs of pursuing a degree or certificate. The Rule of 10 also disregards assets. Instead, it focuses solely on income and allocates all income earned from 10 hours of work toward college expenses. The formula may be unrealistically simple and does not account for income fluctuations.<sup>99</sup> Similarly, it does not address the additional cost burden for families with more than one student. A 10 percent savings rate for one student may suffice for a single student, but additional students would stretch the savings and drastically reduce the amount a family could provide to each student.

#### Return on Investment

Consumption models that focus solely on the cost of attendance and base college affordability on pre-college (and during college in the case of the Rule of 10) resources ignore the investment gains from postsecondary education. As with many ROI models, there are many assumptions, and returns are not guaranteed. Factors affecting the ROI of a student include: cost of attendance, length of time in school, their likelihood of completion, degree/level/institution, earnings, demographic background, and economic conditions.<sup>100</sup> There are also issues of heterogeneity that can be difficult to identify: an increase in earnings as a result of the degree versus the student's innate ability and aptitude for the subject they studied and field they entered.<sup>101</sup> <sup>102</sup>

The Federal Reserve Bank of New York has applied this approach in measuring college affordability.<sup>103</sup> Using historical data from college graduates and earnings from 1970 to 2013, researchers calculated the return on a college degree. The measured return was around 15 percent. This wage premium from a college degree has two main caveats. One, the model uses historical trend data and cannot guarantee similar results in the future. Two, the wage premium of a college degree remains high because the opportunity costs of not going to college have decreased. While wages for college graduates have stagnated in recent years, the wages of non-college graduates have decreased. With net price remaining relatively stable during this time, the direct costs, on average, do not have enough of an effect on the total cost of college to outweigh the wage premium of a college degree.

#### Net Present Value

Net present value (NPV) is a prominent method to compare institutions and measure expected ROI. The U.S. Department of Education and the College Scorecard use this approach. The Scorecard aims to provide consumers with college costs and value in easily digestible formats.<sup>104</sup> This model includes data on five key elements: costs, graduation rate, loan default rate, average amount borrowed, and employment. Others have added to this approach by including factors on the individual student, which can help control for aggregate expected outcomes, versus the actual outcome for an individual student.<sup>105</sup> Results indicated that a college's curriculum vitae, STEM orientation, mean faculty salary, and completion rates are strong predictors of the future earnings of alumni.

Another study by the New England Board of Higher Education used a similar approach and a 10-year NPV calculation to measure four-year undergraduate business schools in Massachusetts.<sup>106</sup> By taking an average annual cost and the salary after attending from the College Scorecard, the study calculated a 10-year NPV discounted every year based on an average interest rate of 3 percent. From there, institutions are ranked from highest to lowest 10-year NPV as a relative representation of the value of their degrees.

While this methodology is helpful when comparing institutions and finding the highest value-added colleges, this does not account for a student's ability to pay, or measure a student's unmet need. The Federal Reserve Bank of New York points out, once the full scope of benefits and costs are taken into account, investing in college appears to be a good investment for the average person.<sup>107</sup> However, students are only able to make the investment if they have to ability to afford the upfront costs. Other research has shown that students paying for college, or specifically taking out loans, magnify the risk of noncompetition and are potentially worse off than not attending at all.<sup>108 109</sup> Since 1970, the burden of college costs has fallen more heavily on low-income students. In recent decades financial aid has shifted to benefit more middle- to high-income earners.<sup>110</sup> College investments are riskier for lower-income students who borrow as their chances of completion are lower.<sup>111</sup> Therefore, an NPV calculation is incomplete without a similar analysis of the student's ability to pay and their unmet need. Unmet need is shown to adversely affect a student's ability to persist and graduate and disproportionately affects lower-income families.<sup>112</sup> <sup>113</sup> Baum argues it is not enough to determine that college is expensive, but to clarify who is in a position to pay for postsecondary education, and how is that changing over time.<sup>114</sup>

#### Holistic Approach/Metrics Comparison

Net price calculators, the Rule of 10, and ROI methodologies only compare the cost of postsecondary education to a single metric, income. Most models focus on pre-college resources, comparing family and student earnings to the cost of attendance. These methods are comprehensible but still fall short. Baum argues for a student-centric approach that involves a more holistic look at the cost of postsecondary education to other metrics. Any ROI calculation should discuss a student's ability to pay by considering other financial metrics.<sup>115</sup> By comparing the cost of attendance to other costs that affect family budgets, context is given to the rising price of college and helps create a benchmark for affordability. Metrics may include measuring the change in the cost of attendance, the change in the consumer price index (CPI), and housing prices and rent. Measuring these variables and the relationship to the cost of attendance provides a more coherent picture of college affordability over time:

#### Prices:

- Average tuition and fees by sector and by state
- Average tuition and fees by Carnegie classification within sectors
- Average room and board charges
- Housing and food prices by geographical area
- Textbook prices
- Net prices for students with different characteristics at different types of institutions
- Changes in college prices relative to other goods and services

#### Earnings:

- Earnings by educational attainment for full-time workers, all workers, and members of the labor force
- Earnings by educational attainment by geographical area and by age
- Average earnings for different levels of educational attainment and the variation in earnings
- Expected earnings incorporating probabilities of completing different types of credentials for students in different circumstances

#### Other resources:

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- Discretionary income
- Net worth by age, income, and other characteristics
- Saving rates
- Inequality of income and net worth

#### Student debt:

- Percentage of students with education debt and distribution of debt levels for students with different characteristics at different types of institutions
- Loan payments relative to earnings premium

#### **Select Methodology Examples**

The following data provide examples of how these methodologies might look in practice. They are meant to aid in understanding and are not guides for students or practitioners to set tuition, aid, or other policies. The examples below involve many assumptions and represent hypothetical situations and outcomes based on the median.

All three methodologies (the Rule of 10, EFC, and NPV) use the following assumptions:

- <u>Median income</u>: The 2016 median household income for families in Utah by household size is from the American Community Survey 2012-2016 5-year estimates.
- <u>Adjusted gross income</u>: Assumes all income is from labor and the standard deduction for 2016 is the only deduction taken.
- <u>Total price</u>: The average weighted total cost of attendance for USHE's four-year institutions for in-state undergraduate students. Data is from the Integrated Postsecondary Education Data System (IPEDS) for the 2016-17 academic year. Single-year data is then multiplied by four to estimate the total four-year cost of attendance for three possible living situations while pursuing postsecondary education:
  - Living on campus
  - Living off campus, not with family
  - Living off campus, with family
- <u>Family size:</u> Assumptions of family size are illustrative of how different students and families measure under each calculation. They are not representative of all students or the entire spectrum of students of families that pursue postsecondary education. The families sizes used here are:
  - Single-family member (one student)
  - Two family members (one student): Assumes the median household income for a two-person household. The result is a high estimate for two-member families, as two-member households can include two working adults. This example is more likely of an adult partnership than a single parent with a dependent child. In this instance, a household closer to the oneperson household median income is just as likely.

- Three family members (one student)
- Four family members (two students)
- <u>Average aid</u>: The average amount of aid awarded to instate undergraduate students attending a USHE four-year institution. Data is from IPEDS for the 2016-17 academic year and is multiplied by four to estimate the total four-year aid awarded.
- <u>Students</u>: Assumes students are in-state eligible and enrolling in the first semester of fall of 2016. Students are assumed to be traditional first-time, full-time degreeseeking students completing their programs within four years of study.
- <u>USHE institutions</u>: Institutional data comes from IPEDS and include the following institutions: Dixie State University, Snow College, Southern Utah University, University of Utah, Utah State University, Utah Valley University, and Weber State University.
- <u>Values:</u> All values are referenced or calculated for the 2016 calendar year (U.S. Census Bureau) or the 2016-17 academic year (IPEDS) and are held constant over time.

#### The Rule of 10

The Rule of 10 is calculated using the assumptions listed above. In all cases, the expectation of what each family can save, earn while enrolled, and the average amount of aid awarded are combined to estimate what a student can reasonably be expected to pay for college. Any difference between the total value from the Rule of 10 (savings plus earnings while enrolled) and average aid is considered unmet need. This gap between the cost of attendance and the EFC plus aid requires funding from supplemental sources (including loans); otherwise, the



#### Figure 3.1: Unmet Need of Students in Utah, Based on the Rule of 10, Academic Year 2016-17

Source: Kem C. Gardner Policy Institute analysis of the U.S. Census Bureau and the U.S. Department of Education's Integrated Postsecondary Education Data System data.



#### Figure 3.2: Unmet Need of Students in Utah, Based on the Expected Family Contribution, Academic Year 2016-17

Source: Kem C. Gardner Policy Institute analysis of the U.S. Census Bureau and the U.S. Department of Education's Integrated Postsecondary Education Data System data.

cost could be considered unaffordable. Affordability remains focused on the student, and only they can determine their ability and willingness to pay the gap or not. The results for each family size scenario are shown in Figure 3.1.

#### Expected Family Contribution

The EFC results are from the College Scoreboard's 2019 EFC calculator.<sup>116</sup> The federal government uses this methodology to calculate a student's EFC from their FAFSA information to determine eligibility for aid. The EFC for each family size example plus the average aid awarded to in-state students results in the estimated amount a family can reasonably be expected to pay for college. Any difference between the total value from the EFC and average aid is considered unmet need. This gap between the cost of attendance and the EFC plus aid needs to be covered from supplemental sources (this can include loans). Otherwise, the cost of a degree outweighs the ability to pay and could be considered unaffordable. Only the student can determine their willingness or ability to pay. The results for each family size scenario are shown in Figure 3.2.

#### Net Present Value

A return on investment method focuses on post-college results as opposed to pre-college resources. Therefore all scenarios may apply to any student but do not factor in any additional resource constraints or ability to pay. Similarly, there is no inclusion of opportunity costs, wage growth, degree concentration, or non-earnings related costs or benefits. The total price for all three living situations are calculated by taking the weighted average of attendance calculated from IPEDS and subtracting the weighted average aid awarded to calculate the initial investment. The wage premium from a college degree is the difference of the median income of an individual with a high school degree (or equivalent) and the median income of an individual with a Bachelor's degree, both from the 2012-2016 American Community Survey 5-year estimates.

The three scenario calculations are:

- Scenario 1: Assumes the total four-year cost of attendance minus aid is the initial cost. Results use a 10-year return from the initial cost of the degree, minus aid. All 10 years include the wage premium for 10 years from earning a college degree.
- Scenario 2: Assumes the initial cost of the degree is \$0. The first four years of the degree are considered a net loss based on the one year cost of attendance each year. The following six years represent the wage premium of the degree for six years post-graduation.
- Scenario 3: Assumes no initial cost, but the calculation is for a 14-year return. The first four years assume a loss of the cost of attendance, and the following 10 years account for the added wage premium as a result of a degree.

The discount rates provide a low, medium, and high bound. The first rate uses the 20-year Treasury bond rate from July 1, 2016 (1.81 percent).<sup>117</sup> Other researchers use this approach, and the rate is considered to be a conservative measure.<sup>118 119</sup> The second rate is meant to represent a middle bound rate and the interest rate on a Federal Direct Stafford Loan for 2016 (3.76 percent).<sup>120</sup> The final discount rate is the average rate of ROI in the S&P 500 (including dividends) from 1928 to 2016 (11.42 percent).<sup>121</sup>
#### Table 3.1: Estimated Returns on a College Degree in Utah, Based on Net Present Value, 2016

Living Situation While Enrolled	Scenario 1: 10 Year Timeline, Total Initial Cost	Scenario 2: 10 Year Timeline, Cost Spent During First Four Years	Scenario 3: 14 Year Timeline, Cost Spent During First Four Years		
Discount Rate: 1.81% (Low Bound)					
Living On Campus	\$95,038	\$84,055	\$116,760		
Living Off Campus Not With Family	\$37,426	\$26,923	\$58,201		
Living Off Campus With Family	\$87,270	\$76,767	\$108,045		
Discount Rate: 3.76% (Medium Bound)					
Living On Campus	\$81,570	\$70,587	\$103,293		
Living Off Campus Not With Family	\$28,713	\$18,689	\$48,537		
Living Off Campus With Family	\$68,059	\$58,035	\$87,884		
Discount Rate: 11.42% (High Bound)					
Living On Campus	\$43,815	\$32,832	\$65,538		
Living Off Campus Not With Family	\$6,611	-\$1,831	\$23,310		
Living Off Campus With Family	\$22,868	\$14,425	\$39,567		

Source: Kem C. Gardner Policy Institute Analysis of U.S. Census Bureau and IPEDS data.

