



HB 14-1319
MODEL DESIGN & Mechanics

ELEMENTS FOR SETTING THE INITIAL FUNDING ALLOCATION

OCTOBER 31, 2014

STATE OPERATING FUNDS FOR PUBLIC INSTITUTIONS OF HIGHER EDUCATION

Total available funds are first determined by taking the current year's appropriation for Higher Education and multiplying it by a **percentage increase/decrease**. This percentage is a **policy variable** set annually through the state budget process.



STATE OPERATING FUNDS FOR PUBLIC INSTITUTIONS OF HIGHER EDUCATION

The model must then allocate money from the total amount of available funds into several “**components**” to determine how much money is to be distributed into each component.



FUNDING ALLOCATIONS

From the total available funds - **Specialty Ed and Direct Grant Programs** - are carved out first to ensure they are not included in the model's calculations. This allocation is variable: it increases or decreases by a percentage equal to the percentage change in total state appropriation.



SPECIALTY ED
and
DIRECT GRANT
PROGRAMS

FUNDING ALLOCATIONS

The funds allocated in the model are then distributed to **three components**: **COF Stipend**, **Role and Mission**, and **Performance**. These are the only components from which institutions will draw in the model.



COF can represent *NO LESS than 52.5%* of the total remaining funds for use in the model.

Role and Mission and Performance must be fairly balanced.



NEXT
ROLE AND MISSION

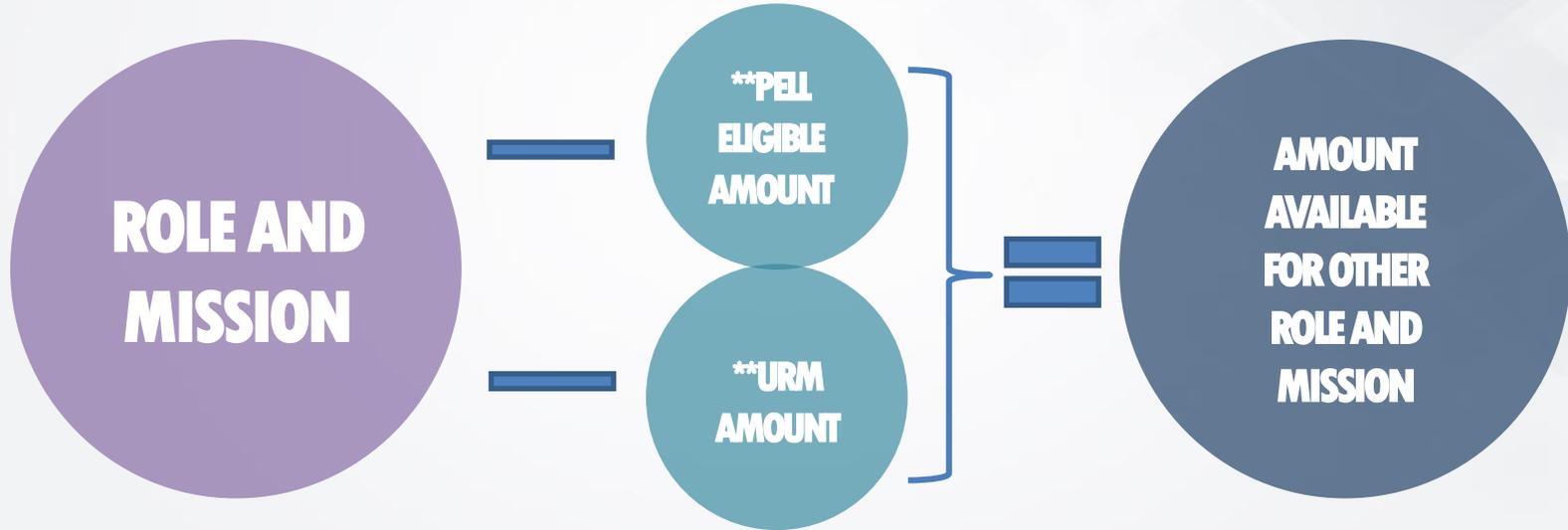
Indexing and Point System

ROLE AND MISSION

Pell Eligibility is treated differently than other Role and Mission Factors. It is carved out **first from Role and Mission** and handled first with a separate policy variable.

