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FOR DISCUSSION PURPOSES ONLY

OHIO BOARD OF REGENTS

HANDBOOK

STATE SHARE OF INSTRUCTION METHODOLOGY
FOR FISCAL YEAR 2008 AND FISCAL YEAR 2009

SEPTEMBER 2007

Fiscal Year 2008-2009 Biennium
State Share of Instruction
Allocation Methodology

The purpose of this document is to provide campus users detailed information regarding the allocation of the State Share of Instruction (SSI). Please note that FY 2008 represents the first year for use of this methodology and represents significant changes from the previous methodology.

A. Significant changes from Fiscal Year 2007 SSI allocation methodology include:

1. Restructuring the model structure (taxonomy) used by the Ohio Board of Regents.
    a. Increased the number of models from 16 to 26, in order to decrease the variance between a model's average cost and the average cost for the subject field / level of instruction combinations within that model.
    b. Primary structure is related to groupings of subject fields rather than by level of instruction (General Studies, Baccalaureate, Masters, Doctorate, etc.) in order to make it easier to understand by both academic administrators and policy-makers. The three model groupings are:
        i. Arts & Humanities (AH)
        ii. Business, Education, and Social Sciences (BES)
        iii. Sciences, Technology, Engineering, Mathematics, and Medical ($STEM^2$)
    c. Costs are calculated for each Subject Field / Level of Instruction combination through the use of the Board of Regent Resource Analysis process. Within each subject field grouping, these subject field / level of instruction combinations were grouped according to costs. Note: Undergraduate and Graduate courses are reviewed in separate models.
2. The previous formula for calculating SSI was also modified in an attempt to make the calculation more equitable, as well as more transparent and easier to understand. The primary changes are:
    a. Movement to an adjusted Uniform State Share of Instruction as the method of calculating earnings by model, rather than using Local Contribution. A standard uniform share is provided for all models, and adjustments (weightings) are applied to models through a transparent calculation. These adjustments will be applied to:

1. Graduate models
2. STEM programs to ensure that they are not funded below current values (includes Medical II model)
3. Doctoral models set-aside (Continuation of Current Policy)

b. Movement to a total cost approach to allocation of SSI by eliminating many of the weightings and steps in the current model that provided differential funding based on individual characteristics at each campus. This change recognizes that while different campuses may have different cost structures, the goal is to provide the instruction in a cost effective manner. By eliminating these adjustments and protections, the new formula provides incentives to ensure that they are cost effective in all areas of cost. These eliminations include:
    1. Removing square footage protection
    2. Removing POM weighting
    3. Removing Student Services weighting
    4. Use model cost vs. State wide average cost for Student Services component

c. The model costs are based on a six-year average cost obtained from Resource Analysis. In the past, only the most recent year's cost data was used.

d. Continued protection for campuses with large differences between Activity-Based POM and Net Assignable Square Feet-Based POM. Institutions on this protection will be required to provide the Board of Regents an analysis that attempts to identify why the campus significantly exceeds that of other campuses.

B. Below are the steps used to calculate SSI allocations under the new SSI allocation methodology:

I. Step One: Collect Resource Analysis Cost for Each Subject Field–Level of Instruction Combination

The Ohio Board of Regents collects cost and enrollment data from each of the campuses. This data is used to determine the statewide average cost per FTE for each subject field / level of instruction combination for the most recent 6 years available prior to running the SSI formula for the first year of the target biennium. In determining the average cost for the Fiscal Year 2008-2009 biennium, the calculation is based on data for Fiscal Year 2000, Fiscal Year 2001, Fiscal Year 2002, Fiscal Year 2003, Fiscal Year 2004, and Fiscal Year 2005.

Cost Reports are on the web at
https://qry.regents.state.oh.us/cgi/HEInet.cgi?$sp_html_hei_ra_query%20'3.0'
.

II. Step Two: Adjust the historical Resource Analysis Cost per FTE for costs paid from sources outside of SSI or Student Fees

This step adjusts the Resource Analysis costs by model by backing out any costs paid from revenue other than SSI or student fees. This is to avoid double counting of expenses reimbursed by the state. The adjustments in FY 2008 and 2009 include:

- Access Challenge funds in excess of those used to restrain fees.
- Success Challenge funds.
- Research Challenge Funds used for unrestricted expenses.
- Other Income used for unrestricted expenses.
- Medical Clinical Line Items used for unrestricted expenses.

III. Step Three: Normalize each of the years cost by inflating the costs to the last available years data using historical CPI-U data. Estimate costs for the funding period using estimated HECA.

