



Proceedings of the University Funding Model Task Force

May 2018

Introduction

The University of North Carolina's new Strategic Plan, *Higher Expectations*, sets robust goals for access, student success, affordability and efficiency over the next five years. In order to meet these goals, we must ensure that our resources are aligned with our shared aspirations. We must fund what we value, to help our students succeed; we must support recruitment and retention strategies to sustain top-notch faculty; and we must continue to fund innovative research and scholarship.

The University is growing in a dynamic global economy and a competitive higher education market. Our students need access to opportunities that will equip them to make lifelong contributions in the workplace and in their communities. In today's changing environment, policymakers and taxpayers expect more of their universities—higher rates of student success, increased productivity, and continued stewardship of public dollars. Fulfilling these expectations requires a funding model that enables institutions to meet the needs of today's students – by promoting educational programs and activities that are relevant, academically rigorous, cost effective, and responsive to state needs – and that lead to an affordable, valuable credential in a reasonable period of time.

The current funding model has served the University well—keeping tuition low and increasing access for qualified students. However, the formula was designed 20 years ago—during a different era with its own distinct challenges and opportunities. In light of these trends and the launch of the latest UNC Strategic Plan, it is time to review this model, assess its strengths and weaknesses, and identify refinements or changes that will better align state resources with state goals.

In the spring of 2017, President Margaret Spellings, at the urging of the General Assembly and with the affirmation of the University of North Carolina's Board of Governors, established the University Funding Model Task Force. The Task Force worked to:

1. Evaluate the existing UNC funding formula, assess its strengths and weaknesses, and identify opportunities to improve.
2. Examine trends in higher education finance and funding models in other states, and research the effectiveness of different models.
3. Develop and recommend funding model reforms to the UNC Board of Governors.

The Task Force, comprised of experts from the University and across the state, was organized around the following core principles:

- In a growing state, the funding model must reward both access and student success.
- The funding model must encourage educational programs and outcomes that lead to success in the labor market.
- Changes to the funding model must promote efficiency in recognition that state resources are scarce and current funding levels are significant.
- Reforms to the funding model must support continued excellence in research and innovation.

Task Force members also agreed that reforms must increase the transparency, simplicity, and predictability of the funding model.

After ten months of work, which included an assessment of strengths and weakness in the current model, a thorough look at funding models in states like Texas, Ohio, Indiana, and Tennessee, an assessment of performance funding policies and outcomes, presentations from external experts, and feedback from technical experts within the UNC System, the Task Force has finalized its report.

In addition to areas of consensus and important questions to be considered, the Task Force discussed a timeline that would allow for implementation of changes to guide the legislative request for the FY 2019-21 session.

The Status Quo: The Enrollment Funding Model

How the State Budget Process Relates to Enrollment Funding

The current funding model for the UNC System mirrors North Carolina's state budget process in two key ways. The first of these is unique to North Carolina and serves as testament to the priority our state government places on providing for its institutions of higher education.

1. The model determines the state appropriation by calculating the difference between:
 - the full cost of enrollment growth ("requirements"), and
 - the related tuition revenue ("revenue")
2. Total enrollment funding is not recalculated every year; instead:
 - the increment of change in enrollment is calculated, and then used to adjust the prior year's funding total

Requirements ("Cost"):

In the state budget, total requirements include other sources of revenue aside from state appropriation and tuition, but for UNC, the two primary sources of revenue make up more than 90%.

Total FY 2016-17 UNC System General Fund Requirements:	\$4.61 billion
○ Portion that was state appropriation:	\$2.69 billion (58.3%)
○ Portion that was tuition revenue:	\$1.55 billion (33.6%)

Using a Base Budget – Total Budget Calculation:

North Carolina uses a "base plus" method to determine total funding, where the base is the total recurring funding received in the prior year, plus the add-on—any new appropriation or budget reductions for the current year—which together form the total budget. This method is fairly common among other states.

FY 2017-18 UNC System State Appropriation (budgeted)	\$2.79 billion
○ Portion that was base budget:	\$2.65 billion
○ Portion that was new appropriation:	\$138 million

Enrollment growth:

Appropriation for enrollment growth, which was \$45 million for FY 2016-17, is a critical funding source for institutions as it is calculated to fill the gap between requirements and tuition revenue, and since it is the primary source of new appropriation.

