TENNESSEE HIGHER EDUCATION COMMISSION

REGULAR CALENDAR ITEM: **VI.**

MEETING DATE: February 7, 2025

SUBJECT: Capital Process Formula

ITEM TYPE: Information

CAPITAL PROCESS FORMULA

During the November 7, 2024, THEC Commission meeting, there was a suggestion from multiple campus presidents that a more formulaic approach to capital outlay should be explored for adoption by the state. Chairwoman Scarlett instructed Executive Director Steven Gentile to engage THEC staff on this issue.

The current model is based on a scoring rubric that evaluates consistency with state goals, academic impact, workforce development, and space needs to produce high quality projects. Due to its annual subjective review, the current process may result in shifting rank orders from one year to the next. The intent of this alternative approach would be to offer a more predictable and formula-driven approach to annual capital outlay funding for each institution/system in contrast to the current prioritization model. In concept, the institutions would receive non-recurring allocations each year based on a model formula informed by institutional inputs; the funding would be allowed to grow until the institution/system has a sufficient amount to fund a capital outlay project solely or in complement with institutional funds.

The below analysis shows that a capital process formula, assuming annual appropriations reflecting the prior ten-year average, would allow most institutions and systems to fund their top prioritized facilities within five years.

Over the past ten years, Tennessee higher education institutions have received $2.5 billion in capital outlay appropriations, excluding the nearly $950 million in funding given specifically to the Tennessee College of Applied Technology (TCAT) initiative in FY2023-24 and the Tennessee State University $250 million capacity initiative in FY2022-23. The annual average of $250 million is used in this example as a basis for a funding model to predict allocation by institution.

We identify, as examples, three data-driven metrics to inform three conceptual formulas (see Table 1):

- Share of the Operating Budget *(as recommended by the Commission in FY2025-26 and informed by the Outcomes-Based Funding formula, TCAT formula, and the specialized unit formulas)*
- Five year Enrollment Trends *(five year rolling average of 50% FTE and 50% Head Count, including fully online courses)*
- Total Educational and General (E&G) Area (*as defined by the currently reported Schedule D*)

For all three formulas below, institutions/systems would be able to choose their own time to proceed with a project and bring it forward based on a final project review process that could include THEC, the State Building Commission, the Administration, and the General Assembly. The number of potential metrics is not confined to these three models; these are meant to serve as examples.

TABLE 1: THREE FORMULAS COMPARISON

INSTITUTIONS / SYSTEMS	METHOD OF DETERMINING PERCENTAGE ALLOCATION			
	SHARE OF OPERATING BUDGET	5 YR ENROLLMENT HISTORY	E&G SPACE	3 METHOD AVERAGE
APSU	3.9%	4.2%	3.5%	3.9%
ETSU	8.5%	6.1%	7.4%	7.3%
MTSU	7.4%	9.0%	8.0%	8.1%
TSU	2.7%	3.6%	4.6%	3.6%
TTU	4.4%	4.4%	5.0%	4.6%
UOM	9.0%	9.1%	11.2%	9.8%
UT-SYSTEM	38.2%	24.2%	34.1%	32.2%
TBR-SYSTEM	25.9%	39.4%	26.2%	30.5%

Table 2 shows a comparison of funding levels for the first identified formula, Share of Operating Budget, and how each metric-based model would grow over one, three, and five years based on average annual outlay appropriations. The appendix shows similar comparisons for the two other identified formulas as well as the Project Funding Schedule Analysis.

TABLE 2: SHARE OF OPERATING BUDGET METRIC PERCENTAGES

Potential Annual Appropriations Based On Ten Year Average Of Outlay History

BASIS OF CAPITAL ALLOCATION		10 YR HISTORY ANNUAL CAPITAL OUTLAY TOTAL = $2,554,870,300 (NOT INCL TCAT $946M & TSU $250M) 10 YR AVERAGE POOL PER YEAR = $255,487,030		
% BASED ON SHARE OF OPERATING BUDGET		CUMULATIVE ALLOCATION		
		YEAR 1	YEAR 3	YEAR 5
APSU	3.9%	$10.0M	$29.9M	$49.8M
ETSU	8.5%	21.7M	65.2M	108.6M
MTSU	7.4%	18.9M	56.7M	94.5M
TSU	2.7%	6.9M	20.7M	34.5M
TTU	4.4%	11.2M	33.7M	56.2M
UOM	9.0%	23.0M	69.0M	115.0M
UT-SYSTEM	38.2%	97.6M	292.8M	488.0M
TBR-SYSTEM	25.9%	66.2M	198.5M	330.9M
TOTAL		$255.5M	$766.5M	$1,277.5M

Capital project costs can vary widely due to numerous factors, but over the past ten years the average state allocation for a university capital project was $39 million, $16 million for a community college project, and $28 million for a TCAT project. According to Table 2, and with more detail in Table 6 of the appendix, the most recently submitted capital project for Austin Peay State University, the Military Academic Building at $26.6 million, could be funded outright after three capital cycles. The Tennessee Board of Regents Wilson County Phase 1 facility ($59.7 million) could be funded after one cycle. Some institutions, including Tennessee State University (Engineering Building Phase 2 at $143.9 million) and Tennessee Tech University (Social Science Building at $92.0 million), would not be able to fully fund their top prioritized projects within five years under the proposed three models.

