2021 Monitoring Report

Appendix 3.   Finances – Activity-Based Academic Budgeting Model

This appendix includes information on the activity-based academic budgeting model that was developed to create incentive-based budgeting that allocates General Purpose Revenue (GPR) among academic colleges and schools based on recent academic activity and performance.

Activity-Based Allocation Model

Purpose

The purpose of this model is to create an incentive-based budgeting model that allocates Fund 102 and 103 annual base budget authority among academic colleges and schools based on recent academic activity and performance.

Concepts

The model is intended to be an activity-based model primarily based on tuition revenue generated. Tuition revenue for each college is measured by student credit hours (SCH) earned within the college. The model also is designed to recognize, on a smaller scale the number of majors as well as the number of graduates in each college.

The model allows for the inherent differences in operating costs associated with the mix of disciplines within each college.

The model allocates base budget by colleges and school.   The deans continue to have responsibility of distributing base budget within the college based on program priorities.

Operating metrics

Annual Budget

Fund 102 budget for each college and school from the current year in process. Fund 103 budget allocated for faculty lines for each school is also included. Budget for FY20 allocated for adjuncts on the branch campus are not included. Fringes are not included in these budgets.

Some budget reallocations that are already planned for FY21 are reflected in the Annual Budgets for this model.

- Budget for Interior Architecture has been moved from CPS to COFAC.
- Budget for the Data Analytics position in COLS to CPS.
- Budget for Arts Management within COFAC

Student Credit Hours (SCH)

The average of the last two years' activity – Fall and Spring semesters only. Graduate SCH is weighted to recognize the higher tuition rate. SCH is taken from end of term data. SCH produced from other dedicated funding sources are not included in this calculation. These areas of SCH included:

- Collaborative Programs such as HWM, HIMT, Data Science, etc.
- Cost Recovery Programs such as the Masters of Natural Resources, Educational Sustainability Doctorate, etc.
- Summer and Winterim Courses

- Any Continuing Education Courses
- Developmental Math Courses.
- Education Courses taught by the TLC

Operating Costs Adjustments

Calculated from nationally benchmarked data from the National Study of Instructional Costs. Creates relative weighting of costs to produce SCH in varying disciplines. Average Operating Costs are Calculated by School in this model. Operating Costs are calculated only using SCH described above.

1. Expected cost to deliver local SCH is calculated for each discipline

Expected Cost to produce local SCH for each discipline ($)	=	Local SCH produced in discipline (SCH)	X	Nationally Normed Cost of Instruction ($/SCH)

2. Expected cost to produce local SCH for each discipline is summed to create total cost for each school.

Total Expected Cost to produce SCH for School	=	Total Cost (Discipline 1)	+	Total Cost (Discipline 2)	+ ....

3. Average expected cost per SCH for each school is determined by taking total costs in each school and dividing it by the total SCH produced by the School. The average expected cost per SCH for the university is also calculated.

$$\text{Average Expected Cost to produce SCH for a School (\$/SCH)} = \frac{\text{Total Expected Cost to produce SCH for a School (\$)}}{\text{Total Local SCH produced by a School (SCH)}}$$

4. Operating Cost Adjustment is the ration of the School's average expected cost per SCH to the university's average expected cost per SCH.