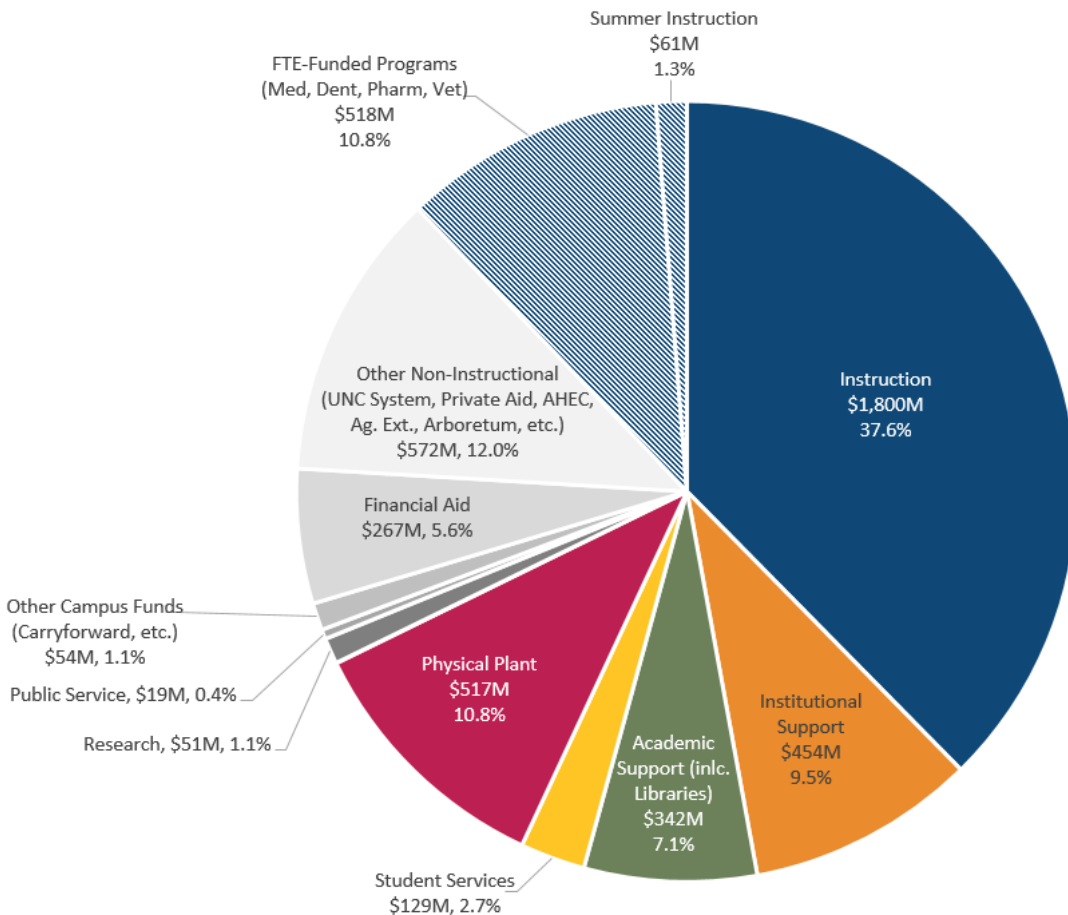
Enrollment Funding is One Part of the UNC System Budget

Of the total General Fund requirements in the UNC System budget, about 70% support students funded through the student credit hour (SCH) funding model (\$3.1 billion in FY 2016-17). This \$3.1 billion falls into two categories: instruction, which accounted for more than half (\$1.8 billion), and overhead, which accounted for \$1.3 billion. Overhead is made up of several components, including, but not limited to: student advising, libraries, deans and senior administrators, utilities, housekeeping, and maintenance.

Of the remaining 30% of General Fund requirements, the majority of it supports activities such as financial aid, research, public service, and the UNC System Office. The rest, which comprises about 11% of enrollment growth funding, supports other types of enrollment (not SCH-based), such as enrollment in medical, dental, and veterinary programs. Figure 1 provides the breakdown of total General Fund Requirements in FY 2016-17.

Figure 1: UNC System Budget

General Fund Requirements by Expenditure Type FY 2016-17



Calculating Requirements and Appropriation Requests

The current funding model is a student-credit hour-based model, in which incremental funding changes are based on projected growth in student credit hours. Every two years, institutions estimate the

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incremental change in student credit hours they believe will be delivered in the coming year. Those projected credit hours are weighted based on their academic discipline (Classification of Instructional Program (CIP) code) and level (undergraduate, masters, doctoral). The weights were derived using cost-per-credit-hour data by discipline from the Delaware Cost Study (see sidebar “What is Delaware Cost Study Data”) and historical class size data and are arrayed in a 12-cell matrix (four academic discipline categories by three levels). Every credit hour has a corresponding weight from the 12-cell matrix.

Those weighted credit hours are then translated to the number of additional faculty needed to deliver the credit hours. The resulting number of additional faculty is then multiplied by an institution-specific historical average faculty salary to produce a dollar amount, which is supplemented with a proportional amount of overhead (student services and administrative expenses). The final dollar amount represents the increase in “requirements,” and corresponds to the additional costs the institution will incur in the coming years.

The model then takes the projected requirements number and subtracts projected tuition revenues, with different tuition rates for student type (nonresident or resident) and student level (undergraduate or graduate). The difference between requirements and tuition is the state appropriation.

Figure 2: Current Enrollment Growth Funding Model

Part 1:	Enrollment Measure (Change in projected student credit hours)	/	Instructional Cost Factor (12-cell matrix: 4 academic discipline categories, 3 student levels)	=	Estimated Instructors
	Estimated Instructors	X	Average faculty salary (average of budgeted salary expense/budgeted faculty FTE)	=	Instructional Costs
Part 2:	Instructional Costs	X	Weight factors for costs associated with student enrollment (student support, institutional support, libraries)	=	Total Cost (Requirements)
Part 3:	Enrollment Measure	X	Tuition rates by campus	=	Tuition Costs (Receipts)
Part 4:	Total Cost (Requirements)	--	Tuition Costs (Receipts)	=	Appropriation

What is Delaware Cost Study Data?

The Delaware Cost Study is a national survey of nearly 700 four-year colleges and universities that has been collecting data since 1992. It provides national benchmarks by Carnegie Class at the academic discipline level on faculty teaching loads and direct instructional costs. For example, the Delaware data can provide an estimate of the instructional costs per student credit hour in a particular discipline at a particular type of institution (i.e.: research, comprehensive, etc.). It is the only available source of nationally representative data on the costs of delivering credit hours in different disciplines at different types of institutions. While there are valid criticisms of the data, it remains the best set of independent cost information regarding the costs of higher education. The task force considered creating our own set of benchmarks and quickly ruled that out as unworkable and too expensive.

What is “Carnegie Classification”?

Carnegie Classification is a national system for categorizing institutions of higher education based on their mission, programs, and research capacity. Basic Carnegie Classifications include Doctoral, Master’s (sometimes referred to as “Comprehensive”), Baccalaureate, and Special Focus institutions; each Basic category contains several sub-categories (i.e.: Doctoral: Highest Research Activity (R1); Master’s: Larger Programs (M1); etc). The Delaware Cost Study disaggregates data by Basic Carnegie Classifications.