The results presented in Table 3.1 show the added value of a college degree in each scenario for all three living options. In all cases except for one (Scenario 2, living off campus without family, and a discount rate of 11.42 percent), a college degree is worth more than the value of the investment. The rate of return varies in all instances, and the value placed on that rate of return is a subjective measure that relies on the student to decide if it is worth it. This approach does not measure ability or willingness to pay. Instead, it measures the estimated increase in earnings for obtaining a college degree.

#### Framing College Affordability

The issue of college affordability is subjective and based on a myriad of factors that are unique to every prospective student. Framing college affordability using a variety of measurable factors provides clarity to the discussion. College affordability is not simply tied to rising tuition and fees or as a ratio of price to income. Rather, measuring the relationship between a student's assets and the cost of college via methodologies used in the Rule of 10 and the EFC provides a baseline for the price a student might be reasonably able to afford. An ROI calculation also provides a sense of the expected lifetime value of a degree. However, these methodologies do not address an individual's ability to pay for postsecondary education. A holistic approach to address cost, ability to pay, and the expected value of a college degree is a more accurate measure. The complexity of an individual's circumstance makes this task difficult to quantify. An aggregate measure cannot reasonably capture every student's unique situation. As a result, the current methodologies discussed here provide a baseline reference to frame policy discussions around college affordability.

### Endnotes

- 1. Utah System of Higher Education (2018). Policy: R510, Tuition. Retrieved from https://higheredutah.org/policies/r510-tuition-and-fees/
- 2. Ibid. Policy R510.7 includes other charges such as registration costs, apprenticeship programs, non-credit programs, etc. that are not addressed in this memo.
- In November 2018, the Board of Regents approved revised tuition polices that discontinue the practice of a uniform tuition rate and first and second-tier tuition setting processes. See https://higheredutah.org/pdf/ agendas/20181115/TABE\_2018-11-16.pdf
- 4. Utah State University (2017). Policy 532: Scholarship Awarding. Retrieved from https://www.usu.edu/policies/532/
- Snow College (2016). Subject: Snow College Scholarship Policy. Retrieved from\_https://www.snow.edu/general/policies/520%20Scholarship%20 Policy.pdf
- Snow College (n.d.). Financial Aid, Satisfactory Academic Progress Policy. Retrieved from\_https://www.snow.edu/offices/finaid/satisfactory\_ progress\_policy.html
- Dixie State University (2018). Policy Library, Policy 505: Financial Aid, Scholarships, and Waivers. Retrieved from https://dixiestate.sharepoint. com/:w:/r/sites/pl/\_layouts/15/Doc.aspx?sourcedoc=%7B630fddb9-7f04-45c7-bec7-c7d8c01d4d5a%7D&action=default&cid=c62a572c-6c64-46b7-a0dc-731da4166b54
- University of Utah (n.d.). University Office of Scholarships and Financial Aid, Eligibility. Retrieved from\_https://financialaid.utah.edu/maintainingaid/eligibility.php
- National Center for Education Statistics (2018). IPEDS 2018-19 Data Collection System: 2018-19 Survey Materials: Glossary. Retrieved from\_ https://surveys.nces.ed.gov/ipeds/Downloads/Forms/IPEDSGlossary.pdf
- These may be classified as institutional grants; institutional grants (restricted) (allowances); institutional grants (unrestricted) (allowances); institutional grants from restricted resources; or institutional grants from unrestricted resources.
- 11. Some of these terms may already be included in the Board of Regents Policy Section 5 but may lack transparency or a precise definition.
- In our analysis, WICHE states include: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming. In any charts/ figures, we exclude Utah, denoting "Other WICHE States" unless otherwise explicitly noted.
- 13. Education Commission of the States (2018). Policy Snapshot: Tuition-Setting in Postsecondary Education. Retrieved from https://www.ecs.org/ wp-content/uploads/Tuition-Setting-in-Postsecondary-Education.pdf
- 14. National Center for Education Statistics (2018).
- 15. Ibid.
- 16. Ibid.
- 17. Cornell University (2011). 2011 Survey of Differential Tuition at Public Higher Education Institutions. Retrieved from https://www.ilr.cornell. edu/sites/ilr.cornell.edu/files/2011%20Survey%20of%20Differential%20 Tuition%20at%20Public%20Higher%20Education%20Institutions.pdf
- New York University (2017). Variations in Tuition at Public Universities Have Grown, Masking the True Cost of Attendance. Retrieved from https://www.nyu.edu/about/news-publications/news/2017/april/ variations-in-tuition-at-public-universities-have-grown--masking.html

- Wolniak, G.C., George, C.E., & Nelson, G. (2017). Differential Tuition Database, Four Year Public Institutions: 1991, 1999, 2007, 2015. New York University: Center for Research on Higher Education Outcomes. Retrieved from https://steinhardt.nyu.edu/crheo/transparency
- 20. Ibid.
- 21. Arizona State University (n.d.). A college education is the best investment you can make in your future. Retrieved from https://students.asu.edu/ yourtuition
- 22. Pietsch, B., & Windes, I. (2019). ASU overhauls fee structure in new tuition proposal. *The State Press*. Retrieved from https://www.statepress. com/article/2019/03/sppolitics-asu-overhauls-fee-structure-in-tuition-proposal
- 23. Nevada System of Higher Education (2019). Regents Approve Predictable Pricing Program for College Tuition. Retrieved from https://nshe.nevada. edu/2019/03/regents-approve-predictable-pricing-program-for-collegetuition/
- 24. Nevada System of Higher Education Board of Regents (2018). Registration Fee Guarantee Program (Option A) and Predictable Pricing Program (Option B). Retrieved from https://nshe.nevada.edu/ wp-content/uploads/file/BoardOfRegents/Agendas/2018/nov-mtgs/ bor2930-refs/BOR-14a.pdf
- One Stop Student Services Twin Cities (n.d.). 13-credit policy. University of Minnesota. Retrieved from https://onestop.umn.edu/academics/13credit-policy
- 26. One Stop Student Services Twin Cities (n.d.). Tuition. *University of Minnesota*. Retrieved from https://onestop.umn.edu/finances/tuition
- 27. Utah System of Higher Education (2015). Plateau Tuition: How Can It Help Students? Retrieved from https://higheredutah.org/plateau-tuition-howcan-it-help-students/
- 28. Michigan Tech (n.d.). Making Sense of Tuition. Retrieved from https:// www.mtu.edu/finaid/tuition/
- 29. Attewell, P., & Monaghan, D. (2016). How Many Credits Should an Undergraduate Take? *Research in Higher Education*, *57*(6), 682-713. Retrieved from https://doi.org/10.1007/s11162-015-9401-z
- Kentucky Council on Postsecondary Education (2018). Momentum and Student Success in Kentucky. Retrieved from http://www.cpe.ky.gov/ data/reports/academicmomentumreport.pdf
- Hornberger, P., Miller, M., & Riggs, B. (2016). Tuition Plateaus and Student Behavior: The University of Oregon and Completion Rate Efficiency (Student Thesis, University of Oregon). Retrieved from http://cassites. uoregon.edu/econ/wp-content/uploads/sites/4/2017/07/Hornberger-Miller-Rigg\_S2016.pdf
- 32. The Carnegie Classification of Institutions is an index that classifies universities that offer doctorate degrees by research activity. R1 universities are the top indicator and are defined as those that conduct "very high research activity". Both public and private universities are on this list. The University of Utah is the only Utah institution on this list. See http://carnegieclassifications.iu.edu/classification\_descriptions/basic. php
- Jaquette, O. & Curs, B. R. & Posselt, J. R. (2016). Tuition Rich, Mission Poor: Nonresident Enrollment Growth and the Socioeconomic and Racial Composition of Public Research Universities. *The Journal of Higher Education*, *87*(5), 635-673. Retrieved from https://muse.jhu.edu/ article/628415

- Jaquette, O., & Curs, B. R. (2015). Creating the Out-of-State University: Do Public Universities Increase Nonresident Freshman Enrollment in Response to Declining State Appropriations? *Research in Higher Education*, *56*(6), 535–65. Retrieved from https://doi.org/10.1007/s11162-015-9362-2
- 35. Washington Post analysis of IPEDS data with assistance from Ozan Jaquette, a professor at the University of Arizona. The Washington Post (2016). At 'State U.,' a surge of students from out of state. Retrieved from https://www.washingtonpost.com/graphics/local/declining-in-statestudents/
- Haycock K., Lynch M., & Engle J. (2010). Opportunity Adrift: Our Flagship Universities Are Straying from Their Public Mission. *Education Trust*. Retrieved from https://www.researchgate.net/publication/234602759\_ Opportunity\_Adrift\_Our\_Flagship\_Universities\_Are\_Straying\_from\_ Their\_Public\_Mission
- 37. Jaquette, O. & Curs, B. R. & Posselt, J. R. (2016).
- Curs, B. R., & Jaquette, O. (2017). Crowded Out? The Effect of Nonresident Enrollment on Resident Access to Public Research Universities. *Educational Evaluation and Policy Analysis*, 39(4), 644-669. Retrieved from https://journals.sagepub.com/doi/10.3102/0162373717704719
- 39. Ibid.
- 40. Ibid.
- Allen, I. E., & Seaman, J. (2017). Digital Compass Learning: Distance Education Enrollment Report 2017. *Babson survey research group*. Retrieved from https://onlinelearningconsortium.org/read/gradeincrease-tracking-distance-education-united-states/
- 42. Ibid.
- 43. Kem C. Gardner Policy Institute analysis of preliminary 2017 IPEDS data of distance education offerings for all four-year non-profit colleges and universities.
- 44. Allen, I. E., & Seaman, J. (2007). Online nation: Five years of growth in online learning. *Sloan Consortium*. Retrieved from http://www. onlinelearningsurvey.com/reports/online-nation.pdf
- 45. Legon, R., & Garrett, R. (2017). The Changing Landscape of Online Education. *Quality Matters*. Retrieved from https://www.qualitymatters. org/qa-resources/resource-center/articles-resources/CHLOE-report-2017
- Allen, I. E., & Seaman, J. (2010). Class Differences: Online Education in the United States, 2010. *Sloan Consortium*. Retrieved from https://eric. ed.gov/?id=ED529952
- Deming, D. J., Goldin, C., Katz, L. F., & Yuchtman, N. (2015). Can online learning bend the higher education cost curve? *American Economic Review*, 105(5), 496-501. Retrieved from https://doi.org/10.3386/w20890
- Bell, B., & Federman, J. (2013). E-Learning in Postsecondary Education. *The Future of Children*, 23(1), 165-185. Retrieved from http://www.jstor. org/stable/23409493
- 49. Mackellar, E. (2016). Performance-Based Budgeting in the States. *National Conference of State Legislatures, 24*(38). Retrieved from http://www.ncsl.org/ research/fiscal-policy/performance-based-budgeting-in-the-states.aspx
- 50. National Conference of State Legislatures (2014). Performance-Based Funding for Higher Education. Retrieved from https://highered.colorado. gov/Publications/General/1319/NCSLPerfFundingArticle.pdf
- 51. College Scorecard (2017). Using Federal Data to Measure and Improve the Performance of U.S. Institutions of Higher Education. Retrieved from https://collegescorecard.ed.gov/assets/ UsingFederalDataToMeasureAndImprovePerformance.pdf

