Huron Education



Tennessee Technological University Campus Open Forum



Agenda



Over the past few months, Huron Consulting Group has worked with Tennessee Tech to redefine its approach to resource management, allocation and planning.

- 1. Overview of Prior Assessment of Resource Management, Allocation, and Planning
- 2. Budget Model Structure Overview
- 3. Key Revenue and Cost Allocations
- 4. Broader Context for TN Tech
- 5. Model Feedback and Timeline



Incremental Budgeting at TTU



Historically, TTU's budget model has operated with the following characteristics:

- Academic and administrative budgets roll forward automatically within the financial system each year
- Budgets serve as "expense authority" controls and do not focus on unit-level revenue generation
- Variation in budgets year-over-year is limited to decisions made by top leadership in conjunction with Budget Advisory Committee
- Funding decision-making by leadership is not typically understood to be based on established metrics
- Budgets have not been regularly evaluated by a central authority
- Budget cycle not governed by a dedicated budget office, but rather resources across the Business Office

TTU's incremental model provides simplicity and stability to the budget function, but it does not have the flexibility to systematically allocate resources based on activity levels.

Recommendations Summary



Huron's recommendations included a redesign of the current state budget model, moving towards an incentive-driven, performance-based hybrid model.

Theme	Sub-Theme		Detail			
1. Build Organizational Capacity		Resources & Support	In order to strategically align with TTU's Flight Plan implementation, the central budget office will be required to take a more sophisticated approach to resource allocation, which will require additional resources and support.			
	b.	Provost's Performance Model	To operationalize the model proposed by the Provost and allow to have its desired impact, specific actions must be taken that go above and beyond the current budget function.			
2. Develop Infrastructure	Infrastructure a Systems		Improved data integration systems will provide a robust foundation to better understand the financial impact of university operations			
	b.	Reporting	Leveraging data to make more informed decisions will allow the university to be more strategic			
3. Re-design Budget Model	a.	New Hybrid Budget Model	Once the proper infrastructure is in place, the university should consider moving to an incentive-based model that allocates revenues to units, rewards performance, and is reflective of the steering committee's guiding principles*			

Guiding Principles for Resource Management, Allocation and Planning



The budget model development was informed by guiding principles developed by the budget model workgroup:

A budget model should:

- Encourage planning that supports and aligns with the University's core mission of instruction, research, and service.
- Connect budgeting and incentives with strategic plans / initiatives.
- Encourage a sense of shared purpose by balancing central and local budget authority, responsibility, and unit-level autonomy.
- Allocate resources to promote and support collaboration among units to strengthen university opportunities and outcomes.
- Provide a clear connection between performance and rewards and encourage creativity and innovation.
- Provide incentives for effective management of revenues, expenses and data-informed decision making.
- Ensure a transparent process that balances accountability and fairness with flexibility and simplicity.

President Oldham's Principles for Budget Model



The development of the budget model also reflected a set of principles developed by President Oldham, which overlapped with the Workgroup's principles:

Transparency

There should be no surprises. All parties should fully understand and be able to reasonably anticipate changes in funding levels well in advance in order to make necessary operational adjustments and provide security to make long-term strategic investments.

Reflective of Unit Mission, Performance, and Real Costs

The budget is most effective as a planning tool when resources are tied to mission priorities and funding is reasonably and predictably adjusted based on unit performance and cost of doing business

Effective Tool for Communication, Establishment, and Implementation of Unit Priorities

Effective communication and negotiation are essential to establishment of a useful budget. The "why?" discussions are ultimately more important than the answers to "what?" or "how much?"

Maximum Control at Operational Level

Unit leaders (i.e. deans, dept. heads, etc.) must feel empowered to effectively manage available resources within the context of their own unique environments in order to lead their respective units to meet mission objectives.

Coherent with University Level Priorities

High level priorities must be established, communicated, and operationalized within the budget. However, this needs to be accomplished while maintaining appropriate management control and autonomy at the unit level.



Budgeting Methodology Options



Budget-setting methodologies fall along a spectrum of centralization. TTU desired an incentive-based budget model with less decentralization than traditional Responsibility Center Management models.

	Budgeting Methodology Options								
	Incremental Budgeting	Margins Target Budgeting	Responsibility Center Management (RCM)	Every Tub on Its Own Bottom (ETOB)					
Potential Benefits	 Treats funding consistently over time Simple to understand and plan Provides for relatively equal growth for units 	 Allocated revenues follow costs and institutional priorities Provides Deans with "levers" and incentives to grow revenue or reduce direct costs Clear link between margin targets and retained earnings 	 Promotes entrepreneurship and aligns revenue and costs Encourages efficient operation of administrative units by allocating overhead costs Facilitates conversations about priorities 	 Focus is on accountability and self reliance Pushes authority (almost totally) out to the academic units Distributes responsibility for weathering difficult economic environment 					
Considerations	 Requires stability of funding and consistent priorities Needs periodic "re-basing" to ensure base does not become an entitlement Encourages spending to maintain budget Budgets do not vary to reflect demand/enrollment change 	 Central strategic investment/ support pools remain necessary Units must cover missed margin targets Selection of allocation drivers (prior year v. moving average) affects responsiveness of incentives Space costs may be allocated to academic units to increase options for expense reduction 	 Requires strong central and local unit leadership Criticized for increasing focus on finances at expense of academics "Fully-costed" models require larger subvention funds to help cover unit losses 	 May further separate the "haves" and "have nots" May result in duplicate academic offerings and administrative services Challenges collaboration; promotes tariff walls Works best when outside funding levels are high 					

Budgeting Methodology Options

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Unit Classification Framework

The development of the model framework and identification of unit types is driven by the unit's impact on revenue generation.

