Technical Modeling Workgroup Meeting #5 - March 16, 2023 (9am-11am CT) Meeting Notes

MEETING OBJECTIVES

- 1. Overview of draft funding framework
- 2. Discuss benchmarking and other options to adjust for adequacy
- 3. Discuss equity-based adjustments and considerations for other adjustments across Instruction and Student Service components
- 4. Review concepts for Equitable Student Share resource calculations

Welcome & Agenda Overview

Executive Director Ginger Ostro opened the meeting with general announcements regarding Open Meetings Act, that the meeting will be recorded and instructions for any members of the public who would like to participate in Public Comment. Martha Snyder then provided an overview of the agenda.

Action: Approval of minutes from February 16, 2023 Workgroup Meeting

Beth Ingram made a motion to approve the minutes from the February 16, 2023 workgroup meeting. Ralph Martire seconded the motion. All workgroup members present were in favor. Workgroup members were asked to provide an introduction and share their affiliation during the approval of minutes.

Overview of Workgroup/Review of Work Plan

Start with an Equity-Centered Adequacy Target

Martha Snyder walked through the conceptual model, similar to the K-12 EBF was shared on the screen as a reminder. Each institution will have an Adequacy Target, built from the components of what it costs for students to succeed and will vary based on student need. Equity adjustments will be made based on variable student need to reflect the priority of increasing more equitable access and success for historically underserved student populations. Adequacy will also consider research, service, and artistry missions. Cost for facilities operations and maintenance included, as well.

Conceptual Model

Identify Available Resources: include existing state funding as base, account for "expected tuition," and other resources, like endowment. "Expected tuition" rather than actual tuition helps address more equitable affordability.

State Funds fill in Gap in Resources: model to be developed, but goal to distribute new state investments to institutions with the greatest gap between equity-centered adequacy target and current available resources (state, expected tuition and other).

Proposed Model for Instruction and Student Services

"*Top-Down"* Approach to Calculating Adequacy Targets Baseline Using Rev. & Expend. Report

- Start with the current structure and funding levels in the R&E report
- Move certain elements to match adequacy categories
- Adjust the Base to Benchmarks
 - The status quo in the R&E levels must be increased to provide sufficient base funding
 - Adjust each category using an agreed-upon factor or better data source

Adjust for Adequacy

Ensure equity by adding in weights for student, program and instructional characteristics

Will Carroll walked through the spreadsheet of the proposed model components and adjustments that was shared with the workgroup members prior to the workgroup meeting. Proposed equity adjustments were proposed and outlined in the spreadsheet.

Michael Moss noted that in the spreadsheet there were both revenue and expenditures. This is a decision point that the workgroup needs to talk through. HCM recommends using a mix of the two.

Developing Baseline Cost Using Current IL Expenditures Current vs. Historical

- Current spending per student is high relative to past years, partly due to declining enrollment at many schools (-5% from 2015) and increasing expenditures (+3%).
- The average of 2022, 2015, and 2010 is about 10% less than 2022 levels.

Headcount vs. FTE

- Headcount is 6% higher than FTE.
- Headcount may make sense for student services, while FTE may make sense for instructional costs.

Jeanette Malafa raised a flag about the statement "higher education spending is higher than it's ever been." Will Carroll clarified that expenditures on a per student basis are higher now based on the data. Andrew Rogers noted that, similarly, this is nominal data and not adjusted for inflation. Jeanette Malafa also noted that a good portion of headcount can be dual credit. Ralph Martire shared that the inflation adjustment is crucial to be able to compare apples to apples.

The workgroup would revisit the above choices after discussing the full model framework. It is possible the base could not impact the final costs and allocation of the model, depending on how the base adjustment and equity adjustments are made.