Pell /
Underserved

Resident Only



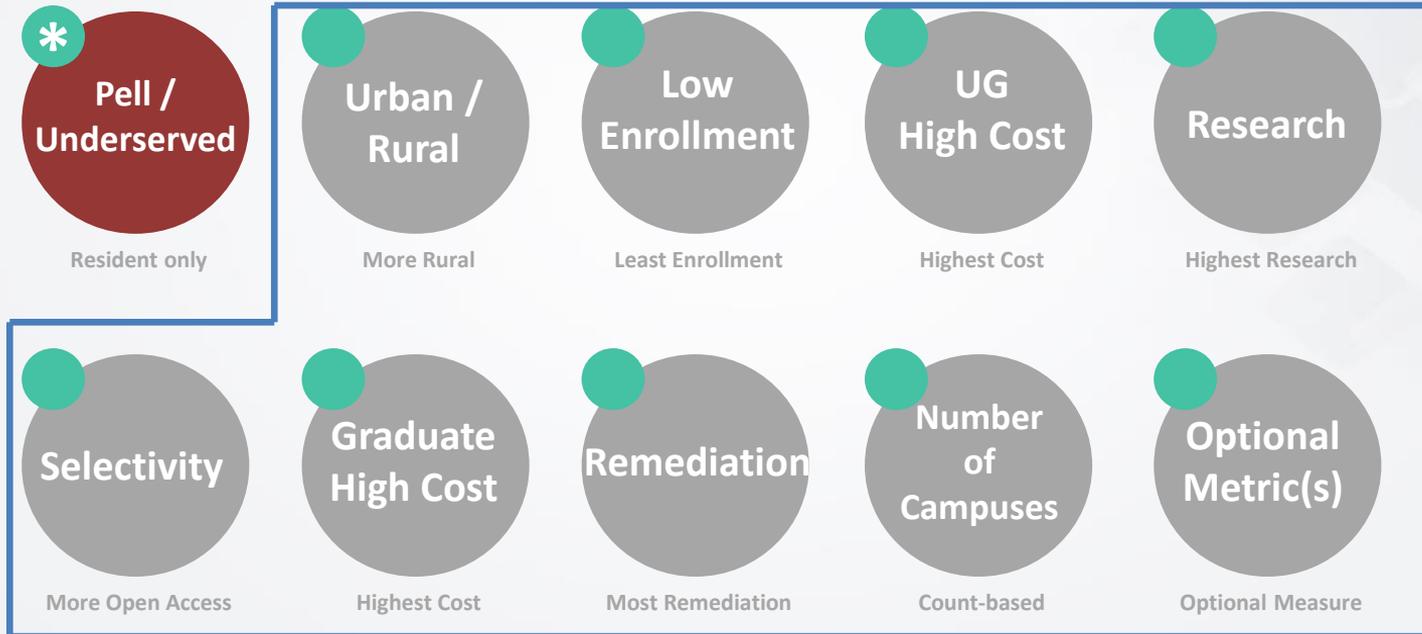
** (COF Support for Eligible students * Support Amount)

Pell Only: Support amount is a variable at least 10% or greater of COF Stipend.

URM Only: Support amount is a variable at a desired percentage.

ROLE AND MISSION

All factors are **assessed** for **each institution**. Factors are **weighted** by **groups of generally similar institutions** with generally similar role and mission. Funds are **allocated** to **governing boards**.



ROLE AND MISSION

In order to allow very different factors to be treated in a uniform manner, each is reduced to an index between 0 and 100.

$$\text{Value} = \text{Index Score} * \text{Weight}$$

$$\text{Index Score} = (\text{Value} - \text{Minimum}) / ((\text{Maximum} - \text{Minimum}) * 100)$$

ROLE AND MISSION - SCORE

In order to allow very different factors to be treated in a uniform manner, each is reduced to an index between 0 and 100.