Academic Units

- Consists of Schools and Colleges
- Ability to influence revenue generation
 - Tuition and Fees
 - Quantity (not captive market)
- Cover direct costs with generated revenue
- Accountable for performance

Administrative & Support Units

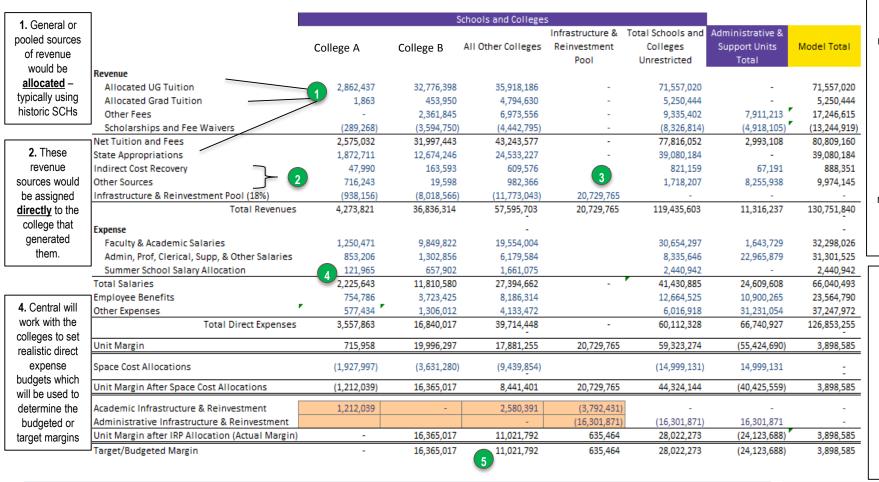
- Limited-to-no ability to influence revenue
- Provide services and/or support to Academic Units
- Accountable for optimal service levels
- Accountable for fiscal performance

Classification of model units should reflect the desired balance between model complexity, simplicity, and transparency.

Proposed Model Mock-up: BUDGET



Below is a high-level and simplified mock-up of what a university's <u>operating budget</u> would look like under incentive-based budget model that sets a target margin for each college/school.



3. 100% of budgeted revenue would NOT be allocated. The Infrastr & Reinvestment Pool would help provide coverage for net-loss units. and provide central with more control of Admin & Support fundina.

5. Target budget margins reflect the expected contribution to central after all revenues are allocated and direct expenses and space/facilities cost allocations are budgeted

Proposed Model Mock-up: ACTUALS



This is an illustrative example of what the proposed model might look like at the end of the fiscal year when it is updated with <u>actuals</u> to determine how the colleges' results of operations compare to their target or budgeted margins.