$$\text{Operating Cost for a School} = \frac{\text{Average Cost to produce SCH for a School (\$/SCH)}}{\text{Average Cost to produce SCH for the University (\$/SCH)}}$$
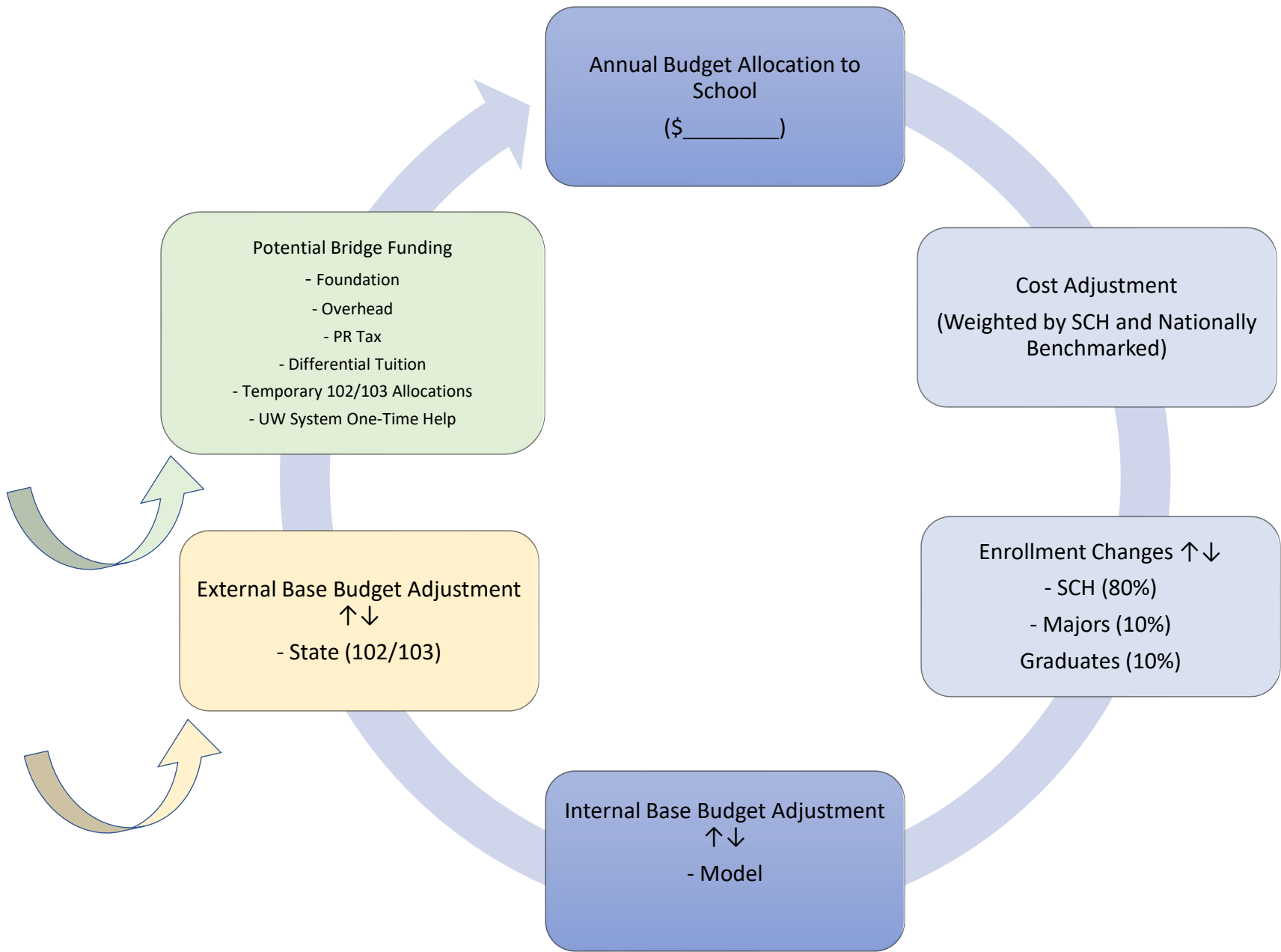
Example

School	Discipline	SCH (last two years)	National Normed Cost of Instruction ($)	Expected Cost to produce Local SCH ($)	Average Expected Cost per SCH using National Costs ($/SCH)	Operating Cost Adjustment (School Cost/Total University Cost)
A	English	3000	$ 215	$ 645,000		
A	Music	1500	$ 400	$ 600,000		
Total for School A		*4500*		*$ 1,245,000*	*$ 276.7*	*1.0375*
B	Engineering	1000	$ 425	$ 425,000		
B	Math	2000	$ 165	$ 330,000		
Total for School B		*3000*		*$ 755,000*	*$ 251.7*	*0.94375*
Total		**7500**		**$ 2,000,000**	**$ 266.7**	

Majors Declared

Majors declared at end of Fall term for the past two years and averaged. Students with double majors are counted more than once.

Degrees Issued

Based on the number of degrees issued during the past two academic years and averaged. Students with multiple majors are counted more than once.