Choices in Calculating the Base

Expenditures from All Revenues or Only State Approps & UIF

- Main drivers of the difference between All and State/UIF:
 - Non-academic supports: student health and medical services, social and cultural development
 - Mission: Community Services, Cooperative Extension Services, Research Centers, Individual/Project Research
 - O&M: Permanent Improvement, Repairs/Maintenance
- Recommendation: Use "All Revenue Sources" for expenditures that go towards instruction and Student Services, as those are likely to impact adequacy and equity. Use "State & UIF Revenue" for expenditures that go towards Mission and O&M.
- Will Carroll walked through the baseline cost per student chart with the following adequacy components: student centered access, academic supports, non-academic supports, core instruction costs, mission (research, public service, artistry) and O&M.

Adjusting the Baseline to Benchmarks

Ways to Adjust to Benchmarks

- Increase Funding to Reach an Outcome Target
 - Calculate an adjustment necessary to move from current levels to a target level (e.g., graduation rate) based on research and data analysis linking spending to outcomes.
- Identify Funding Levels of High-Performing Institutions
 - Use different sources (IL historic highs in spending per FTE, 75th percentile IL or national spending, peer institutions with diverse student bodies and strong, equitable outcomes) to make informed decisions about adequacy adjustment to current levels.

Graduation Rates as an Outcome Target

- Research on Effect of funding on Graduation Rates
 - Chakrabarti et al 2020: "Experiencing a \$1,000 per-FTE increase in state appropriations while enrolled in college increases the likelihood of earning a bachelor's degree by age 25 by 1.5pp for students first enrolled at a four-year institution."
 - Demings and Walters 2018: "A 10% increase in institutional spending increases credentials awarded at community colleges by 14.5% and BA attainment at four-year institutions by 4.5%."
 - Bound et al 2019: "A 10% decrease in state appropriations at public four-year research institutions results in a 3.6% decrease in bachelor's degree completion, a 7.2% decrease in Ph.D. completion, and has no statistically significant effect on master's degree completion."

Nate Johnson walked through the average spending at different graduation rates. Johnson looked at all four-year institutions, public and private, with enrollments over 1,000. There is no difference in how predictive a model is when you add a variable for public or private. The public or private tends to be a proxy for actually having more spending. Up to about a 50-60 percent graduation rate there isn't much difference in average spending. Johnson showed a scatter plot on screen and walked through the graphic.

Identifying a Benchmark

- Schools with graduation rates of 80 percent have approximately \$40,000 in education and related expenditures.
- We can calculate the compare IL figure and adjust the baseline by the percent difference (data forthcoming).
- Note: the baseline data on slide 8 is <u>not</u> comparable.

Workgroup members asked various questions regarding the point of the exercise. While the data is not causal, there are very few institutions with a 70-80 percent graduation rate that have spending below a certain level. If we think about socioeconomic status, the institutions at the top of the scatter plot are places where average family incomes are likely twice what they are at NIU, for example. The purpose of this is to set a consistent statewide aspirational level to have better outcomes for students. Setting the stage is what we're going to have to do for Legislators. Commissioner Martire made comparisons to what was found in the K-12 EBF and noted that the correlations have been helpful. A challenge in Illinois has been to find a statistically meaningful correlation of anything between expenditures on students and student outcomes. During the K-12 EBF work, they looked at sample size of the wealthiest school districts in Illinois, which had the lowest percentages of low income students. A statistically meaningful correlation between the expenditure per child and student outcome was found, even in very wealthy districts that were controlling

for income. There is a need to come up with a benchmark as to why the added investment is likely to generate the better outcomes that we're looking for.

Mike Abrahamson agreed that it's helpful to think through these facts. However, there are serious conceptual issues that translate to operational issues. A correlation can't be considered causal if there are highly selective institutions included. The mission of the Commission is to look at equity. How do you adjust for all the complex historical issues that have led us to where we are? The research previously cited does appear to sort out some of the causal effect. Carroll shared that none of the approaches will give the exact answer, as there will be challenges and caveats, but looking at a number of approaches can help sort out what is necessary to achieve a strong outcome for Illinois students.