				Schools and Colleges	;			
1. During the	 1_	College A	College B	All Other Colleges	Infrastructure & Reinvestment Pool	Total Schools and Colleges Unrestricted	Administrative & Support Units Total	Model Total
•	Revenue							
fiscal year,	Allocated UG Tuition	2,862,437	32,776,398	35,918,186	-	71,557,020	-	71,557,020
College A was	Allocated Grad Tuition	1,863	453,950	4,794,630	-	5,250,444		5,250,444
able to out-	Other Fees	-	2,361,845	6,873,556	-	9,235,402	7,911,213	17,146,61
perform its	Scholarships and Fee Waivers	(289,268)	(3,594,750)	(4,442,795)	-	(8,326,814)	(4,918,105)	(13,244,919
target /	Net Tuition and Fees	2,575,032	31,997,443	43,143,577	-	77,716,052	2,993,108	80,709,160
	State Appropriations	1,872,711	12,674,246	24,533,227	-	39,080,184	-	39,080,184
budgeted	Indirect Cost Recovery	47,990	163,593	609,576	-	821,159	67,191	888,351
margin by	Other Sources	716,243	19,598	982,366		1,718,207	8,255,938	9,974,145
reducing	Infrastructure & Reinvestment Pool (18%)	(938,156)	(8,018,566)	(11,773,043)	20,729,765	-	-	-
salaries	Total Revenues	4,273,821	36,836,314	57,495,703	20,729,765	119,335,603	11,316,237	130,651,840
	Expense							_
	Faculty & Academic Salaries	/ 1,150,000	9,849,822	19,554,004		30,553,826	1,643,729	32,197,555
	Admin, Prof, Clerical, Supp, & Other Salaries	853,206	1,302,856	6,179,584		8,335,646	22,965,879	31,301,525
	Summer School Salary Allocation	121,965	657,902	1,661,075		2,440,942	_	2,440,942
	Total Salaries	2,125,171	11,810,580	27,394,662	-	41,330,414	24,609,608	65,940,022
	Employee Benefits	754,786	3,723,425	8,186,314		12,664,525	10,900,265	23,564,790
	Other Expenses	577,434	1,306,012	4,133,472		6,016,918	31,231,054	37,247,97
2. Another	Total Direct Expenses	3,457,392	16,840,017	39,714,448	-	60,011,857	66,740,927	126,752,784
College did	Unit Margin	816,429	19,996,297	17,781,255	20,729,765	59,323,746	(55,424,690)	3,899,050
not meet revenue	Space Cost Allocations	(1,927,997)	(3,631,280)	2 (9,439,854)		(14,999,131)	14,999,131	
growth	Unit Margin After Space Cost Allocations	(1,111,568)	16,365,017	8,341,401	20,729,765	44,324,615	(40,425,559)	3,899,05
expectations,		\			/			
•	Academic Infrastructure & Reinvestment	1,212,039	-	2,580,391	(3,792,431)	-	-	-
and fell short of	Administrative Infrastructure & Reinvestment	1		-	(16,301,871)	(16,301,871)	16,301,871	-
the target	Unit Margin after IRP Allocation (Actual Margin)	100,471	16,365,017	10,921,792	635,464	28,022,273	(24,123,688)	3,898,585
margin	Target/Budgeted Margin	-	16,365,017	11,021,792	635,464	28,022,273	(24,123,688)	3,898,585
	Actual vs Target Margin: Better/(Worse)	100,471	-	(100,000)				
	Resource Gain (65% of Gain to College)	65,306	_	(100,000)				

^{3.} If a college out-performs their target / budgeted margin, the resource "gain" is split once In this example, 65% remains with the college and 35% goes to a central strategic fund.



Key Revenues



Of the variety of revenues sources considered, two of the most critical are tuition and state appropriations.

Component	Considerations				
Tuition and Fees	 Allocation of a portion of tuition and fees on department of major creates a focus on growing enrollment and increasing recruitment and retention. 				
Tultion and Fees	 Methodologies using credit hours generated by the department of instruction better match costs with the internal economy. 				
State Appropriations	 State appropriations are often intended to support the academic mission of the university. Appropriations may be made in support of performance targets. 				

Several methods can be employed for depicting revenues in a model and should be based on the strategic direction of the University.

Tuition Allocation: Overview



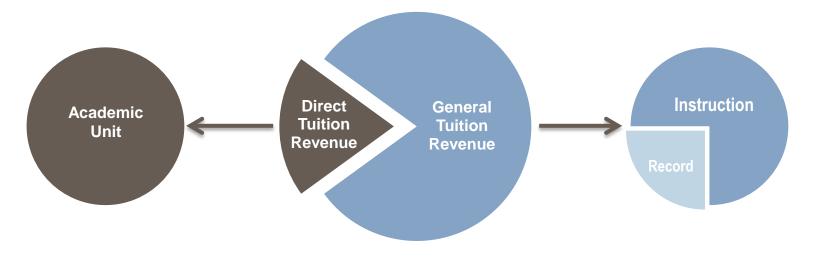
Universities may employ several methodologies to allocate tuition; many institutions opt to take an iterative approach that splits the allocation of general tuition revenues.

Direct Tuition Revenue

- Tuition revenues for programs tracked specifically within academic units are identified within the general ledger.
- Those revenues are directly assigned to the appropriate academic unit.

General Tuition Revenue

- The general tuition revenue pool is divided according to a proposed instruction-record split.
- Each sub-grouping is allocated according to the academic unit's share of either instructed or enrolled (record) credit hours.

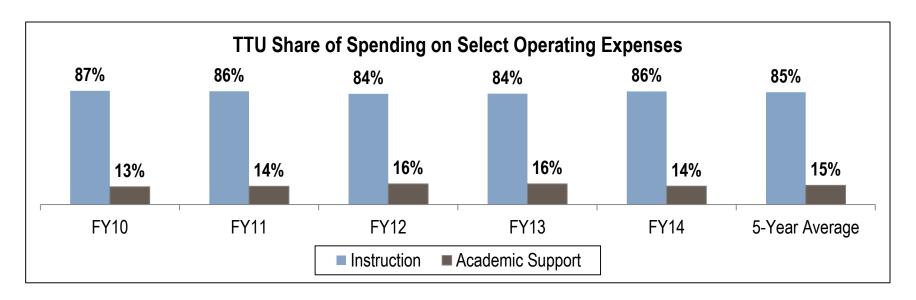


Tuition Allocation: Instruction versus Record



For tuition revenue that could not be directly assigned to an academic unit, Huron recommended that the revenue be allocated based on each College's share of instructed credit hours and student enrollment.