- 52. Johnson, N., & Yanagiura, T. (2016). Early Results of Outcomes-Based Funding in Tennessee. *Lumina Foundation for Education*. Retrieved from https://www.luminafoundation.org/files/resources/early-resultstn-0314-1.pdf
- 53. Callahan, K., Meehan, K., et. al (2017). Implementation and Impact of Outcomes-Based Funding in Indiana. *Research for Action*. Retrieved from https://8rri53pm0cs22jk3vvqna1ub-wpengine.netdna-ssl.com/wpcontent/uploads/2017/03/RFA-OBF-in-Indiana-Full-Brief-February-2017updated.pdf
- Kim, M. M., & Ko, J. (2015). The impacts of state control policies on college tuition increase. *Educational Policy*, 29(5), 815-838. Retrieved from https:// journals.sagepub.com/doi/full/10.1177/0895904813518100
- 55. Ibid.
- Kelchen, R. (2017). Tuition Control Policies: A Challenging Approach to College Affordability. MHEC Policy Brief. *Midwestern Higher Education Compact*. Retrieved from https://eric.ed.gov/?id=ED587434
- Calhoun, J., & Kamerschen, D. R. (2010). The impact of governing structure on the pricing behavior and market structure of public institutions of higher education in the US. *International Review of Economics*, *57*(3), 317-333. Retrieved from https://doi.org/10.1007/ s12232-010-0089-2
- Utah System of Higher Education (n.d.). Utah System of Higher Education: Performance-Based Funding. Retrieved from https://le.utah. gov/interim/2019/pdf/00000907.pdf
- 59. National Conference of State Legislatures (2014).
- 60. Net tuition is gross tuition and miscellaneous fees less employee benefits and total waivers.
- 61. A student survey might suggest a different pattern of spending that could affect the final results.
- Blackwell, M., Cobb, S., & Weinberg, D. (2002). The Economic Impact of Educational Institutions: Issues and Methodology. *Economic Development Quarterly*, 16(1), 88–95. Retrieved from https://doi. org/10.1177/0891242402016001009
- Brown, K. H., & Heaney, M. T. (1997). A Note on Measuring the Economic Impact of Institutions of Higher Education. *Research in Higher Education*, 38(2), 229–240. Retrieved from https://doi.org/10.1023/A:1024937821040
- Valero, A., & Van Reenen, J. (2019). The Economic Impact of Universities: Evidence From Across the Globe. *Economics of Education Review*, 68, 53-67. Retrieved from https://www.sciencedirect.com/science/article/pii/ S0272775718300414
- 65. Jaquette, O. & Curs, B. R. & Posselt, J. R. (2016).
- 66. Jaquette, O., & Curs, B. R. (2015).
- 67. The Washington Post (2016).
- 68. Haycock K., Lynch M., & Engle J. (2010).
- 69. Jaquette, O. & Curs, B. R. & Posselt, J. R. (2016).
- 70. Curs, B. R., & Jaquette, O. (2017).
- 71. Ibid.
- 72. Douglass, J. A. (2016). Cosmopolitan Berkeley and the Concept of Cultural Diversity in an American University. California *Journal of Politics and Policy*, 8(2). Retrieved from https://doi.org/10.5070/P2cjpp8230559
- 73. Chang, M. J. (1999). Does Racial Diversity Matter?: The Educational Impact of a Racially Diverse Undergraduate Population. *Journal of College Student Development*, 40, 377–395. Retrieved from https://www.researchgate. net/publication/232547545\_Does\_Racial\_Diversity\_Matter\_The\_ Educational\_Impact\_of\_a\_Racially\_Diverse\_Undergraduate\_Population

- 74. Douglass, J. A. (2016).
- 75. Based on Gardner Institute analysis of USHE annualized FTE enrollment data for academic year 2017-18.
- 76. All USHE institutions participate in annual Integrated Postsecondary Education Data System (IPEDS) surveys conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). These surveys consist of tracking many higher education metrics including the cost of student attendance.
- 77. Dixie State University's estimate tops the list due to the other expenses category being over double most other USHE school estimates for the same category.
- 78. Estimates are for on campus spending with the exception of Salt Lake Community College and Utah Valley University, which do not have on campus dormitories.
- 79. The College Board (n.d.). Nine-Month Academic Year 2017-18 2017-18 Low and Moderate Living Expense Budgets. Retrieved from http://web. archive.org/web/20170221135830/https://professionals.collegeboard. org/higher-ed/financial-aid/living-expense/9-month
- 80. The College Board does not publish budget estimates for the mountain states region nor any Utah MSAs. We used the next best options, the western states region and the Aurora-Denver, Colorado MSA.
- 81. United States Congress (2008). Higher Education Opportunity Act Public Law 110–315. Retrieve from https://www.govinfo.gov/content/ pkg/PLAW-110publ315/pdf/PLAW-110publ315.pdf
- 82. U.S. Department of Education (n.d.). Net Price Calculator Center. Retrieve from https://collegecost.ed.gov/netpricecenter.aspx
- 83. Information for Financial Aid Professionals. (2013). Guidance on Implementing the Net Price Calculator Requirement. Retrieve from https://ifap.ed.gov/dpcletters/GEN1307.html
- 84. National Center for Education Statistics. (n.d.). The Integrated Postsecondary Education Data System - Net Price Calculator Information Center. Retrieve from https://nces.ed.gov/ipeds/report-your-data/ resource-center-net-price
- Information for Financial Aid Professionals. (n.d.). The EFC Formula, 2018–2019. Retrieve from https://ifap.ed.gov/efcformulaguide/ attachments/071017EFCFormulaGuide1819.pdf
- U.S. Department of Education (2015). Net Price Calculator Quick Start Guide. Retrieve from https://nces.ed.gov/ipeds/netpricecalculator/ Download/QuickStart\_IE.pdf
- 87. United States Congress (2019). Higher Education Act of 1965 As Amended Through P.L. 115–334, Enacted December 20, 2018. Retrieve from https://legcounsel.house.gov/Comps/Higher%20Education%20 Act%20Of%201965.pdf
- Baum, S., & Ma, J. (2014). College Affordability: What Is It and How Can We Measure It. *Lumina Foundation*. Retrieve from https://www. luminafoundation.org/files/publications/ideas summit/College Affordability-What Is It and How Can We\_Measure\_It. pdf.
- 89. Goldrick-Rab, S. (2016). Paying the Price: College Costs, Financial Aid, and the Betrayal of the American Dream. *University of Chicago Press*. Retrieve from https://www.press.uchicago.edu/ucp/books/book/chicago/P/ bo24663096.html
- 90. Goldrick-Rab, S., & Nellum, C. (2015). Request to Add Measurement of Food Insecurity to the National Postsecondary Student Aid Study. *Wisconsin HOPE Lab and American Council on Education and the Center for*

Policy and Research Strategy. Retrieve from http://www.rootcausecoalition.org/wp-content/uploads/2017/05/ REQUEST-TO-ADD-MEASUREMENT-OF-FOOD-INSECURITY-TO-THE-NATIONAL-POSTSECONDARY-STUDENT-AID-STUDY.pdf

- Mumper, M. (1993). The Affordability of Public Higher Education: 1970–90. *The Review of Higher Education*, 16(2), 157-180. Retrieve from https://muse.jhu.edu/article/644678/pdf
- 92. Briggs, J. (2013). The Value of the EFC Student Aid Perspectives. *National Association of Student Financial Aid Administrators*. Retrieve from http://www.nasfaa.org/news-item/4569/The\_Value\_of\_the\_EFC
- 93. Mathuews, K. (2018). Miscalculating Need: How the Free Application for Federal Student Aid Misses the Mark. *College and University*, 93(4), 29-32. Retrieve from https://www.aacrao.org/research-publications/quarterlyjournals/college-university-journal/article/c-u-vol.-93-no.-4-fall-2018/ miscalculating-need-how-the-free-application-for-federal-student-aidmisses-the-mark
- 94. Baum, S., & Ma, J. (2014).
- 95. Lumina Foundation. (2015). College affordability: A Benchmark for Making College Affordable: The Rule of 10. Retrieve from https://www. luminafoundation.org/resources/a-benchmark-for-making-collegeaffordable
- 96. Lumina Foundation. (2017). College affordability: A Benchmark for Making College Affordable. Retrieve from https://www. luminafoundation.org/files/resources/affordability-benchmark-2.pdf
- 97. Lumina Foundation. (2015).
- U.S. Department of Housing and Urban Development. (n.d.). College Affordability: Affordable Housing. Retrieve from https://www.hud.gov/ program\_offices/comm\_planning/affordablehousing/
- Dancy, K. (2015). Measuring College Affordability: Lumina's Rule of 10 and the Federal EFC. *New America*. Retrieve from New America website: https://www.newamerica.org/education-policy/edcentral/rule-of-10and-efc/
- 100. Blagg, K., Blom, E. (2018). Evaluating the Return on Investment in Higher Education - An Assessment of Individual- and State-Level Returns. Urban Institute. Retrieve from https://www.urban.org/sites/default/files/ publication/99078/evaluating\_the\_return\_on\_investment\_in\_higher\_ education.pdf
- 101. Arias, O., Hallock, K. F., & Sosa-Escudero, W. (2002). The Affordability of Public Higher Education: 1970–90. *In Economic Applications* of *Quantile Regression* (pp. 7-40). Physica, Heidelberg. Retrieve from https://digitalcommons.ilr.cornell.edu/cgi/viewcontent. cgi?article=1202&context=articles
- 102. Abel, J. R., & Deitz, R. (2014). Do the Benefits of College Still Outweigh the Costs?. *Current Issues in Economics and Finance*, 20(3). Retrieve from https://www.drjessicabc.com/uploads/8/5/9/2/85928276/do\_the\_ benefits\_of\_college\_outweigh\_the\_costs\_4.pdf
- 103. Ibid.
- 104. U.S. Department of Education. (2013). Education Department Releases College Scorecard to Help Students Choose Best College for Them. Retrieve from https://www.ed.gov/news/press-releases/educationdepartment-releases-college-scorecard-help-students-choose-bestcollege-them
- 105. Rothwell, J. (2015). Using Earnings Data to Rank Colleges: A Value-Added Approach Updated with College Scorecard Data. Retrieve from Brookings website: https://www.brookings.edu/research/using-earnings-data-torank-colleges-a-value-added-approach-updated-with-college-scorecarddata/

- 106. New England Board of Higher Education. (2016). The College Scorecard and Return on Investment. Retrieve from New England Board of Higher Education website: https://nebhe.org/journal/the-college-scorecardand-return-on-investment/
- 107. Abel, J. R., & Deitz, R. (2014).
- 108. Athreya, K., & Eberly, J. (2016). Risk, the College Premium, and Aggregate Human Capital Investment. *Federal Reserve Bank of Richmond Working Paper*, 13-02R. Retrieve from https://www.richmondfed.org/-/media/ richmondfedorg/publications/research/working\_papers/2013/pdf/ wp13-02r.pdf
- 109. Gladieux, L., & Perna, L. (2005). Borrowers Who Drop Out: A Neglected Aspect of the College Student Loan Trend. National Center Report# 05-2. National Center for Public Policy and Higher Education. Retrieve from https://files.eric.ed.gov/fulltext/ED508094.pdf
- 110. Mumper, M. (1993).
- 111. Mortenson, T. G. (1990). The Impact of Increased Loan Utilization among Low Family Income Students. *American College*, 75. Retrieve from https:// eric.ed.gov/?id=ED319285
- 112. Welbeck, R., Diamond, J., Mayer, A., & Richburg-Hayes, L. (2014). Piecing Together the College Affordability Puzzle: Student Characteristics and Patterns of (Un) Affordability. *MDRC*. Retrieve from MDRC website: https://www.mdrc.org/publication/piecing-together-collegeaffordability-puzzle
- 113. Dannenberg, M., & Voight, M. (2013). Doing Away with Debt: Using Existing Resources to Ensure College Affordability for Low and Middle-Income Families. *Education Trust*. Retrieve from https://files.eric.ed.gov/ fulltext/ED543214.pdf