UNC System institutions are categorized as follows:

R1 Doctoral: UNC-Chapel Hill, NC State

R2 Doctoral: UNC Greensboro, UNC Charlotte, East Carolina, North Carolina A&T,

Master’s: Appalachian State, UNC Wilmington, North Carolina Central, UNC Pembroke, Western Carolina, Winston-Salem State University, Fayetteville State (M2), Elizabeth City State (M3)*

Baccalaureate: UNC Asheville

Special Focus: UNC School of the Arts

*Elizabeth City State has traditionally been categorized as a Baccalaureate institution, with the exception of 2015, when it fell under the Master’s 3 category.

Comparing North Carolina's Funding Model to Other States

The Task Force compared North Carolina's funding model to the models used in other states on key dimensions. Table 1 displays that information.

Table 1: Comparing UNC Funding Model to Other States

Characteristic	North Carolina	Tennessee	Texas	Georgia	Virginia	Ohio	South Carolina	Florida	California
Funding tied to enrollment	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Funding tied to performance	No	Yes	Yes	Plan to implement	Yes	Yes	Plan to implement	Yes	No
Funding based on actual enrollment or projection?	Projected	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual*
Differentiation in funding model by institution type?	No	Yes	Yes	No	Yes	No	No	No	Yes
Weighting based on level or type of enrollment?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes**
Control of tuition revenue?	State	Institution	Shared	Institution	Institution	Institution	Institution	Institution	Institution
Is calculated need ("requirements") fully funded?	Yes	No	No	No	No	***	No	***	No

*California State University System only

**University of California System only

***Funding formula does not calculate need

When compared to other states, North Carolina stands out on a few key dimensions. First, North Carolina is unique among the group of states examined in its use of projected versus actual enrollments. Second, the treatment of tuition revenue in North Carolina—where it is kept in the General Fund—is quite different from the states in the table, where tuition revenue is generally controlled by the institution. Third, North Carolina is unique in that the model is designed to fully fund calculated need through a mix of state appropriation and tuition. Fourth, while the majority of states continue to fund institutions—at least in part—on the basis of enrollment, 28 states have also tied appropriation amounts to how well their public four-year colleges perform on key metrics.¹ Finally, though not pictured in Table 1, North Carolina stands out for the high level of state support provided to its four-year institutions.

¹ Education Commission of the States, "Policy Snapshot: Outcomes-based Funding," September 2017, <https://www.ecs.org/wp-content/uploads/Policy-Snapshot-Outcomes-Based-Funding.pdf>.

Assessment of the Current Model

A key part of the Task Force’s remit was to identify the current model’s strengths and weaknesses. Table 2 summarizes key strengths, weaknesses, and opportunities for improvement identified in that discussion.

Table 2: Strengths, Weaknesses, and Opportunities for Improvement

<p>Strengths</p> <ul style="list-style-type: none"> • Forward-funding recognizes that institutions incur the costs of educating students in real-time. • Cost recovery model reflects the fact that some academic disciplines, levels, and faculty are higher cost than others. • Provides incentive for access. • Longstanding process with significant infrastructure. 	<p>Weaknesses</p> <ul style="list-style-type: none"> • The model is complicated and lacks transparency. • Enrollment projections are uncertain, and projection errors lead to unpredictable swings in state appropriation for individual institutions. • The model may create incentives for institutions to focus on growing graduate education programs rather than undergraduate education. • Each institution has its own unique inputs, including faculty salary and tuition rate.
<p>Opportunities for Improvement</p> <ul style="list-style-type: none"> • Use of projected rather than actual credit hours as the measure of enrollment introduces unnecessary volatility and administrative burden. • The model rewards institutions enrollment, but not student success. • The cost data is outdated and needs updating. • The model does not make clear distinctions between institution type—the model is the same for research and baccalaureate institutions. 	

