

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 2012 AND FISCAL YEAR 2013***

FOR USE BY:

UNIVERSITY MAIN CAMPUSES

REVISED: October 31, 2011

**Methodology For
Allocating State Share of Instruction
Fiscal Year 2012-2013 Biennium**

Introduction

The purpose of this document is to provide users detailed information regarding the allocation of the State Share of Instruction (SSI). Fiscal Years 2012-13 continue the process of using 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 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 University Main Campuses. Please be careful to ensure that you are using the appropriate document.***

Please note that the enrollment component of the funding methodology for FY 2012 and FY 2013 for University Main Campuses 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. UNIVERSITY MAIN CAMPUS FUNDING METHODOLOGY

The University Main Campus funding model consists of three components: (1) a course completion component, (2) a student success component, and (3) an institutional specific goals and metrics component. In addition to these components each University Main Campus shall be allocated an amount equivalent to its final FY 2009 Access Challenge allocation, Medical model set-aside, and Doctoral Set-Aside allocation. The Medical and Doctoral Set-Asides are for the whole sector, not individual campuses. Finally, there is a stop-loss calculation that provides temporary stability to institutions when there funding decreases precipitously.

The following methodology is used to determine the share of the total allocation to be processed through the enrollment component, student success component, and an institutional goals and metric component of the formula:

- a. Start with the University Main Campus appropriation for the fiscal year in the parameters tab.
- b. Subtract the following:
 - Doctoral Set-Aside Allocation = 12.89% of the annual State Share of Instruction allocation for University Main Campuses.
 - Medical 1 Set-Aside Allocation = 1.61% of the annual State Share of Instruction allocation for University Main Campuses.

- Medical 2 Set-Aside Allocation = 7.01% of the annual State Share of Instruction allocation for the University Main Campuses.
 - FY 2009 Access Challenge Allocations for Access Institutions (University of Akron, University of Cincinnati, Cleveland State University, Central State University, Shawnee State University, Youngstown State University)
 - For FY 2012, the weighted degree cost component is calculated as 15% of FY 2012 value for the State Share of Instruction (item (a) above), excluding the Access Challenge funding. For FY 2013, the weighted degree cost component is calculated as 20% of the FY 2013 value for the State Share of Instruction (item (a) above), above excluding the Access Challenge funding.
- c. For FY 2012 and FY 2013:
- The remaining amount is to be allocated to the course completion component of the formula.

II. COURSE COMPLETION COMPONENT OF THE FORMULA

Below are the steps used to calculate the course completion 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 2012-2013 biennium, the calculation is based on data for Fiscal Year 2004, Fiscal Year 2005, Fiscal Year 2006, Fiscal Year 2007, Fiscal Year 2008 and Fiscal Year 2009. The cost allocation is done in the Resource Analysis process described on the web at <http://regents.ohio.gov/hei/RA/RAspecifications.html> , and collected in the spreadsheet at L:\Budget-SSI\FY 10-11 DEV\080520 Cost Adjustment v3 2004-2009.xls , in the tab called campus cost. Note, there is a small FTE adjustment for the STEM 7 model at OHSU in Fiscal Years 2004 – 2007 because professional (P) level Optometry was changed in FY 2008 to start reporting course level FTE and as such had more FTE but the same cost.

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 2012 and 2013 include:

- a. Research Challenge income used for instruction.
- b. Other Income used for unrestricted expenses.
- c. Medical Clinical Line Items used for unrestricted expenses.

This is done in the spreadsheet at L:\Budget-SSI\FY 10-11 DEV\080520 Cost Adjustment v3 2004-2009.xls , in the tab called campus cost.

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 of actual HECA increases.

An average cost for instruction for each model was calculated using six years (FY 2004, FY 2005, FY 2006, FY 2007, FY 2008, and FY 2009) 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 2009 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 2009 dollars. The six-year average costs for each model was then inflated annually to the appropriate funding year (FY 2012 or FY 2013) using the HECA. This is done in the spreadsheet at L:\Budget-SSI\FY 10-11 DEV\080520 Cost Adjustment v3 2004-2009.xls , in the tab called campus cost and the tab called model.

The average costs for each model for the biennium are located *in the SSI spreadsheet in the tab called Model.*

Step Four : 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.

The STEM² weighting was calculated in a manner that held 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 graduate weights (used by University Main and Regional campuses) for FY 2012 and FY 2013 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 the enrollment model, using FY 2009 as the base year.

The STEM² and graduate model priority weightings are multiplied by the respective model cost for each of the 26 models, for FY 2012 and FY 2013. *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 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. No adjustments have been made for FY 2012 or FY 2013.