- 114. Baum, S., & Ma, J. (2014).
- 115. Ibid.
- 116. The College Board. (n.d.). Expected Family Contribution Calculator. Retrieve from https://bigfuture.collegeboard.org/pay-for-college/payingyour-share/expected-family-contribution-calculator#
- 117. U.S. Department of the Treasury. (n.d.). Daily Treasury Long Term Rate Data. Retrieve from https://www.treasury.gov/ resource-center/data-chart-center/interest-rates/Pages/TextView. aspx?data=longtermrateYear&year=2016
- 118. Kantrowitz, M. (2007). The Financial Value of a Higher Education. *Journal* of *Student Financial Aid*, 37(1), 19–27. Retrieve from http://www.nasfaa. org/uploads/documents/ektron/5bd96d09-878f-4bbd-a8a4-bbf63c1351 e5/151ca386acf743d59c2a4140496af8751.pdf
- 119. FinAid. (n.d.). Net Present Value. Retrieve from http://www.finaid.org/ loans/npv.phtml
- 120. Edvisors Network, Inc. (n.d.). Federal Student Loan Interest Rates and Fees. Retrieve from Edvisors website: https://www.edvisors.com/collegeloans/federal/stafford/interest-rates/
- Damodaran, A. (2019). Annual Returns on Stock, T.Bonds and T.Bills:
  1928 Current. Retrieve from http://pages.stern.nyu.edu/~adamodar/ New\_Home\_Page/datafile/histretSP.html



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#### INFORMED DECISIONS™





MEMORANDUM

TAB C

October 7, 2019

### Weber State University – Campus Master Plan

Regent policy R706, *Capital Facilities Master Planning* requires the USHE Board of Regents to review and approve institutional campus master plans every two years. The Board last approved the Weber State University master plan in September 2017 and the University seeks review and approval of the current institutional campus master plan. A letter from the institution describing the updates to the master plan is attached along with a map. University officials will be present at the meeting and be available to respond to Board questions.

#### **Commissioner's Recommendations**

<u>The Commissioner recommends the Committee approve the Weber State University Master Plan and add</u> the item to the November Consent Calendar of the Board of Regents.

Attachments



### WEBER STATE UNIVERSITY

October 4, 2019

Mr. Dave Woolstenhulme, Commissioner Utah System of Higher Education Board of Regents Building, The Gateway 60 South 400 West Salt Lake City, UT 84101-1284

Dear Commissioner Woolstenhulme:

Attached are revised Campus Master Plans for WSU-Ogden and WSU-Davis, as well as a new master plan for WSU-West. Please place these items on the October 2019 action agenda of the Board of Regents.

As Background, in 2016, WSU engaged in a major campus-master-planning process for the first time in 14 years. Our intentions were to complete major updates to both the WSU-Ogden and WSU-Davis campus plans, and incorporate for the first time a third permanent campus master plan known as WSU-West (Hooper). That work has been completed now and is presented here for Regent consideration and adoption.

Consultants who helped lead the WSU community through this master planning process are VCBO Architecture and Sasaki Associates. The planning process took more than 12 months to complete and has now been shared broadly with the WSU community and adopted by the WSU Board of Trustees.

Staff will be present at the October Regents' meeting to highlight the major changes and additions to these plans, and address any questions that might arise.

Sincerely,

Norm Tarbox Vice President for Administrative Services

attachments

# OGDEN CAMPUS FUTURE BUILD-OUT



weber state university 2016 CAMPUS MASTER PLAN



# DAVIS CAMPUS FUTURE BUILD-OUT



weber state university 2016 CAMPUS MASTER PLAN



# WEST (HOOPER) CAMPUS FUTURE BUILD-OUT









MEMORANDUM

October 7, 2019

### **Utah State University – Series 2019 Refunding Bonds**

Regent Policy R590, *Issuance of Revenue Bonds for Colleges and Universities*, requires the Board to review and approve the issuance and sale of revenue bonds that refund existing debt service. Utah State University requests Board authorization to issue approximately \$8,450,000 of taxable Research Revenue Refunding Bonds to refund portions of existing 2016 revenue bonds. The current projected savings to the University is 3.5 percent or approximately \$370,000. The University is working with their municipal advisor and bond counsel to finalize the authorizing resolution for the refunding bonds, which they will provide for the November Board of Regents meeting.

The relevant parameters of the requested issue are:

- Principal amount not to exceed \$9,400,000 (including costs of issuance and capitalized interest)
- Interest rate not to exceed 5.0%
- Discount from par not to exceed 2%
- Final maturity not to exceed 28 years from the date of issue

A preliminary summary sheet from the financial advisor is attached.

#### **Commissioner's Recommendations**

<u>The Commissioner recommends the Committee approve Utah State University to proceed and bring an</u> <u>Authorizing Resolution to the November Board of Regents for final approval of the taxable Research</u> <u>Revenue Refunding Bonds as a Consent Calendar item.</u>

#### Attachment

TAB D



September 27, 2019

Interim Commissioner David Woolstenhulme Utah State Board of Regents Board of Regents Building The Gateway 60 South 400 West Salt Lake City, Utah 84101-1284

Subject: Utah State University's Request to Refund Research Revenue Bonds

Dear Interim Commissioner Woolstenhulme:

Utah State University requests that the Board of Regents approve refunding of the Utah State University Taxable Research Revenue Bonds, Series 2016.

The current Research Revenue Bonds, Series 2016 are eligible for refunding. Based on current interest rates, analysis shows that it would be advantageous for USU to refund the Series 2016 bonds.

Gilmore & Bell has been appointed to serve as bond and disclosure counsel.

We appreciate your support in this endeavor and ask that you present this item for Regents approval.

Sincerely,

David T. Cowley Y Vice President for Business and Finance

Enclosures

C: Rich Amon, Associate Commissioner for Finance and Facilities Noelle Cockett, President Dan Christensen, Controller Dwight Davis, Associate Vice President for Business and Finance Brian Baker, Zions Bank Public

#### Utah State University Research Revenue Refunding Bonds, Series 2019B Preliminary Summary Sheet

Proposed Issue:	Research Revenue Refunding Bonds
Total Approximate Issue Size:	\$8,450,000
Use of Funds:	To refinance the callable maturities (\$7,800,000) of the University's existing Series 2016 Taxable Research Revenue Bonds for economic savings, fund a debt service reserve fund, if needed; and pay associated costs of issuance. The 2016 bonds were issued to fund SDL Phase II.

Detail of Proposed Series 2019B Bonds:

	Principal Amount:	Not to exceed \$9,400,000						
	Interest Rate:	Not to exceed 5.0%						
	Maturity Date:	Not to exceed 28 years						
	Aggregate Discount:	Not to exceed 2%						
	Bond Rating:	AA from S&P						
	Source of Repayment:	Research Revenues						
Timetable Considerations:	Regent approval will be sought at the November 15 meeting. The University would sell these bonds, provided economic savings are adequate, as part of a bond sale to also fund other previously authorized projects (the SDL 3 and High Bay Projects).							
	The sale would occur in late November or early December, with a closing in December. The University anticipates selling the bonds by competitive sale, and the underwriter will be whichever provides the lowest borrowing cost as a combination of each bidder's proposed rates and fees.							



## MEMORANDUM

October 7, 2019

### USHE – Legislative Intent Language

During the 2019 Legislative Session the legislature included intent language in Senate Bill 2 requiring the USHE Board of Regents to respond by October 31, 2019 with:

- 1. a plan for migrating core operating systems to cloud computing with provisions for cyber security
- 2. a plan for achieving the USHE classroom utilization standards on the main campus of each institution by 2025
- 3. a process for allocating future compensation monies on the institutional wage and salary base, based on the prior year performance model results

The three attached USHE Legislative Briefs provide additional information and respond to the legislative intent language requests.

#### Commissioner's Recommendation

<u>The Commissioner recommends the Committee review the attached Legislative Briefs and provide any comments or suggestions to the Commissioner's Office preparatory to submitting the documents to the legislature before October 31.</u>

#### Attachment

No. 2019-2 • October 2019





### **Cloud Computing Intent Language**

During the 2019 Legislative Session the legislature passed the following intent language in Senate Bill 2:

"The legislature intends that prior to October 31, 2019, the Utah System of Higher Education (USHE) will develop a plan for migrating core operating systems to cloud computing with provisions for cyber security throughout the system and provide this plan to the Higher Education Appropriations Subcommittee."

#### Present State

Currently all USHE institutions have moved many applications to the cloud. An estimated 60% of all USHE non-core applications are already in the cloud and offered in no other way. Southern Utah University is the only USHE institution that has moved its core systems to the cloud. All USHE schools are looking at possible plans to move core applications to the cloud where it is financially responsible and where such a move would improve operations and security.

Moving to the cloud does not necessarily improve security. The cloud is not inherently as secure as onpremises infrastructure depending on the service provider and the current security environment. In reviewing recent major global cloud security breaches like Equifax, Sony, and Uber the incidents resulted

when customers failed in the fulfillment of their responsibilities for security in the cloud. Security in cloud infrastructure lies mostly on the shoulders of the institution and not on the cloud service provider. Cloud providers are responsible for the security of the cloud but universities and colleges are responsible for security in the cloud (Figure 1).

USHE institutions utilize two core or ERP (Enterprise Resource Planning) systems suppliers which include core HR, finance and student information



systems. The University of Utah ERP system is PeopleSoft. The other seven universities and colleges are on Ellucian Banner. The University of Utah signed a contract with PeopleSoft last year for an additional five years. The other schools are planning to sign a contract with Ellucian Banner for 5 additional years in the spring of 2020. Presently all ERP systems are reliable and adequate though they are becoming outdated. Over many years the processes and applications in these ERP systems have been customized to meet the unique needs of the Universities and Colleges. Independent IT analysts recommend holding course with these systems for the time being as there are no alternative products available that include a viable student information system.

#### **Proposed Plan**

The proposed plan is phased over 2-5 years, allowing for adjustments and improvements to be made as each school moves additional services and systems to the cloud (instead of a "fork lift" plan which is seldom used because of the amount of risk it puts on operating systems and the processes they support). The proposed offer to the legislature is for each USHE school to:

- 1. Move infrastructure components of their existing ERP systems to the cloud where it is financially responsible and improves operations and security. This cloud model is known as Infrastructure as a Service (laaS) which is a service model that delivers computer infrastructure on an outsourced basis. This effectively shifts hardware, storage, servers, and data center space, including some network components to the cloud. This would eliminate the need for each institution to host ERP data in their own data center, though USHE institutions would continue to maintain sufficient on-premises data centers and infrastructure to support ongoing operations.
- 2. Evaluate and implement appropriate "hybrid cloud" and/or "multi-cloud" options that give institutions options to move between institutionally owned resources and the cloud, and from one cloud service provider to another. This is made possible by containerizing ERP data so it can be moved to another cloud provider if price increases become unaffordable or contract terms become unpalatable. The brief history of cloud computing has shown that once an entity joins a cloud, lays off its infrastructure staff and shuts down its data center, that it is difficult to return to on premises hosting. With vendor lock-in there can be significant increases in cloud computing contractual liabilities and expense. The hybrid, multi-cloud strategy provides a safety net for our institutions by maintaining alternative location options.

