

January 13, 2016

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: USHE – Legislative Proposal for a Capital Funding Model

Issue

In the March 2015 Board of Regents meeting Senator Urquhart addressed the Board about his interest to pursue a significant change in how the Legislature funds capital facilities in USHE. The current capital facility funding process includes prioritization by institutions, the Commissioner's Office, the Board of Regents, the State Building Board, the Governor's Office, and ultimately the State Legislature. The Senator's concept is for the Legislature to appropriate a pool of money equitably divided by institution. Senator Urquhart also asked the Commissioner's Office to provide technical assistance as he considers making a proposal to the Legislature.

The alternative capital facility funding model, provided to Senator Urquhart in response to his request, assumes an ongoing Legislative appropriation for USHE capital development and uses six categories to allocate funding points to USHE institutions:

1. Current institutional enrollment
2. Projected enrollment growth
3. Degrees and certificates awarded
4. State funded operating budget
5. Square footage of facilities
6. Projected future square footage need

Over the last twenty years (1996 to 2015) the Legislature annually appropriated an average of \$82 million, adjusted for inflation, to USHE for new facilities. The attached funding model details how \$82 million would be equitably distributed among the eight USHE institutions based on the formula, adjusted for an estimated rate of inflation and including funding for O&M.

Commissioner's Recommendation

This is an information item; no action is required.

David L. Buhler
Commissioner of Higher Education

DLB/RPA
Attachment

Funding Formula for USHE Capital Development

Executive Summary

Sen. Steve Urquhart requested that the Utah System of Higher Education (USHE) explore for his further consideration an alternative method for capital development funding based on a formula rather than prioritization in the political process. The formula-based approach would allocate funding based on:

- Current institutional enrollment
- Projected enrollment growth
- Degrees and certificates awarded
- State funded operating budget
- Square footage of facilities
- Projected future square footage need

A model was developed using these six funding factors and data from the most recent USHE Data Book (2015). Each category in the formula allocates 100 points between the eight USHE institutions. Details on the calculations may be found in subsequent sections.

Over the last twenty years (1996 to 2015) the Legislature annually appropriated an average of \$82 million, adjusted for inflation, to USHE for new facilities (see the Appendix for more information). The table below shows how a \$82 million appropriation would be divided among the eight USHE institutions based on this formula. The last two rows in the table show the amount of historical funding for each institution adjusted for inflation and the associated operation and maintenance calculated at 2.5 percent of the funded amount.

Funding Point Categories	UofU	USU	WSU	SUU	Snow	Dixie	UVU	SLCC
Enrollment (FTE)	25.35	17.20	12.42	5.23	2.76	5.14	16.88	15.02
Enrollment Growth	11.04	16.39	15.82	5.48	6.50	4.21	28.23	12.32
Degrees Awarded	27.35	18.74	14.13	5.26	2.18	4.41	16.20	11.74
State Funded Budget	33.33	22.64	10.73	5.07	3.14	4.01	10.90	10.19
Square Feet	26.89	21.00	10.98	4.71	5.64	4.97	12.76	13.04
Square Foot Needs Gap	19.75	16.50	14.00	5.81	3.19	4.54	25.44	10.77
Funding Points	143.71	112.47	78.08	31.56	23.41	27.28	110.42	73.07
\$82m Funding	\$ 19,640,000	\$ 15,370,000	\$ 10,670,000	\$ 4,310,000	\$ 3,200,000	\$ 3,730,000	\$ 15,090,000	\$ 9,990,000
20 Year Funding Average (Constant 2015 Dollars)	18,085,043	18,471,209	10,001,304	3,863,642	4,391,748	4,871,322	14,856,706	7,144,056
O&M Funding (2.5%)	\$ 491,000	\$ 384,000	\$ 267,000	\$ 108,000	\$ 80,000	\$ 93,000	\$ 377,000	\$ 250,000

The Bureau of Labor Statistics Producer Price Index (PPI) contains a specific measurement for changes in construction costs for new school buildings across the nation. Current 2015 PPI numbers suggest a 4 percent increase for 2015. Adjusting the \$82 million USHE historical appropriation for buildings by this estimated inflation rate would inflate the average funding to \$85 million in 2016 and \$88.5 million in 2017. The table below shows how the formula would allocate those funding levels to the eight USHE institutions.