An average cost for instruction for each model was calculated using six years (FY 2000, FY 2001, FY 2002, FY 2003, FY 2004, and FY 2005) of costs from Resource Analysis. In order to make these costs comparable, it is necessary to inflate each of the prior years of Resource Analysis cost data to reflect Fiscal Year 2005 costs (the last year of actual data) using the CPI-U.

The above calculation provides us with the six-year average cost per FTE based on actual costs in FY 2005 dollars. The six-year average costs for each model was then inflated annually to the appropriate funding year (FY 2008 or FY 2009) using the Higher Education Cost Index (HECA). The Higher Education Cost Adjustment equals the weighted average of the Employer Cost Index for white collar employees in the private sector (@75%) and the Consumer Price Index for urban consumers (@ 25%). These statistics are computed by the U.S. Bureau of Labor Statistics.

The average costs for each model for the biennium are as follows:

Model	Fiscal Year 2008	Fiscal Year 2009
AH 1	$ 7,220	$ 7,494
AH 2	$ 9,431	$ 9,790
AH 3	$12,186	$12,649
AH 4	$17,836	$18,514
AH 5	$27,829	$28,887
AH 6	$34,540	$35,852

BES 1	$ 6,352	$ 6,594
BES 2	$ 7,389	$ 7,670
BES 3	$ 8,911	$ 9,249
BES 4	$10,744	$11,152
BES 5	$17,070	$17,719
BES 6	$21,908	$22,740
BES 7	$26,019	$27,008
MED 1	$43,190	$44,831
MED 2	$47,635	$49,445
STEM² 1	$ 6,552	$ 6,801
STEM² 2	$ 9,196	$ 9,545
STEM² 3	$11,610	$12,051
STEM² 4	$14,789	$15,351
STEM² 5	$18,420	$19,119
STEM² 6	$19,990	$20,750
STEM² 7	$27,676	$28,728
STEM² 8	$35,308	$36,650
STEM² 9	$48,150	$49,979

The model costs, listed above, are located in the SSI ***spreadsheet in the tab called Model.***

IV. Step Four: Collect Subsidy Eligible FTE

To add stability and predictability to the SSI allocations, all allocations are based on FTE's that are lagged one-year. Therefore, the Ohio Board of Regents will provide a summary of the subsidy eligible FTE by Campus, Subject and Level for the 5 years ending in the year preceding the year for which SSI is being calculated. The source for the FTE data comes from the Subsidy FTE process for actual FTE and can be viewed in the ***SSI spreadsheet in the tab called Subject-Level.***

Medical II Buffering

The Medical II State Share of Instruction calculations retain the base buffering concept employed in the previous State Share of Instruction calculation. For FY 2008-2009, the Medical II base enrollments are as follows:

Ohio State University	1,010
University of Cincinnati	833
Medical College of Ohio	650
Wright State University	433
Ohio University	433

For medical schools with current year enrollments (including students repeating terms) less than the base enrollment level, the enrollments used in calculating the Medical II subsidy will equal 65% of the base enrollments plus 35% of the current year enrollments. For medical schools with current year enrollments (excluding students repeating terms) equal to or greater than the base enrollment, the Medical II enrollment shall equal the base enrollment plus the FTE for repeating students. Students repeating terms may comprise no more than 5% of the current year enrollments.

Limitations on Subsidized Law School FTE's

In both FY 2008 and FY 2009, the number of subsidy-eligible law school FTEs at each campus equals the lesser of the FY 1995 law FTEs or the actual number of law FTEs at the institution in the most recent fiscal year for which enrollment data is available.

The caps for each law school are as follows:

University of Akron	568.0
University of Cincinnati	385.8
Cleveland State University	824.5
Ohio State University	638.7
University of Toledo	573.0

V. Step Five: Calculate the 2-year and 5-year average FTE

An average FTE is calculated for each Subject Field – Level of Instruction based on the previous two years or five years FTE's. The fiscal years used in these calculations are as follows:

For Fiscal Year 2008

2-year = FY 2007 and FY 2006

5-year = FY 2007, FY 2006, FY 2005, FY 2004, and FY 2003

For Fiscal Year 2009

2-year = FY 2008 and FY 2007

5-year = FY 2008, FY 2007, FY 2006, FY 2005, and FY 2004

The FY 2003-2008 (projected) FTEs and resulting average calculations can be viewed in the SSI ***spreadsheet in the tab called Subject-Level.***

VI. Step Six: Higher Education Funding Commission Priority Weightings for Science, Technology, Engineering, Mathematics, Medicine, and Graduate by model

