

November 7, 2018

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: USHE – System Strategic Metrics

Issue

As part of the Board's ongoing strategic planning efforts, the Board directed the Commissioner to develop a list of system metrics that measure and assess the Board's progress in achieving its overarching goal to "[i]ncrease the educational attainment of Utahns to enhance their overall quality of life, and to meet Utah's current and future workforce needs" for the Board's review and action at the November Board meeting.

Background

In January 2016, the Board adopted its 2025 Strategic Plan. At the time the Board focused on identifying the key performance areas for the Utah System of Higher Education. These key performance areas have evolved over the last 2 years to the following four areas: (1) Affordable Access, (2) Timely Completion, (3) Workforce and Research, and (4) Capacity and Growth.

In 2017, the Board received its first progress report and noted the need to create meaningful metrics for both the system and the institutions designed to measure the impact and efficiency of the Utah System of Higher Education (USHE). Also in March 2017, the Utah State Legislature enacted Senate Bill 238, which explicitly empowered the Board to "establish measurable goals and metrics and delineate the expected contributions of individual institutions of higher education towards these goals."

In addition to the enactment of SB 238, the legislature's education standing committee created the P20 Education Dashboard which is designed focused on statewide education metrics that included K-12, UTEC, USHE, and DWS. At the same time, Executive Appropriations Committee (EAC) directed the Legislative Fiscal Analyst to include performance metrics for each budget line item (including institutions of higher education) in the base budget bills of each fiscal year.

As a result, over the last several months, the Commissioner and his staff have worked with USHE institutions to develop metrics for the P20 Dashboard, the EAC base budget bill performance metrics, and USHE system metrics for the Board, with an emphasis on how best to align these metrics.

At the July and September 2018 Board meetings, the Board received several possible system metrics for their discussion and consideration. After both of these meetings, the Board asked for additional information and directed the Commissioner to continue to work with the institutions to refine the metrics to best align with the Board's strategic objectives outlined in its 2025 Strategic Plan.

As a result of the work of the Board, Commissioner and staff, and institutions are advancing the following list of system metrics for final consideration and action of the Board. These metrics will be incorporated into the Board's Strategic Plan and the Board will receive annual updates on performance related to these system metrics.

- **General Attainment:** Increase in the total number of certificates and degrees awarded between 2011 and 2020
- **Access:** Five-year college participation rate of high school graduates
- **Affordability:** Average tuition and fees at USHE four-year universities as a share of the state's median household income
- **Timely Completion:** IPEDs awards granted within eight years
- **Workforce and Research:** Annual number and percentage of degrees and certificates in DWS 5-star occupation related programs
- **Effective Use of Resources:** Change in total cost per award compared to change in HEPI
- **Effective Use of Resources:** Instruction-related classroom space utilization

The Board recognizes that these metrics are a starting point related to system performance and has directed the Commissioner's Office to continue to refine the metrics and identify future metrics associated with affordability, tracking the impact of student transfers, and to identify measures that could be used to assess academic quality and workforce impact and report back to the Board as new metrics are developed.

Commissioner's Recommendation

The Commissioner recommends that the Board review and approve the attached system metrics.

David L. Buhler
Commissioner of Higher Education

DLB/KLH
Attachments

Board of Regents Strategic Plan 2025
System Metrics Update
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General Attainment Metric

Increase in the total number of certificates and degrees awarded by
USHE institutions between 2011 and 2020

Reported at system level. Adopted by the Board in 2012, this metric measures the cumulative number of USHE awards from 2011 through 2020 compared to the 2020 goal.

Definition: The cumulative number of certificates and degrees awarded by USHE institutions within the system as compared to the 2020 goal. To achieve the 2020 goal each year from 2012 to 2020 has a target number of award increases, which will be measured against actual awards.

Benchmark: The benchmark for this measure is the cumulative total increase beginning in the FY2011 academic year.

Current Baseline:

Academic Year	USHE 2020 Goal				USHE Actual			
	Increase Over 2011	% Increase Since 2011	Annual Awards	Cumulative Awards Since 2011	Annual Awards	Cumulative Awards Since 2011	Increase Over 2011	% of Goal Achieved
2010-11†		0%	30,000	30,000	29,981	29,981		
2011-12	800	3%	30,800	60,800	31,339	61,320	1,358	170%
2012-13	1,600	5%	31,600	92,400	31,741	93,061	1,760	110%
2013-14	2,400	8%	32,400	124,800	32,549	125,610	2,568	107%
2014-15	3,200	11%	33,200	158,000	32,797	158,407	2,816	88%
2015-16	4,010	13%	34,010	192,010	33,822	192,229	3,841	96%
2016-17	4,900	16%	34,900	226,910	36,071	228,300	6,090	124%
2017-18	5,790	19%	35,790	262,700				
2018-19	6,680	22%	36,680	299,380				
2019-20	7,570	25%	37,570	336,950				

Goal: A 25 percent increase (cumulative total amount of 336,950) USHE certificates and degrees awarded from 2011 to 2020 and annual achievements of at least 100 percent of the goal set for that year.