Institution	Value
Institution A	95,000
Institution B	41,000
Institution C	29,000
Institution D	29,000
Institution E	85,000

Maximum in the range:

162,000

$$\frac{(\text{value} - \text{minimum})}{(\text{maximum} - \text{minimum})} * 100 = \text{Index Score}$$

$$\frac{(95,000 - 29,000)}{(162,000 - 29,000)} * 100 = 50.00$$

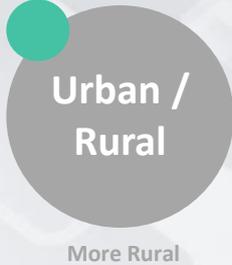
Minimum in the range:

29,000

For any scores where lower values are associated with higher costs, the reciprocal is taken as 1 – (Index Calculation)

ROLE AND MISSION

In order to enable comparison, all measures must be converted into an **Index Score**. This is done by using the maximum and minimum values to establish a range.



Institution	Population of Home County	Urban / Rural Converted Index Score (Reciprocal)
Community College 1	607,070	7.40
Community College 2	469,193	28.67
High Research Univ. 1	310,048	53.22
Research University 1	269,785	59.43
Four-Year University 1	15,507	98.66

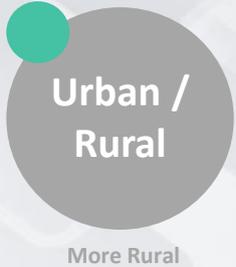
ROLE AND MISSION

Since scores are assessed at the institutional level, but **weights are applied at the institutional grouping level**, all institutions first must be placed into **groupings** to treat similar institutions similarly in Role and Mission.

Role and Mission	Weight %			
	Group 1	Group 2	Group 3	Group 4
Selectivity of the Institution	0%	15%	35%	0%
Number of Campuses	5%	15%	5%	0%
Rural or Urban	10%	0%	5%	20%
Low Student Enrollment	5%	35%	5%	20%
UG Programs that have a High Cost Per Student	30%	15%	30%	15%
Research	25%	0%	0%	15%
Graduate Programs that Have a High Cost Per Student	25%	0%	0%	15%
Remediation	0%	20%	20%	15%
Total (must equal 100%)	100%	100%	100%	100%

ROLE AND MISSION

Next, weights are applied to the Institutional groupings. This is the point in the model where **policy decisions are made** to reflect what is important to each group of institutions.



Institution	Population of Home County	Urban/Rural Score	Group Weights	Weighted Score
Governing Board A (Inst.1)	607,070	7.40	10%	0.74
Governing Board A (Inst.2)	469,193	28.67	10%	2.86
Governing Board B	310,048	53.22	0%	0.00
Governing Board C	269,785	59.43	5%	2.97
Governing Board D	15,507	98.66	20%	19.73

ROLE AND MISSION

Since dollars are to be allocated by **governing board**, the weighted scores are **added up by board and then divided by the number of institutions**.

Institution	Sum of Weighted Scores	Sum Scores by Governing Board	Number of Institutions in the Table	Score by Governing Board
Governing Board A (Inst.1)	16.08	35.01	2	17.50
Governing Board A (Inst.2)	18.93			
Governing Board B	52.92	52.92	1	52.92
Governing Board C	24.45	24.45	1	24.45
Governing Board D	53.08	53.08	1	53.08

ROLE AND MISSION

Finally, the governing board scores are added up to create a grand total. The board total is divided into the role and mission grand total to determine a percentage share of points.

This% share is applied to the Role and Mission Funding Component.