The Higher Education Funding Commission endorsed a priority weighting for STEM² and graduate models. These weights are as follows:

Model	Fiscal Year 2008	Fiscal Year 2009
AH 1	1.000	1.000
AH 2	1.000	1.000
AH 3	1.000	1.000
AH 4	1.000	1.000
AH 5	1.250	1.250
AH 6	1.250	1.250
BES 1	1.000	1.000
BES 2	1.000	1.000
BES 3	1.000	1.000
BES 4	1.000	1.000
BES 5	1.250	1.250
BES 6	1.250	1.250
BES 7	1.250	1.250
MED 1	1.500	1.500
MED 2	1.728	1.728
STEM² 1	1.000	1.000
STEM² 2	1.002	1.002
STEM² 3	1.613	1.613
STEM² 4	1.690	1.690
STEM² 5	1.420	1.420
STEM² 6	2.081	2.081
STEM² 7	1.702	1.702
STEM² 8	1.808	1.808
STEM² 9	1.341	1.341

The STEM² weighting is calculated in a manner that holds STEM² and Medical models harmless relative to the amount of state support the same instruction earned in the previous SSI formula, using FY 2007 as the base year. In cases where this addition is negative, it is set to zero, i.e. it never reduces the SSI of a model.

The STEM² and graduate model priority weightings are multiplied by the respective model cost for each of the 26 models, for FY 2008 and FY 2009. *The resulting calculation is called the* ***Model Reimbursement Cost*** *and can be viewed in the SSI* ***spreadsheet in the tab called Model.***

Note: The current plan is to gradually phase out the priority weightings for the STEM² models, with the exception of the Medical 2 model, as the Resource Analysis average cost calculations for the models begin to reflect this additional SSI funding.

VII. Step Seven: Calculate the Uniform SSI by Campus, Subject Field, and Level of Instruction for both the 2-year and 5-year average FTE

The new SSI formula retains the same enrollment basis (2-year and 5-year averages of eligible FTEs) as did the former SSI formula.

A calculation of SSI earnings is calculated for each model on a campus using the 2-year average subsidy eligible FTEs. These model earnings are summed to provide a campus SSI earnings total. The same calculations are made using the 5-year eligible FTEs. Each campus will use either the 2-year or 5-year average subsidy eligible FTE number that produces the highest level of SSI earnings.

The formula for calculating the SSI earnings is:

> State Share of Instruction Appropriation = Eligible FTE * Uniform SSI % * Model Reimbursement Cost

Where the Uniform SSI % is a percentage calculated to allocate the entire appropriation after all of the other SSI parts have been included, except the capital deduction. The uniform SSI is the variable that changes based on the Eligible FTE's, Model Reimbursement Cost and most importantly, the State Share of Instruction appropriation. This calculation can be seen in the SSI ***spreadsheet in the Subject-Level tab*** and the Uniform SSI % is at the top of the columns labeled State Share.

VIII. Step Eight: Calculate the Doctoral Set Aside for each institution with doctoral instruction.

Calculate the doctoral set aside for each institution with doctoral instruction. Each institution's doctoral set aside is based on a fixed % (Doctoral Share) of the doctoral appropriation. The doctoral shares for each institution were established by the Graduate Funding Commission. If the institutions subsidy eligible Doctoral 1 equivalent FTE for the greater of the 2 or 5 year average is less than 85% of the Base Doctoral 1 equivalent FTE for the institution, the doctoral set aside is reduced by the % less than 85% and the unused SSI is included in the regular SSI distribution. Doctoral 1 equivalent FTE is equal to Doctoral 1 FTE + 1.5 * Doctoral 2 FTE and the base year the Doctoral 1 Equivalent FTE is FY 1999. Note: The Medical College of Ohio and the University of Toledo values have been combined to derive the merged institution's values.

The Doctoral Share (%) amounts and the 85% Base Doctoral FTE 1 amounts used in these calculations are as follows:

	Doctoral Share	85% Base
University of Akron	6.17%	696.7
Bowling Green State University	5.56%	599.5
University of Cincinnati	18.32%	1,843.2
Cleveland State University	1.39%	162.9
Kent State University	8.13%	976.8
University of Toledo / MCOT	4.90%	652.1
University of Miami	3.54%	444.7
Ohio State University	41.15%	4,611.9
Ohio University	6.89%	790.8
Wright State University	3.70%	405.4
Youngstown State University	0.25%	20.0

*The doctoral share calculation can be seen in the **Doctoral Set Aside tab** and the SSI calculation can be viewed in the **Campus tab**.*

IX. Step Nine: Calculate the NASF POM Protection for each campus

A number of campuses had significant protection in the old model related to the amount of NASF that they had compared to their activity based POM. The Regents requested that we continue to provide a portion of this protection for these campuses until the reasons for these significant differences could be further studied.