Institution	UofU	USU	WSU	SUU	Snow	Dixie	UVU	SLCC
\$85m Funding	\$ 20,360,000	\$ 15,930,000	\$ 11,060,000	\$ 4,470,000	\$ 3,320,000	\$ 3,860,000	\$ 15,650,000	\$ 10,350,000
\$88.5m Funding	\$ 21,200,000	\$ 16,590,000	\$ 11,520,000	\$ 4,650,000	\$ 3,450,000	\$ 4,020,000	\$ 16,290,000	\$ 10,780,000

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Background

The current process for funding Utah System of Higher Education capital development projects includes six main components:

1. Institutional and Board of Trustee analysis and selection of a facility request
2. Needs analysis of all USHE requests by the Commissioner's Office
3. Capital Development Prioritization (CDP) by the State Board of Regents
4. Prioritization of USHE and all other facility requests by the State Building Board
5. Governor's recommendation of capital development projects in a proposed budget
6. Prioritization by legislative committees and ultimate funding in an appropriations bill

As an alternative to the current process, Sen. Urquhart requested USHE explore a method for capital development funding based on a formula. The following section details how such a formula could be used for capital development funding.

Methodology

This model uses six categories with 100 points each to allocate funding points to the eight USHE institutions based on current data from the most recent USHE Data Book and a specific methodology for each category. The categories are:

1. Institutional enrollments (FTE)
2. Projected enrollment growth
3. Degrees and certificates awarded
4. State funded operating budget
5. Existing facility square feet
6. Projected gap in facility square footage need

Funding points are calculated for each institution by summing the point allocation from each of the six categories. Capital development funding is then allocated based on the amount of funding available and the percentage of funding points received relative to the total funding points available (600 points).

For example, if an institution received 20 points in each of the six categories, its point total would be 120 points, which is 20% of the total points (120/600). That institution would therefore receive 20% of the funds available or \$20 million of a \$100 million appropriation.

The following subsections detail the specific methodology used in each category to allocate funding points to the institutions.

Student FTE

This point category allocates 100 points among the eight USHE institutions based on the relative number of student FTE. Data is drawn from Table 2, *Annualized FTE Budget Related Only Enrollment History* of the most recent USHE Data Book (Tab C, page 10 in the 2015 Data Book). The most recent actual annualized budget related only FTE enrollment is used (not the estimated number for the current year). In the case of the 2015 USHE Data Book, 2013-14 was the most recent actual annualized FTE enrollment count. The University of Utah Medical School FTE counts were included as were FTE counts from USU regional campuses and the Richfield campus of Snow College.

The 100 points are allocated proportionately to the institutions based on their actual annualized budget-related only FTE enrollment: (# institution’s annualized budget-related student FTE /Total annualized budget-related student FTE for USHE *100).

		Annualized, Budget Related Total Student FTE (Res and Non-Res) - Tab C, Table 2									
		UofU ¹	USU ²	WSU	SUU	Snow ³	DSU	UVU	SLCC	USHE Total	
Point Category 1	2014 (13-14)	29,498	20,010	14,448	6,087	3,210	5,977	19,642	17,479	116,351	
	Points	25.35	17.20	12.42	5.23	2.76	5.14	16.88	15.02	100.00	
		¹ Includes Medical School FTE			² Includes Regional USU campuses and USU Eastern						
				³ Includes Regional Richfield campus							

FTE Growth

This point category allocates 100 points based on the estimated growth in the number of student FTE in the tenth year of projections at each of the USHE institutions. Data is drawn from Table 10, *System Total Projections – Approved by the Board of Regents in May – Annualized FTE – Academic Year* of the most recent USHE Data Book (Tab C, page 23 in the 2015 Data Book). The last year of projected enrollment growth is used; which, in the case of the 2015 USHE Data Book, is the year 2023-24. The FTE difference between this estimated number and current enrollments is used for the allocation.

The 100 points are allocated proportionately to the institutions based on the difference between their estimated annualized FTE enrollment in the last year of enrollment projections and current FTE from their actual annualized (budget-related only FTE) enrollment: (# of institution’s annualized student FTE in the last year of projections - # institution’s annualized budget-related student FTE)/ (Total annualized student FTE in all of USHE in the last year of projections - Total current annualized budget-related student FTE for USHE) *100.