Benchmarking Adjustment Options

Outcome Target

- Goal: increase grad rate from 63.3% to 70% (6.7 pp)
- An additional \$600/FTE increases completion by 1 pp
- Needed investment: \$4,276 per headcount

High-Performing Institution Comparison

- Goal: fund IL schools at a level comparable to those that achieve >80% graduation rates
- Current IL E&R expenditures: \$27,000
- E&R expenditures for high grad-rate schools: \$40,000
- Needed investment: (48% increase over current spending) or \$9,653 per headcount

Carroll showed how the above looks in the model, noting the following:

- HCM made the adjustment to Instruction and Student Service categories, not Mission and O&M. The rationale is that the Education & Related Expenditures used in the analysis of relationship between spending and graduation rates is most closely aligned with the costs in those categories. Adjustments to Mission and O&M are TBD.
- HCM plans to break out Core Instruction Costs by level and discipline. Each would get its proportional share of the benchmarking adjustment. The greater level of granularity will allow for program differentiation in building the Adequacy Targets.
- The Per Student Adjusted Base uses the 70% Grad Rate adjustment.

Kim Tran asked whether HCM can provide a breakdown of what the grad rate would look like based on the specific categories outlined in *A Thriving Illinois*. This would allow the workgroup to see what areas the state already outlines at priority.

Benchmarking Adjustment Options

- Which adjustment option do you prefer outcome target or high-performing comparison?
- If we use an outcome target, is a 70% grad rate the right target?
- If we use a high-performing comparison, what graduation rate should it benchmark against?
- Might this approach to a base adjustment , or a similar one, work for Mission or O&M as well?

Mike Abrahamson echoed importance in what Tran previously shared. The overall 70 percent grad rate doesn't speak to the Commission mission. There is very clear language in the statute, which speaks to the purpose. Beth Ingram shared her agreement. Executive Director Ostro shared that this is a first step in leveling what Illinois is spending before moving to the next step around investing, equity, adequacy. Commissioner Weffer shared that there is a large delta between the recommendation and the reality of the dollars spent. A clustered analysis, with more selection of schools that match up with Illinois schools, may be more helpful. While it won't be as statistically powerful, but could be more accurate in comparisons. Jeannette Malafa shared that this is a plus/and, not an either/or. Commissioner Martire echoed his agreement.

Adjusting for Equity

Ways to Adjust for Equity

- Increase funding to reach an outcome target (e.g., eliminate gaps).
- Translate best-practice interventions (cost and impact) into a weight or add-on.

Johnson walked through an analysis of spending to achieve similar graduate rates for pell and BIPOC students. He shared a chart on screen with the workgroup members.

Implications of analysis:

- Outcome gaps for low-income and students of color correlate with different levels of spending.
- Institutions with 60% graduation rates for students of color spend about \$4,000 (13-17%) more per student than institutions with 60% overall graduation rates.
- Institutions with 70% graduation rates for students of color spend about \$4,000-6,000 (11-22%) more per student than institutions with 70% overall graduation rates.
- Institutions with 60% graduation rates for Pell students spend about \$3,000 (10-13%) more per student than institutions with 60% overall graduation rates.
- Institutions with 70% graduation rates for Pell students spend about \$3,000-\$5,000 (9-18%) more per student than institutions with 70% overall graduation rates.
- Data suggest a correlation not causation, relationship between spending and outcomes that is necessary but not sufficient.
- Research and practice data from Illinois and elsewhere illustrate the mechanism for spending to improve outcomes.

Funding to an Outcome Target - Equity

- Example: Eliminate grad rate gap between Pell and non-Pell students (13 pp).
- An additional \$600/FTE increases completion by 1 pp.
- Needed investment: \$8,299 per Pell recipient (44% above the adjusted per student base).
- This approach is difficult to implement in a formula, as it would require estimates for gaps for students with multiple characteristics. But it helps provide a benchmark of the total cost of adjustments using other approaches.

Best Practice Interventions

- In this approach, we identify research-based interventions specific to each adequacy component that improve outcomes and equity for target populations
 - Student Centered Access
 - Academic & Non-Academic Supports

• Core Instruction Costs

Best Practices: Student-Centered Access

- The equity adjustment could match funding to programs that increase the enrollment of traditionally underrepresented students
- Bottom Line has the most rigorous evaluation and impact among those listed here, but there may be others
- Discussion Questions
 - Are there other practices that should be part of the add-on to the access component?
 - Which students should get this add-on in the formula?
 - How can we apply the add-on to ensure schools enrolling lots of first-gen, low-income students are adequately funded for their work AND schools with low enrollment are incentivized to increase their outreach and recruitment?