This plan anticipates that institutions remain with their current ERP suppliers for at least the next five years as there are no alternative ERP cloud suppliers with viable student information systems. We anticipate the total expense of shifting these core systems to cloud infrastructure as a service will require, at minimum, \$1.1M more per year (across the entire system).

#### Future

We will continue to investigate financially responsible and properly secured cloud services that meet institutional needs. This may become a future necessity if Ellucian Banner or PeopleSoft are no longer supported or no longer meet the needs of the USHE schools. Table 1 shows current costs to the USHE System of existing ERP services as well as best estimates of the costs to move to alternative cloud-only ERP service suppliers including the first-year costs of implementation. The table does not include the costs of institutional process change or the disruption to academic operations that changes to an ERP may entail.

- The first column represents where we are today with current ERPs on premises.
- The second column represents the objective recommended and proposed to the legislature in this document and achieves a shift of core systems to the cloud with minimal institutional disruption. While costs increase, little disruption to processes or academic operations will be needed.
- The remaining four columns represent cost estimates for shifting most or all institutions to completely different suppliers of full-cloud "Software as a Service" (SaaS) solutions at today's prices. In addition, these columns would require significant institutional change, require a 3-5 year implementation time frame, and will disrupt operations significantly. Neither are proposed or recommended as part of this plan, but are included only for cost comparison. It should also be noted that the Workday solution does not include a viable core system for student information and operations.

Current ERPs	Current ERPs	Peoplesoft	Peoplesoft	Workday Cloud	Workday Cloud
(Banner and	(Banner and	Cloud Only	Cloud Only 1st	Only (SaaS)	Only 1st Year
{Peoplesoft) On	Peoplesoft) in	(SaaS) Annual	Year	Annual Costs	Implementation
Premises	the Cloud (IaaS)	Costs	Implementation		
\$16,023,673	\$17,124,647	\$32,643,734	\$98,474,400	\$26,717,734	\$126,875,000

Table 1

#### About

The USHE Chief Information Officers (CIO) have a history of collaboration and working together. The CIOs have a plan in place that will move the System into the future sensibly and responsibly. The CIOs have a proven track record of working toward institutional alignment with concerted effort in cost savings. Most major IT software contracts are joint purchases by the USHE CIO's for a savings of \$3.7 million dollars (see Table 2).

FY 2019 Vendor	USHE Savings
VM Ware	\$ 1,255,223
Oracle	794,928
Kaltura	133,588
Data Cookbook	20,850
Black Board	110,842
Duo	57,821
Ellucian	1,385,032
Total	\$ 3,758,284
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### Utilization Intent Language Report

During the 2019 Legislative Session the legislature passed the following intent language in Senate Bill 2:

"The legislature intends that prior to October 31, 2019, all USHE institutions will develop and submit to the IGG and Higher Education appropriations subcommittee, a plan for achieving the USHE classroom utilization standards on the main campus of each institution by 2025. Said plan shall include the following: (1) the standard of 33.75 average hours of instruction per week for Spring and Fall semesters; (2) the standard of 66.7 percent seat occupancy in classrooms; and (3) increasing the summer utilization of classrooms."

Regent policy R751, Institutional Facilities Space Utilization requires USHE institutions to submit annual classroom and laboratory utilization information as well as to report goals and accomplishments in meeting Regent-adopted utilization standards. Utilization information for the 2018-2019 academic year will be submitted in December 2019 and presented to the Board of Regents in January 2020. The information below comes from the 2017-2018 academic year.

#### University of Utah

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 27.6 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 53.4%

#### Plan for meeting or exceeding the USHE Utilization standards:

The University of Utah continues our commitment to using both classroom and laboratory space as effectively as possible. We have spent significant time engaged in our efforts to meet or exceed the utilization standards through dedicated committees and groups analyzing space usage and making suggestions to improve the use of existing lab and classroom space. We also continue to engage college deans, department chairs, faculty and staff charged with scheduling courses in discussions regarding how to schedule and use space more wisely.

We have worked to broaden the times that classes are offered, continue to develop and use major maps which help coordinate courses and have used conference rooms for smaller graduate seminars. There are often challenges matching appropriate class sizes with appropriate space available for classes. We will continue to work hard to find the appropriate balance to meet both course demand and appropriate classrooms for the topic being taught. There are also quality issues that may preclude certain spaces available for some classes. We will continue to invest resources each year to improve older classroom and lab space to improve the ability to use these as broadly as possible. We are also continually looking at

different ways of modifying our scheduling of classes to increase the flexibility of offering classes at high demand times without creating bottlenecks between competing high demand courses.

Many of the same challenges noted above related to classroom utilization also relate to efficient use of lab space. Use of lab space is being analyzed and considered hand in hand with our efforts to increase utilization of classroom space and the efforts noted above also apply in regards to meeting the thresholds for lab space. There is of course additional challenges in meeting the rates for lab space because the space is often specialized in nature and there is less flexibility in simply rescheduling the use of the space. Often labs are designed to function more effectively for a specific program utilizing them and it is not always possible to broaden the use beyond specific types of courses. We also want to insure all of our lab space is safe for our students and faculty and have spent a significant amount of time ensuring that existing space is not only being used effectively, but is also a safe environment for use.

#### Plan for increasing summer utilization of classrooms:

Our efforts are centered upon growing year-round enrollment. One new program that we believe will help not only grow overall enrollments, but will also help increase summer utilization rates is through a new bridge program we will begin using in the Summer of 2020. This program will target students who may not be academically qualified to attend the University of Utah, but are very close. The Bridge program will consist of a series of courses and other specialized assistance to try and move the students' academic performance that small extra bit needed in order to be successful full-time students who will then enroll full-time the following Fall semester.

#### Utah State University

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 31.0 Hours Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 50.3%

#### Plan for meeting or exceeding the USHE Utilization standards:

Approximately 60% of our 165 classrooms are within 90% or greater of this standard. Location and quality of space have the largest impacts on room usage but each of the remaining classrooms below 90% of standard will be specifically reviewed again to identify the driving factors of lower usage so that plans can be made to increase the desirability and usability of those classrooms where possible.

Seat occupancy rates have greater room for improvement when compared to usage rates as only 25% of classrooms met this standard in Fall 2017. Since USU does not have buildings that are dedicated to classrooms only, we try to accommodate faculty as much as possible by letting them teach classes in or near the buildings where they office. This can create some inefficiencies when seat capacity and enrolled students don't match as well as they might if faculty proximity concerns were not considered. However, additional reviews will be performed, starting with the buildings that have the lowest occupancy rates, and discussed with academic departments to identify opportunities for improvement including a review of course capacities and right-sizing classes regarding time of day and available classrooms.

#### Plan for increasing summer utilization of classrooms:

USU has tried a variety of strategies over the past several years to encourage more students to take summer classes. Each strategy attracts different students but has not made a significant change in summer enrollment. As a residential campus, it is very common for students to return home for the summer to work or spend time with family. Also, many students take internships away from the campus or are employed in the field, especially students in the Colleges of Natural Resources and Agriculture and Applied Sciences.

In addition, USU is scheduling more online courses because data and student behavior indicate an increasing need/desire for the flexibility of online courses in the summer rather than face-to-face courses – this also impacts our Summer classroom usage, but we are continuing to meet the evolving needs of our students.

Nevertheless, additional strategies will be discussed and implemented as appropriate to increase the summer utilization of classrooms where possible.

#### Weber State University

Current Fall 2017 Classroom Room Utilization Rate: 28.5 Hours

Current Fall 2017 Classroom Seat Occupancy Rate: 56.0%

#### Plan for meeting or exceeding the USHE Utilization standards:

Weber State University plans to improve our space utilization through several avenues. Below is an overview of each strategy being implemented in to order increase both the space utilization and seat occupancy:

Centralized Scheduling – Weber State University has historically been a decentralized scheduling institution. Scheduling was primarily done by a building's occupants and then made available to other campus entities. We are working to shift that mentality towards centralized scheduling. To that end, Weber State has purchased and is in the process of implementing a centralized scheduling software, EMS. This software and associated process will allow us to optimize the use of all classroom, lab, and event space on campus. It will allow the university to find rooms that fit the size and space requirements for each class.

Room-by-Room Use Evaluation – A facilities space use code is assigned to every space in a building at the time of construction. In the past, the room use codes were infrequently re-evaluated to ensure that the predominant use of the space fit the prescribed definition as per the USHE Standards. Weber State has put together a committee that is meeting with all colleges, departments, and key faculty in order to better understand how each space is used to meet the mission of the university. The committee then makes the determination if the use of the room matches the space use code or if there is a more accurate code to classify the use of the space. This reevaluation and possible reclassification will allow us to capture a more accurate reflection of how spaces are used.

Off-Peak Class Scheduling – Weber State University has traditionally been a commuter campus with the large proportion of students being non-traditional working student. This demographic has driven the course times and offerings to an early morning or late evening offerings. Our space utilization on campus from 8:00 am to 12:00 pm is very high and drops of dramatically until the evening when it climbs again. Weber State is working with students, faculty, and the Office of the Registrar to determine which classes can be taught during the low demand afternoon times and begin to schedule classes outside of our traditional hours. This will help to free up space during our peak demand times and allow for better overall daily utilization of the spaces.

Right Sizing Spaces – In a decentralized scheduling format, classes with fewer students were forced to schedule their class from the inventory predetermined by their department or college. This meant that it was common to have small upper division or graduate level classes of 18 in a room built to hold 40. Central scheduling will help us put the right class in the right space and even allow us to reassign a room to a class that has fewer or more than the predicted. We have also made "right sizing" a priority for all new construction and renovations. For the past few years, we have worked to match the inventory of teaching spaces to the class sizes being taught.

Annual Evaluation – The Space Planning Committee will meet with each college annually to review the least utilized spaces on campus. In the past meetings, we have discovered that some under-utilized spaces were not being schedule because of poor lighting or non-functional AV equipment. These roadblocks can easily be corrected and the space brought back to higher utilization. The committee will also monitor space use changes or renovations that would affect the predominant use and use code assignment.

Classroom Room Utilization Rate: 75% scheduling of all classrooms during a 45-hour week—33.75 hours per week: Weber is in the process of implementing centralized scheduling, room-by- room use evaluation, and off-peak class scheduling to raise the classroom utilization rates.

Classroom Seat Occupancy Rate: 66.7% seat occupancy: Weber is in the process of implementing centralized scheduling and right sizing spaces in order to get the seat occupancy above the target rate.

Laboratory Room Utilization Rate: 55% scheduling of all laboratories during a 45-hour week—24.75 hours per week: Weber is in the process of implementing centralized scheduling, room-by- room use evaluation, and off-peak class scheduling to raise the laboratory utilization rates.

Laboratory Seat Occupancy Rate: 80% station occupancy: Weber is in the process of implementing centralized scheduling and right sizing spaces in order to get the seat occupancy above the target rate.

#### Plan for increasing summer utilization of classrooms:

WSU functions on a tri-term schedule, meaning that we offer a full schedule during the summer months. What's more, we are encouraging departments to offer more courses during the summer months. In addition to our course offerings WSU has a number of non-course programming events that happen during the summer to encourage participation in higher education such as Boys and Girls State and STEM related workshops. These events will often utilize a significant portion of our campus spaces during the summer months.

#### Southern Utah University

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 36.6 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 77.6%

#### Plan for meeting or exceeding the USHE Utilization standards:

The institution currently exceeds the USHE standards for classroom utilization and has proposed an institutional goal to further improve classroom utilization to 40 hours per week and seat/station occupancy to 80 percent by 2025. SUU is using optimization software that allows us to set a target occupancy rate before scheduling courses.