Step Five: 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 Dental Health FTE are based on headcounts.

Medical II Buffering

Medical II buffering has been discontinued in FY 2012 and 2013.

Limitations on Subsidized Law School FTE's

Beginning in FY 2012, historical funding caps on professional law school enrollments were removed and replaced with a new subsidy eligibility policy that restricts SSI funding to in-state students, only.

Step Six : 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 2012

2-year = FY 2011 and FY 2010

5-year = FY 2011, FY 2010, FY 2009, FY 2008, and FY 2007

For Fiscal Year 2013

2-year = FY 2012 and FY 2011

5-year = FY 2012, FY 2011, FY 2010, FY 2009, and FY 2008

*The FY 2007-2012 FTEs and resulting average calculations can be viewed in the SSI spreadsheet in the tab called **Subject Level**. FY 2007 through 2010 are actual FTEs and FY 2011-12 are projected until September 15, 2011 when FY 2011 is replaced by actual and the same for FY 2012 at September 15, 2012.*

Step Seven: Prorate the subsidy eligible data calculated in Step (5) by the course completion rates at each campus by HEI discipline and level.

Accurate course completion data has been reported since FY 2008. The 2 and 5 year averages that are used go back to FY 2007. Therefore, it is necessary to use estimated course completion rates until the next biennium.

The estimated course completions for each campus by Subject Field and level are calculated by multiplying the subsidy eligible FTE values for FY 2012 (as calculated in Step (5)) by the course completion rates at each campus by Subject Field and level in FY 2009- 11. If there are no FTE in either 3 year average, all FTE are considered completed.

Ultimately, the course completion rates are used for the FY 2013 SSI will be FY 2010-12.

The following assumptions are made in determining the course completion rates:

1. All Medical and Doctoral FTE's, as well as Foreign Exchange and Correspondence courses were assigned completion rates of 100%. In the future, when we start using

actual course completions rather than course completion rates, cross registration courses will also be assumed to be completed courses.

Step Eight: Weight the undergraduate FTE course completions.

At-Risk Students are given an additional weighted FTE reflecting both how many at-risk students there are (the at-risk rate) and the difference in course completion rates for at-risk students compared to traditional students (the at-risk weight). At-risk students are those who are financially at risk (EFC < \$2190) or academically at risk (ACT score of 17 or less in either Math or English or completion of developmental course work at any public college or university for students with no ACT scores).

The at-risk rate is calculated for all combinations of Campus and Model for enrollments in FY 2009 and 2010, in the tab called At-Risk Rates.

The at-risk weight is calculated as the difference between course completion rates for traditional undergraduate students versus the course completion rates for those students in the “at-risk” cohort; and the course completion index captures the magnitude of the “at-risk” student population at each campus in all of the combinations of the various at-risk categories.

The at-risk rates, weights and indexes are calculated in a spreadsheet at L:\Budget-SSI\FY2012-13 DEV\Enrollment At Risk Index.

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An explanation of the development of the At-Risk weights and indexes is given in APPENDIX B.

Note: The data used to develop the At-Risk weights and indexes is from earlier years than were used for the SSI in FY 2012 and 13.

The added FTE for at-risk students is:

Course Completed FTE (from Step Six) * At Risk Rate (by Campus and Model) * At Risk Weight (by Model) * At Risk Index (by Campus) and is calculated in the **subject level tab**.

Step Nine: Calculate the Uniform SSI by Campus, Subject Field, and Level of Instruction for both the 2-year and 5-year average course completion FTE

The course completion component of the SSI formula retains the same funding basis (2-year and 5-year averages of eligible FTEs) as did the previous SSI formula.

A calculation of SSI earnings is calculated for each Subject Field and Level on a campus using the 2-year average of subsidy eligible completed FTEs plus the addition for at risk students. These Subject Field and Level earnings are summed to provide a campus SSI earnings total. The same calculations are made using the 5-year average of subsidy eligible FTEs. Each campus will use either the 2-year or 5-year average of subsidy eligible FTE method that produces the highest level of SSI earnings.

The formula for calculating the SSI earnings is:

State Share of Instruction Appropriation = Weighted Course Completion 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. The uniform share is arrived at using the Goal Seek tool in Excel.