Annual Budget Allocation to School

($_____)

Cost Adjustment

(Weighted by SCH and Nationally Benchmarked)

Enrollment Changes ↑↓

- SCH (80%)

- Majors (10%)

Graduates (10%)

Internal Base Budget Adjustment ↑↓

- Model

External Base Budget Adjustment ↑↓

- State (102/103)

Potential Bridge Funding

- Foundation

- Overhead

- PR Tax

- Differential Tuition

- Temporary 102/103 Allocations

- UW System One-Time Help

Because we know that different disciplines have legitimately different costs required to serve students, it's important for the allocation model to account for these variations. To do so, we use a weighting factor, or Operating Cost Adjustment, calculated from nationally benchmarked data on cost-per-SCH by discipline. We use national data to ensure that the model helps to correct for areas where we are out of alignment with typical patterns.

For each school, we calculate the total expected cost of delivering SCH in its respective disciplines:

National Cost-per-SCH (Discipline) × SCH (Discipline) = Expected Cost (Discipline)

National Cost-per-SCH (Discipline) × SCH (Discipline) = Expected Cost (Discipline)

National Cost-per-SCH (Discipline) × SCH (Discipline) = Expected Cost (Discipline)

→ Total Expected Cost (School)
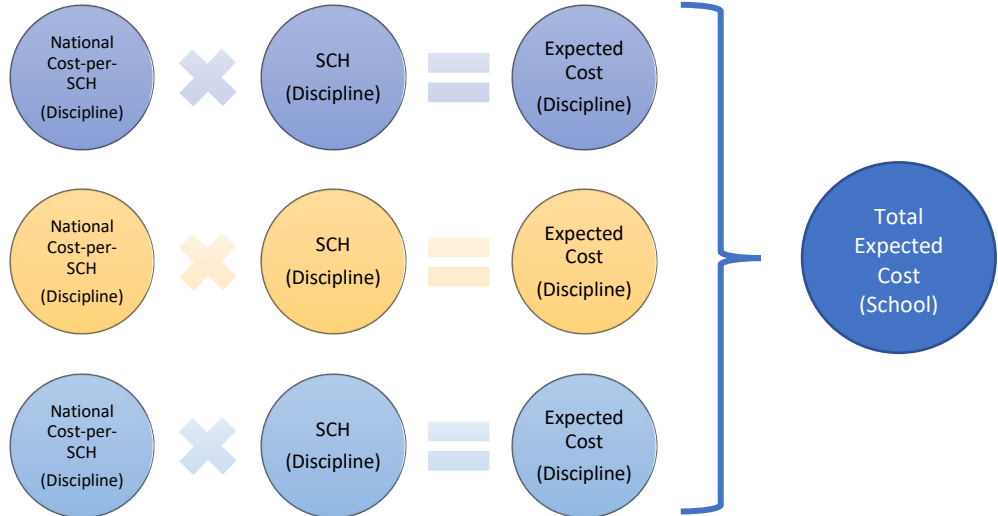
Then, we divide this expected cost by the total SCH each school delivers to determine the average expected cost-per-SCH for each school:

Total Expected Cost (School) ÷ Total SCH (School) = Average Expected Cost-per-SCH (School)
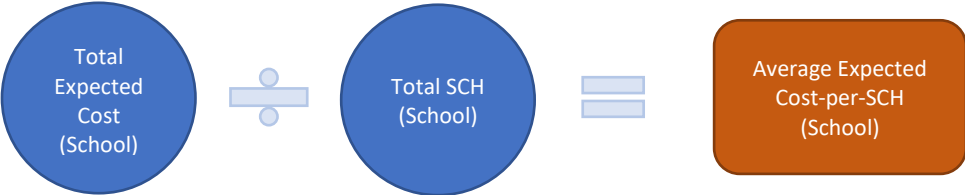
Finally, to determine the weighting for each school's SCH production, or its Operating Cost Adjustment, we divide its average expected cost-per-SCH by the university's average expected cost-per-SCH:

Average Expected Cost-per-SCH (School) ÷ Average Expected Cost-per-SCH (University) = Operating Cost Adjustment (School)

This adjustment is then used in the budget allocation model to more accurately reflect the relative cost of teaching students in the disciplines within each school. Less expensive schools will be weighted below 1.0. More expensive schools will be weighted above 1.0 to help account for their greater typical expense in teaching students.