		Enrollment Projections Annualized FTE - Tab C, Table 10								
		UofU	USU	WSU	SUU	Snow	DSU	UVU	SLCC	USHE Total
Point Category 2	Est. 2024 (23-24)	35,944	29,578	23,685	9,287	7,007	8,434	36,125	24,671	174,731
	2014 (13-14)	29,498	20,010	14,448	6,087	3,210	5,977	19,642	17,479	116,351
	10 Yr. Growth (FTE)	6,446	9,568	9,237	3,200	3,797	2,457	16,483	7,192	58,380
	Points	11.04	16.39	15.82	5.48	6.50	4.21	28.23	12.32	100.00

Degrees and Certificates Awarded

This point category allocates 100 points to the USHE institutions based on the number of degrees and certificates awarded in the most recent actual academic year weighted by type of award. Data is drawn from Table 3, *Types of Degrees and Awards* of the most recent USHE Data Book (Tab B, page 6 in the 2015 Data Book).

Degrees and certificates are weighted with factors developed by the 2015-16 USHE Performance Funding Model. Those factors differ slightly based on the mission of the institution – research university, regional university, or community college. The number of degrees and certificates awarded by each institution is multiplied by the respective weight for each award and then summed for each institution and the entire system.

The 100 points are allocated proportionately to the institutions based on the weighted sum of degrees and certificates awarded relative to other institutions (weighted sum of institutional degrees awarded/ weighted sum of all degrees awarded in USHE * 100).

		Degrees Awarded - Tab B, Table 3										Resrch	Region	College
		Degree	UofU	USU	WSU	SUU	Snow	DSU	UVU	SLCC	USHE Total			
Point Category 3	1 yr. Certificates	397	70	17	3	44	24	60	266	881	1	1	1	
	Associate's	0	1,000	1,999	337	694	1,150	2,280	3,782	11,242	2	2	3	
	Bachelor's	5,092	3,548	2,356	1,000	7	509	2,825	0	15,337	4	4	4	
	Master's	1,823	927	272	265	0	0	52	0	3,339	2	2	0	
	Doctoral	330	109	0	0	0	0	0	0	439	4	0	0	
	Professional	381	6	0	0	0	0	0	0	387	4	0	0	
	Weighted Total	27,057	18,541	13,983	5,207	2,154	4,360	16,024	11,612	98,938				
	Points	27.35	18.74	14.13	5.26	2.18	4.41	16.20	11.74	100.00				

State Funded Budget

This point category allocates 100 points to the USHE institutions based on the proportion of state funding expended for Education and General programs in the most recent actual year. Data is drawn from the Education & General line for each institution in Table 5, *State Tax Funds – Current Dollars* (Tab H, page 6 in the 2015 Data Book). Utah State University numbers include USU-Eastern and other Regional Centers and Snow College numbers include CTE as noted in Table 5.

The 100 points are allocated proportionately to the institutions based on the amount of state funding in General and Education line items (state funding to institution / state funding to all USHE * 100).

		State Funded Appropriations Higher Education (GF, EF) - Education and General Line Item Actuals - Tab H, Table 5								
		UofU	USU ¹	WSU	SUU	Snow ²	DSU	UVU	SLCC	USHE Total
Point Category 4	2014 (13-14)	206,943,700	140,566,000	66,588,300	31,449,100	19,487,000	24,899,200	67,694,800	63,239,100	620,867,200
	Points	33.33	22.64	10.73	5.07	3.14	4.01	10.90	10.19	100.00

¹Includes USU-Eastern and other Regional Centers ²Includes CTE

Facility Square Footage

This point category allocates 100 points to the USHE institutions based on the weighted sum of assignable square footage. Data is drawn from the “Needs Analysis” line in Tables 3-10, *Space Inventory* for each USHE Institution (Tab L, pages 4-11 in the 2015 Data Book). The “Needs Analysis” line is the net assignable square footage used in the annual Capital Development Process that excludes auxiliary, hospital, and other unique institutional space.

Net assignable square footage differs from gross square footage (GSF) in that assignable square feet are allocated to specific purposes (classrooms, offices) whereas GSF includes non-assignable areas such as hallways, elevators, mechanical, etc.