Step Ten: Compute the Doctoral Set Aside earnings using the following methodology:

- a. For FY 2012, 70% of the total doctoral set-aside for each eligible campus is calculated as detailed in Step 11 below. For FY 2013, it is 60%.
- b. Calculate the remaining doctoral set aside allocation by subtracting (a) from the total set-aside allocation (= 12.89% of the total SSI for University Main Campuses) . Note that the doctoral set aside earnings described in Step Eleven section (a) does not allocate all of the earnings since some institutions are below the 85% rule.
- c. Allocate 50% of the remaining doctoral set aside based on weighted cost of doctoral degrees. (Approximately 15% of the total doc set aside in FY 2012 and 20% in FY 2013.)
- d. Allocate 50% of the remaining funds based upon their respective shares of the most current NSF expenditure data available (with the NIH expenditures weighted by 50%). (Approximately 7.5% of the total doc set aside in FY 2012 and 10% in FY 2013.)
- e. Allocate the remaining doctoral set aside funding based on quality measures to be determined by an IUC study group. However, in the interim the remaining doctoral set aside will be allocated based on the proportion each institution receives in Step 11. (Approximately 7.5% of the total in FY 2012 and 10% in FY 2013.)

Step Eleven : 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 percentage (or 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 remaining doctoral set aside. 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 1 FTE amounts used in these calculations are found in the **SSI spreadsheet in the Historical Set Aside tab**.

*The doctoral share calculation can be seen in the **Proposed Doctoral Set Aside tab** and the SSI calculation can be viewed in the **University Earnings FY 2012 and 2013 tabs**.*

Step Twelve: Allocate Medical I and Medical II Model Funding

The Ohio State University is the only University Main Campus to have Medical I enrollments; therefore, the entire Medical I funding model shall be allocated to The Ohio State University. The Medical II model funding is allocated based on the enrollment formula outlined in Step Four except it has its own stop loss

that is based on 2% lower than the difference in the Medical II appropriation between the current year and the previous year (i.e. 84% in FY 2012 and 97% in FY 2013.)

*The medical II share calculation can be seen in the **Med 2 Set Aside tab** and the SSI calculation can be viewed in the **University Earnings FY 2012 and 2013 tabs** Note ther is a provision for Clinical Teaching, but it is not implemented in FY 2012 and 2013.*

Step Thirteen: 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 2012-2013 biennium only if (a) it received NASF protection in the FY 2009 formula.

The NASF protection is assessed to all campuses (including those on the protection) based on their total enrollment component of the formula and prior to the calculation of stop loss protection. This calculation can be seen in the SSI *spreadsheet in the campus tab*.

III. Student Success Component of the Formula

This section provides the methodology for allocating the student success component of the SSI formula, as calculated in Section I(b) concerning degrees earned.

Per the IUC’s recommendation the following degrees contributed to the degree attainment earnings:

- Associate degree completion, for the access universities main campus (University of Akron, University of Cincinnati, Cleveland State University, Central State University, Shawnee State University, Youngstown State University) only;
- Baccalaureate degrees; and
- Masters and Professional degrees, excluding Medical 1 and Medical 2 degrees.

Step One: Determine the Statewide Average Degree Costs

The statewide average degree cost is calculated by level based on degrees earned in FY 2007, FY 2008, and FY 2009. Below is a description of aggregations used to calculate the cost of a degree for each level:

- a. For associate degrees we use the various technical areas, plus Liberal Arts as follows:

Program Areas for Associate Degrees

Associate Degree Program Areas	Discipline Areas	Subject Fields
Business Technologies	Business	
Engineering Technologies	Engineering	

Health Technologies	Health	
Public Service Technologies		Public Administration and Services
		Protective Services
Agriculture Technologies		Agriculture
Natural Science Technologies	Natural Science and Math	Exclude Agriculture
Liberal Arts	Arts & Humanities	
	Education	
	Social and Behavioral Sciences	Exclude Public Administration and Services
	Other	Exclude Protective Services

- b. For bachelor's, master's and professional degrees we use the Subject Field
- c. For doctoral, we use Discipline Area, because there are too few degrees in some Subject Fields.

A query of HEI data is used to select degrees earned in FY 2007, FY 2008 or FY 2009 for which there is evidence that all instruction for the degree was earned on a University System of Ohio (USO) campus. (Note: A student's coursework needs to be completed within the time frame of the HEI system's existence (i.e. FY 1999 and later, to be included in the calculation). In other words, we compare the course enrollments (or enrollment terms for medical students) of each degree recipient to the minimum credits required for the degree at each institution (as reported in the Academic Program file in HEI).

In calculating the cost of each degree:

1. We calculate the cost of each degree using the statewide average cost of the SSI model for each course taken. Note: the costs of the courses are inflated using the same methodology as was utilized in determining the SSI model costs in Step 3 of Section II.
2. We count the cost of any courses taken at any USO campus, by students who met the criteria outlined above. However, undergraduate enrollments do not count for graduate degrees and vice versa. Also, for graduate degrees, the course must be taken at the degree granting institution.