Academic Budget Allocation Model - Allocation

Including Fall, Spring

	COLS				Vacant 9.73	CPS			Vacant 0.53		COFAC			Vacant 1.85	CNR 0.18		TOTAL
	Hum & Global	Beh. Sci & Hum. Serv.	Bio & Chem	Math, Comp & Phys	Admin	Health & Wellness	Business & Econ	Education	Military Science	Admin	Design	Peforming Arts	Comm Arts	Admin	Natural Resources	Admin	
Base Budget Allocation (FY20)	3,149,233	2,472,138	3,380,112	2,360,710	$918,326	2,414,493	2,397,382	1,409,603	53,654	$315,890	1,231,741	2,220,731	883,106	$387,340	3,274,344	$766,577	27,635,380
Percent of budget	11.4%	8.9%	12.2%	8.5%	3.3%	8.7%	8.7%	5.1%	0.2%	1.1%	4.5%	8.0%	3.2%	1.4%	11.8%	2.8%	100.0%
Percent of College Budget	25.6%	20.1%	27.5%	19.2%	7.5%	36.6%	36.4%	21.4%	0.8%	4.8%	26.1%	47.0%	18.7%	8.2%	81.0%	19.0%	
Budgeted FTE	51.16	37.50	54.48	35.75	8.88	40.045	28.026	21.833	1.000	3.00	18.71	38.30	12.63	3.50	48.16	8	158.07
Budgeted SCH per FTE	728.06	802.66	517.91	707.27		541.97	637.84	532.70	341.50		439.33	283.80	899.29		457.71		1,422.65
Budget per SCH	84.55	82.13	119.80	93.36	101.62	111.25	134.11	121.20	157.11	127.85	149.87	204.33	77.78	155.15	148.54	183.32	
Budget per FTE (Budget/Budgeted FTE)	$61,557	$65,925	$62,043	$66,034	$103,415	$60,294	$85,541	$64,563	$53,654	$105,297	$65,840	$57,987	$69,949	$110,669	$67,989	$95,822	$174,827
Operating Cost Adjustment (Weighted by SCH and benchmarked by cost per SCH)	0.83	0.80	0.96	0.83		1.07	1.10	1.20	-		1.18	1.57	0.76		1.31		1.00
80% Student Credit Hours	37,247.50	30,099.00	28,215.50	25,285.00		21,703.00	17,876.00	11,630.50	341.50		8,219.00	10,868.50	11,353.50		22,043.50		224,883
Unadjusted percent of total	16.6%	13.4%	12.5%	11.2%		9.7%	7.9%	5.2%	0.2%		3.7%	4.8%	5.0%		9.8%		100.0%
Adjusted for Operating Costs	13.8%	10.7%	12.0%	9.4%		10.3%	8.8%	6.2%	0.0%		4.3%	7.6%	3.9%		12.9%		100.0%
10% Majors Declared	618	1,025	673	401		1,011	991	716	-		369	474	320		1,547		8,142
	7.6%	12.6%	8.3%	4.9%		12.4%	12.2%	8.8%	0.0%		4.5%	5.8%	3.9%		19.0%		100.0%
10% Degrees Issued	149	242	166	95		272	228	190	-		38	82	73		363		1,895
	7.8%	12.7%	8.7%	5.0%		14.4%	12.0%	10.0%	0.0%		2.0%	4.3%	3.9%		19.1%		100.0%
Percentage Based on Activity	12.6%	11.1%	11.3%	8.5%		11.0%	9.4%	6.8%	0.0%		4.1%	7.1%	3.9%		14.1%		100.0%

(Weighted average of percentage of adjusted SCH, Majors and Degrees issued)

Weighting Factor

	Hum & Global	Beh. Sci & Hum. Serv.	Bio & Chem	Math, Comp & Phys	Admin	Health & Wellness	Business & Econ	Education	Military Science	Admin	Design	Peforming Arts	Comm Arts	Admin	Natural Resources	Admin	TOTAL
Planned School Cuts for FY21	(134,506)	(178,266)	(17,024)	(50,348)	(84,803)	-	(71,549)	(25,330)	-	-	(73,242)	(15,000)	(82,763)	-	(161,522)	-	(894,353)
FY20 with FY21 Planned Cuts	3,014,727	2,293,872	3,363,088	2,310,362	833,523 -	2,414,493	2,325,833	1,384,273	53,654	315,890 -	1,158,499	2,205,731	800,343	387,340 -	3,112,822	766,577 -	26,741,027