- Allocating tuition based on the "College of Instruction" better matches costs with the internal economy; whereas allocations based on the "College of Record" promotes student recruitment and enhances planning.
- Huron reviewed TTU's financial statements to quantify spending on instruction, which is aligned with the College of Instruction, and spending on academic support, which is aligned with the College of Record.
- Over the past five years, the historical split of spending between these two categories has averaged 85% for instruction and 15% for academic support.



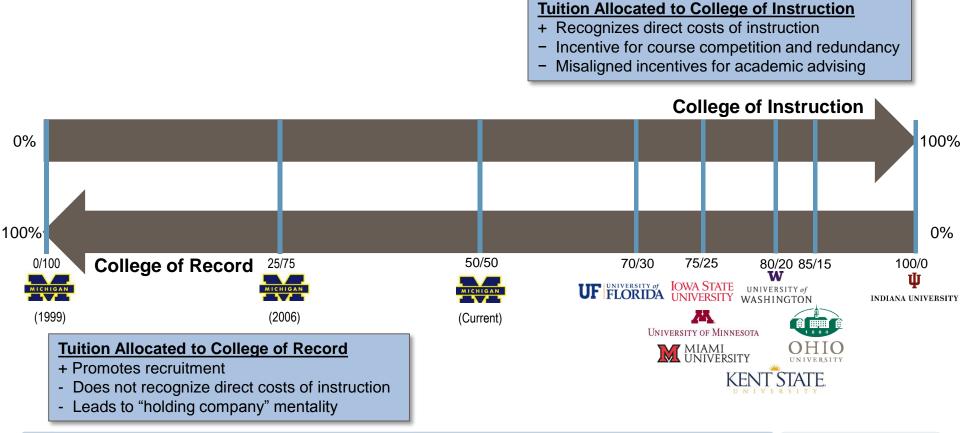
Tuition and Fee Revenue

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Examples of Instruction vs Record

Benchmarking revenue sharing agreements between the college of instruction and the college of record generally yields splits between 50/50 and 100/0.

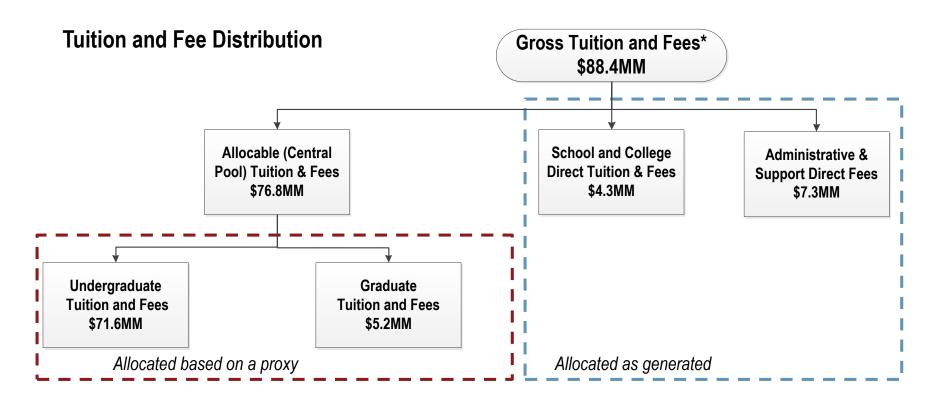
Distribution of Tuition and Fees Revenue



Tuition and Fees: Allocable Revenue



Huron classified gross tuition and fees into several tuition pools, distinguished by their direct assignment to the generating units or allocation by-proxy.

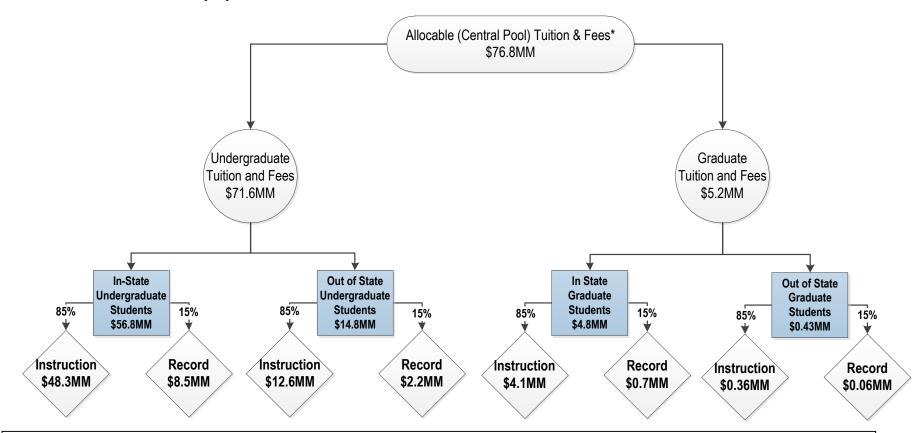


Huron recommends that wherever possible, revenues be allocated as they are generated. Tuition and fees that are not booked directly to an organizational unit should be allocated using a proxy to align costs with revenues.

Tuition and Fees: Undergrad and Graduate



Distinguishing between in and out-of-state tuition and fee generation will create incentives for growing the out-of-state student population.