This is done in a spreadsheet at L:\Budget-SSI\FY2012-13 DEV\Degree Cost.xls.

Step Two: Determine the number of degrees earned at each University Main Campus for each category of degree and at-risk degrees.

Degree Attainment is measured by the number of degrees earned (by level) at each of the university main campuses for each of the categories described in Step One. For FY 2012, degree attainment is measured by the three-year average of the degrees earned during FY 2009, FY 2010, and FY 2011. Ultimately, for FY 2013, degree attainment is measured by the three-year average of the degrees earned during FY 2010, FY 2011, and FY 2012. Associate degrees are counted only for Access Campuses (Cincinnati, Akron, Cleveland State, Central State, Shawnee State and Youngstown State). Since the University of Cincinnati and the University of Akron have branch campuses and we do not count Associate Degrees earned at the branches; we allocate students to the campus where the majority of their credits were taken. Bachelor's degrees earned on a branch campus are credited to the main campus. If a student earns more than one

degree at the same level, at the same institution in the same year, we use only the most costly of the degrees.

At-risk degrees are defined as those from above that were earned by students with any of the following characteristics:

- **Age:** over 25 at the time of graduation (when exact birth date or graduation date is not available, use the difference between fiscal year graduated and year of birth),
- **EFC:** Less than \$2,190 in the last 3 years prior to degree attainment
- **ACT:** Less than 17 on ACT Exam in either the Math or English
- **Dev:** No ACT data available and completed any Developmental course at any time before the degree was awarded on any USO campus.
- **Race:** African American, American Indian, or Hispanic from the Student Entrance table with the same admission area as the corresponding DC record.

This is done in a spreadsheet at L:\Budget-SSI\Subsidy FTE\Verify FY 2011\Success Points and Degrees.xls and in the future will be done in the Selection of Degrees for SSI Process starting in FY 2011, with historical adjustments to the funded at-risk degrees for FY 2009 and FY 2010, when the new definition of at-risk is installed.

Step Three: Calculate the Statewide At-risk weight and Campus Index for undergraduate degrees earned.

The statewide At-risk weight for undergraduate degrees is designed to reflect the decreased likelihood of students graduating based on whether or not they are at-risk and the Campus Index for undergraduate degrees captures the magnitude of the at-risk student population at each campus in all of the combinations of the various at-risk categories. It was calculated using cohorts of full-time degree seeking students who started college on a USO campus in summer 2001, fall 2001, summer 2002, or fall 2002 and measured their progress for the next 7 years. The 7-year graduation rate of students who were at-risk was compared to that of students who were not at-risk. This is done in a spreadsheet at L:\Budget-SSI\FY 2102-13 DEV\Degree At Risk Index.xls.

An explanation of the development of the at-risk weights and indexes is given in APPENDIX B.
Note: The data used to develop the at-risk weights and indexes are from earlier years than were used for the SSI in FY 2012 and 13.

Step Four: Calculate the degree cost and weighted degree costs for each University Main Campus by degree categories.

Degree Cost is calculated as:

Number of degrees from Step Two * Statewide Average Cost of Degree from Step One * Uniform State Share of Degrees.

Weighted Degree Cost is calculated as:

Number of at risk degrees from Step Two * Statewide Average Cost of Degree from Step One * Uniform State Share of Degrees * At-risk Weight from Step Three * Campus Index from Step Three.

Where the Uniform SSI % is a percentage calculated to allocate the entire appropriation used for degree attainment. The uniform share is arrived at using the Goal Seek tool in Excel.

The results of this calculation can be seen in the SSI *spreadsheet in the Subject Level Degree tab*.

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. Stop loss protection in FY 2012 is 82.51%; this is 3% more than the decrease in SSI earnings from the previous year. Stop loss protection in FY 2013 is 96%; this is 4% of the SSI earnings from the previous year. These stop loss levels were recommended by the IUC and OACC.

Campuses with SSI earnings in the current year less than the stop loss protection are given an additional amount sufficient to bring them up to the stop loss protection level.

Normally, campuses with SSI earnings in the current year larger than the previous year multiplied by the stop loss protection level have their SSI earnings reduced by the current year earnings multiplied by the stop loss level minus the previous year earnings. However, sometimes this reduction will be sufficient to put a campus below the stop loss level. In this case, their SSI earnings are reduced by a smaller percentage which is calculated iteratively so that no campus is put below the stop loss by paying for stop loss protection for other campuses. This lower percentage is arrived at using the Goal Seek tool in Excel.

The calculation for the stop-loss can be found in the *SSI spreadsheet in the University Earnings – FY 2012 and 2013 tabs*.

