Can Colleges Leverage Outcomes-Based Funding Models To Pay for High-Impact Success Interventions?

Introduction

By 2020, sixty-five percent of all jobs in the U.S. will require a postsecondary degree. At the current rate at which the nation is producing college graduates, however, the U.S. will fail to meet this demand by 5 million workers.[1] As part of a national effort to produce a sufficiently educated workforce for the demands of the advancing economy, higher education institutions will need to increase the share of their students that earn degrees and other credentials.

One persistent challenge to realizing these attainment goals is the widening socioeconomic gap in college access and success. Low-income and first-generation students are nearly four times more likely to withdraw from college after their first year than their more advantaged peers. While more than half of children born into high-income families earn a bachelor's degree by age 25, fewer than one in ten students from low-income families do so.[2]

Encouragingly, policymakers and education leaders have an increasing number of programs to turn to that have a strong evidence base for substantially improving postsecondary outcomes for low-income and first-generation students. One prominent example is the City University of New York's Accelerated Study in Associate Programs (ASAP) initiative, which provides wrap-around support services to low-income students. A rigorous evaluation by MDRC found that this intervention nearly doubled the graduation rates for ASAP students relative to their non-ASAP peers.[3]

Despite these programs' track record of success, there are several challenges to scaling them to serve more students. Some are quite expensive to operate, often costing thousands or even tens of thousands of dollars per student served. Many intensive college success programs are also built around a model of in-person support between students and advisors, making it difficult to expand their services beyond the current geographic markets in which they operate. A decades-long trend in reduced state funding in higher education moreover impedes colleges' ability to invest in evidence-based interventions. These challenges to sustainability and scale notwithstanding, there is strong interest from a broad range of stakeholders to scale evidence-based interventions and serve more students.

The question then for higher education policymakers, funders, and leaders is: How can we develop innovative financial models to sustainably fund and scale high-impact but resource-intensive student success interventions? This question is particularly relevant now, given several recent studies which find that low-cost informational and nudge interventions that had impacts at the local level did not sustain effects when scaled statewide or nationally.[4, 5]

To help investigate this question, we assembled a team of higher education finance experts to explore whether and how colleges could leverage outcomes-based funding (OBF) models to defray the cost of evidence-based college success programs. The OBF model is an increasingly popular financing strategy that allocates a portion of higher education funding based on colleges and universities' achievement on specific student outcomes. Especially in states that set aside a large share of higher education funding for the OBF model, colleges that improve student outcomes and subsequently receive increased state funding might have the motive and means to help pay for evidence-based programs.

In section 1 of the report we provide a brief overview of OBF models, including how OBF models could potentially incentivize colleges to increase their investments in student success programs. We also address current constraints of OBF models that may inhibit institutions from strategically planning their college success investments around OBF revenue. In section 2 we present a forecasting tool we developed in partnership with HCM Strategists through which higher education institutions can estimate funding returns from an evidence-based college success program in the specific context of Ohio's OBF model. We then apply this forecasting tool to the use case of what a public four-year institution in Ohio could expect in terms of revenue by investing in a specific, evidence-based college success intervention: Bottom Line. In section 3 we discuss an ongoing set of next steps we are pursuing to develop a more comprehensive model for sustainably funding high-impact college success programs.

Finally, in section 4 we include a set of memos representing the perspectives of researchers, practitioners, and funders. Each memo explores both the promise and challenges of higher education institutions using this financial modeling approach given the current structure and incentives of OBF models.

Section 1: Overview of Outcomes-Based Funding Models

Over the last three decades, an increasing number of states have turned to outcomes-based funding (OBF) models to allocate public dollars to higher education institutions. OBF models appropriate a share of state funding for higher education based on individual institutions' achievement of high-priority student outcomes such as retention, graduation, and credit accumulation.

A core premise behind OBF models is that, by linking how much higher education institutions receive in state funding to institutional performance, institutions will be incented to invest in policies and programs that generate improvements in the outcome measures that the model prioritizes. Some states that have adopted OBF models also offer greater financial incentives to improve success outcomes for at-risk student groups like low-income or minority students.[6]

Despite the growing popularity and adoption of OBF models by states across the country, numerous higher education leaders and researchers have expressed reservations about OBF models' allocation formulas and their ability to effectively incentivize higher education institutions as intended. We highlight below two common concerns about OBF models that are pertinent to our exploration of whether and how institutions can use OBF models to fund evidence-based college success programs.

