

**DRAFT**  
**FOR DISCUSSION PURPOSES ONLY**

# ***OHIO BOARD OF REGENTS***

## ***STATE SHARE OF INSTRUCTION HANDBOOK:***

***PROVIDING THE METHODOLOGY FOR ALLOCATING  
STATE SHARE OF INSTRUCTION FUNDS  
FOR FISCAL YEAR 2010 AND FISCAL YEAR 2011***

***FOR USE BY:***

***COMMUNITY AND TECHNICAL COLLEGES***

**LAST REVISED: September 30, 2010**

**Methodology For  
Allocating State Share of Instruction  
Fiscal Year 2010-2011 Biennium**

Introduction

The purpose of this document is to provide users detailed information regarding the allocation of the State Share of Instruction (SSI). Fiscal Year 2010 represents the first year that there will be different formulas for (a) University Main Campuses, (b) University Regional Campuses, and (c) Community and Technical Colleges.

As a result, there are separate handbooks detailing the methodology to be used for allocating State Share of Instruction funds to (a) University Main Campuses, (b) University Regional Campuses and (C) Community and Technical Colleges. ***This version is designed to provide the allocation methodology for Community and Technical Colleges. Please be careful to ensure that you are using the appropriate document.***

Please note that the enrollment component of the funding methodology for FY 2010 and FY 2011 for Community and Technical Colleges will utilize the taxonomy changes that were partially implemented in FY 2008. Appendix A provides a brief summary of the significant changes that the Taxonomy represents when compared to the methodology used in FY 2007.

**I. COMMUNITY AND TECHNICAL COLLEGE FUNDING METHODOLOGY**

The Community and Technical College funding model consists of three components: (1) an enrollment component, (2) a student success component, and (3) an institutional specific goals and metrics component. In addition to these components each community and technical college shall be allocated an amount equivalent to its final FY 2009 Access Challenge allocation, and an amount equivalent to its final FY 2009 Tuition Subsidy allocation. Finally, there is a stop-loss calculation that provides temporary stability to institutions when their funding decreases precipitously.

The following methodology is used to determine the share of the total FY 2009 allocation to be processed through the enrollment component and student success component of the formula:

- a. Beginning with the FY 2010-2011 biennium, the State Share of Instruction includes the funds previously associated with the State Share of Instruction, Access Challenge, and Tuition Subsidy funds.
- b. Subtract the following:
  - For each year of the biennium, each community and technical college will be allocated an amount equivalent to the institution's final FY 2009 Access Challenge allocation.
  - For each year of the biennium, each community and technical college will be allocated an amount equivalent to its final FY 2009 tuition subsidy allocation.

- c. For FY 2010:
- d. 100 % of the remaining amount is to be allocated to the enrollment component of the formula.
- e. For FY 2011:
  - 95 % of the remaining amount is to be allocated to the enrollment component of the formula.
  - 5 % of the remaining amount is to be allocated based on student success as measured by the “momentum points” described in Section III of this document.

## II. ENROLLMENT COMPONENT OF THE FORMULA

Below are the steps used to calculate the enrollment component of the funding methodology:

### **Step One: Collect Resource Analysis Cost for each Subsidy Model**

The Ohio Board of Regents collects cost and enrollment data from each of the campuses (all sectors). This data is used to determine the average cost per FTE for each Subsidy Model 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 2010-2011 biennium, the calculation is based on data for Fiscal Year 2002, Fiscal Year 2003, Fiscal Year 2004, Fiscal Year 2005, Fiscal Year 2006 and Fiscal Year 2007.

### **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 2010 and 2011 include: Research Challenge Funds used for unrestricted expenses.

- a. Other Income used for unrestricted expenses.
- b. Medical Clinical Line Items used for unrestricted expenses.

### **Step Three: Normalize each of the years cost by inflating the costs to the last available years data using historical Higher Education Cost Index (HECA) data. Estimate costs for the upcoming funding period using the average of the last three years actual HECA increases.**

An average cost for instruction for each model was calculated using six years (FY 2002, FY 2003, FY 2004, FY 2005, FY 2006, and FY 2007) 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 2007 costs (the last year of actual data) using the Higher Education Cost Index (HECA).

The above calculation provides us with the six-year average cost per FTE based on actual costs in FY 2007 dollars. The six-year average costs for each model was then inflated annually to the appropriate funding year (FY 2010 or FY 2011) using the 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 contained in Appendix B, and are also located *in the SSI spreadsheet in the tab called Model.*

**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.*

A subsidy FTE is defined as 30 semester credit hours or 45 quarter credit hours. Medical, Veterinary Medicine, and Dentistry FTE are based on headcounts.