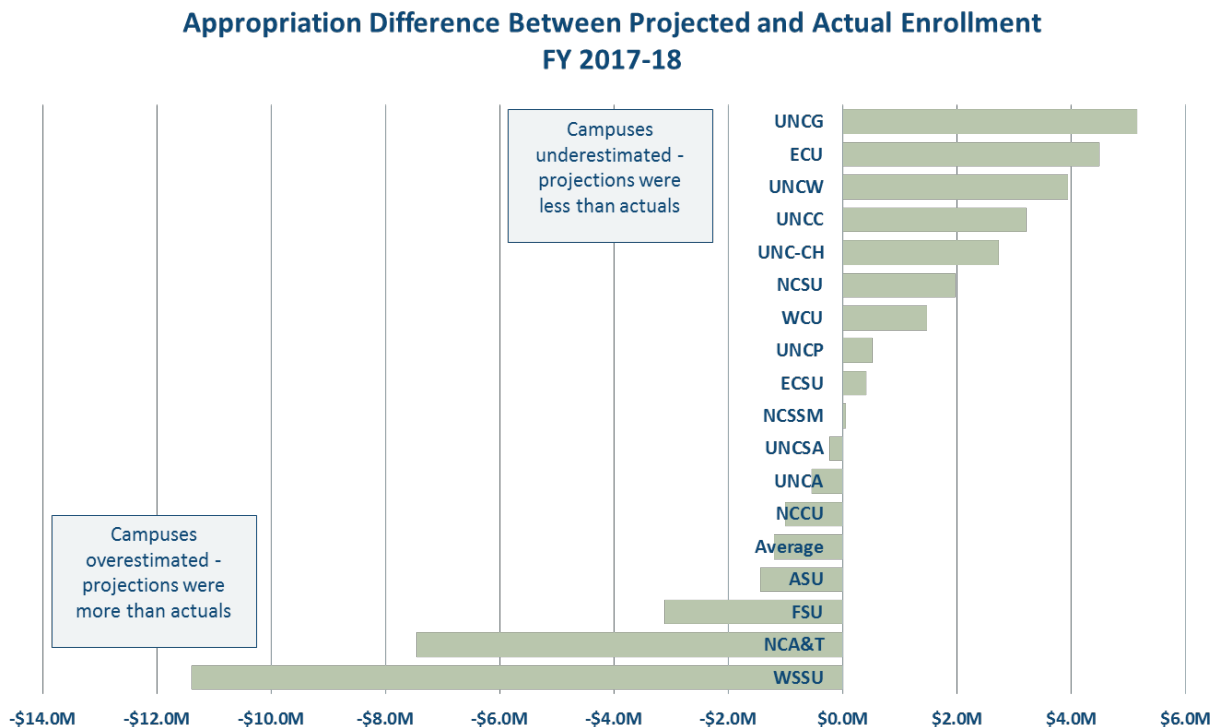
Areas of Consensus

1. Shift from funding *projected* credit hours to funding *actual* credit hours completed in prior years.

From the start of its discussion, the Task Force acknowledged that funding should continue to reflect the cost of student credit hours, and that those costs should be determined using the Delaware Cost Study data in some capacity.

However, the Task Force and technical experts agreed that the use of enrollment projections as the basis for the enrollment funding model causes a number of problems. While overall projections System-wide may closely mirror actuals, individual institutions can experience significant differences between what they project in enrollments and what enrollments actually materialize. In addition, the use of projections raises questions as to whether institutions are funded for credit hours that they may not actually be delivered. At the same time, projections that undershoot actuals may leave institutions facing a budget crunch. Figure 3 displays the gaps between projected enrollments for 2017-18 and actual enrollments across all UNC institutions. As the figure points out, the average gap was quite small System-wide, but was quite large at many institutions.

Figure 3: Appropriation Difference between Projected and Actual Enrollment



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Shifting from projected credit hours to *actual credit hours completed* would largely eliminate this uncertainty and entail additional benefits. Table 3 displays pros and cons of two approaches to funding.

Table 3: Projected Credit Hours vs. Actual Credit Hours Completed

Funding Approach	Pros	Cons
Projected Credit Hours Enrolled	<ul style="list-style-type: none"> • No lag in funding: Funds institutions to cover the cost of educating students in “real-time.” • Encourages growth: North Carolina is a growing state, and institutions have incentive to grow under the current model since they receive additional funding when they need it to serve additional students. 	<ul style="list-style-type: none"> • Lack of accuracy and predictability: Projections are imperfect, and errors can lead to significant variance in institutional budgets. • Administrative burden: Currently, institutional staff must conduct the analyses and provide the documentation necessary to generate projections and respond to System Office questions. System Office staff must review all projections.
Actual Credit Hours Completed	<ul style="list-style-type: none"> • Improved accuracy, transparency, and predictability: Institutions report student credit hours completed each semester to the Student Data Mart at the System Office. The data are readily available, accurate, and are known before funding arrives. • Reduced administrative burden: The enrollment projection process would no longer be necessary. • Increased flexibility: The model would include all credit hours completed and no longer rely on census dates, which increases flexibility to offer courses in the summer and in formats that do not follow the traditional academic calendar. 	<ul style="list-style-type: none"> • Funding lag: Funding in arrears means that there is a lag between service delivery and cost recovery. • Challenges for growing institutions: Growing institutions may face budget challenges.

Shifting to actual credit hours completed would improve the accuracy and predictability of the funding model. Institutions report student credit hours completed each semester to the Student Data Mart at the System Office. The data are readily available, accurate, and are known long before the funding arrives in arrears. Most importantly, they reflect the student credit hours that institutions actually delivered.

Conclusion: The Task Force recognized that the forward-funding of enrollment projections must change to increase the accuracy and predictability of the enrollment funding model, reduce administrative burden, and increase flexibility.

The Task Force therefore recommends a shift to a new Credit Completion Formula (CCF), which will fund institutions on the basis of the number of credit hours that students *complete* in the prior year, including hours completed in the summer, instead of projected credit hours. The Task Force recommends that the CCF model continue to use Delaware Cost Study data to calculate cost recovery rates, although acknowledges that those data should be updated to reflect changes in cost.

Additional technical questions to be resolved by technical experts:

1. *What prior credit hours should be included in the CCF calculation (i.e.: withdrawals)?*
2. *Should the CCF use fiscal years or calendar years to measure credit hours completed?*
3. *How should the transition year be handled?*

2. Tie some portion of state funding to measures of performance.

The Task Force acknowledged a need to explore options for tying a portion of state funding to performance. System Office staff provided Task Force members with the latest research on the topic and recruited national experts to brief the group on research findings, design principles, and best practices from other states. There is considerable debate about the effects of performance funding on student outcomes; existing studies are mixed, with some finding no positive effect and potential unintended negative consequences, while others find some evidence that outcomes-based funding may improve outcomes over the long term. The largest study to date of performance-based funding across three states indicates that such systems send a clear signal about state priorities to institutional leaders, which can in turn foster institutional efforts to better understand their own performance and implement initiatives to improve it.² Experts highlighted a number of key design considerations, including limiting the number of metrics, phasing in changes, and the need to build institutions' capacity to make necessary improvements (including investment in data and analytics). The Task Force had a robust debate about the pros, cons, and potential consequences of performance funding.

Conclusion: Task Force members generally agreed that policymakers should tie some portion of state funding to institutional performance on key metrics, though there were differing opinions about how much funding to tie to performance and where that funding should come from. Thus, the Task Force recommended that the design of a new performance funding formula be given careful consideration by the Board of Governors and that any system should reflect the UNC System strategic plan and be phased in over time.