The square footage from the “Needs Analysis” line is then weighted by type of space as follows in order to emphasize the importance of teaching and classroom space:

- Weight of “4” for Classroom (100) and Teaching Lab (200) square feet
- Weight of “3” for Study (400) square feet
- Weight of “2” for Research Lab (200), Special Use (500), and General Use (600), square feet
- Weight of “1” for Office (300) and Support (700) square feet
- Weight of “0” (i.e. excluded) for Health Care (800), Residential (900), and Unclassified (000) square feet

The 100 points are allocated proportionately to the institutions based on the weighted sum of square feet relative to other institutions (weighted sum of institutional square feet/ weighted sum of all USHE square feet * 100).

		Net Assignable Square Footage by Use - Tab L, Tables 3-10										
Space Use		UofU	USU	WSU	SUU	Snow	DSU	UVU	SLCC	USHE Total	Weight	
Point Category 5	Classroom (100)	346,623	288,685	171,946	69,010	69,129	78,646	168,386	218,609	1,420,549	4	
	Teaching Lab (200)	365,139	358,712	269,582	131,518	161,121	103,583	358,113	394,339	2,217,693	4	
	Research Lab (250)	613,609	395,510	18,784	0	99	0	0	0	1,028,002	2	
	Office (300)	1,207,659	651,923	281,895	118,017	82,328	119,208	348,113	268,212	3,096,458	1	
	Study (400)	335,077	215,966	118,725	57,663	31,867	58,807	111,525	49,944	980,133	3	
	Special Use (500)	83,965	126,310	62,472	22,629	104,986	34,801	101,722	120,274	680,873	2	
	General Use (600)	133,272	123,875	102,943	20,481	63,088	81,838	31,814	66,498	647,106	2	
	Support (700)	238,956	255,019	68,716	39,573	23,880	29,210	247,946	132,403	1,039,916	1	
	Health Care (800)	10,241	2,194	660	0	0	0	0	2,907	16,002	0	
	Residential (900)	12,044	0	0	0	0	0	0	0	12,044	0	
	Unclassified (000)	110,785	0	6,163	0	0	16,409	16,802	0	150,159	0	
		Net Assignable	3,457,370	2,418,194	1,101,886	458,891	536,498	522,502	1,384,421	1,253,186	11,288,935	
		Weighted Total	6,960,586	5,435,818	2,841,296	1,218,911	1,459,155	1,287,033	3,303,702	3,375,783	25,882,284	
	Points	26.89	21.00	10.98	4.71	5.64	4.97	12.76	13.04	100.00		

Needs Gap of Facility Square Footage

This point category allocates 100 points to the USHE institutions based on the gap between existing facility space inventories and projected space need. Data is drawn from calculations made each year through the Capital Development Prioritization process conducted by the Commissioner’s Office for Higher Education. Institutions submit annual space inventory information to update historical information. Then, using student FTE enrollment projections and faculty and staff projections from the annual Data Book and formulas based on academic standards for square feet per FTE, a projected square footage need is calculated for each institution. The square footage needs gap is the difference between existing square footage at an institution and the projected need calculated for each institution.

The 100 points are allocated proportionately to the institutions based on the square footage needs gap relative to other institutions (weighted sum of institutional needs gap/ weighted sum of all USHE needs gap * 100).

		Five-year Gap of Assignable Square Footage Needs - Capital Development Process Step 6, Table 1								
Space Use		UofU	USU	WSU	SUU	Snow	DSU	UVU	SLCC	USHE Total
Point Category 6	Classroom (100)	0	0	42,325	12,492	0	0	129,761	0	184,577
	Teaching Lab (200)	91,149	145,747	196,787	51,953	76,998	72,916	304,168	194,691	1,134,408
	Research Lab (250)	0	0	0	0	0	0	0	0	0
	Office (300)	0	0	2,354	21,621	7,461	0	76,632	0	108,068
	Study (400)	390,900	278,075	94,859	36,637	14,997	22,376	156,370	100,177	1,094,390
	P.E. Special Use (520)	133,192	90,080	99,910	58,292	0	46,198	125,648	40,568	593,888
	Net Assignable	615,241	513,902	436,234	180,995	99,456	141,490	792,579	335,436	3,115,332
	Points	19.75	16.50	14.00	5.81	3.19	4.54	25.44	10.77	100.00

Appendix – State Funded History in Constant Dollars

The following table documents the state funding (Education and General Fund) history of legislative appropriations to higher education facilities for the years 1996 to 2015. The table also contains the inflationary measures used to adjust the historical funding to constant 2015 dollars. The Producer Price Index (PPI) for New School Building Construction was used from 2005 to 2015 to measure the change in construction cost for school buildings nationally. As the PPI was only available starting in 2005, the Consumer Price Index (CPI) for all Urban Consumers was used to adjust historical funding prior to 2005.