**Step Five : Calculate the 2-year and 5-year average subsidy eligible FTE**

A subsidy eligible 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 2010

2-year = FY 2009 and FY 2008

5-year = FY 2009, FY 2008, FY 2007, FY 2006, and FY 2005

For Fiscal Year 2011

2-year = FY 2010 and FY 2009

5-year = FY 2010, FY 2009, FY 2008, FY 2007, and FY 2006

*The FY 2005-2010 (projected) FTEs and resulting average calculations can be viewed in the SSI spreadsheet in the tab called **Subject-Level.***

**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 STEM<sup>2</sup> and graduate models. These weights can be found in Appendix C.

The STEM<sup>2</sup> weighting was calculated in a manner that held STEM<sup>2</sup> 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 graduate weights (used by University Main and Regional campuses) for FY 2010 and FY 2011 have been adjusted to ensure that the relative amount of state support for graduate and undergraduate activity under the new funding model remains comparable to the earnings that utilized enrollment model, using FY 2009 as the base year.

The STEM<sup>2</sup> 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 original plan was to gradually phase out the priority weightings for the STEM<sup>2</sup> 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. No adjustments have been made for FY 2010 or FY 2011.

**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 enrollment component of 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:

$$\text{State Share of Instruction Appropriation} = \text{Eligible FTE} * \text{Uniform SSI \%} * \text{Model Reimbursement Cost}$$

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.

### III. Student Success Component of the Formula (To be implemented in FY 2011)

**Student Success** achievement will be used to allocate funding associated with student success for Ohio's community colleges. Success points are intended to measure the significant steps that students take toward higher education achievement. Points are earned at an institution for each of the following:

1. Number of students who either: (a) Complete their first remedial course at that institution in a given year; (b) Successfully complete a developmental Math course in the prior year, who subsequently enroll in a college level Math course (at any public college or university) either last year or in the current year; (c) Successfully complete a developmental English course in the prior year, who subsequently enroll in a college level English course (at any Ohio public college or university) either last year or in the current year. Note: Each of the developmental components is weighted by 2/3 for a maximum possible award of 2 points per student.
2. Number of students earning their first 15 semester credit hours of college level course work at that institution by a given year.
3. Number of students earning their first 30 semester credit hours of college level course work at that institution by a given year.
4. Number of students who earn at least one associate degree, from that institution, in a given year.
5. Number of students who completed at least 15 semester credit hours of college level course work at that institution and subsequently enrolling for the first time at a four year college or university,

in Ohio. For the purposes of this initial data analysis, the transfer is measured as subsequent enrollment in a USO University or Branch campus. The intent is to expand the transfers to include private colleges, as well.\*

*\*At the request of the consultation, an alternative measure of the transfer component is presented. Specifically, it measures the number of transfers when at least 15 semester credit hours were completed, without the requirement that the 15 hours were college level.*

The three-year average of each of these Student Success points will be used to calculate each Community and Technical College's share of the student success funding. For Fiscal Year 2011, the three years used for this calculation will be FY 2008, FY 2009, and FY 2010.

#### **IV. 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 2009 Final Allocation of SSI, Access Challenge, and Tuition Subsidy \* 99 % protection) - FY 2010 SSI (after all components outlined in Section I) = FY 2010 Stop Loss Adjustment*

*(FY 2010 Final SSI Allocation \* 98 % protection) - FY 2011 SSI (after all components outlined in Section I) = FY 2011 Stop Loss Adjustment*

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 OACC- FY 2010 (and 2011) Recommendation tabs.***

#### **V. Allocate Institutional Specific Goals and Metrics Funding**

Meeting specific, regional needs of the local community (and economy) is an important component of the Community and Technical College mission. By setting aside 5 % of funding, the funding methodology encourages success at these institutional specific goals and metrics that will be negotiated through a process established by the Chancellor.

Each Community and Technical College will receive an initial set-aside share equal to their proportion of the combined allocations distributed through the enrollment and student success components of the funding formula. The Chancellor will have the ability to redistribute funds based on each institutions relative progress and achievement of its institutional specific goals and metrics. For FY 2010, each institution will have up to 5 % of its initial institution specific allocation at-risk for redistribution. For FY 2011, each institution will have up to 5 % of its initial institution specific allocation at-risk for redistribution.