#### Plan for increasing summer utilization of classrooms:

SUU is rapidly pursuing a path to a 3-year Bachelor's degree. As part of that objective, we will be significantly increasing our summer course offerings.

#### Snow College

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 24.5 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 64.9%

#### Plan for meeting or exceeding the USHE Utilization standards:

The current Room Utilization Rate (RUR) for all three academic periods is below the Regent standard. Summer term is 16.8 hours per week for summer term, 23.1 hours per week for fall semester, and 26.6 hours per week for spring semester. However, when combined—all three academic periods aggregated---the annual hours per week is 51.7, which more than exceeds the 33.75 hours per week standard. In order to increase each academic period's RUR, Snow College intends to do the following:

- Assess and reassign rooms scheduled for instruction that are really open lab space. For example, Humanities 116 is a classroom that is currently being used as an open language tutoring space. Noyes 101 is the open math tutoring lab that is being used for iLearn, self-directed, class instruction.
- Convert additional rooms to IVC instruction such as Humanities 166. This is a 58 auditoriumstyle seat room. The College intends to maximize its use by adding IVC instruction to the regular face-to-face schedule.
- Implement institutional and distinct curricular changes to better use available space. The College intends to change the nature of activity-based instruction (physical education courses) to include dedicated lecture time to the field-based activity time. This will potentially increase use of the classrooms associated with physical education instruction. Additionally, Snow College is in the implementation stage of a comprehensive general education re-design. The Foundation courses

associated with this re-design will require additional and/or better use of existing classroom space.

Snow College's classroom Seat Occupancy Rate (SOR) is below the Regent rate for each academic period—summer term is 30.1%, fall semester is 61.6%, spring semester is 55.0%. Collectively, this rate is 57.5% for the academic year. In order to increase the academic period's SOR, Snow College intends to do the following:

- Re-assess the instructional designation of dual-purpose rooms. Consistent with the National Science Foundation's recommendations for high-impact teaching and learning environments, Snow College's Graham Science Center has dual purpose lecture and lab rooms. This is where the lab activities are embedded into the lecture. Snow College intends to clarify the space dedicated to this instruction (as either lecture or lab) which will help the College more strategically schedule the embedded lab science classes in the appropriate space.
- Re-define Snow College's summer term schedule and academic offerings. As a part of the College's strategic enrollment management plan, Snow College intends to "develop and market" a more viable summer on-line curriculum. With the lack of student summer jobs and the fact that the majority of our students return home to work for the summer, Snow College aims to re-purpose summer term as a robust on-line presence. Academic space during the summer will be re-dedicated to (1) planned classroom and laboratory renovations and (2) state-wide, six-county service area and community-based conferencing, workshops, and secondary student camp instruction

#### Plan for increasing summer utilization of classrooms:

Foremost, Snow College has gained a better understanding of its summer market in terms of student matriculation, course offerings, type of delivery and their impact on summer space utilization. Snow College intends to offer more on-line/distance delivery or hybrid instructional options. This will help the college more strategically assign academic space for traditional instruction and accommodate more systematic classroom and/or laboratory space improvements and renovations. Additionally, Snow College is actively working with Central Utah Educational Services (CUES) directors and other service-area and state-wide agencies to use viable space for professional conferences and workshops and public education student learning camps.

#### Dixie State University

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 26.9 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 60.9%

#### Plan for meeting or exceeding the USHE Utilization standards:

To meet or exceed the standard classroom room utilization rate of 75% and/or the total use per room of 33.75 hours per week, Dixie State University intends to implement the following strategies:

• Increase enrollment to 15,000 students

- Continue to work collaboratively across campus divisions to increase student retention rates
- Offer more early morning, late afternoon, and evening courses
- Expand graduate level course offerings and programs
- Designate specific classrooms for use by Community Education

To meet or exceed classroom occupancy rates of 66.7%, Dixie State University intends to implement the following strategies:

- Align classroom occupancy rates with past enrollment rates to ensure smaller courses are not being taught in larger capacity classrooms
- Analyze data produced by EAB's software to forecast enrollment rates for specific courses
- Ensure collaboration between Central Scheduling and Academic Colleges in scheduling courses in rooms with seat capacities that match established enrollment rates for those specific courses

#### Plan for increasing summer utilization of classrooms:

To optimize use of classrooms and teaching laboratories during the summer term, Academic departments are working to build additional summer offerings, incentivizing faculty to teach summer courses, and designing new programs with summer components that speed up completion and graduation rate times.

As part of DSU's Strategic Plan 2020 and the community engagement initiative, DSU sponsors and/or partners with community leaders and organizations to host various summer camps, such as Dixie Prep for 7<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> graders interested in STEM fields; POP Rocks for high school students interested in exploring physical and organic properties of rocks and water; Mechanical Engineering Summer Camp for high school students; Gene Girls for girls focused on genetics and biotechnology; EMSART Camp for girls entering 9<sup>th</sup> grade who are interested in STEM related fields; Code Changers for ages 8-18 who are interested in web technology; Design School for students interested in (UI/UX) design careers; Code School for students interested in web programming careers; and various Athletic camps, including football, basketball, soccer, sports performance, baseball, and volleyball.

#### Utah Valley University

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 40.9 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 64.6%

#### Plan for meeting or exceeding the USHE Utilization standards:

Fall and Spring Room Utilization Rates (RUR) exceed the USHE standard for this reporting period. We are performing further analysis to identify pressure points or high-demand areas and their characteristics. This information will be used by the Faculty Senate class scheduling committee as they finalize scheduling guidelines.

Fall and Spring Seat Occupancy Rates (SOR) are just below the USHE standard for this reporting period. The strategies included in the scheduling guidelines that are being drafted by the Faculty Senate committee on Class Scheduling include course section fill rate standards.

#### Plan for increasing summer utilization of classrooms:

In addition to a robust and growing Summer semester for credit-bearing courses, UVU utilizes classroom and laboratory space for outreach programs (such as Trio, Upward Bound, UVU Prep) and for professional workshops, camps, and conferences. These events are not measured in the USHE report standard, and therefore are not included in this report.

#### Salt Lake Community College

Current Fall 2017 Classroom Room Utilization Rate for the Main Campus: 30.6 Hours

Current Fall 2017 Classroom Seat Occupancy Rate for the Main Campus: 66.4%

#### Plan for meeting or exceeding the USHE Utilization standards:

SLCC continues to work to increase total FTE, which will naturally increase room utilization and seat occupancy. This increase in total FTE is being approached through efforts to both increase new enrollments as well as increase persistence/retention rates of current students. Some of the initiatives underway include:

- Transition to a Pathways/Case Management Advising Model. The student advising experience is being redesigned to accommodate and support students in selecting a program and creating a degree plan within one semester of initial registration.
- Creation of SLCC Promise. SLCC Promise helps eligible, full-time students pay for their education by covering the cost of tuition and fees when federal grants fall short. The SLCC Promise is intended to remove economic barriers and to provide a pathway for SLCC students to persist and complete their degrees.
- Implementation of CampusLogic, a system that allows all financial aid forms to be submitted electronically, including via smart phone. This allows new and continuing students to complete federal financial aid quickly, efficiently, and accurately, thus removing potential financial barriers for students.
- Creation of the Enrollment Tracker, a one-stop spot on the MySLCC portal where students can obtain all necessary information regarding their current enrollment status and next steps to prepare for upcoming semesters.
- Adoption of a Customer Relationship Management (CRM) system for SLCC Admissions. SLCC is implementing Enrollment Rx as its dedicated admissions CRM to improve tracking and nurturing of potential students through the enrollment process, ultimately improving the enrollment experience and increasing yield rate of prospective student inquiries.

- Launch of a new online New Student Orientation aimed at better preparing incoming SLCC students and improving the first-year experience.
- Creation of the P-20 Pipeline Collaborate Work Team. This team is tasked with assessing the impact of current K-12 practices and developing strategies to increase admission and enrollment of individuals from middle schools and high schools with low rates of college participation.
- Expansion of virtual and remote student services to improve accessibility and availability for SLCC students, regardless of time or location.
- Dedicated Online Success Coaches, who are working to improve academic performance, retention, and graduation rates of SLCC online students.
- Introduction of the Concurrent Enrollment Transition Scholarship (\$1,000 over two semesters) to encourage Concurrent Enrollments students to matriculate to SLCC upon high school graduation.
- An additional \$500,000 in funding to support need-based grants, scholarships, and waivers.

In July 2016, SLCC was awarded a USHE Affordable Participation & Timely Completion grant to conduct a comprehensive review of its scheduling practices and better align class offerings with student needs. A side benefit of the scheduling recommendations will be better utilization of its academic space and improving the classroom seat occupancy rate. The following recommendations have been implemented to improve these rates:

- Move to MW/TTh/FS or M-Th default meeting patterns instead of MWF/TTh (Phase I beginning Fall 2018, with additional phased implementation of scheduling recommendations, including Friday/Saturday offerings to build a weekend college model that meets the needs of working adults.)
- Increase the number of sections of overloaded courses and decrease the number of sections of underutilized courses (beginning Fall 2018).
- Spread out schedule offerings (fully implemented by Fall 2018).
- Intentionally schedule programs at particular campuses and times of day to ensure that students can get all the classes they need without traveling far or being forced to attend both day and night classes in order to complete requirements (fully implemented by Fall 2018).
- Roll-out semester schedule midway through each term and immediately hold schedule debriefings with each academic school and other stakeholders to incorporate lessons learned into schedule edits (beginning immediately).
- Ensure that schedule construction is a collaborative activity between academic administrators, faculty, program advisors, and site coordinators by establishing and disseminating clear schedule building procedures (fully implemented by Fall 2018).

- Release entire year schedule for students to view when Fall semester registration begins (beginning Fall 2019).
- Establish an Academic Scheduling Committee (one year in duration) composed of representatives from the various internal stakeholders to further define and integrate scheduling policies and procedures, monitor the effectiveness of the academic schedule and recommend adjustments, and provide general oversight of academic scheduling (committee meets beginning Fall 2018).
- Provide dynamic scheduling reports (Class Status App, Enrollment Dashboard, Pre-Enrollment Dashboard, etc.) so, faculty and academic administrators are better be able to segment and filter their unique schedule data and view it in a graphical format (available Fall 2018).

#### *Plan for increasing summer utilization of classrooms:*

SLCC continues to encourage summer-term attendance in a variety of ways, including:

- Increasing the number and variety of summer term course offerings.
- Expansion of SLCC Promise to Pell grant-eligible students taking at least 6 credits.
- Promotion of year-round federal Pell grant and proactive outreach to eligible students.
- Creation of a Summer Completion Grant, which offers a potential tuition waiver for any student within 6 credits of graduation at the end of Spring term.
- Internal training of all staff to encourage students to take at least one course during the summer.
- Continued promotion of SLCC guest student admission, which accounted for 698 students during Summer 2018.
- Scheduling of two separate eight-week summer terms. This allows a student to take a summer break but still take courses during the summer term.





### **Performance Funding Compensation Intent Language**

During the 2019 Legislative Session the legislature passed the following intent language in Senate Bill 2:

"The legislature intends that prior to October 31, 2019, the Higher Education Appropriations Subcommittee and the Utah System of Higher Education will develop a process for allocating future compensation monies on the institutional wage and salary base, based on the prior year performance model results."

