

# Funding Model Example

## Illinois State University

### Bachelor's Degrees (3 Year Average FY14 – FY16)

- The base performance measures are first gathered and entered into the formula
  - In this example, we will be looking at the bachelor degree completions for ISU on average over a 3-year period
- Sub-population performance measures are then recorded for bachelor's, master's, and doctoral degrees and entered into the formula
  - These measures are weighted at 40% and added to the base measures as a “bonus”
- For ISU, the base performance measure for bachelor's degrees on average from FY14 – FY16 was 4,340
- The sub-population measures for ISU over the same period for bachelor's degrees are as follows:
  - Pell Eligible: 5,342
  - Adult: 432
  - Hispanic: 266
  - African American: 220
  - STEM & Health Care: 976
- All sub-population measures are added together and multiplied by 40%. Then, they are added to the base measure to get the weighted measure. The data has now been “prepped” for us in the formula:

$$4,340 + 0.4(5,342 + 432 + 266 + 220 + 976) = 7,234$$

- Next, the weighted measure is adjusted via the scaling factor.
  - The scaling was factor for each measure was determined during the inception of the formula, by dividing the average bachelor's degrees for all universities by the average for each respective measure
    - There were some rounding and slight adjustments
  - The scaling factor for bachelor's degrees is “1” so the weighted measure in this example remains at 7,234

- The follow table displays the weights for all performance measures:

<u>Scaling Factor</u>	<u>Weight</u>
Bachelor's Degrees (3 Yr. Avg. 14-16)	1.00
Masters Degrees (3 Yr. Avg. 14-16)	1.00
Doctoral and Prof Degrees (3 Yr. Avg. 14-16)	2.00
Undergrad Degrees per 100 FTE (3 Yr. Avg. 14-16)	200.00
Graduation Rates 150% of Time, First-Time (3 Yr. Avg. Fall 09-11 Cohort)	50.00
Graduation Rates 150% of Time, Transfer (30 or less credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	50.00
Graduation Rates 150% of Time, Transfer (31 to 59 credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	50.00
Graduation Rates 150% of Time, Transfer (60 or more credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	50.00
Completed 24 Semester Hours, First-Time (3 Yr. Avg. 14-16)	2.00
Completed 24 Semester Hours, Initial Transfer (30 or less credit hrs.) (3 Yr. Avg. 14-16)	2.00
Completed 24 Semester Hours, Initial Transfer (31 to 59 credit hrs.) (3 Yr. Avg. 14-16)	2.00
Completed 24 Semester Hours, Initial Transfer (60 or more credit hrs.) (3 Yr. Avg. 14-16)	2.00
Cost per Credit Hour (3 Yr. Avg. 14-16)	-8.00
Cost per Completion (3 Yr. Avg. 14-16)	-0.050
Research and Public Service Expenditures (3 Yr. Avg. 15-17)	0.00005

- Once the scaling factor has been applied, the measure is weighted by institutional missions.
  - Institutions have different goals, so measures are weighted differently from school to school
  - Each measure is weighted differently depending on the institution
  - The total for all institutional weight percentages for each school is 100%
- For ISU, bachelor's degrees are weighted at 33%

$$7,234 * 0.33 = 2,387$$

- This result gives us our weighted outcome
- Using the method demonstrated so far, weighted outcomes are determined for all 15 performance measures, and then totaled for each university.
- The following table displays the weighted outcomes for all measures for ISU over the same period and gives our total:

<b>Weighted Outcomes</b>	<b>ISU</b>
Bachelor's Degrees (3 Yr. Avg. 14-16)	2387
Masters Degrees (3 Yr. Avg. 14-16)	173
Doctoral and Prof Degrees (3 Yr. Avg. 14-16)	7
Undergrad Degrees per 100 FTE (3 Yr. Avg. 14-16)	817
Graduation Rates 150% of Time, First-Time (3 Yr. Avg. Fall 09-11 Cohort)	89
Graduation Rates 150% of Time, Transfer (30 or less credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	31
Graduation Rates 150% of Time, Transfer (31 to 59 credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	36
Graduation Rates 150% of Time, Transfer (60 or more credit hrs.) (3 Yr. Avg. Fall 09-11 Cohort)	21
Completed 24 Semester Hours, First-Time (3 Yr. Avg. 14-16)	146
Completed 24 Semester Hours, Initial Transfer (30 or less credit hrs.) (3 Yr. Avg. 14-16)	4
Completed 24 Semester Hours, Initial Transfer (31 to 59 credit hrs.) (3 Yr. Avg. 14-16)	9
Completed 24 Semester Hours, Initial Transfer (60 or more credit hrs.) (3 Yr. Avg. 14-16)	8
Cost per Credit Hour (3 Yr. Avg. 14-16)	-58
Cost per Completion (3 Yr. Avg. 14-16)	-39
Research and Public Service Expenditures (3 Yr. Avg. 14-16)	158
<b>Total</b>	<b>3789</b>