Year	UU	USU	WSU	SUU	Snow	DSU	UVU	SLCC	Grand Total	PPI ¹	CPI ²	Inflator
1996	\$2,500,000	\$6,450,700	\$14,400,000		\$8,307,000		\$3,885,000		\$35,542,700		154.5	1.846
1997	\$15,453,600	\$24,386,700	\$771,000	\$1,100,000		\$708,700		\$1,165,000	\$43,585,000		158.9	1.795
1998	\$595,500	\$2,300,000		\$4,600,000		\$1,000,000	\$1,166,300	\$21,500,000	\$31,161,800		161.7	1.764
1999	\$7,268,500			\$19,945,200			\$29,000,000	\$4,200,000	\$60,413,700		164.5	1.734
2000		\$9,198,800			\$425,000	\$220,000	\$1,465,000		\$11,308,800		169.3	1.685
2001	\$24,613,000	\$61,922,700	\$21,585,800		\$986,800	\$1,088,800	\$17,468,300		\$127,665,400		175.1	1.629
2002	\$33,000,000	\$800,000			\$15,583,000	\$13,308,000	\$9,587,000		\$72,278,000		178.2	1.601
2003		\$40,000,000					\$6,600,000		\$46,600,000		182.1	1.566
2004		\$2,400,000	\$5,569,000					\$21,000,000	\$28,969,000		186.1	1.533
2005	\$48,488,000	\$5,000,000		\$10,000,000		\$15,743,000			\$79,231,000	100.0	191.7	1.488
2006	\$0	\$6,100,000	\$2,000,000	\$0	\$0	\$0	\$46,750,000	\$0	\$54,850,000	105.7		1.408
2007	\$13,500,000	\$2,500,000	\$22,950,000	\$0	\$17,651,000	\$0	\$0	\$0	\$56,601,000	118.0		1.261
2008	\$25,000,000	\$43,111,000	\$0	\$0	\$0	\$0	\$550,000	\$0	\$68,661,000	123.5		1.205
2009	\$22,900,000	\$0	\$0	\$13,851,000	\$0	\$3,000,000	\$2,800,000	\$21,305,000	\$63,856,000	131.9		1.128
2010	\$0	\$0	\$0	\$0	\$0	\$35,000,000	\$45,000,000	\$29,000,000	\$109,000,000	131.5		1.131
2011	\$0	\$14,000,000	\$31,535,000	\$0	\$0	\$0	\$0	\$3,000,000	\$48,535,000	135.1		1.101
2012	\$22,000,000	\$0	\$0	\$0	\$0	\$0	\$2,175,000	\$0	\$24,175,000	139.7		1.065
2013	\$2,500,000	\$1,000,000	\$3,500,000	\$2,000,000	\$0	\$500,000	\$54,000,000	\$0	\$63,500,000	141.9		1.049
2014	\$8,000,000	\$26,500,000	\$56,400,000	\$0	\$3,000,000	\$1,000,000	\$0	\$0	\$94,900,000	146.7		1.015
2015	\$43,500,000	\$11,250,000	\$1,000,000	\$0	\$19,937,000	\$3,000,000	\$1,500,000	\$3,250,000	\$83,437,000	148.8		1.000
Total	\$269,318,600	\$256,919,900	\$159,710,800	\$51,496,200	\$65,889,800	\$74,568,500	\$221,946,600	\$104,420,000	\$1,204,270,400			
Inflation Adj.	\$361,700,851	\$369,424,187	\$200,026,070	\$77,272,837	\$87,834,953	\$97,426,448	\$297,134,124	\$142,881,126	\$1,633,700,596			
20 Yr Avg.	\$18,085,043	\$18,471,209	\$10,001,304	\$3,863,642	\$4,391,748	\$4,871,322	\$14,856,706	\$7,144,056	\$81,685,030			

¹US Bureau of Labor Statistics, Producer Price Index (PPI) for all new school building construction (2005=100), <http://data.bls.gov/timeseries/PCU236222236222>

²US Bureau of Labor Statistics, Consumer Price Index for all Urban Consumers, US City Average, All Items, Not Seasonally Adjusted (1982-84=100)