If the Chancellor determines that additional time is required to establish institutional goals and metrics, the Chancellor may elect to fund each institution at its initial institution specific allocation amount.

It is not yet clear if this part of the funding is included in the Stop Loss.

**VI. Final Formula Adjustment to Campus Allocations**

**FY 2010**

After completing the computations described above for FY 2010, a proportional reduction of 4.2% shall be made to each campuses earnings to determine the actual FY 2010 subsidy distribution. The amount of the FY 2010 formula allocation reduced to meet the actual appropriation will establish base funding in FY 2011, by campus.

**FY 2011**

Notwithstanding any provision of law, in FY 2011 the Chancellor of the Board of Regents shall first pay to each campus an amount equal to the reduction to their FY 2010 formula payment. In addition, each community college will receive the following:

After completing the computations described above for FY 2011, a proportional reduction of 11.20% shall be made to each campuses earnings to determine the FY 2011 formula earnings distributed to each campus. In total, each community college shall receive the following:

FY 2011 Subsidy = 4.2% of FY 2010 Formula Allocation + 88.80% of FY 2011 Formula Allocation

**VII. Apply the Capital Deduction for Each Institution Prior to Distributing the State Share of Instruction Allocation**

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.

## Appendix A

### SSI Taxonomy: A review of significant changes from the FY 2007 allocation methodology

- A. 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<sup>2</sup>)
  - 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.
- B. 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:
    - i. Graduate models
    - ii. STEM programs to ensure that they are not funded below current values (includes Medical II model)
    - iii. 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:
    - i. Removing square footage protection
    - ii. Removing POM weighting
    - iii. Removing Student Services weighting
    - iv. 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.

**APPENDIX B**  
**Six-year Average Cost per FTE by model**

<u>Model</u>	<u>Fiscal Year 2010</u>	<u>Fiscal Year 2011</u>
AH 1	\$7,658	\$7,891
AH 2	\$10,117	\$10,425
AH 3	\$13,067	\$13,464
AH 4	\$19,194	\$19,778
AH 5	\$29,994	\$30,906
AH 6	\$35,991	\$37,085
BES 1	\$6,732	\$6,937
BES 2	\$7,803	\$8,041
BES 3	\$9,619	\$9,911
BES 4	\$11,607	\$11,959
BES 5	\$18,044	\$18,592
BES 6	\$22,615	\$23,303
BES 7	\$27,528	\$28,365
Doc 1	\$35,266	\$36,338
Doc 2	\$36,781	\$37,899
Med 1	\$47,494	\$48,938
Med 2	\$45,420	\$46,801
STEM 1	\$6,943	\$7,154
STEM 2	\$9,792	\$10,090
STEM 3	\$11,963	\$12,327
STEM 4	\$15,282	\$15,747
STEM 5	\$19,471	\$20,063
STEM 6	\$21,771	\$22,433
STEM 7	\$27,906	\$28,755
STEM 8	\$36,547	\$37,658
STEM 9	\$51,283	\$52,842

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

**APPENDIX C**

**Higher Education Funding Commission Priority Weightings for Science, Technology, Engineering, Mathematics, Medicine, and Graduate by model**

<u>Model</u>	<u>Graduate Rate</u>	<u>STEM<sup>2</sup> Weight</u>
AH 1	0.0000%	0.0000%
AH 2	0.0000%	0.0000%
AH 3	0.0000%	0.0000%
AH 4	0.0000%	0.0000%
AH 5	4.2500%	0.0000%
AH 6	4.2500%	0.0000%
BES 1	0.0000%	0.0000%
BES 2	0.0000%	0.0000%
BES 3	0.0000%	0.0000%
BES 4	0.0000%	0.0000%
BES 5	4.2500%	0.0000%
BES 6	4.2500%	0.0000%
BES 7	4.2500%	0.0000%
Doc 1		
Doc 2		
Med 1	25.0000%	39.5582%
Med 2	25.0000%	49.6246%
STEM 1	0.0000%	0.0000%
STEM 2	0.0000%	0.1671%
STEM 3	0.0000%	61.5039%
STEM 4	0.0000%	69.1960%
STEM 5	0.0000%	42.2161%
STEM 6	4.2500%	83.7350%
STEM 7	4.2500%	39.5541%
STEM 8	4.2500%	52.5036%
STEM 9	4.2500%	9.3557%