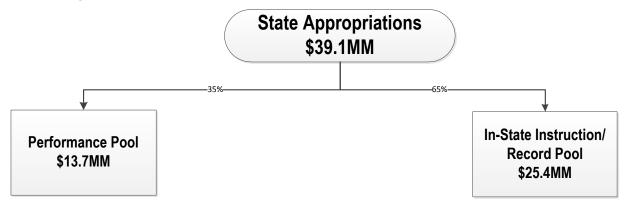


Institutions balance the tuition premium associated with out-of-state students by focusing the state appropriation allocation methodology on in-state student enrollment and instruction.

State Appropriations



State appropriations are devolved into two pools: one allocated on select performance metrics, and the other following instruction and enrollment of in-state students.



To determine an initial Instruction/Record and Performance split, Huron analyzed the contribution of State Appropriations to the total amount of allocable revenue generated in FY14:

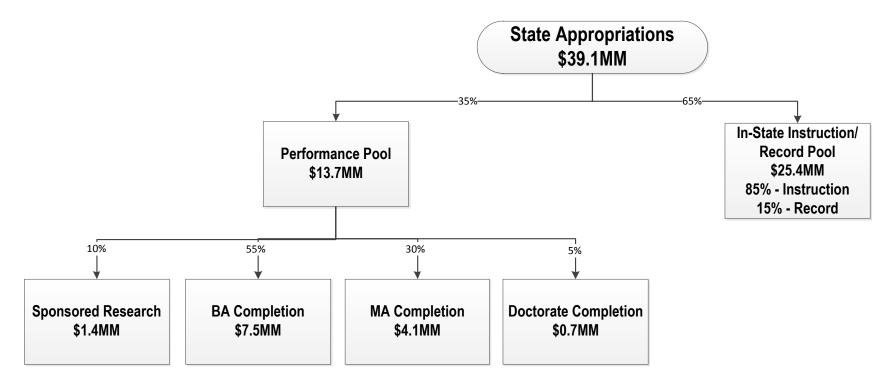
State Appropriations	\$39,080,184		
Allocable Tuition and Fees	\$76,807,464		
Total	\$115,887,648		
State Appropriations Share	~35%		
Tuition and Fees Share	~65%		

Huron found that approximately 65% of all allocable revenue will be allocated on instruction or record. Huron recommended that this proportion be devolved to the allocation of state appropriations.

State Appropriations: Performance Incentives



Huron proposed that 35% of state appropriations be devolved to the Performance Pool. The relative weighting of the performance metrics were aligned with TTU's institutional priorities.



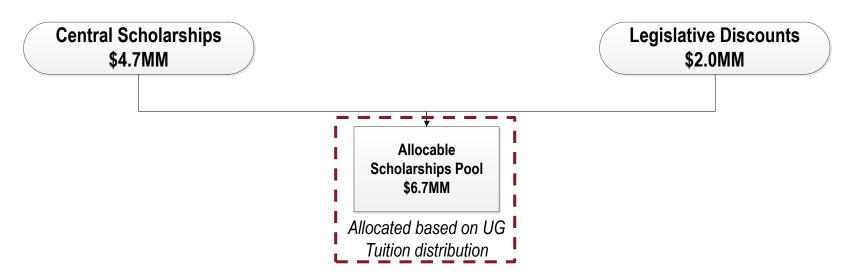
Huron recommended that the largest incentives in the performance pool drive bachelor's and master's degree completion, which have the greatest potential to quickly increase resources across the university. Investment in research and doctoral program development, meanwhile, may be better be targeted through strategic funds.

Unrestricted Centrally-Held Scholarships



Centrally-held scholarships will be allocated in accordance to the school or college's share of undergraduate tuition. All schools and college's will equally share in the effective institutional discount rate, helping deans better understand the costs associated with scholarships and discounts.

Centrally-Held Scholarships Distribution



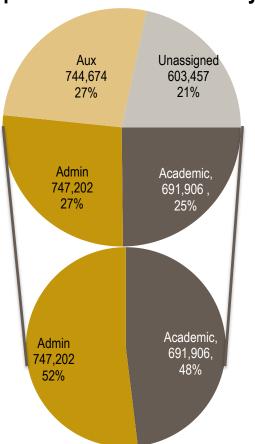
Note: Athletic Scholarships are modeled as retained under Athletics and netted against Athletic Fees

Centrally-administered scholarships should not be allocated in a way to discourage the recruiting or admittance of scholarship-eligible students; rather, the selected method should simply highlight scholarship costs.

Space Analysis and Allocation



Space Breakdown and Analysis



Allocation of Facilities Costs

	Cost		Academic Sq Ft	Cost/Sq Ft
Net Expenses	\$	9,803,331	691,606	\$ 14.17
Transfers to Plant	\$	5,195,800	691,606	\$ 7.51
Total	\$	14,999,131		\$ 21.68

- \$15.0 million in facilities costs will be allocated to Schools and Colleges according to their share of Academic Space
- Facilities costs-per-square foot are estimated at \$21.68/sq ft
- Estimated cost-per-square foot varies according to the size of the Academic Space pool. Cost-per-square foot does not reflect the actual maintenance cost of a given square foot.
- Additional review and updates to space data may adjust Academic Space pool.