A campus is eligible for NASF protection in FY 2008-2009 biennium only if (a) it received NASF protection in the prior formula, and (b) its earnings in the new formula are less than 98.5% of the prior formula based on benchmark year of FY 2007. Institutions on this protection are required to submit a study to the Regents in Fiscal Year 2008. The amount of this protection is anticipated to remain fixed, until the results of these studies can be evaluated to determine if the space issues can be addressed through alternative ways. The calculation is:

> *NASF Protection = the lesser of:*
>
> *(a) 98.5% of FY 2007 SSI earnings from prior allocation methodology - the FY 2007 SSI earnings from the new allocation methodology, and*
>
> *(b) the FY 2007 NASF Protection that was provided in the prior allocation methodology*

Stated differently, a campus will continue to receive all or part of its actual FY 2007 SSI NASF protection sufficient to supplement the estimated earnings from the new SSI formula (applied to FY 2007) so that they equal 98.5% of the actual FY 2007 SSI allocation for the campus. (This effectively caps the potential loss attributed to elimination of the NASF POM protection to an amount equal to 1.5 % of the FY 2007 SSI earnings.)

Once the amount of this protection is calculated, that amount is assessed to all campuses (including those on the protection) based on their total SSI prior to the stop loss.

The calculation for the NASF POM Protection can be found in the ***SSI spreadsheet in the Campus Summary tab.***

X. Step Ten: Calculate the Stop Loss for each campus

Stop loss is a tool to ensure that campuses do not experience a precipitous drop in earnings from the prior year. The calculation is:

> *(FY 2007 Final SSI Allocation * % protection) - FY 2008 SSI (after Step 9) = Stop Loss Adjustment*

If any campus' SSI earnings through step9 are lower than their SSI in the previous year, their earnings are increased to guarantee flat funding based on the previous years earnings. The 100% guarantee under the stop loss provision is included in temporary law section 375.30.20 in Am. Sub. H.B. 119 of the 127th General Assembly.

Note: The stop-loss calculation for Southern State Community College, Owens State Community College, and Cuyahoga Community College are (and have historically been) calculated at the institution level.

The calculation for the stop-loss can be found in the ***SSI spreadsheet in the Campus Summary tab.***

XI. Step Eleven: Calculate the Capital Deduction for Each Institution

This step of the calculation reduces the State Share of Instruction allocation for institutions that have negative adjustments that are the result of the implementation of the Regents' incentive-based capital funding policy. As part of this policy, campuses with debt service costs (for qualifying capital projects) that exceed their formula-determined capital allocation have the difference deducted from their State Share of Instruction allocation. Pursuant to the recommendations of the SSI Consultation and the Higher Education Funding Commission, funds from this capital deduction are to be transferred to the Capital Component line item. This transfer allows the Capital Component to be fully funded.

XII. Step Twelve: Notwithstanding the Calculation

The final step in the allocation of the FY 2008-09 SSI provides for the following sector level appropriations, not withstanding the distribution formulas described above:

In FY 2008, each state supported institution will receive the same SSI allocation as in FY 2007. In addition, each state university or university branch campus will receive a 2% proportionate increase in FY 2008, above their FY 2007 earnings, if they demonstrate a 1% savings through internal efficiencies. Community colleges, state community colleges, and technical colleges will also receive additional funding in FY 2008 if they demonstrate a 1% savings through internal efficiencies. However, their additional funding will be based upon the following formula, as recommended by the Chancellor:

The difference between the average of the following two calculations and the FY 2007 SSI allocation:

- FY 2008 formula earnings to be distributed in accordance with the State Share of Instruction methodology described in Steps I through XI above.
- Uniform 2% increase from FY 2007 to FY 2008.

In FY 2009, each state supported institution will receive the same SSI allocation as in FY 2008. In addition, each state university or university branch campus will receive a 10% proportionate increase in FY 2009, above their FY 2008 earnings, if they demonstrate a 3% savings through internal efficiencies. Community colleges, state community colleges, and technical colleges will also receive additional funding in FY 2009 if they demonstrate a 3% savings through internal efficiencies. However, the additional funding, above FY 2008 levels will be based upon the following formula:

The difference between the average of the following two calculations and the FY 2008 SSI allocation:

- FY 2009 formula earnings to be distributed in accordance with the State Share of Instruction methodology described in Steps I through XI above.
- Uniform 10% increase from FY 2008 to FY 2009.