Data report: Higher Education 2020 Report, Annual reports from USHE Institutional Research (IR)

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Access / Participation Metric
The Five-year College Participation Rate of High School Graduates

Reported at system level: This is an access metric that looks specifically at the college-going rates of Utah students aged 18-24. This population represents approximately 54% of the total student headcount for Fall 2018.

Definition: The percentage of Utah high school graduates who enroll in college within five years of high school graduation.

Benchmark: The metric will be measured against the average college enrollment within five years of graduation for Utah high school graduates for the 2007 – 2013 student cohorts.

Current Baseline: On average, 69.4% of Utah high school graduates enroll within five years of high school graduation

<u>Cohort</u>	<u>Size</u>	<u>1 Year</u>	<u>2 Years</u>	<u>3 Years</u>	<u>4 Years</u>	<u>5 Years</u>	<u>6 Years</u>	<u>7 Years</u>	<u>8 Years</u>	<u>9 Years</u>	<u>10 Years</u>
2007	29,110	50.1%	55.5%	61.1%	66.1%	68.2%	69.5%	70.3%	70.9%	71.3%	71.7%
2008	30,151	50.8%	56.7%	61.9%	66.4%	68.2%	69.4%	70.2%	70.7%	71.1%	71.4%
2009	30,560	52.5%	58.0%	63.1%	67.2%	69.0%	70.0%	70.8%	71.3%	71.7%	
2010	32,114	53.6%	59.5%	64.4%	68.4%	70.3%	71.5%	72.2%	72.7%		
2011	31,640	54.6%	59.7%	64.6%	69.0%	70.8%	71.7%	72.3%			
2012	33,283	52.9%	58.4%	63.4%	67.7%	69.3%	70.3%				
2013	34,753	45.7%	51.2%	64.2%	68.0%	69.5%					
2014	35,661	45.6%	51.0%	63.8%	67.6%						
2015	36,933	45.7%	51.5%	63.7%							
2016	38,326	46.0%	51.6%								
2017	40,099	45.4%									
Total	372,630	49.1%	55.1%	63.4%	67.6%	69.4%	70.4%	71.2%	71.4%	71.4%	71.6%

Goal: 75% of the Utah high school graduating class of 2020 will enroll in college within five years of graduation.

Data report: Annual report prepared by USHE Institutional Research (IR) found on the [higheredutah.org](https://higheredutah.org/pdf/reports/CompletionParticipation2017.pdf) website <https://higheredutah.org/pdf/reports/CompletionParticipation2017.pdf>

Future Metrics: The Board may want to consider a metric to capture adult student participation rates in addition to high school graduates and look at disaggregated data based on gender, race and ethnicity.

Affordability Metric
 Average Tuition and Fees at USHE Four-Year Universities
 as a Share of Median Household Income

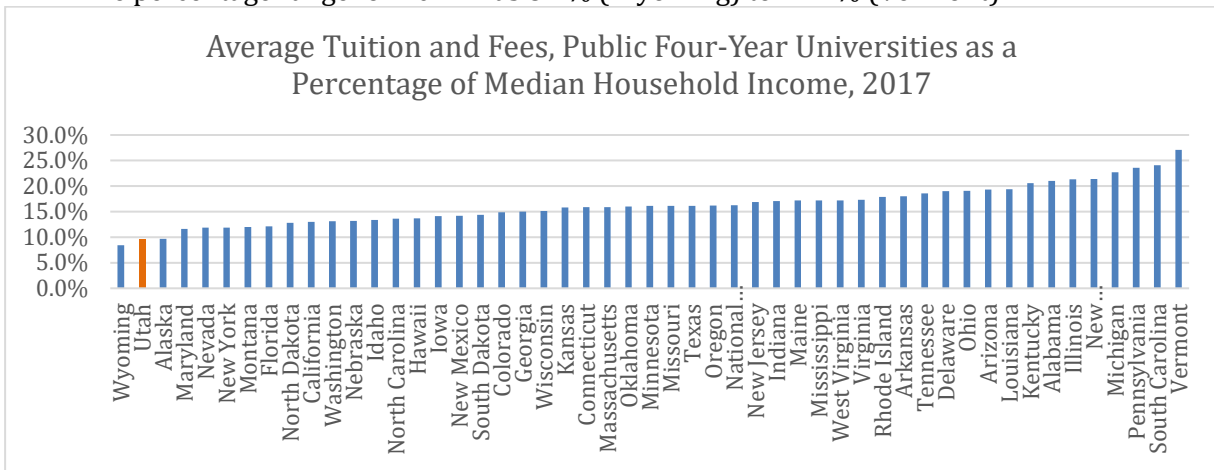
Reported at system level. New metric published by 1-year American Community Survey (ACS) data. This metric reviews how the average tuition and fee rate for public four-year universities in each state compares to the state’s median household income.