3. Apply the Credit Completion Formula to incremental enrollment growth, not base funding.

As part of the Task Force's due diligence, the group examined existing levels of base funding. Some observers argue that the current base-plus model under-resources comprehensive and baccalaureate institutions and provides more resources to research universities. System office staff compared current requirements and appropriations to what the CCF model would calculate as requirements and appropriation. Table 4 displays these comparisons for requirements.

² Kevin Dougherty, Sosanya Jones, Hana Lahr, Rebecca Natow, Lara Pheatt & Vikash Reddy. *Performance Funding For Higher Education*. Johns Hopkins University Press, 2016.

Table 4: Comparing Current Funding to CCF

Institution	General Fund Requirements (including summer)	Credit Completion Funding (CCF)
ASU	\$223,168,459	\$245,484,054
ECU	\$342,254,836	\$384,006,452
ECSU	\$35,248,442	\$21,081,831
FSU	\$67,666,238	\$68,198,726
NCA&T	\$139,112,201	\$140,303,746
NCCU*	\$119,717,402	\$90,480,444
NCSU	\$593,449,527	\$531,112,465
UNCA	\$55,744,620	\$55,388,411
UNC-CH*	\$464,280,059	\$433,952,826
UNCC	\$362,320,468	\$367,316,896
UNCG	\$240,412,555	\$257,494,890
UNCP	\$74,279,064	\$73,645,183
UNCW	\$198,848,599	\$194,117,977
WCU	\$129,859,107	\$134,959,440
WSSU	\$82,344,124	\$67,078,896
Total	\$3,128,705,702	\$3,064,622,237

*Law funding at NCCU and UNC-CH is included in General Fund Requirements but not Credit Completion Funding column. Health Affairs at UNC-CH is included in Credit Completion Funding column but not in General Fund Requirements.

While there are some gaps between current requirements and simulated requirements under the CCF, the overall difference is modest (~2% of the SCH requirements).

Conclusion: The Task Force does not recommend that the implementation of the new CCF model include a reset of base funding. Changes to incremental funding are less disruptive and will adjust the base over time to correct for existing imbalances in funding.

Additional Questions to Consider

Question: How should the new model simplify the calculation of requirements?

Task Force members from the General Assembly identified two key changes sought by the legislature; first, a shift from projected credit hours to actuals (see above) and second, a simplification of the current 12-cell matrix including the removal of multiple overhead calculations and the perpetuation of outdated faculty salary rates.

The Task force discussed several opportunities to simplify the calculation of requirements under the new CCF.

Opportunities include:

- Shifting from the use of average faculty salary, which varies across institutions, to one that uses a cost per-credit hour from the Delaware Cost Study for each academic discipline:
 - Use the average cost per-credit hour associated with each academic discipline and Carnegie classification.
- Eliminating student type (undergraduate, master's and doctoral) from the model:
 - Continue to use student type for Research 1 and Research 2 universities, but use the average cost per-credit hour for each academic discipline for all credit hours at comprehensive and baccalaureate institutions.
- Simplifying overhead rates:
 - Use fixed overhead rates that differ by Carnegie classification.

The Task Force heard many perspectives on the proposed simplifications to the matrix. Issues raised included:

- Concerns about the applicability of the Delaware cost-per-credit hour data to Research 1 institutions given low response rates among their BoG-approved peers.
- Questions about eliminating the distinction between undergraduate, master's, and doctoral credit hours, given the fact that non-research universities often provide graduate education in areas of importance to the local economy.
- Concerns about whether fixed overhead rates across disciplines and student levels would accurately reflect differences in fixed vs. variable costs associated with credit hours.

Question: Should nonresident students be included in the enrollment model?

The state constitution calls on North Carolina to ensure that the UNC System remains “as free as practicable” for state residents. Nonresident students, who are charged higher tuition rates, are expected to cover the costs of their education. Institutions must also keep the proportion of enrolling first-year students from out of state under a cap of 18 percent (with the exception of North Carolina A&T).

Nonresidents are currently included in the incremental funding model, meaning their tuition is included in the calculation of appropriations (nonresident tuition subtracts from state appropriation).

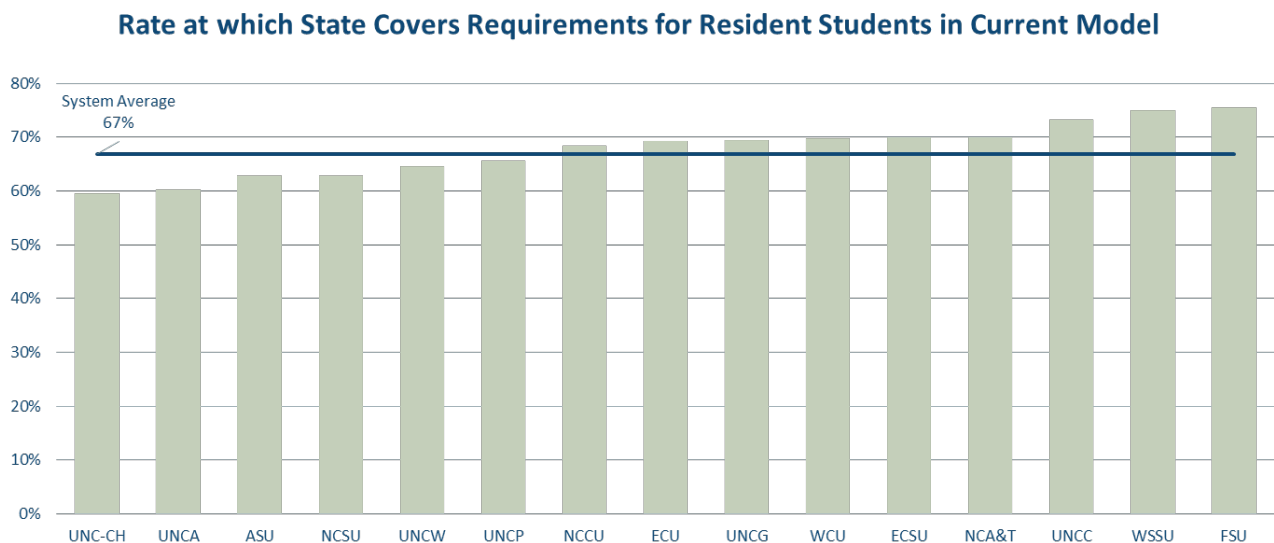
The state recognizes the valuable diversity that nonresident students bring to our universities. However, the primary impetus for appropriation is the education of North Carolina residents.