V. Allocate Institutional Specific Goals and Metrics Funding

Meeting specific goals is an important component of the University mission. Each University 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.

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. 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 that 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 for 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 (STEM²)
 - 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 with an analysis that attempts to identify why the campus significantly exceeds that of other campuses.

APPENDIX B

Proposed Alternative Funding Scenario – SSI “At-Risk” Consultation

Updated by K. Hensel: January, 2011

During the January 2010, meeting of the SSI “At-Risk” Consultation, the Board of Regents was asked to:

- Develop campus indices for the purpose of weighting “at-risk” course completions
- Develop separate campus indices for the purpose of weighting “at-risk” degree completions
- Model the funding impact of modifying the current definition of an “at-risk” student to reflect a broader array of “at-risk” factors (detailed below), including the introduction of the campus indices

In order to better understand the methodology for introducing a campus index, it is helpful to understand how the SSI formula currently captures and calculates the weighted “at-risk” funding for both course and degree completions. As you will recall, the current SSI formula identifies an “at-risk” student as one who is, or at one time was, eligible to receive the state’s need based financial aid. Specifically, the following summarizes how the additional funding for an “at-risk” student is applied within the SSI formula, for universities:

“At-Risk” for Course Completions, by discipline area and level:

(“At-Risk” Completed FTEs) * (Statewide Average “At-Risk” Weight ¹)

¹ Where the statewide average “at-risk” weight is calculated as the ratio of course completion rates for traditional undergraduate students versus the course completion rates for OIG/OCOG eligible students.

“At-Risk” for Degree Completions (Main Campuses only), by subject and level:

(“At-Risk” Degree Completions) * (Statewide Average “At-Risk” Degree Weight ² = 34.4%)

² Where the “at-risk” degree weight is calculated by dividing the percentage of traditional students who earn a degree versus the percentage of OIG/OCOG eligible students who earn a degree. The “at-risk” degree weight applies to baccalaureate degrees and associate degrees (at access universities), only.

Admittedly, the current methodology employs a narrow definition of an “at-risk” student (captured as being financially “at-risk”) and does not account for variation in the degree to which student populations are “at-risk” among and between campuses. Therefore, the subsidy consultation recommended the following:

- Development of a campus course completion index that (1) expands the definition of an “at-risk” student to include both financial need and lack of academic preparation; and (2) recognizes the variation in the “at-risk” student cohorts at the respective campuses.
- Development of a degree completion index that (1) expands the definition of an “at-risk” student to include financial need, lack of academic preparation, race/ethnicity and age; and (2) recognizes the variation in the “at-risk” student cohorts at the respective campuses.

In response to this request, staff at the Board of Regents:

1. Developed a course completion index that (1) defines financially “at-risk” students as those with an EFC < \$2190; and (2) defines lack of academic preparation as having an ACT score of 17 or less in either Math or English (or, as needed, defaults to the completion of developmental course work at any public college or university). See **Attachment #1** for more details.
2. Developed a degree completion index that (1) defines financial “at-risk” students as those with an EFC < \$2190; and (2) defines lack of academic preparation as having an ACT score of 17 or less in either Math or English (or, when needed, defaults to the completion of developmental course work at any public college or university); (3) classifies African American, American Indian, and Hispanic students as “at-risk”; and (4) classifies students who are 23 or older in their first year as “at-risk.” See **Attachment #2** for more details.
3. Revised the additional funding for an “at-risk” student, as applied within the SSI formula, as follows:

“At-Risk” for Course Completions, by model (this represents a revision to the recommendation):**
(“At-Risk” Completed FTEs) * (Statewide Average “At-Risk” Weight) * (Campus Course Completion Index)³

³ *Where: (a) the statewide average “at-risk” weight is calculated as the ratio of course completion rates for traditional undergraduate students versus the course completion rates for those student in the “at-risk” cohort; and (b) the course completion index captures the magnitude of the “at-risk” student population at each campus in all of the combinations of the various at risk categories.*

“At-Risk” for Degree Completions (Main Campuses only), by subject and level:
(“At-Risk” Degree Completions) * (“At-Risk” Degree Weight = 38.1%)*(Campus Degree Completion Index)⁴

⁴ *Where: (a) the “at-risk” degree weight is calculated by dividing the degree completion rate of traditional students versus the degree completion rate for the “at-risk” cohort; and (b) the degree completion index captures the magnitude of the “at-risk” student population at each campus in all of the combinations of the various at risk categories. The “at-risk” degree weight and campus index are applied to baccalaureate degrees and associate degrees (at access universities where the majority of FTE was earned on the main campus), only.*

The net impact of the application of unique campus indices for both course and degree completions is the introduction of a mechanism to provide differential funding weights, by campus, in recognition of the differing campus missions and their “at-risk” student populations.