ROLE & MISSION FUNDING EXAMPLE: \$10 MILLION

Board	Board Score	Grand Total	Share of Points	Dollars from Role and Mission
Governing Board A	17.50	147.95	11.8%	\$1,182,832
Governing Board B	52.92	147.95	35.8%	\$3,576,884
Governing Board C	24.45	147.95	16.5%	\$1,652,585
Governing Board D	53.08	147.95	35.9%	\$3,587,699



NEXT
ROLE AND MISSION

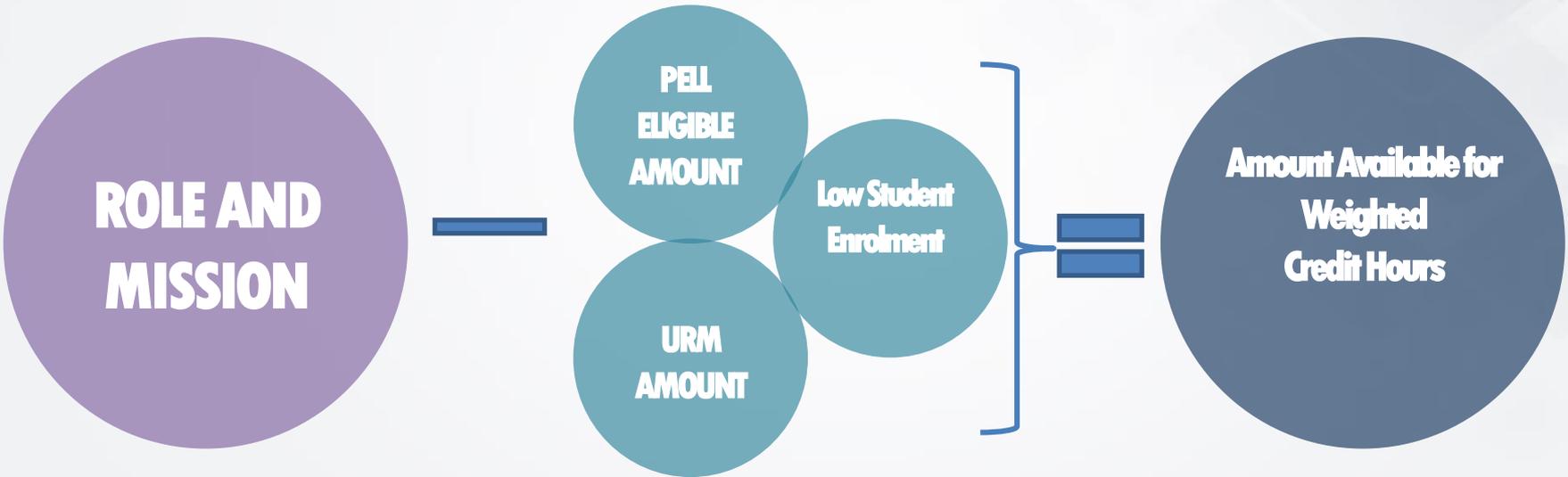
Weighted Credit Hours

ROLE AND MISSION

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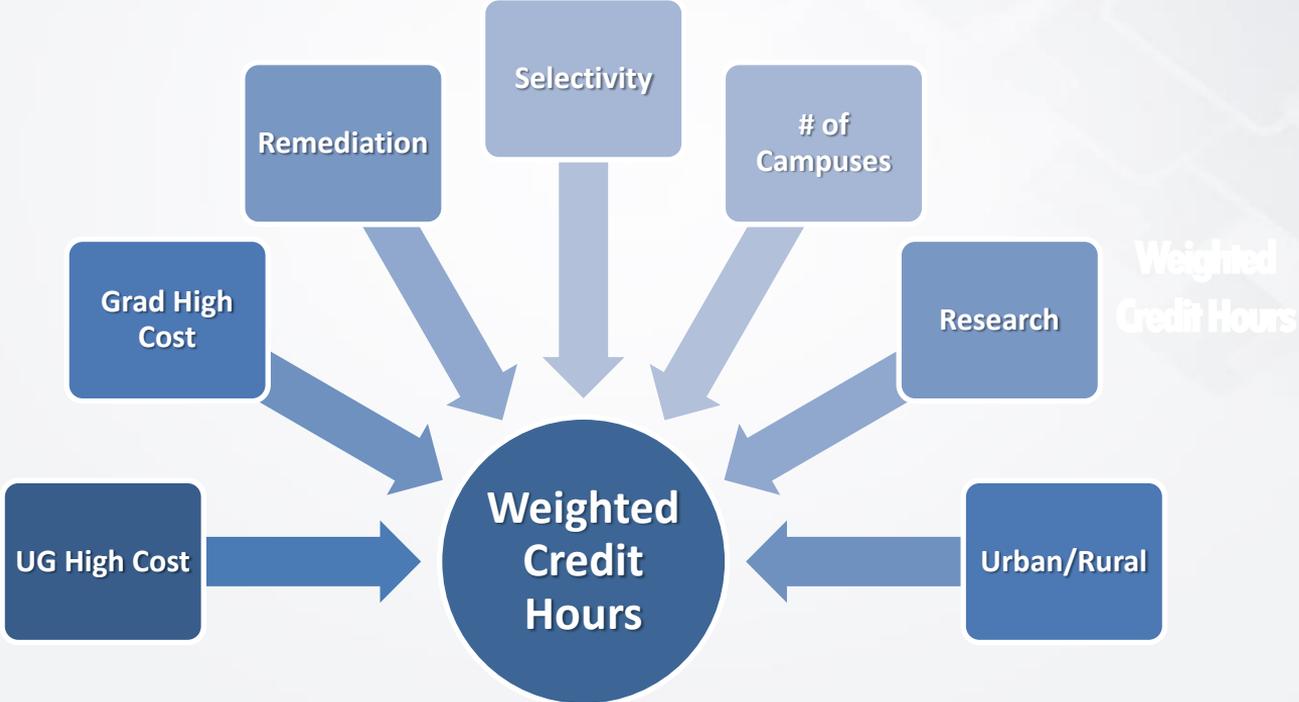
Pell /
Underserved

Resident Only



ROLE AND MISSION

All accounting for Pell/URM/Low Student Enrolment. All other factors are **addressed by using the NV/NCHEMS developed weighted course hour matrix**



ROLE AND MISSION: Weighted Credit Hours

The number of weighted completed credit hours for each institution, but not all credit hours are weighted the same.

- Weighting reflects the differences in cost related to teaching courses at different academic levels and in different academic disciplines.



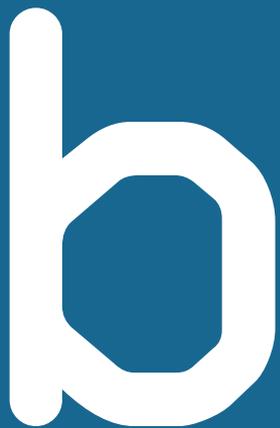
ROLE AND MISSION: Weighted Credit Hours

Finally, the governing board weighted credit hours are added up to create a total. The governing board total is divided into the grand total to determine a percentage share of total weighted credit hours. **This % share is applied to the Role and Mission Funding Component.**

**Role and Mission
Weighted Credit Hours**

**EXAMPLE:
\$10 MILLION**

Governing Board	Weighted Credit Hours	Share of Total Weighted Hours	Dollars from Weighted Credit Hours
Governing Board A	8,845	64%	\$6,441,863
Governing Board B	3,128	23%	\$2,278,140
Governing Board C	1,281	9%	\$932,595
Governing Board D	477	3%	\$347,402
Grand Total	13,731	100%	\$10,000,000



NEXT
Performance

Assessing performance uniformly across
all institutions.

PERFORMANCE

Metrics for performance are **measured by count and weighted at the institutional level** and are uniformly applied. Money is allocated at the governing board level.



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Awards by Level
And 2 to 4



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By Threshold



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Absolute Number Year over Year



A grey circle with a teal dot at the top left. The text "Successful Remediation*" is centered inside the circle.

Absolute Number

**Under consideration and still to be designed*

PERFORMANCE

Completion and Transfers have **two bonus elements** nested within their measurement. These metrics feature bonuses for high-demand fields, Pell-eligible students, and URM students.