Allocating facilities costs should lead to the establishment of a market in which deans will be able to reduce assessed costs by releasing occupied but under-utilized space to another academic unit or the central pool.

Infrastructure and Reinvestment Pool



Huron proposes the establishment of an infrastructure and reinvestment pool to be established within the model, in order to support central costs, cover budgeted unit losses, and fund strategic initiatives.

An assessment on all unrestricted net revenue except direct fees (projected at 18%) provides for the following:

- Improved flexibility of central administration to control or direct administrative & support unit costs
- Guaranteed coverage of budgeted academic unit losses
- Dollars made available for infrastructure and strategic investments in academic units
- Available investment funds will increase with revenue growth and A&S unit cost containment
- Alignment with assessment rates utilized by other institutions with decentralized, incentive-based budget models

Huron recommends the infrastructure and reinvestment pool be funded at a rate high enough to increase the ability of central administration to control A&S costs, while providing sufficient funds to support strategic initiatives

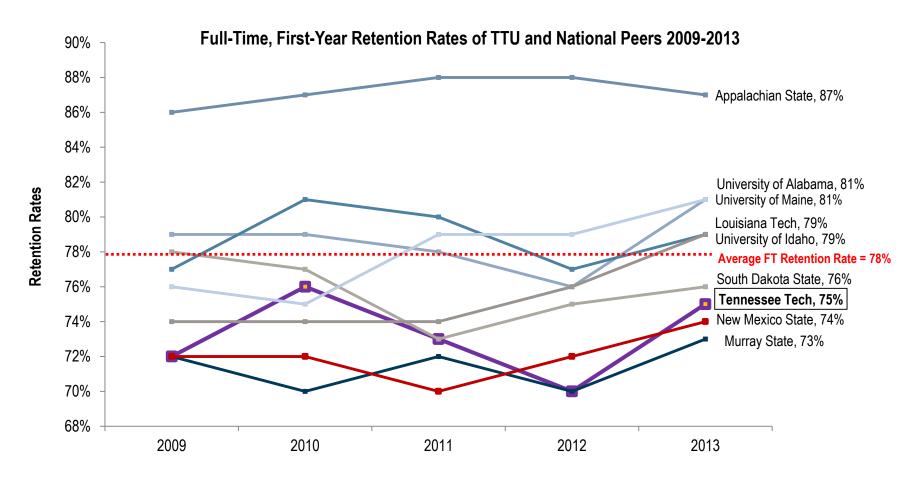


Retention Rates



UNDERGRADUATE - TTU AND NATIONAL PEER INSTITUTIONS

While TTU has made great strides in addressing first-year retention issues, there is still room for improvement as compared to national peers.



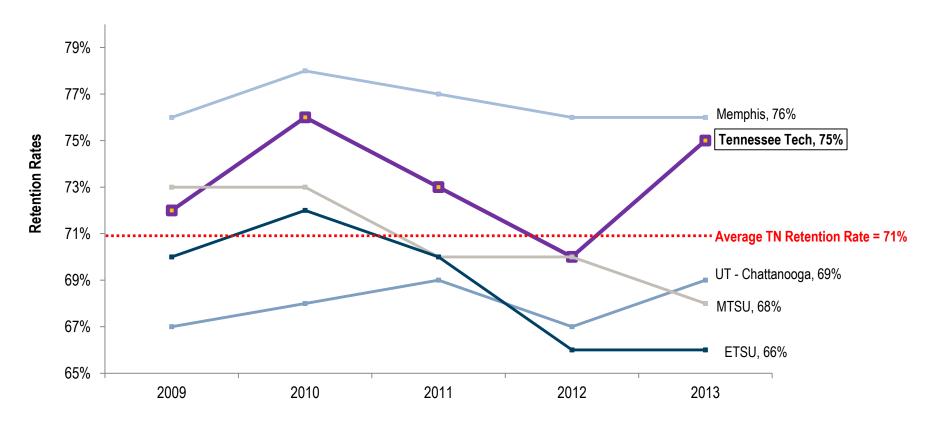
Retention Rates



UNDERGRADUATE – TENNESSEE PEER INSTITUTIONS

Within the state of Tennessee, TTU leads their peers in terms of the largest improvements to first year retention.