Attachment #1 – Summary of the Course Completion Index

In order to develop a campus specific course completion index, staff analyzed student enrollment and completion data from a cohort of enrolled students from FY 2008 and FY 2009. Specifically, the students were categorized in each of the four possible categories:

1. Students having no risk factors
2. Students identified as being financially “at-risk,” only. In this case, the definition is tied to those students with an EFC less than \$2190, anytime in the latest three years.
3. Students identified as being academically “at-risk,” only. In this case, the definition is tied to those students with an ACT score of 17 or less in either English or Math; OR, students who completed any developmental course in any year (at any school) if an ACT score was not available. The ACT score was scaled to 17 so that it would classify approximately as many students as being at risk as the developmental course test.
4. Students identified as being both financially and academically at risk.

The student level cohort data lead to the development of a campus index for course completions that provides additional weighting to those “at-risk” cohorts defined above. The weightings for each “at-risk” cohort is calculated as the statewide difference in the course completion rate of the students with no risk factors as compared to the completion rate of the respective “at-risk” cohorts. The campus index is then calculated as follows:

[Weighted Student FTE Cohort] / Total (Un-Weighted) FTE Cohort

While a summary of the campus student cohorts and indices appear in the table on the following page, the calculation of a single campuses course completion index appears below.

University of Akron’s WAYN Campus Student Cohort Data, FY 2008-09

Total Cohort = 2,369 Eligible FTE

No Risk Factors = 1,130 Eligible FTE (Un-weighted with a factor of 1.000)

Financial, only = 404 Eligible FTE (Weighted by a factor of 1.100)

Academic, only = 484 Eligible FTE (Weighted by a factor of 1.058)

Both “At-Risk” Factors = 351 Eligible FTE (Weighted by a factor of 1.162)

WAYN Campus Index = $[(1,130*1) + (404*1.100) + (484*1.058) + (351*1.162)] / 2,369$