Awards by Level

Completions: Different weights by award type

- **Certificates = 0.25**
- **Associates = 0.50**
- **Bachelors = 1.00**
- **Masters = 1.25**
- **Doctoral/Professional = 1.75**



2 to 4; >= 18 SCH

Transfers: Number of students with 18 credit hours or more who transfer from community colleges to a public 4-year institution.

PERFORMANCE

Completion weighting by subject and level features several fixed weights as well as a flexible bonus for these variables. These weights and bonuses would apply to every institution. There are also **additional bonuses** for Pell and URM.

Priority Indication	Transfer (0.25)	Certificates (0.25)	Associates (0.50)	Bachelors (1.00)	Masters (1.25)	Doctoral (1.75)
High Priority <i>(Apply a 1.5 bonus)</i>	200	105	300	450	113	60
All Others		70	200	300	75	40
Total <i>(with weights applied)</i>	50	44	250	750	428	228

Total awards and transfers for count in the model = **1,263.**

PERFORMANCE

The remaining metrics have no additional bonuses and are applied uniformly to all institutions.



By Threshold

Retention: measured at 30/60/90 for 4-year; 15/30/45 for 2-year.



Year over Year

Award Increase: year over year increase.

PERFORMANCE

Retention is measured uniformly by assessing the numbers of students at **25%, 50%, and 75%** momentum points toward a degree.

Institution	25% (15 / 30)	50% (30 / 60)	75% (45 / 90)	Total
Number crossing threshold	100	100	100	
Institution A	25	50	75	150

PERFORMANCE

The final performance measure captures **increases in awards and transfers** year to year. The **net positive change** is what is measured.

Award Year(s)	Transfer (0.25)	Certificates (0.25)	Associates (0.50)	Bachelors (1.00)	Masters (1.25)	Doctoral (1.75)
2012-13	200	50	65	300	150	45
2013-14	250	55	70	320	155	45
Net Difference	50	5	5	20	5	0

PERFORMANCE

Since all three performance metrics are student count related, there is no need to create an index score. Rather, counts and size are taken into consideration as all institutions will share a common scale.

Institution	Completions	Retention	Award Increases
Governing Board A (Inst.1)	369	600	60
Governing Board A (Inst.2)	836	1500	180
Governing Board B	8,509	15,000	450
Governing Board C	3,196	5,000	150
Governing Board D	434	800	100

PERFORMANCE

Finally, the governing board scores are added up to create a grand total. The board total is divided into the performance grand total to determine a percentage share of points. **This % share is applied to the to Performance Funding Component.**

**PERFORMANCE
FUNDING**

**EXAMPLE:
\$10 MILLION**

Board	Board Score	Share of Points	Dollars from Performance
Governing Board A	1,281	9%	\$932,595
Governing Board B	8,845	64%	\$6,441,863
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Grand Total	13,731	100%	\$10,000,000



NEXT

Allocation of State Appropriations to Governing Boards

Adding up all amounts to create a new amount to each governing board.

ALLOCATION OF STATE APPROPRIATION

All elements are rolled up to the governing board level and compared to previous year's funding amount as a percentage change.

Governing Board	Specialty Programs	FY 15-16 Total	% Difference
Governing Board A	\$1,050,000	\$11,115,000	+ 11%
			Performance
			\$3,100,000

STABILITY & PREDICTABILITY

Finally, two mechanisms are in place to provide stability: **Guardrails** to ensure no single board loses more than a set proportion per year, and a **Cost of Operations Subsidy**, which is an amount awarded to each governing board.



Guardrails: Also known as stop-loss/stop-gain, this sets a “floor and ceiling” on the model’s final calculation to ensure no single board loses or gains more than a set proportion. To offset any board from going under that amount, funds are redistributed from other net-gaining boards to bring another board’s percentage difference to the amount set in the stop-loss parameter.



Cost of Operations: If necessary, a dollar amount awarded to each board. This feature may or may not be utilized in the model.