Respective of these examples, all institutions would be able to supplement their accumulated funding with other funding sources to make up any gap in funding as determined by institutional leadership.

ADVANTAGES OF A FORMULA MODEL

- Institutions/systems will have maximum flexibility to prioritize and develop projects, depending on the amount of capital accrued, thereby improving the predictability of project timing and development opportunities.
- State maintains flexibility to vary capital appropriations annually, depending on overall state budget, economy, workforce development needs, and higher education needs.
- Could mitigate recent problems with construction inflation as institutions will be able to access newly distributed funding in future years.
- Eliminates perception of projects not being fairly prioritized due to subjective review.

LIMITATIONS OF A FORMULA MODEL

- State policymakers may prefer to definitively decide each year which projects are or are not funded.
- Removes the state's ability to prioritize based on state goals, master plan, enrollment, or space needs.
- A formula based on E&G square footage may have the unintended effect of reducing the space efficiency of the campus by encouraging retention of space. It also does not recognize institutions' growth in facility needs due to expanding enrollment.
- A formula based on prior-year enrollment averages does not take into consideration projected growth in enrollment, forcing a lag in the model recognizing true space need.\
- A formula based on the "Share of Operating Budget" method is one based on student outcomes and, therefore, lagging relative to future institution facility need. Further, since facility fixed costs inform nearly 15% of the Outcomes-Based Funding formula, this metric could incentivize an institution to retain unnecessary facility space.

FURTHER CONSIDERATIONS

The above models are meant to serve as a proof of concept regarding how capital appropriations could be distributed under a formulaic model. Additional considerations for the process would need to incorporate how the state would vet and approve projects once sufficient funding accumulates as well as how the state could influence construction of facilities needed to meet future state demand.

APPENDIX

TABLE 3: ENROLLMENT METRIC PERCENTAGES

POTENTIAL ANNUAL APPROPRIATIONS BASED ON TEN YEAR AVERAGE OF OUTLAY HISTORY

BASIS OF CAPITAL ALLOCATION		10 YR HISTORY ANNUAL CAPITAL OUTLAY TOTAL = $2,554,870,300 (NOT INCL TCAT $946M & TSU $250M) 10 YR AVERAGE POOL PER YEAR = $255,487,030		
% BASED ON 5 YR ENROLLMENT HISTORY		CUMULATIVE ALLOCATION		
		YEAR 1	YEAR 3	YEAR 5
APSU	4.2%	$10.7M	$32.M	$53.7M
ETSU	6.1%	15.6M	46.8M	77.9M
MTSU	9.0%	23.0M	69.0M	115.0M
TSU	3.6%	9.2M	27.6M	46.0M
TTU	4.4%	11.2M	33.7M	56.2M
UOM	9.1%	23.3M	69.7M	116.3M
UT-SYSTEM	24.2%	61.8M	185.5M	309.1M
TBR-SYSTEM	39.4%	100.7M	302.0M	503.3M
TOTAL		$255.5M	$766.5M	$1,277.5M

TABLE 4: E&G AREAS METRIC PERCENTAGES

POTENTIAL ANNUAL APPROPRIATIONS BASED ON TEN YEAR AVERAGE OF OUTLAY HISTORY

BASIS OF CAPITAL ALLOCATION		10 YR HISTORY ANNUAL CAPITAL OUTLAY TOTAL = $2,554,870,300 (NOT INCL TCAT $946M & TSU $250M) 10 YR AVERAGE POOL PER YEAR = $255,487,030		
% BASED ON E&G SPACE		CUMULATIVE ALLOCATION		
		YEAR 1	YEAR 3	YEAR 5
APSU	3.5%	$8.8M	$26.5M	$44.2M
ETSU	7.4%	18.8M	56.4M	94.1M
MTSU	8.0%	20.4M	61.2M	102.0M
TSU	4.6%	11.8M	35.3M	58.9M
TTU	5.0%	12.7M	38.2M	63.8M
UOM	11.2%	28.6M	85.7M	142.8M
UT-SYSTEM	34.1%	87.3M	261.8M	436.3M
TBR-SYSTEM	26.2%	67.1M	201.2M	335.4M
TOTAL		$255.5M	$766.5M	$1,277.5M