WAYN Campus Index = $[1,130+444+512+408] / 2,369$

WAYN Campus Index = $2,494/2,369$

WAYN Campus Index = 1.053

Course Completion Degree Data and Campus Index												Differential Course Completion Rates				Weighted Student FTE	Campus Index
Un-weighted Student FTE Cohort						Weighted Student FTE Cohort											
		No Risk	Financial, only	Academic, only	Both	Student FTE Cohort	No Risk	Financial Only	Academic, Only	Both							
		1.000	1.000	1.000	1.000		1.000	1.100	1.058	1.162							
Inst	Campus																
AKRN	WAYN	1,130	404	484	351	2,369	1,130	444	512	408	2,494	1.053					
BGSU	FIRE	1,102	465	718	675	2,960	1,102	511	760	785	3,158	1.067					
CINC	CLER	1,624	713	1,540	1,181	5,058	1,624	784	1,629	1,372	5,409	1.069					
CINC	WALT	2,206	708	1,891	1,210	6,015	2,206	780	2,000	1,406	6,391	1.062					
KENT	ASHT	485	269	570	778	2,101	485	296	603	903	2,286	1.088					
KENT	ELIV	199	133	303	425	1,060	199	146	321	494	1,160	1.094					
KENT	GEAG	495	181	525	318	1,519	495	199	555	369	1,619	1.066					
KENT	SALM	424	257	515	531	1,727	424	283	545	617	1,869	1.082					
KENT	STRK	1,825	866	1,587	1,073	5,352	1,825	953	1,678	1,247	5,703	1.066					
KENT	TRMB	635	353	924	878	2,790	635	388	978	1,020	3,021	1.083					
KENT	TSCR	798	391	696	736	2,621	798	430	736	856	2,819	1.076					
MIAM	HAML	2,162	748	1,050	593	4,552	2,162	822	1,111	689	4,783	1.051					
MIAM	MIDL	1,381	558	679	585	3,203	1,381	614	718	680	3,392	1.059					
OHSU	AGTI	619	191	351	113	1,275	619	210	371	132	1,332	1.045					
OHSU	LIMA	1,155	407	503	324	2,389	1,155	447	532	376	2,511	1.051					
OHSU	MARI	1,303	387	764	541	2,995	1,303	426	808	628	3,166	1.057					
OHSU	MNSF	1,130	438	595	463	2,626	1,130	482	629	538	2,779	1.058					
OHSU	NWRK	2,177	676	1,037	605	4,496	2,177	744	1,097	703	4,721	1.050					
OHUN	CHLC	780	523	731	982	3,016	780	576	773	1,141	3,269	1.084					
OHUN	EAST	468	207	281	248	1,205	468	228	297	288	1,282	1.064					
OHUN	LANC	1,001	440	651	563	2,655	1,001	484	689	655	2,828	1.065					
OHUN	STHN	720	518	652	895	2,784	720	570	689	1,039	3,018	1.084					
OHUN	ZANE	929	553	593	706	2,780	929	608	627	820	2,984	1.073					
WSUN	LAKE	569	212	302	147	1,230	569	233	320	171	1,292	1.051					
AKRN	AKRN	15,184	4,578	6,983	5,001	31,746	15,184	5,037	7,385	5,810	33,416	1.053					
BGSU	BGSU	14,914	3,636	5,668	2,319	26,536	14,914	4,000	5,994	2,694	27,602	1.040					
CINC	CINC	20,793	4,312	4,561	2,640	32,306	20,793	4,745	4,823	3,067	33,428	1.035					
CLEV	CLEV	6,237	2,952	3,396	3,770	16,354	6,237	3,248	3,591	4,379	17,455	1.067					
CNTL	CNTL	305	662	350	1,189	2,505	305	729	370	1,381	2,784	1.111					
KENT	KENT	14,268	3,984	7,275	3,797	29,323	14,268	4,383	7,694	4,411	30,756	1.049					
MIAM	MIAM	17,634	2,079	1,022	408	21,144	17,634	2,287	1,081	474	21,477	1.016					
OHSU	OHSU	52,470	10,670	6,527	4,081	73,748	52,470	11,740	6,903	4,741	75,854	1.029					
OHUN	OHUN	22,628	4,077	4,113	1,651	32,469	22,628	4,486	4,350	1,918	33,382	1.028					
SHAW	SHAW	2,475	1,396	1,335	1,472	6,679	2,475	1,537	1,412	1,710	7,134	1.068					
TLDO	TLDO	15,988	4,050	5,140	3,588	28,767	15,988	4,456	5,436	4,169	30,049	1.045					
WSUN	WSUN	11,016	3,436	5,018	3,014	22,484	11,016	3,781	5,306	3,501	23,605	1.050					
YNGS	YNGS	6,914	3,487	4,838	4,423	19,663	6,914	3,837	5,116	5,139	21,006	1.068					

The campus weight is then applied to the “At-Risk” Completed FTEs as follows:

“At-Risk” for Course Completions, by model (this represents a revision to the recommendation):**
(“At-Risk” Completed FTEs) * (Statewide Average “At-Risk” Weight) * (Campus Course Completion Index)

Using the following Statewide Model Weights:

- | | | |
|---------------|----------------|-----------------|
| AH 1 = 14.05% | BES 1 = 13.59% | STEM 1 = 20.18% |
| AH 2 = 7.87% | BES 2 = 11.88% | STEM 2 = 10.31% |
| AH 3 = 5.69% | BES 3 = 6.63% | STEM 3 = 9.56% |
| AH 4 = 6.59% | BES 4 = 5.34% | STEM 4 = 5.44% |
| | | STEM 5 = 3.79% |

Attachment #2 – Summary of the Degree Completion Index

In order to develop a campus specific degree completion index, staff analyzed student enrollment and degree completion data from two eight year cohorts of degree seeking, but not necessarily full time enrolled students, who began in FY 2000 or FY 2001 on a university main campus. The “at-risk” factors analyzed for the degree completions index appear below:

1. Students identified as being financially “at-risk.” In this case, the definition is tied to those students with an EFC less than \$2190, at any time.
2. Students identified as being academically “at-risk.” In this case, the definition is tied to those students with an ACT score of 17 or less in either English or Math; OR, students who completed any developmental course in any year (at any school) if an ACT score was not available.
3. Students identified as being “at-risk” based on the following race/ethnicity categories: African American, American Indian and Hispanic.
4. Students identified as being at risk based on age. In this case, the definition is identified as students who began their first year at age 23 or older.

The student level cohort data lead to the development of a campus index for degree completions that provides additional weighting to the fifteen possible “at-risk” cohorts representing all the possible permutations of the factors detailed above. The weightings for each “at-risk” cohort are calculated as the statewide difference in the degree completion rate of the students with no risk factors as compared to the completion rate of the respective “at-risk” cohorts. The campus index is then calculated as follows:

[Weighted Student Degree Cohort] / Total (Un-weighted) Student Degree Cohort

A summary of the campus degree weights and indices appears in the table on the following page.