Full-Time, First-Year Retention Rates of TTU and Tennessee Peers 2009-2013

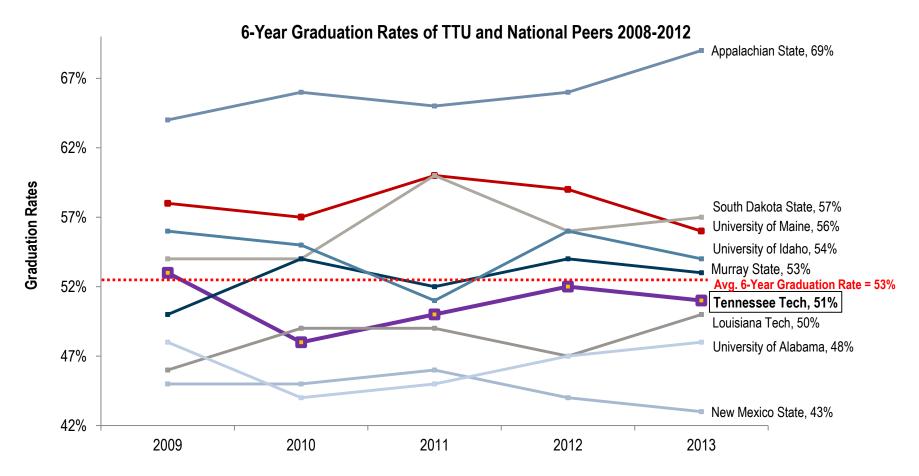


6 - Year Graduation Rates



UNDERGRADUATE - TTU AND NATIONAL PEER INSTITUTIONS

Tennessee Tech lags behind its national peers in terms of 6-year graduation rates, which may suggest that further investigation is needed to understand underlying factors.



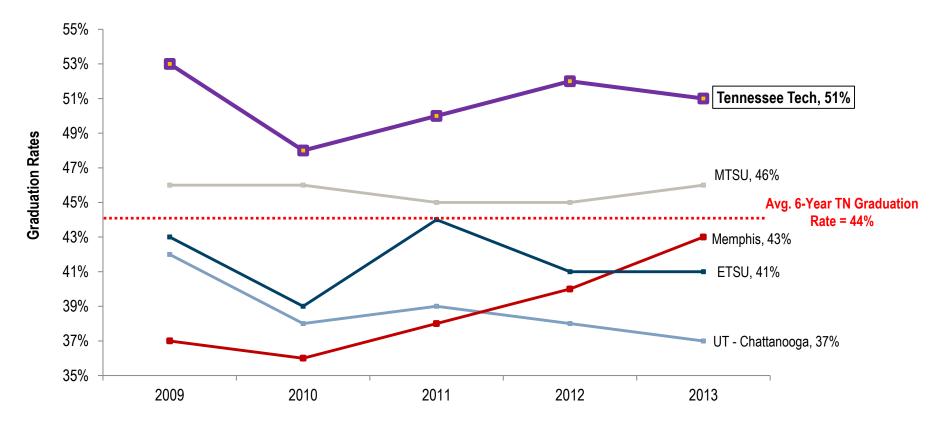
6 - Year Graduation Rates



UNDERGRADUATE – TENNESSEE PEER INSTITUTIONS

While Tennessee Tech leads the state in terms of 6-year graduation rates, continued focus on student success initiatives can help to increase graduation rates in the coming years.

6-Year Graduation Rates of TTU and Tennessee Peers 2008-2012

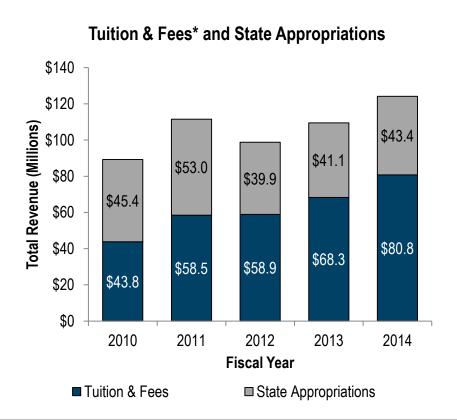


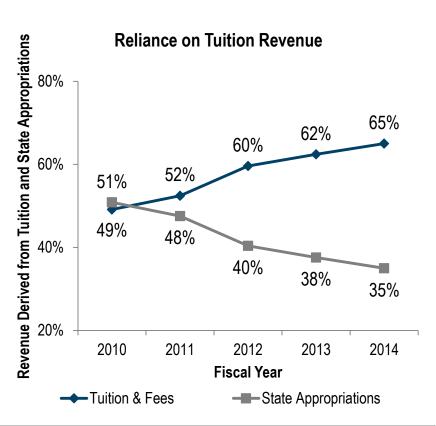
TN Tech Revenue Summary

TUITION DEPENDENCY



Tennessee Tech's state appropriations experienced a compound annual growth rate (CAGR) of -1.12% from FY2010 to FY2014, while tuition and fees less scholarships and fellowships increased at a CAGR of 16.54%





TTU's reliance on tuition and fees has increased as state appropriations growth has declined.

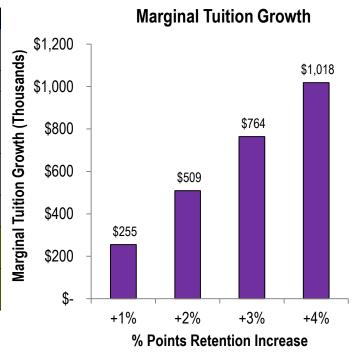
Financial Impact

VALUE OF RETAINING A STUDENT



TTU can capture a significant dollar benefit if it is able to continue to make incremental increases to its retention rate of FTFT freshmen from their first fall semester to their second.