Definition: Rank of USHE’s average published tuition and fee rates as a percentage of the state’s median household.

Benchmark: The 1-year American Community Survey data will be used to track and monitor this metric (or the underlying data sources may be used in the future).

Current Baseline: The Current baseline data is based on 2017 average tuition and fees for public four-year institutions (not based on Carnegie classification) and state median household income.

- **Utah:** For 2017 Utah ranks 2nd in the nation for the lowest public four-year universities average tuition and fees as a percentage of median household income (9.6% overall for all students)
- **National Average:** For 2017, the national average tuition and fees for public four-year universities as a percentage of median household income was 16.2% for all students. The percentage range for 2017 was 8.4% (Wyoming) to 27.1% (Vermont)



Goal: The average tuition and fees for all public four-year universities in Utah should not exceed 10% of the state’s median household income for the corresponding year.

Data Reported: <https://www.cbpp.org/research/state-budget-and-tax/unkept-promises-state-cuts-to-higher-education-threaten-access-and> Utilizes data from the following data sources: Sources: 1-year American Community Survey data, Table B19013, <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>, “College Board, “Trends in Higher Education Finance,” Table 5, Public Four-Year In-State Tuition & Fees, current dollars, <https://trends.collegeboard.org/college-pricing/figures-tables/list>.

Future Metric: Average Tuition and Fees for public two-year colleges as a percentage of the state’s median household income.

Timely Completion Metric
IPEDs Awards Granted Within Eight Years

Reported at system level. Using the new Integrated Postsecondary Education Data System (IPEDS) outcomes report, the system will track the percentage of USHE students who receive an award within eight years of enrolling.

Definition: Percentage of USHE students who receive an award within eight years of enrolling.

Benchmark: The metric will be calculated using the IPEDS Outcomes data survey and will look at annual system eight-year award rates for students.

Current Baseline: For 2017, the IPEDS eight-year award rate for USHE students was approximately 40.6%.

	IPEDS Cohort	Number of USHE IPEDS Cohort Awards within 8 years	% of USHE IPEDS Cohort Awards within 8 years
<i>USHE 2017</i>	41,406	16,836	40.6%

Goal: The system will increase its percentage of the USHE IPEDS cohort receiving awards within eight years to 45% by 2025.

Data Reported: The information is currently reported by institutions to IPEDS through annual survey collection.

Challenges with this metric: This is a relatively new data source from IPEDS and definitions of student cohorts continue to evolve. The current data set cannot be disaggregated by gender, race and ethnicity and does not capture 100% of USHE enrollments. Additionally, IPEDS data does not account for the impact of ecclesiastical service that students may engage in which impacts post-secondary participation and completion.

Future Possible Metric (Transfer): It is strongly recommended that the Board identify a meaningful metric to measure and assess transfer within the USHE system and that the Board include future metrics disaggregated by gender, race and ethnicity when available. It is also recommended that the Board consider future metrics which include completion by award type disaggregated by demographics; retention rate; credits and time to degree.

Workforce Metric
Annual Number and Percentage of Degrees and Certificates
in Utah Department of Work Services (DWS) 5-Star Occupation Related Programs

Reported at system level. This metric is designed to measure how the annual number and percentage of USHE degrees and certificates awarded in 5-star occupations compare to total USHE awards granted in programs leading to employment in those occupations and if that reflects total employment opportunities in 5-star occupations as compared to all available occupations.

Definition: Annual number and percentage of degrees and certificates awarded in DWS 5-star occupation related programs out of total awards granted as compared to percentage of total employment opportunities in 5-star occupations as compared to all available occupations.

Benchmark: This metric will be measured against the annual percentage change in each metric for the corresponding year.