Student Cohort and Campus Index Details, Degrees

Differential Degree Completion Rates, comparing degree attainment for "at-risk" cohort to the student cohort with no risk factors																	
	5.0%	41.4%	63.0%	520.0%	252.4%	271.2%	201.0%	30.0%	46.6%	83.7%	131.8%	314.1%	683.8%	435.1%	325.5%		
Inst	Case 00	Case 01	Case 02	Case 03	Case 04	Case 05	Case 06	Case 07	Case 08	Case 09	Case 10	Case 11	Case 12	Case 13	Case 14	Case 15	Total
AKRN	1,425	870	961	687	108	155	69	117	73	152	110	462	9	98	11	102	5,409
BGSU	3,139	1,291	1,395	632	11	11	3	13	187	130	86	169	1	1	-	-	7,069
CINC	3,065	1,181	1,198	606	133	41	30	53	146	218	191	580	6	40	10	39	7,537
CLEV	468	305	363	336	74	46	26	37	36	96	85	332	10	35	7	33	2,289
CNTL	30	22	2	15	3	3	2	1	138	124	44	274	6	2	1	6	673
KENT	2,766	1,341	1,573	820	38	48	37	40	108	128	148	297	2	9	1	9	7,365
MIAM	4,842	1,261	137	41	2	-	-	-	239	120	41	47	1	1	-	-	6,732
OHSU	6,629	3,066	563	271	11	12	5	10	487	500	192	415	4	5	2	6	12,178
OHUN	3,884	1,615	559	330	11	12	5	9	122	86	31	62	-	-	-	2	6,728
SHAW	187	230	164	270	34	48	16	56	7	5	4	27	-	5	1	2	1,056
TLDO	2,552	1,248	1,107	679	69	61	18	47	121	222	148	460	13	50	3	31	6,829
WSUN	1,571	814	851	485	15	18	10	16	70	102	89	318	4	9	-	7	4,279
YNGS	537	351	384	307	14	47	10	38	23	39	35	90	7	16	1	16	1,915

Student Cohort Data, Degree Completions

Weighting Factor used for each respective student cohort																	
	1.000	1.050	1.414	1.630	6.200	3.524	3.712	3.010	1.300	1.466	1.837	2.318	4.141	7.838	5.351	4.255	
Case 00	Case 01	Case 02	Case 03	Case 04	Case 05	Case 06	Case 07	Case 08	Case 09	Case 10	Case 11	Case 12	Case 13	Case 14	Case 15	Weighted Total	Index
1,425	914	1,359	1,120	670	546	256	352	95	223	202	1,071	37	768	59	434	9,531	1.76
3,139	1,356	1,973	1,030	68	39	11	39	243	191	158	392	4	8	-	-	8,651	1.22
3,065	1,241	1,694	988	825	144	111	160	190	320	351	1,345	25	314	54	166	10,990	1.46
468	320	513	548	459	162	97	111	47	141	156	770	41	274	37	140	4,285	1.87
30	23	3	24	19	11	7	3	179	182	81	635	25	16	5	26	1,269	1.89
2,766	1,409	2,224	1,337	236	169	137	120	140	188	272	689	8	71	5	38	9,809	1.33
4,842	1,325	194	67	12	-	-	-	311	176	75	109	4	8	-	-	7,122	1.06
6,629	3,221	796	442	68	42	19	30	633	733	353	962	17	39	11	26	14,020	1.15
3,884	1,696	790	538	68	42	19	27	159	126	57	144	-	-	-	9	7,559	1.12
187	242	232	440	211	169	59	169	9	7	7	63	-	39	5	9	1,848	1.75
2,552	1,311	1,565	1,107	428	215	67	141	157	325	272	1,066	54	392	16	132	9,801	1.44
1,571	855	1,203	791	93	63	37	48	91	150	163	737	17	71	-	30	5,920	1.35
537	369	543	501	87	166	37	114	30	57	64	209	29	125	5	68	2,941	1.54

Risk Factor	1. Financial: Smallest EFC <\$2190 in any year																
	2. Academic: ACT 17 or less in either English or Math or student completed any developmental course in any year at any school if they had no ACT score.																
	3. Age: Over 22 when they started college.																
	4. Race: African American, Hispanic or American Indian.																
Case	00: No risk factor							08: Race only									
	01: Financial only							09: Race and Financial only									
	02: Academic Only							10: Race and Academic only									
	03: Financial and Academic only							11: Race, Financial and Academic only									
	04: Age only							12: Race and Age only									
	05: Age and Financial only							13: Race, Age and Financial only									
	06: Age and Academic only							14: Race, Age and Academic only									
	07: Age, Financial and Academic only							15: All risk factors									