#### Current Performance Funding Model

There are seven parts to the USHE Performance Funding metrics diagramed in the illustration below:

- 1. **Measures**: The legislature sets five performance metrics: completion, completion of underserved students, workforce market demand, research (for the U and USU only), and awards per FTE.
- 2. Weight: The USHE Board of Regents assign weights to the measures; the Legislature requires market demand to be weighted at least 25%
- 3. Appropriation: The legislature appropriates funds for performance funding
- 4. <u>Allocation</u>: The legislature allocates the appropriation proportionately to USHE institutions: 50% based on budget and 50% on student FTE
- 5. **Progress**: The legislature defines progress at meeting performance as a 1% improvement over a 5-year average
- 6. **<u>Award</u>**: Institutions receive 100% of their allocation if they have 1% positive progress or more; \$0 if progress is negative; and between 0% and 100% if progress is between 0% and 1%.
- 7. **Balance**: The balance of funds not awarded to an institution is reallocated to other institutions

			Underserved	Market		Awards per		1. Measures
		Completion	Students	Demand	Research	FTE	Total	1. Wiedsules
2. Weight	Weighting	15%	10%	25%	10%	40%	100%	
	University of Utah							
	Available Allocation (29.31%)	\$1,175,820	\$ 783,880	\$1,959,700	\$ 783,880	\$3,135,520	\$7,838,800	3. Appropriation 4. Allocation
5. Progress	1% Progress Measure (increase/decrease)	3.16%	150.45%	5.15%	4.22%	3.17%		
	Actual Award within Available Allocation Percent (%) Funded	\$1,175,820 100.0%	\$ 783,880 100.0%	\$1,959,700 100.0%	\$ 783,880 100.0%	\$3,135,520 100.0%	\$7,838,800 100.0%	6. Award
7. Balance	Balance	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	s	

#### Current Compensation Funding

Faculty and staff are the backbone of the Utah System of Higher Education and salary and benefits represent the single largest expenditure for USHE institutions. In order to reward performance and continue to attract world-class faculty and staff, USHE traditionally requests parity with state employees in salary and benefit adjustments provided by the state legislature. Those adjustments typically include a cost-of-living-adjustment (COLA) or a merit salary increase as well as inflationary adjustments to healthcare and retirement benefits. Cost-of-living-adjustments are ongoing salary adjustments made to compensate employees for the loss in purchasing power due to inflation and are given to all full-time employees regardless of performance. Merit salary increases, on the other hand, compensate employees for performance and are given at the discretion of management though the funding amount is calculated on the full employee salary base. Typically, the legislature funds compensation increases to higher education with 75 percent state funds leaving 25 percent to be covered by institutional tuition increases. For those institutions with statutory responsibility to provide Career and Technical Education (Snow College, Salt Lake Community College, USU-Eastern/Blanding), compensation for CTE faculty may be funded at 100 percent.

In addition to the 25 percent of compensation increases approved by the state legislature to be funded by tuition, USHE institutions also use tuition and other institutional resources to promote tenure and retain key faculty and staff positions. Institutions analyze salary equity annually as part of the budget and tuition-setting process and attempt to apply additional funds to critical areas where salaries are low when resources are available. Several institutions used a portion of their FY 2020 performance funding allocation to fund faculty and staff salary equity.

#### Inclusion of Compensation in the Performance Funding Model

The Utah System of Higher Education recommends that COLA, retirement, and health inflationary adjustments continue to be given in parity to Utah state employees separate from performance funding. Performance funds, awarded to institutions based on achievement of institutional measures, should be given to incent and reward improved institutional outcomes, but should not be conflated with compensation adjustments needed to reward and retain existing faculty and staff positions. The System further recommends that the legislature and the Higher Education Appropriations Subcommittee reaffirm as ongoing the 75 percent state funding and 25 percent tuition cost-share for these salary and benefit adjustments.

The USHE System recommends that if institutional compensation funding becomes a part of the performance funding model, that the appropriated funds be calculated on a percentage basis of all appropriated salary and benefits for the USHE institutions and be given for merit, performance, tenure, and/or salary equity funding. The legislature could determine a fixed percentage of salary funding to be given for performance, which would be calculated on the same appropriated salary and benefit base used now.



## MEMORANDUM

TAB F

October 7, 2019

### **USHE - Annual Institutional Residences Expense Report**

Regent Policy R207, *Institutional Residences for Colleges and Universities in the Utah System of Higher Education* requires USHE institutions to submit an annual report summarizing the actual and budgeted expenses, as approved by the institution's respective Board of Trustees, for institutional residences.

The Board has asked for an annual report summarizing the actual and budgeted expenses associated with institutional residences, including: maintenance costs, custodial and domestic assistance, and insurance.

This report is used not only to inform the Board about institutional residence expenditures but also to help Boards of Trustees and institutions monitor and maintain appropriate internal controls; ensure that institutional residence budgets and expenses are reviewed and approved annually; and provide transparency regarding the facility's operation and maintenance costs.

The attached report summarizes the approved budget and expenditures for each institutional residence for the past three fiscal years. Footnotes have been added to describe the following: any significant change from prior years; any significant variances between the budgeted and actual expenditures; and/or any significant capital improvements to the residence.

#### **Commissioner's Recommendation**

Information item only; no action is required.

Attachment

### **Utah System of Higher Education**

Institutional Residences Expense Report FY 2017-2020

		2010	6-17	,	201	7-18		2018-19				2019-20		
	E	Budget		Actual	Budget		Actual	Budget		Actual		Budget	Source of Funds	Square Footage
UU	\$	65,100	\$	56,646	\$ 66,260	\$	56,094	\$ 64,000	\$	60,630	\$	70,900	Discretionary	8,803
USU <sup>1</sup>	\$	72,000	\$	72,000	\$ 72,000	\$	72,000	\$ 72,000	\$	85,866	\$	72,000	E&G	12,403
WSU <sup>2</sup>	\$	28,300	\$	21,237	\$ 28,300	\$	22,068	\$ 28,300	\$	11,337	\$	28,300	E&G	-
SUU <sup>3</sup>	\$	92,000	\$	52,917	\$ 42,000	\$	30,033	\$ 289,999	\$	302,157	\$	490,500	E&G, Descretionary	11,314
Snow <sup>4</sup>	\$	12,000	\$	3,503	\$ 10,100	\$	7,026	\$ 10,100	\$	15,260	\$	10,100	E&G	6,128
DSU <sup>5</sup>	\$	34,000	\$	15,709	\$ 28,500	\$	111,472	\$ 152,000	\$	151,683	\$	23,500	E&G, Auxiliary	5,246
UVU <sup>2,6</sup>	\$	41,100	\$	39,361	\$ 116,500	\$	19,824	\$ 21,300	\$	21,300	\$	21,300	E&G	-
SLCC <sup>2</sup>	\$	20,000	\$	20,000	\$ 21,300	\$	21,300	\$ 21,300	\$	21,300	\$	21,300	Discretionary	-

Board Policy R207 provides for institutional coverage of expenses for maintenance, repair, utilities, insurance, and domestic assistance serving institutional purposes. Policy requires annual reports for the previous year's actual expenses and the current year's budget, as summarized in the table above.

<sup>1</sup>USU - FY19 budget and actual difference was due to basement remodel using discretionary funds.

<sup>2</sup>WSU, UVU (FY19 and forward), SLCC - amounts reflect housing allowance and institutional functions.

<sup>3</sup>SUU - remodel of newly purchased home during FY19 and FY20 with \$320,000 for construction and \$130,000 for landscapting using discretionary funds; remodel of current residence to Child & Family Development Center funded from private donations.

<sup>4</sup>Snow - FY19 budget and actual difference was due to painting for new president.

<sup>5</sup>DSU - remodel project was started in FY18 to replace the 24 year-old kitchen (original to construction) and simultaneously remodel the dining and living space to better accommodate group meetings and donor events. The remainder of this project will be completed in FY19. Remodeling project was funded by auxiliary reserves.

<sup>6</sup>UVU - May 2018 Board of Regents approved repurposing the institutional residence to an Alumni house effective 7/1/2018, with the new president to receive a housing allowance.



MEMORANDUM

TAB G

October 7, 2019

### **USHE - Annual Contracts and Grants Report**

Regent Policy R532, *Acceptance and Approval of Contracts and Grants,* requires USHE institutions submit an annual report summarizing the number and dollar amounts of contract and grant awards received during the previous fiscal year.

The Board recognizes that securing research contracts and training grants provide significant benefits to the higher education community, the state of Utah, and society as a whole, by not only supporting critical advances in research but also through job creation. To ensure that Board is informed about the contracts and grants that institutions are engaged in, the Board has requested that an annual report be provided for each fiscal year that summarizes both the number of and dollar amount of awards received.

For FY 2019, the total number of contracts and grants, compared with the prior fiscal year, decreased by 43 or -0.9% and the total dollar amount increased by \$109,204,662 or 13.2%.

#### **Commissioner's Recommendation**

Information item only: no action is required.

Attachment

	Utah	System of High	ner Educ	ation		
	Cor	ntracts and Gra	nts Repo	ort		
	Fisc	al Year 2018	%	% Change		
Institution	No.	Total \$ Amount	No.	Total \$ Amount	No.	Amount
University of Utah						
Research	1,938	\$359,407,635	1,900	\$422,908,482	-2.0%	17.7%
Instruction	200	25,977,199	215	29,256,699	7.5%	12.6%
Clinical	344	70,648,110	321	55,548,236	-6.7%	-21.4%
Other	422	58,471,100	460	39,244,058	9.0%	-32.9%
TOTAL Utah	2,904	\$514,504,044	2,896	\$546,957,475	-0.3%	6.3%
Litah Stata Linivarsity	<b></b>					
Utah State University Research	1 1 0 9	6201 F80 2C7	1 0 4 0	COR 101 474	-5.3%	41.5%
Instruction	1,108 62	\$201,589,267 6,297,249	1,049 55	\$285,191,474 6,520,866	-5.3% -11.3%	41.5%
Clinical	02	0,297,249	22	0,520,800	-11.5%	5.0%
Other	422	55,444,557	407	49,525,958	-3.6%	-10.7%
TOTAL USU	1,592	\$263,331,073	1,511	\$341,238,298	-5.1%	29.6%
101AL 030	1,392	\$203,331,073	1,311	JJ41,230,230	-3.170	25.076
Weber State University						
Research	30	\$1,958,911	30	\$2,069,600	0.0%	5.7%
Instruction	13	3,428,558	11	867,721	-15.4%	-74.7%
Clinical	_	-, -,		,		
Other	90	11,363,858	82	11,603,558	-8.9%	2.1%
TOTAL WSU	133	\$16,751,327	123	\$14,540,879	-7.5%	-13.2%
Southern Utah University						
Research	8	\$92,038	10	\$77,768	25.0%	-15.5%
Instruction	3	137,658	5	253,438	66.7%	84.1%
Clinical						
Other	114	10,939,751	118	10,745,055	3.5%	-1.8%
TOTAL SUU	125	\$11,169,447	133	\$11,076,261	6.4%	-0.8%
Snow College						
Research	4	\$40,302	2	\$52,535	-50.0%	30.4%
Instruction	9	865,372	10	984,110	11.1%	13.7%
Clinical						
Other	14	553,982	17	440,403	21.4%	-20.5%
TOTAL Snow	27	\$1,459,656	29	\$1,477,048	7.4%	1.2%

	Utah	System of High	er Educ	ation		
	Cor	tracts and Gra	nts Repo	ort		
	Fisc	% Change				
Institution	No.	Total \$ Amount	No.	Total \$ Amount	No.	Amount
Dixie State University						
Research	2	\$83 <i>,</i> 450	6	\$70 <i>,</i> 389	200.0%	-15.7%
Instruction						
Clinical						
Other	34	2,009,973	35	2,349,254	2.9%	16.9%
TOTAL DSU	36	\$2,093,423	41	\$2,419,643	13.9%	15.6%
Utah Valley University						
Research	21	\$903,133	19	\$1,013,275	-9.5%	12.2%
Instruction	8	5,397,227	9	6,276,051	12.5%	16.3%
Clinical						
Other	34	6,604,682	37	6,567,612	8.8%	-0.6%
TOTAL UVU	63	\$12,905,042	65	\$13,856,938	3.2%	7.4%
Salt Lake Community College						
Research	5	\$447,720	5	\$415,941	0.0%	-7.1%
Instruction	13	2,085,808	27	1,423,223	107.7%	-31.8%
Clinical						
Other	20	3,072,864	45	3,619,359	125.0%	17.8%
TOTAL SLCC	38	\$5,606,392	77	\$5,458,524	102.6%	-2.6%
Total USHE						
Research	3,116	\$564,522,456	3,021	\$711,799,464	-3.0%	26.1%
Instruction	308	44,189,071	332	45,582,109	7.8%	3.2%
Clinical	344	70,648,110	321	55,548,236	-6.7%	-21.4%
Other	1,150	148,460,767	1,201	124,095,257	4.4%	-16.4%
TOTAL USHE	4,918	\$827,820,404	4,875	\$937,025,066	-0.9%	13.2%



MEMORANDUM

TAB H

October 7, 2019

### USHE – Annual Report on Leased Space

Regent Policy R705, *Leased Space*, requires the Commissioner to provide the Board with an annual report on leased space for the USHE system. A summary of this report is also submitted to DFCM and the State Building Board for inclusion in the Five-year Building Program document.