Universities raised concerns about the consequences of excluding nonresidents from the funding model in higher cost disciplines like nursing and engineering, which are central to their excellence in research, but where nonresident tuition does not cover the full cost of education.

Question: Should tuition influence appropriation?

Tuition is a key variable that shapes state appropriation in the current model. It differentiates the funding received for students by residency and student level (undergraduate and graduate), as well as between types of institution. However, this differentiation is not consistent. As seen in Figure 4, the range at which appropriation is funded on average spans from 60-75% of requirements, and there is no consistent rationale regarding which type of institutions fall at the bottom and top of the range (i.e.: the pattern does not reflect Carnegie classification).

Figure 4: State Subsidy Rates By Institution Under the Current Funding Model



There are also implications for enrollment growth funding as a result of the tuition-setting process. An increase in tuition rates means a drop in the incremental funding calculated in the enrollment model, while tuition rates that are kept low can allow for an increase to the state share of requirements.

Table 5 summarizes some of the pros and cons to the current approach, where tuition is treated as an offset to calculate appropriation, and a model where the state funds a fixed portion of requirements. The state subsidy rate could be fixed across all institutions (i.e.: at 65-70 percent of requirements) or be allowed to vary across institution type. As this decision only impacts incremental funding, it is reasonable to decouple tuition from the funding and its inclusion in the General Fund.

Table 5: Should Tuition Affect Appropriations?

Model	Pros	Cons
Tuition Offset (current model)	<ul style="list-style-type: none"> • Appropriation rates reflect differences in tuition prices, which reflect distinct institutional missions. • Links primary revenue streams to full cost of delivery. • Mirrors state budget process (requirements minus receipts equals appropriations). 	<ul style="list-style-type: none"> • Less transparent regarding the state share. • Calculating tuition revenue is not straightforward (i.e.: different treatment of distance education versus on campus).
Decouple Tuition and Appropriation	<ul style="list-style-type: none"> • Simpler. • More predictable. • Clarifies the state contribution to education for in-state students. 	<ul style="list-style-type: none"> • One state subsidy rate across institutions may ignore institutional differences. • Appropriation plus tuition revenue may no longer equal requirements over time

What about NC Promise?

The NC Promise program lowers tuition at Elizabeth City State University, University of North Carolina Pembroke, and Western Carolina University to \$500 per semester for in-state students and \$2,500 for out-of-state students. The program operates as a tuition buy-down, where the General Assembly appropriates additional revenue—beyond what the enrollment funding model calculates based on requirements and tuition receipts—to pay the difference between the NC Promise tuition and the tuition rate used to calculate enrollment funding. There are essentially three streams of revenue—traditional appropriation, tuition, and NC Promise appropriation. The NC Promise buy-down creates a timing question; under the proposed model, institutions will be funded based on credit hours completed in the prior year, but the appropriation that pays for the tuition buy-down will have to be based on current enrollments (i.e.: students will pay the \$500 tuition in real-time). As such, the Task Force recommends that the Board of Governors continue to delineate the additional appropriation for NC Promise from the traditional (enrollment-based) appropriation in their budget request to the General Assembly. In addition, NC Promise institutions will be required to list what the tuition would have been in the absence of NC Promise and the buy-down amount from the state on tuition statements.

Question: How much funding should be tied to performance?

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Task Force members did not come to consensus on how much money should be tied to performance. States vary dramatically in both the *proportion* of state appropriation that is governed by performance criteria and the *total amount* of funding that is at risk in a given year. Some states have higher proportions of state appropriation at risk, but fund a smaller proportion of requirements overall, and vice versa. Table 6 provides a snapshot of performance funding systems in other states that have significant state investment in public higher education, robust funding formulas, and some amount of performance funding. State policies and formulas also vary when it comes to the amount of funding that is *actually* at risk in a given year, as indicated by the red columns

Table 6: Performance Funding Systems in Other States – Three-Year Average of FY 2016, 2017, 2018³

State	Percent of Appropriation at Risk			Percent of Total Funding at Risk	Performance Funding Impact (%)		
	New Funding	Base Funding	New + Base		Max Increase to an Institution	Min Increase to an Institution	Average Change for an Institution
FL	8%	11%	19%	11%	9%	-1%	3%
IN	1%	2%	3%	1%	8%	-1%	2%
MI	1%	0%	1%	0%	3%	1%	1%
OH	2%	68%	70%	22%	7%	-11%	1%
TN	3%	67%	70%	32%	7%	4%	5%

State	3-Year Average Performance Funding at Risk			Performance Funding Impact (\$)		
	New Funding	Base Funding	New + Base	Max Increase to an Institution	Min Increase to an Institution	Average Change for an Institution
FL	\$206,666,666	\$275,000,000	\$481,666,666	\$14,611,484	-\$923,613	\$5,909,091
IN	\$10,651,296	\$29,329,762	\$39,981,058	\$4,544,092	-\$2,852,751	\$760,807
MI	\$17,997,700	\$0	\$17,997,700	\$3,954,608	\$158,202	\$1,199,847
OH	\$29,084,712	\$1,019,812,935	\$1,048,897,648	\$8,436,619	-\$653,585	\$2,073,344
TN	\$23,785,815	\$520,632,673	\$544,418,488	\$8,972,057	\$1,274,604	\$3,381,487

Opinions on the Task Force varied considerably on this question. Some members argued for a total of \$5 million to \$10 million, while others recommended 8-10 percent of *total* appropriation, or about \$200 million or more.