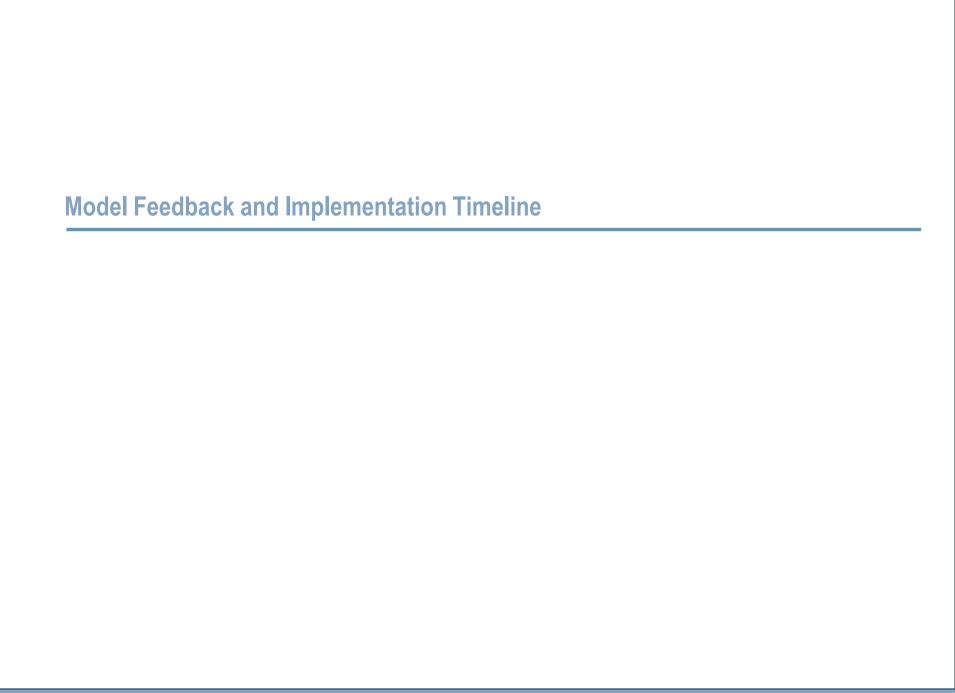
Incremental Increases to	Year 0	Year 1:	Year 1:	Year 1:
TN Tech's 1 st -to-2 nd Year		+0 Percent.	+1 Percent.	+3 Percent.
Retention Rate		Points (Base)	Point	Points
1st-to-2nd Year Ret. Rate	75.7%	75.7%	76.7%	78.7%
Full-time In-State Net Price				
(Year 0 = 3 Year IPEDS	\$12,253	\$12,866	\$12,866	\$12,866
Average)*				
In-State Fall Cohort (Year 0	1.979	1,498	1,518	1,557
= Oct 2013)*	1,575	1,430	1,510	1,007
Total Tuition /Fees (\$000s)	\$24,249,687	\$19,274,069	\$19,528,680	\$20,037,903
Total Additional Tuition			\$254,611	\$763,834
Above Year 1 Base			ΨZJ4,011	ψ <i>1</i> 03,034
Total Additional Students			+20	+59
Above Year 1 Base			+20	+39



Indicates Assumption

TTU can retain approximately \$254,611 per 1% increase in its FTFT freshman retention rate. This dollar amount would be significantly increased if TTU increased the retention rate 1% for the entire student population

In addition to the tuition impact of retaining students, these additional students will be reflected in many of the outcomes-based funding formula metrics.



Model Feedback and Discussion



Huron has completed a series of one-one-one meetings with the schools and colleges. Topics discussed during the model overviews and discussion have included:

- Recognizing improved student retention and increased graduation rates as a driver of new revenue
- Improved alignment of revenue flows and budgeted expenses
- Utilization of the model to increase collaboration among Schools and Colleges and plan and project the impact of new program growth
- Operating within school/college-specific growth patterns and discipline-unique constraints
- Opportunities and approaches to controlling expenses, increasing revenues, and reaching a budgeted margin
- Ensuring the FY16 Budget Process complements plans for an FY17 implementation of the budget model

Model Implementation Timeline



Tennessee Tech is planning an official implementation for FY17, but planning and preparations are already beginning prior to the FY16 budget process.

Deans create expense projections

FY17 Budget Planning Feb - June, 2016

FY16 Preparations

- Feb June, 2015
- Update chart of accounts and organizational structure
- Continue campus outreach and unit-level data and trend analysis

Parallel Process (FY16) July 2015 – June 2016

- - Enact proposed FY16 budget; run new "shadow" budget model in the background
- Provide reporting and updates to Deans based on performance under shadow model

and set unit margin targets with executive leadership

Full Implementation (FY17)

- July 2016 June 2017
 - TTU begins operations under new margins-based budget model



- Feb April, 2015
- Complementary to FY17 budget model
- Focus on developing expense budgets based on benchmarks