Each USHE institution submitted a detailed list of leased spaces currently under contract (with the exception of Snow College that does not currently have leased space). This information is summarized in the following table:

Institution	Leases	New Leases	<b>Square Feet</b>	Lease Cost
University of Utah	55	12	287,106	\$ 6,337,824
Univ. of Utah Healthcare	91	10	934,600	20,348,389
Utah State University	29	1	153,176	727,241
Weber State University	7	1	86,150	484,016
Southern Utah University	21	2	240,517	1,761,043
Snow College	0	0	0	0
Dixie State University	1	0	15,000	50,000
Utah Valley University	4	0	13,700	171,580
Salt Lake Comm. College	6	0	97,487	895,934
Total	214	26	1,827,736	\$30,776,026

Significant changes from the prior year's report include:

- <u>University of Utah</u>: the addition of Block 44 Apartments (380 S. 400E.) for a cost of \$2,859,767 to meet demand while new student housing is constructed on campus; the addition of four healthcare clinics in the Salt Lake Valley for an additional cost of \$320,526 a year.
- <u>Southern Utah University</u>: the addition of Founders Hall student housing for \$871,713 a year.
- <u>Salt Lake Community College</u>: the elimination of the \$657,884 lease for the Westpointe facility that the institution received authorization from the Regents to purchase in May.

The full report of leased space is attached. A listing of all leases, which includes additional detail about each of the institutional leases, is on file in the Office of the Commissioner.

#### **Commissioner's Recommendation**

Information item only; no action is required.

#### Attachment

#### **Utah System Of Higher Education**

## Annual Leased Space Report - 2019 For the Period from July 1, 2018 to June 30, 2019

	#of	New		Ave	rage Cost	A	Annual Lease	Source of	
Location	Leases	Lease	Gross Sq. Ft.	Pe	r Sq. Ft.		Payment	Funding	Type of Space
University of Utah									
Building Leases:									
Residential, Various Locations	17	5	125,856	\$	24.74	\$	3,113,603	Other/State	Residential
Washington D.C., Hinkley Institute Apartments	7		7,910	\$	30.01	\$	237,408	Other	Residential
Murray, Reading Clinic	1		9,618	\$	16.93	\$	162,811	Other	Classroom
Continuing Education, Various Locations	3		33,226	\$	25.01	\$	831,015	State	Classroom
Campus Store for Continuing Education, Sandy	1		5,416	\$	23.23	\$	125,800	Other	Retail/Non-assignable
Business School and Education@Work Program	2		31,354	\$	17.43	\$	546,430	Other	Office
Technology Venture Communications	1		8,274	\$	26.00	\$	215,124	Other	Office
College of Architecture and Planning	1	1	1,250	\$	22.00	\$	27,500	Other	Classroom/Office
Energy and Geoscience Institute in Slovak Republic	1	1				\$	24,259	Other	Classroom/Office/Lab/Storage
Subtotal University Operations Leases	34	7	222,904	\$	23.71	\$	5,283,950		
Healthcare - Residential Facilities, Various Locations	2		41,352	\$	17.39	\$	719,151	Clinical	Residential
Healthcare - AirMed, Various Locations	12		106,317	\$	2.40	\$	255,522	Clinical	Hanger/Residential
Healthcare - Primary Children's Hospital	9		70,928	\$	28.25	\$	2,003,395	Clinical	Clinical
Healthcare - Dialysis Centers, Various Locations	15	1	105,690	\$	21.82	\$	2,306,015	Clinical	Clinical
Healthcare - Clinics, Various locations	29	4	177,307	\$	26.49	\$	4,696,537	Clinical	Clinical
Healthcare - Clinical Research and Admin, Research Park	20	3	166,799	\$	25.66	\$	4,280,482	Clinical	Office/Laboratory
Healthcare - Administrative Operations	4	2	266,207	\$	22.87	\$	6,087,286	Clinical	Office
Subtotal Healthcare Leases	91	10	934,600	\$	21.77	\$	20,348,389		
Land and Storage Leases:									
Storage, Various locations	8	1	64,202	\$	6.85	\$	439,766	State/Other	Storage
KUER/KUED Communication/Transmitter Sites	11	4	N/A			\$	157,957	Other	Ground
Parking Leases, Salt Lake City	2		N/A			\$	456,151	Other	Parking
Subtotal Land and Storage Leases	21	5	64,202			\$	1,053,874		
TOTAL - UU	146	22	1,221,706	\$	22.14	\$	26,686,213		

Location	# ofNewAverage CostAnnual LeaseLocationLeasesLeaseGross Sq. Ft.Per Sq. Ft.Payment			Source of Funding	Type of Space			
Utah State University								
Building Leases:								
Apartments for Student Interns, Washington D.C.	4		5,731	\$ 26.05	\$	149,316	Other	Residential
Cache County 4-H, Bridgerland Tech, Logan	1		2,741	\$ 0.00	\$	1	Grant/Other	Classroom/Office
Center Persons w. Disabilities - Early Intervention, Various	5	1	7,403	\$ 7.72	\$	57,171	Grant/Other	Classroom/Office
Center Persons w. Disabilities - Assistive Technology, Vernal	1		1,940	\$ 6.19	\$	12,000	Grant	Office/Other
CTE Program-Trucking & Hvy. Equip. Operations, Blanding	1		56,628	\$ 0.12	\$	7,045	State	Classroom/Office
Development Office, Salt Lake City	1		2,305	\$ 5.93	\$	13,680	Other	Office/Other
Life Span Learning Centers, Brigham City	4		49,474	\$ 4.79	\$	237,201	State/Other	Classroom/Office/Lab/Storage
Montezuma Creek Seminary Building, Blanding	1		2,354	\$ 2.55	\$	6,000	State	Classroom/Office
Nursing Program, Various Locations	4		6,271	\$ 1.82	\$	11,400	Other	Office
Regional Campus, Orem/Provo	1		3,507	\$ 17.11	\$	60,007	Other	Classroom/Office
Regional Campus, Salt Lake City	1		853	\$ 12.00	\$	10,236	Other	Classroom/Office
Small Business Development Center, Logan	1		1,281	\$ 11.60	\$	14,857	Other	Classroom/Office
USU Commercialization & Regional Development, Logan	1		5,000	\$ 13.91	\$	69,556	Other	Office/Research
Utah Conservation Corps Program, Various	2		4,900	\$ 11.67	\$	57,171	Other	Office/Other
UT Academic and Institutional Services, Nephi	1		2,788	\$ 7.75	\$	21,600	Other	Classroom/Office
TOTAL - USU	29	1	153,176	\$ 4.75	\$	727,241		

Building Leases							
Continuing Education - Startup Ogden	1		27,000	\$ 0.00	\$ 10	State	Classroom/Office
Continuing Education - United Way Building, Ogden	1		3,448	\$ 9.26	\$ 31,915	State	Classroom/Office
Instructional Center - Morgan High School, Morgan	1		4,032	\$ 0.00	\$ 1	State	Classroom
Instructional Center - Station Park, Farmington	1		10,937	\$ 26.49	\$ 289,740	State	Classroom
Instructional Center - WSU West, Roy	1		7,525	\$ 17.32	\$ 130,333	State	Classroom
Weber Sports Complex	1		31,914	\$ 0.00	\$ 1	Other	Laboratory
Apartments for Student Interns, Washington D.C.	1	1	1,294	\$ 24.74	\$ 32,016	Other	Residential
TOTAL - WSU	7	1	86,150	\$ 5.62	\$ 484,016		

	#of	New		Average Cost	Annual Lease	Source of	
Location	Leases	Lease	Gross Sq. Ft.	Per Sq. Ft.	Payment	Funding	Type of Space

Southern Utah University				-				
Building Leases								
Business Resource Center, Cedar City	1		4,335	\$	1.66	\$ 7,200	Other	Office
Center for the Arts, Cedar City	1		89,267	\$	1.67	\$ 149,001	Other	Office/Other
Community Engagement, Cedar City	1		2,658	\$	11.68	\$ 31,044	State	Office
Community Outreach Center, Cedar City	1		11,705	\$	15.79	\$ 184,776	State	Office
Early Intervention, Cedar City	1		1,080	\$	9.56	\$ 10,320	Other	Classroom
Global Engagement, Cedar City	1		4,097	\$	9.01	\$ 36,912	State	Office
Head Start, Various Locations	10		43,124	\$	10.42	\$ 449,376	Other	Classroom/Office
Utah Center for Rural Health, Cedar City	3		2,075	\$	9.98	\$ 20,700	Other	Residential
Founders Hall, Cedar City	1	1	78,488	\$	11.11	\$ 871,713	Other	Residential
SUU on Main, Cedar City	1	1	3,688	\$	0.00	\$ 1	Other	Office/Other
TOTAL - SUU	21	2	240,517	\$	7.32	\$ 1,761,043		

#### Snow College - No Leases

Dixie State University							
Building Leases:							
Digital Film Studio, St. Georg	1		15,000	\$ 3.33	\$ 50,000	State	Office/Other
TOTAL - DSU	1	0	15,000	\$ 3.33	\$ 50,000		

Utah Valley University												
Building Leases:												
Thanksgiving Point, Lehi	1		13,700.00	8.84	\$	121,119	State	Classroom/Office				
Land Leases:												
Provo Airport	3		N/A		\$	50,461	State/Other	Ground/Hanger				
TOTAL - UVU	4	0	13,700	\$ 8.84	\$	171,580						

	#of	New		Average Cost	Annual Lease	Source of	
Location	Leases	Lease	Gross Sq. Ft.	Per Sq. Ft.	Payment	Funding	Type of Space

Salt Lake Community College													
Building Leases:													
Airport Center, Salt Lake City	2		20,937	\$	7.20	\$	150,792	State	Classroom/Office/Lab/Hanger				
Central Receiving, Salt Lake City	1		25,200	\$	4.81	\$	121,187	State	Storage				
Library Square, Salt Lake City	1		22,049	\$	18.04	\$	397,659	State	Classroom/Office				
Writing Center, Salt Lake City	1		1,545	\$	7.06	\$	10,908	State	Classroom/Office				
West Valley Center, West Valley City	1		27,756	\$	7.76	\$	215,388	State	Classroom/Office				
TOTAL - SLCC	6	0	97,487	\$	9.19	\$	895,934						

	#of	New		Average Cost	Annual Lease
USHE Institutions	Leases	Lease	Gross Sq. Ft.	Per Sq. Ft.	Payment
Building Leases	190	21	1,763,534	\$ 16.83	\$ 29,671,692
Land Leases	24	5	64,202		\$ 1,104,335
TOTAL - USHE	214	26	1,827,736		\$ 30,776,026