Question: Where should the funding tied to performance come from (base funding, new funding, or a mix of both)?

The Task Force also discussed whether performance-based funding should be drawn from base funding, from incremental enrollment growth requests, or from new money specifically appropriated for performance funding. Under a base funding model, the formula would hold back a fixed portion of each institution's base funding and disburse that funding based on institutional performance. In the

³ 3-Year Average used for Tennessee included FY 2015-16, FY 2017-18, and FY 2018-19.

incremental model, some portion of the appropriation resulting from the System’s enrollment growth would be given out based on performance, not just credit hours. Under a “new money” model, performance funding would be strictly additive.

Table 7: Different Sources of Performance Based Funding Dollars

Source	Pros	Cons
Existing resources: tie a portion of base funding to performance each year.	<ul style="list-style-type: none"> Does not require new money. Would allow the System to put more money at risk per year, perhaps 	<ul style="list-style-type: none"> If too much base funding is at risk in any given year, such a system could cause significant disruption.
New resources: tie a portion of incremental enrollment growth funding to performance each year.	<ul style="list-style-type: none"> Would be simple to layer onto the incremental enrollment growth model. Less disruptive than putting a significant chunk of base funding at risk. 	<ul style="list-style-type: none"> Enrollment growth represents a small amount of total system and institutional funding. Institutions that grow—thereby driving the enrollment growth request—may not receive any additional dollars, while those that do not grow could receive more.
New resources: An additional appropriation based on performance (and, in the event of cuts, a replacement for the management flex cut process currently in place).	<ul style="list-style-type: none"> Least disruptive to institutional finances. 	<ul style="list-style-type: none"> Given budget constraints, a bonus is likely to be a small pot of money, which may not be sufficiently large to incentivize improvement. Longevity: Research suggests that performance-based funding systems built around bonus funding are unlikely to survive budget cuts.

A mixed model is also possible, where the pool of state funding tied to performance is made up of a portion of base funding and a portion of any new money. Alternatively, a mixed model could disburse any new (non-enrollment growth) money on the basis of performance and, in the event of a budget crunch, disburse cuts on the basis of those same performance metrics.

Question: What metrics should be included in the formula and how should performance be rewarded?

While the research on performance-based funding does not point to the one best model, policy analyses suggest some lessons about effective design. First, rather than an all-or-nothing system, performance-based funding formulas should reward institutions for progress made on state goals. Some state formulas provide a financial reward for each degree produced over a baseline, with extra weight attached to particular types of students. In cases where institutions are pursuing concrete improvement targets, they receive a pro-rated share of performance funding based on the percentage of the goal that they

accomplish. These approaches ensure that institutions are rewarded for progress, not just reaching a target.

Second, a model should focus on production of degrees rather than graduation rates alone. Most state systems primarily reward the production of degrees rather than increased success rates (though many reward both). Graduation rates include only first-time, full-time students, which excludes transfer students. In addition, relying on graduation rates alone may provide incentives for institutions to shrink incoming classes and become more selective, which could reduce the number of North Carolina residents that earn a degree.

Third, performance-based funding systems must be designed to respect institutional missions. Some states accomplish this by varying the weight attached to particular metrics in a performance-based formula. Others grant institutions an opportunity to choose one or more of the metrics in the formula. Given the broad array of institutions in the UNC System, this design challenge is particularly important.

The Task Force considered a number of options regarding what measures to include in a performance funding formula. Several options were discussed:

1. Utilize institutional Performance Agreements to award performance funding.

Each UNC System chancellor has signed onto a Performance Agreement with President Spellings. Those Performance Agreements identify five priority metrics and associated targets on each of those metrics over the next five years.⁴ A performance formula would reward institutions on the basis of their progress toward annual targets, placing equal weight on each of the five metrics.

2. Use consistent measures of student success for all institutions.

- Five-year graduation rate (1/3): To earn the full amount of performance funding, institutions must either have a graduation rate that is 15 percentage points above the national average OR make sufficient improvement in their graduation rate.
- Undergraduate degrees per 100 FTE (undergraduate degree efficiency) (1/3): To earn the full amount of performance funding, institutions must either have a degree efficiency of 25 OR make sufficient improvement in their degree efficiency.
- Student progress rates (1/3): Institutions must ensure that at least a specified percent of incoming students must meet credit benchmarks on schedule OR improve (i.e.: earning 60 credits by end of 2nd year).

3. Reward institutions for each desired outcome they produce.

- In states like Indiana and Tennessee, performance-based funding systems reward institutions in part based on how many completions they produce from one year to the next, with degrees awarded in particular fields (i.e.: STEM) or to particular types of students (i.e.: low-income) weighted more heavily.
- The University funding model could adopt a similar model that bases a portion of an institution's funding on the number of completions produced each year (or the change in that number), with greater weight attached to completions that reflect strategic plan goals (i.e.: credentials in critical

⁴ See here for the 17 Performance Agreements: <https://www.northcarolina.edu/strategic-planning>

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workforce fields, low-income and rural graduates, and on-time completions could be weighted more heavily).