Best Practices: Academic & Non-Academic Supports

- For academic and non-academic supports, we recommend a set of combined "packages" of different service levels (high, medium, low).
- The cost of each package can be based on comprehensive interventions (e.g., ASAP, Opening Doors, One Million Degrees, etc.) that use a suite of services which overlap with key elements the topic teams identified such as high levels of advising, financial assistance, tutoring, career services.
- It is easier to build a cost range based on a suite of services than building one from individual interventions.
- We can add interventions to the package if they address some aspect of academic/non-academic supports not typically covered by the comprehensive interventions.

Other Academic & Non-Academic Support Comparisons

- UI-Chicago example
 - \circ ~\$6,900 per student cost for student services not including financial assistance; includes some of what is counted in the base amount.
 - Includes: Health & Wellness programs, pilot programs like Summer College and Accelerate Your Success, Cultural Centers, Academic Success programs and centers, and the Dean of Students.
- Other organizations using holistic services we spoke to:
 - HOPE Chicago, National Louis University, One Million Degrees, CUNY
 - Range of program costs: \$2,500-\$5,000

"Package" of Academic & Non-Academic Supports and Cost per Student for Equity Adjustment

- High: \$6,000
- Medium: \$4,000
- Low: \$2,000
- Package costs based on the range of services listed in prior slides the most effective had higher costs around \$5,000 per student.
- Consider these costs in the context of the \$8,300 per Pell student to eliminate grad rate gaps.

Beth Ingram asked for clarification regarding "high." Carroll clarified that "high" is on a per student basis, a high level of services to all students. On this approach, the research is on a

"per student served" basis. Assuming that Pell students are those receiving services, high would mean needing \$6,000 to provide those level of services to the target.

Recommended approach to identifying which students would be eligible for the equity addon associated with each "package":

- Base the level of service needed on the current outcomes gap in IL, creating tiers based on natural breaks in the data.
- Students with multiple characteristics would be placed into the highest of their tiers +1 (e.g. a Pell adult learner's highest tier is "high" so they would be "Intensive").

Supports not Included in Most Comprehensive Interventions

Some common student services are not part of many of the comprehensive evidence-based practices we reviewed. Therefore, we could add in additional equity adjustments for these components based on estimates of costs for these services.

- Non-academic: Health services, Counseling (including mental health), Basic needs supports.
- Academic: First-year Seminars and Bridge programs (TRIO), Career Connections, Work-based learning.

Academic & Non-Academic Support Adjustments

Discussion Questions:

- Does a tiered set of services approach make sense?
- Are the number of tiers (3) and costs right?
- Is the approach to identifying which students get which tier of service right?
- What other services or interventions should be included in the equity add-on for these components?

Jeanette Malafa shared that rural students come with academic and mental health needs and argued that maybe rural students should be moved up a tier, but agrees otherwise. Commissioner Steans shared that she likes having four categories. Maybe the "tier" term is not used, but that is a finer point to be discussed later on.

Best Practice: Core Instructional Costs

- Most of the adjustments to close equity gaps would be through Academic & Non-Academic Supports.
- The Adequacy Work Group included a recommendation to include the costs of recruiting and retaining a more diverse faculty.
- UI-Chicago Underrepresented Faculty Recruitment Programs: \$667 per student
- Discussion Questions:
 - Are there other programs to use as benchmarks for this adjustment?
 - Are there other equity adjustments to instruction costs that should be made?

Carroll walked through equity adjustments and areas in which more work is needed. The workgroup members shared that it was a lot of information to process, and that coming back together at the next workgroup meeting, after there's time to digest, would be helpful. Mike Abrahamson shared that it would be helpful to see/know how the benchmarks and targets would work together. There are questions about how they line up.