TABLE 5: AVERAGE OF THREE METRIC PERCENTAGES

POTENTIAL ANNUAL APPROPRIATIONS BASED ON TEN YEAR AVERAGE OF OUTLAY HISTORY

BASIS OF CAPITAL ALLOCATION		10 YR HISTORY ANNUAL CAPITAL OUTLAY TOTAL = $2,554,870,300 (NOT INCL TCAT $946M & TSU $250M) 10 YR AVERAGE POOL PER YEAR = $255,487,030		
% BASED ON 3 METHOD AVERAGE		CUMULATIVE ALLOCATION		
		YEAR 1	YEAR 3	YEAR 5
APSU	3.9%	$9.8M	$29.5M	$49.2M
ETSU	7.3%	18.7M	56.1M	93.5M
MTSU	8.1%	20.8M	62.3M	103.8M
TSU	3.6%	9.3M	27.9M	46.4M
TTU	4.6%	11.8M	35.4M	59.0M
UOM	9.8%	24.9M	74.8M	124.7M
UT-SYSTEM	32.2%	82.2M	246.5M	410.9M
TBR-SYSTEM	30.5%	78.0M	234.0M	390.0M
TOTAL		$255.5M	$766.5M	$1,277.5M

TABLE 6: PROJECT FUNDING SCHEDULE ANALYSIS:

	APPROPRIATION BASED ON 10 YR HISTORY OF ANNUAL CAPITAL OUTLAY LESS TCAT $946M & TSU $250M				
		BASED ON			
	YR	SHARE OF OPERATING BUDGET	5YR ENROLLMENT HISTORY	E&G SPACE	3 METHOD AVERAGE
APSU MILITARY ACADEMIC $26,621,000	1	9,963,994	10,730,455	8,832,419	9,842,290
	2	19,927,988	21,460,911	17,664,837	19,684,579
	3	**29,891,983**	**32,191,366**	26,497,256	**29,526,869**
	4	39,855,977	42,921,821	**35,329,674**	39,369,159
	5	49,819,971	53,652,276	44,162,093	49,211,448
ETSU BROWN HALL PH 2 $51,302,563	1	21,716,398	15,584,709	18,810,926	18,704,011
	2	43,432,795	31,169,418	37,621,853	37,408,023
	3	**65,149,193**	46,754,126	**56,432,779**	**56,112,034**
	4	86,865,590	**62,338,835**	75,243,706	74,816,045
	5	108,581,988	77,923,544	94,054,632	93,520,056
MTSU CIVIC LEADERSHIP $103,590,000	1	18,906,040	22,993,833	20,408,036	20,769,303
	2	37,812,080	45,987,665	40,816,072	41,538,607
	3	56,718,121	68,981,498	61,224,108	62,307,910
	4	75,624,161	91,975,331	81,632,144	83,077,213
	5	94,530,201	**114,969,164**	102,040,180	**103,846,517**
TSU ENGINEERING PH 2 $143,875,000	1	6,898,150	9,197,533	11,770,898	9,288,861
	2	13,796,300	18,395,066	23,541,796	18,577,721
	3	20,694,449	27,592,599	35,312,695	27,866,582
	4	27,592,599	36,790,132	47,083,593	37,155,443
	5	34,490,749	45,987,665	58,854,491	46,444,304
TTU SOCIAL SCIENCE $92,027,600	1	11,241,429	11,241,429	12,756,976	11,746,612
	2	22,482,859	22,482,859	25,513,952	23,493,224
	3	33,724,288	33,724,288	38,270,928	35,239,835
	4	44,965,717	44,965,717	51,027,903	46,986,447
	5	56,207,147	56,207,147	63,784,879	58,733,059
UOM RESEARCH MODERNIZATION $70,500,000	1	22,993,833	23,249,320	28,565,059	24,936,071
	2	45,987,665	46,498,639	57,130,118	49,872,142
	3	68,981,498	69,747,959	**85,695,176**	**74,808,212**
	4	**91,975,331**	**92,997,279**	114,260,235	99,744,283
	5	114,969,164	116,246,599	142,825,294	124,680,354
UT-SYSTEM CHEMISTRY $165,170,000 + UTM BUSINESS $57,528,000	1	97,596,045	61,827,861	87,268,357	82,230,755
	2	**195,192,091**	123,655,723	**174,536,714**	164,461,510
	3	292,788,136	**185,483,584**	261,805,072	**246,692,265**
	4	390,384,182	247,311,445	349,073,429	328,923,020
	5	487,980,227	309,139,306	436,341,786	411,153,775
TBR-SYSTEM WILSON CO PH 1 $59,720,000	**1**	**66,171,141**	**100,661,890**	**67,074,359**	**77,969,130**
	2	132,342,282	201,323,780	134,148,718	155,938,260
	3	198,513,422	301,985,669	201,223,076	233,907,390
	4	264,684,563	402,647,559	268,297,435	311,876,521
	5	330,855,704	503,309,449	335,371,794	389,845,651