Table 8: Performance Funding Options

Performance-based Model	Pros	Cons
Base Funding on Performance Agreement Progress	<ul style="list-style-type: none"> • Performance Agreements are customized to reflect institutional mission and goals. • Institutions chose priority metrics that are aligned with mission and goals. • Targets have already been negotiated and agreements are currently in place. 	<ul style="list-style-type: none"> • Performance Agreements were not negotiated with funding consequences in mind. Institutions may have chosen different priorities if they were tied to funding. • Institutions have different priorities, and targets of different magnitude. • Performance funding will have to be recalibrated with every new Strategic Plan.
Use consistent measures of student success	<ul style="list-style-type: none"> • Student success will be a consistent priority for the system. • Rewarding both absolute performance and improvement acknowledges those already performing at a high level. 	<ul style="list-style-type: none"> • Focusing on graduation rates and degree efficiency may have consequences for access. • Funding model should reward student success, not admissions selectivity. • These student success measures do not reflect graduate education and research productivity.
Reward institutions for each desired outcome they produce	<ul style="list-style-type: none"> • Simple. • Not all-or-nothing: institutions can earn funding for each successful outcome. • Can be aligned with Performance Agreement goals, but need not be tied mechanically to them. 	<ul style="list-style-type: none"> • May create incentives to produce more degrees without regard to quality and rigor.

Task Force members expressed a slight preference for Option 1 given its close linkage to the System strategic plan, but recognized the challenges listed above; namely that the Performance Agreements were negotiated before being identified as potential performance-funding criteria. The Board of Governors should examine these options (and others) carefully to develop a performance funding system that promotes System goals, reflects differences in institutional mission, and minimizes disruption.

Linking Funding Model Reforms and Management Flexibility

There are a number of regulatory reforms that should accompany the proposed changes to the funding model. The proposed reforms—especially the shift to actuals and the implementation of performance-based funding—will increase accountability in the system. To ensure that leaders have the flexibility to meet these new expectations, the Board could consider pursuing the following flexibilities.

1. Carry-forward authority

The University currently has over \$1 billion in repair and renovation (R&R) needs as identified by the Facilities Condition and Assessment Program (FCAP). While UNC has benefited from an average R&R appropriation of just under \$30 million per year over the last 10 years, the University needs more flexibility to ensure regular maintenance of our facilities. Timely investment in facilities can reduce long-term maintenance costs for the University and the state while addressing issues that need immediate attention.

The following changes would allow chancellors and the Board of Governors more flexibility to use their operating funds for capital projects to facilitate strategic investment in institutional facilities:

- Reinstate 5% carryforward authority to tackle repair and renovation needs;
- Create an additional 5% to enable problem-solving with existing resources;
- Increase limit on operating funds used for capital projects from \$300,000 to \$1 million;

2. Human Resources Flexibility

To achieve and maintain excellence, universities and systems need to leverage efficient and effective human resource policies and practices that attract and retain top faculty and staff. The inability to implement fully competitive compensation and benefit programs can hinder recruitment, development, and retention of the necessary talent. Some peer universities and systems have sought and achieved greater personnel management authority, resulting in flexible approaches that positively impact recruitment and retention.

3. Remove Tuition from the General Fund

As the analysis of other states found, the current funding model is unique in its treatment of tuition revenue. In other states, institutions control tuition revenue. This allows institutions to make strategic investments using their own resources and manage the timing of those investments. As part of funding model reform, the legislature should consider moving tuition revenue to the trust fund (as student fees are treated now).

4. Performance-based Flexibility

These flexibilities would greatly enhance our leaders' ability to manage their enterprise as efficiently as possible. As a complement to performance-based funding, state leaders might consider granting additional flexibility on the basis of performance on state priorities.

Broader Policy Issues to Consider

1. Appropriation Rate (State Share of Costs)

The current funding model subtracts tuition from requirements to generate appropriations, a calculation that actually obscures the state contribution to the education of in-state students. The reality is that state contribution varies dramatically across institutions and student level (undergraduate, master's and doctoral), but this variation is not transparent.

The state constitution requires that the state provide a university education "as free as practicable." The fundamental question for taxpayers and policymakers is: what percentage of total costs should state taxpayers cover? And should that percentage vary by type of institution and/or by student?

2. 18 percent cap on nonresident students

Board of Governors policy caps nonresident freshman enrollment at UNC institutions at no more than 18 percent. To the extent that demand from out-of-state freshman students exceeds this cap, the policy results in foregone tuition revenue that could benefit state residents. Should policymakers revisit the 18 percent cap as part of reforms to the funding model?

3. Freeze and cap financial aid policy

In 2014, the Board of Governors implemented a cap on the amount of tuition revenue institutions can spend on need-based student aid. The cap—set at 15 percent—can restrict chancellors' ability to maximize the use of financial aid for enrollment management and the pursuit of the goals they have agreed to on their Performance Agreements.

4. Distance education

The System currently charges tuition differently for distance education (typically online) and on-campus. Distance education is charged on a per-credit basis, while on-campus tuition is charged on a stair-step (and students do not pay for credits taken over the 12 considered full-time). In reforming the funding model to be simpler and more transparent, the Task Force recommends reforming tuition policies such that all credit hours are treated equivalently.

Conclusion

The Task Force refers this report to the Board of Governors Committee on Budget and Finance to inform and assist that group as it works to implement reforms to the funding model, tuition and fee policies, and associated management flexibilities in anticipation of the FY 2019-21 biennium. Members of the Task Force and associated technical group are prepared to assist the Board of Governors Committee on Budget and Finance as they work to develop a funding model that more closely ties our funding streams to our goals and makes our enrollment funding process simpler, more transparent, and more predictable.