Planning for Subsequent Meetings

HCM walked through the timeline, meeting schedule and workplan moving forward.

Public Comment

Members of the public wishing to make public comment were given three minutes:

Jennifer Delaney, member of the IBHE and faculty member at UIUC. Ms. Delaney shared that as a scholar in the space she recommends not mixing sources (revenues and expenditures, FTE and headcount). She also very much encourages moving privates out of the calculation. The research base the Will shared is better but there needs to be some work to translate to what it means for public institutions and she encouraged the group to split out undergrad and grad expenditures. Ms. Delaney shared that there are three pillars in the charge to this funding commission. There has been a lot of attention paid to adequacy and now more attention is being paid to equity. However, very little attention has been paid to the concept of stability. She urged the group to make recommendations to the full commission specifically about stability. She didn't see an obvious place in the process where this will happen, but worried that stability will not be thoughtfully addressed if the technical workgroup does not specifically make time and space to address this issue. First, it is important to note how funding formulas do not directly address stability well. As we have seen in K-12 formulas, formulas can be underfunded. Because of this, stability will not likely enter the formula directly. Ms. Delaney recommended that additional and complementary recommendations be made about stability specifically. She shared that she has a new book coming out about volatility in higher education and shared three research-based ways of thinking about stability that might be practical and policy-relevant recommendations for this group. The first: identify a dedicated revenue stream for higher education: there are vast differences across states in level of volatility by state. The most stable states are Western states with resource-based state revenue bases tend to be more stable than other tax bases. For example, TX institutions directly receive state oil revenues. There are other examples of states that use dedicated revenue stream for higher education: Maryland = 0.5% corporate tax that is held in a trust for higher education; Bible belt states and lottery revenue earmarked for higher education. Nearly all of this money goes into merit-based student aid programs. The second: invest in student aid: states with higher spending levels on student aid recover more quickly from cuts to state appropriations. Students tend to be a more attractive funding category for policymakers than institutions. Recommend continued investment in MAP grants, but also to explicitly think about the balance between student-based voucher spending through MAP and direct institutional appropriations. Ms. Delaney recognized that MAP is not within the purview of this commission, but it is still worth considering complimentary recommendations for this important revenue stream for institutions and vital needbased aid for students. The third: find ways to make state spending counter-cyclical: it is inevitable that there will be future economic downturns and that higher education as one of the largest discretionary budget categories will be one of the first areas on the chopping block. Historically (not during COVID), enrollments increase during economic downturns when the state is cutting institutional funding forcing institutions to do more with less and calling into question educational quality. At the federal level, the Pell grant as a guasi-entitlement serves a counter-cyclical function that supports low-income students during economic downturns (and supports students when states are cutting higher education funding). There are examples of counter-cyclical funding in other domains like unemployment insurance. There are some examples of states that have built in buffers for economic downturns: South Dakota – Need based Scholarship Program using an endowment-like model that only spending interest off a one-time appropriation; Tennessee – Education Lottery

Program – lottery funding held in a trust with protections against "raiding" the fund for other state purposes. This money funds the Tennessee Promise program; Nebraska – Nebraska Opportunity Grant program functionally works in conjunction with funding from the Susan Bennett Foundation, which funds wraparound services related to students who receive the state grant. Ms. Delaney closed by encouraging the workgroup to address the idea of stability.

Adjournment

The next workgroup meeting was scheduled for Thursday, March 30, 2023 (9am-11am CT). During the next meeting, the ESS and Mission topic teams would share out to the workgroup.

Workgroup Members in attendance Mike Abrahamson, designee for Lisa Castillo-Richmond Kim Tran, designee for Zaldwaynaka Scott Sandy Cavi, designee for Terri Kinzy Robin Steans Ralph Martire Simón Weffer Beth Ingram, designee for Lisa Freeman Dan Mahony Michael Moss, designee for Javier Reyes Jeanette Malafa, designee for Guiyou Huang Andrew Rogers

Support Team Members in attendance Ginger Ostro Jerry Lazzara Martha Snyder Will Carroll Nate Johnson Katie Lynne Morton Brenae Smith