- The total weighted outcome for ISU is 3,789
- The total weighted outcome for each school is then divided by the grand total of weighted outcomes for all institutions to get a percentage.
- This percentage will determine the portion of the 0.5% of re-appropriated funds to be included in IBHE's recommendation
- In this example for FY 19, the grand total of weighted outcomes came out to 55,486

$$\frac{3,789}{55,486} = 6.83\%$$

- The 0.5% of re-distributed appropriated funds starts with the previous fiscal year's appropriation total and removes high cost entities for UIUC, UIC, SIUC, & SIUE
  - High cost entities include Medical/Hospital/Dental Program Factors
- For FY 18, the final appropriation totaled \$1.083 billion
- For FY 19, the high cost entity total was calculated to be \$116.7 million
- After high cost entities are removed, the amount is multiplied by 0.5% to get the amount of appropriated funds to be redistributed.

$$0.005(\$1,083,448,400 - \$116,669,600) = \$4,833,894$$

- The performance-based funding model intends to redistribute \$4.8 million among all 12 universities

- The \$4.8 million is finally multiplied by the each university's weighted outcome percentage to determine IBHE's recommended amount for each school
  - Universities with high cost entities will then have 0.5% of their set aside amount added back in.
    - This does not apply to ISU

$$6.8\% * 4,833,894 = \mathbf{\$330,131}$$

- The final recommendation for the 0.5% allocation for ISU is \$330,131
  - ISU's 0.5% share of the re-allocated funds is \$325,020
  - This results in an increase of \$5,111 in the recommended appropriation for ISU from the previous year
  - This equates to about a 0.01% overall increase

# Funding Model Example

## Southern Illinois University Carbondale

### Research & Public Service Expenditures (3 Year Average FY15 – FY17)

- In this accelerated example, we'll be observing the research and public service expenditures for SIUC
  - The base performance measure is \$56,230,733
  - Sub-population measures are not considered for research and public service measures
- Therefore, the weighted performance measure is \$56,230,733
- The scaling factor for research and public service expenditures is 0.00005 (0.005%)

$$0.00005 * \$56,230,733 = \mathbf{2,811.5}$$

- After applying the scaling factor, we then adjust this new value with the institutional mission weight
  - SIUC's institutional mission weight is 25% for research and public service expenditures

$$0.25 * 2,811.5 = \mathbf{703}$$

- The weighted outcome for research and public service expenditures is 703
- Combining 703 with the other 14 weighted outcomes gets us a total weighted outcome of 3,759 for SIUC
- We take this value and divide it by the grand total of 55,486 to get SIUC's weighted outcome percentage:

$$\frac{3,759}{55,486} = \mathbf{6.78\%}$$

- As shown in the ISU example, high cost entities are deducted from last fiscal year's appropriation and then multiplied by 0.5% to get \$4,833,894.

- By multiplying the \$4.8 million by SIUC's weighted outcome percentage, we will calculate the base value for the redistribution of 0.5% of last year's appropriation

$$6.78\% * \$4,833,894 = \mathbf{\$327,511}$$

- For most universities, the calculation would be finished, but SIUC is one of the 4 schools that attributed to the deduction of high cost entities
  - For these schools, 0.5% of their high cost entities will be added to their final amount
  - SIUC has \$3,231,800 worth of high cost entities

$$0.005 * \$37,424,800 = \mathbf{\$187,124}$$

- Finally, we add this value to the base recommendation:

$$\$187,124 + \$327,511 = \mathbf{\$514,635}$$

- The final recommendation for the 0.5% allocation for SIUC is \$514,635
  - SIUC's 0.5% share of the re-allocated funds is \$592,070
  - This results in a reduction of \$77,435 in the recommended appropriation for SIUC from the previous year
  - This equates to about a 0.07% overall reduction