Current Baseline:

- In 2017, USHE institutions awarded 9,901 degrees and certificates in 5-Star Occupation related programs. This represented an increase of 257 awards (2.7%) over the previous year.
- In 2017, 27% of all USHE degrees and certificates were awarded in 5-Star Occupation related programs.
- In 2017, DWS reports that 5-Star Occupations represent 12.9% of all occupations and 23.8% of available job openings in Utah.

	2011-12	2012-13	2013-14	2014-15	2014-15	2016-17
<i># of Awards in 5 Star Job Programs</i>	8,373	8,710	8,930	9,403	9,644	9,901
<i>% of Awards in 5 Star Job Programs</i>	27%	27%	27%	29%	29%	27%

Goal:

- USHE will work toward increasing the annual number of degrees and certificates granted in 5-Star Occupation related programs by at least 3% each year.
- USHE will work toward increasing the percentage of degrees and certificates granted in 5-Star Occupation related programs to 30 percent of all awards by 2025.

Data Reported: Data is reported in the Performance Based Funding Model prepared by the USHE and the Institutional Research (IR) office. Workforce Data provided by DWS.

Use of Resources Metric (Capacity and Growth)
Change in Total Cost per Award

Reported at system level. This metric measures the five-year rolling average change in cost per certificates and degrees (awards) granted compared to the five-year rolling average change in the Higher Education Price Index (HEPI).

Definition: The five-year rolling average change in the total cost per award as calculated by the total awards granted by an institution divided by the corresponding year’s operating expenses averaged over five years.

Benchmark: This metric will be measured against 95 percent of the five-year rolling average change in the HEPI.

Current Baseline:

- The five-year rolling average USHE average change in total cost per award granted from FY16 to FY17: 1.7%
- The five-year rolling average change in HEPI annual change from FY16 to FY17: 1.3%
- 95 percent of five-year rolling average change in HEPI FY16 to FY17: 1.2%

Year	Five-year Average % Change in USHE Cost per Award	Five-year Average Change in HEPI	95% of the Five-year Change in HEPI
2016-17	1.7%	1.3%	1.2%
2015-16	2.1%	1.5%	1.4%
2014-15	2.1%	1.8%	1.7%
2013-14	-0.4%	1.8%	1.7%
2012-13	-0.8%	1.8%	1.7%

Goal: The five-year rolling average change in total cost per award granted is no more than 95% of the five-year rolling average change in HEPI.

Data reports:

<https://www.commonfund.org/commonfund-institute/higher-education-price-index-hepi/> <https://le.utah.gov/interim/2018/pdf/00001219.pdf>

Use of Resources (Capacity and Growth) Metric
Instruction-related Classroom Space Utilization

Reported by institution. This metric measures the utilization rates for classrooms at the USHE institutions. The utilization is based on two measures: (1) room utilization, and (2) station occupancy rates. This metric is intended to show the Board how well an institution is meeting the standard utilization expectation.

Definition: Average instruction-related classroom use is calculated by multiplying an institution's fall classroom utilization and station occupancy rate as defined [in Regent Policy R751, Institutional Facilities Space Utilization](#).

Benchmark: This metric will be measured against the Board-approved utilization standards for classroom use and station occupancy.

Current Baseline:

- USHE Classroom Utilization Rate Standard: 33.75 hours per week
- USHE Classroom Station Occupancy Rate Standard: 66.7% full

Fall 2016 Institution Space Utilization Scores

<i>Institution</i>	<i>Score</i>
<i>University of Utah</i>	15.7
<i>Utah State University (Logan)</i>	16.8
<i>Weber State University (Ogden)</i>	13.3
<i>Southern Utah University</i>	18.6
<i>Snow College (Ephraim)</i>	24.0
<i>Dixie State University</i>	20.5
<i>Utah Valley University</i>	28.0
<i>Salt Lake Community College (Redwood)</i>	21.3
<i>USHE System Average Score</i>	19.8

Goal: A minimum score of 22.5 for instruction-related classroom utilization. The goal is calculated by the expected standard average hours per week (33.75) multiplied by the average expected station occupancy rate (66.7%).

Data report:

<https://higheredutah.org/wp-content/uploads/2018/05/2018-4-Space-Utilization-Richard-Amon.pdf>

https://higheredutah.org/pdf/agendas/20180330/TABL_2018-03-30.pdf

Challenges and Questions: This is a new metric and there is limited data for this initial year. This metric may need to evolve as the data collection for this metric evolves. There are some outstanding questions as to whether the standard is adequate and whether it should be adjusted to more directly encourage the use of classrooms during evenings and weekends and to hire adjunct faculty members to teach during these additional hours.