- The total funding amount in a given year is often fixed. With a fixed "pot," one institution's greater revenue through improved performance comes at the expense of other institutions' funding. Moreover, even if an institution demonstrates increased performance on one or more measures, it is possible that they will experience a decrease in revenue returns if other institutions have improved at a faster rate. This zero-sum feature introduces uncertainty for institutions about whether their investments in college success programs would reliably result in increased funding.
- State higher education funding fluctuates from year to year. Another source of uncertainty for institutions is how much states will allocate to OBF models in future years. Especially since some college success programs may take several years to realize impacts on graduation, colleges may be reluctant to make investments in these programs given the uncertainty of how OBF models will be funded in years further out.

Section 2: OBF Forecasting Tool and Use Case

OBF Forecasting Tool

As part of this project, HCM Strategists developed an OBF financial forecasting tool that allows four-year public universities in Ohio to estimate improvements in student outcomes they can achieve through different college success investments, and subsequently observe dynamically how these improvements would translate into revenue returns from the Ohio OBF model. The tool also allows a given university to make assumptions about rates of improvement at their peer institutions to see how these concurrent changes to student outcomes at peer institutions affect the institution's OBF revenue returns.[7]

Application of the OBF Forecasting Tool

To better illustrate how this OBF forecasting tool operates, we developed a use case showing how a given four-year public university in Ohio can apply this tool to estimate the revenue they could expect to receive from Ohio's OBF model by achieving different levels of improvement in student outcomes. For the purposes of illustrating concrete and specific financial returns, we assume the Ohio institution achieved these improvements by investing in Bottom Line, a college access and success advising program for which we can observe randomized controlled trial estimates of the program's impact on student persistence.[8]

We start with a hypothetical cohort of 200 at-risk students at an Ohio public four-year university who sign up to work with Bottom Line. Of those 200 students, half are randomly selected to receive Bottom Line services (treatment group); the other half does not receive Bottom Line services (control group).

We estimate Bottom Line's impact on two key metrics used within the OBF formula, course completion and graduation, in order to observe how improvements in student outcomes generated by Bottom Line translate into revenue returns from the Ohio OBF model.[9]

Assumptions Underlying the Financial Modeling Exercise

We aim to be conservative with the estimates and assumptions that underlie this financial modeling exercise. For example, we use an Ohio university's persistence and graduation rates as the baseline for the control group, but then inflate these baselines to account for positive selection into a program like Bottom Line. Concretely, if the Ohio university had a persistence rate of 40%, we inflated that baseline for control group students to 70%; and if the university had a four-year graduation rate of 10%, we inflated that baseline for control group students to 25%.

Estimating Bottom Line's impact on credit hour completion over four years

We use Bottom Line's evidence-based impact on continuous enrollment as a proxy to model out the program's impact on credit hour completion, one of the performance measures that drive financial returns in the OBF formula. We first draw on the Bottom Line RCT to estimate the program's treatment impact on continuous enrollment from Year 1 to Year 4. Bottom Line students are seven percentage points more likely than their control group counterparts to be continuously enrolled into Year 2 at four-year institutions (79% vs. 72%); six percentage points more likely than control to be continuously enrolled into Year 3 (71% vs. 65%); and eight percentage points more likely to be

continuously enrolled into Year 4 (65% vs. 57%). For Years 5 and 6, we use the average difference between treatment and control groups' empirical rates of continuous enrollment from years 2 through 4 (seven percentage points).

We translate these persistence rates into credit hour completion. While we don't observe impact on credit completion in the RCT, for the purposes of our financial modeling use case, we assume students in both the treatment and control groups enroll in 24 credits per year but successfully complete only 18 credits during all six years.

Estimating Bottom Line's impact on degree attainment

Our estimates about Bottom Line's impact on degree attainment are less precise than that of persistence rates because the Bottom Line RCT will not report impacts on four-year graduation until Fall 2019. For the purposes of our current OBF modeling we assume that Bottom Line increases degree attainment for their students by five percentage points relative to the control group from Year 4 through Year 6.

If we apply the conservative assumptions and evidence-based estimates described in the preceding paragraphs, the university could expect to receive a total of $160,603 in OBF returns after six years.

Estimating a Range of Funding Returns

While the above assumptions guide our core analysis, we also factor in more conservative and generous assumptions about Bottom Line's impact on credit accumulation and degree attainment. The table below illustrates a range of how Bottom Line's varying levels of impact on persistence and degree attainment generates a corresponding range of estimated OBF returns.

To produce this range of estimated returns, we adjust Bottom Line's impact on persistence and degree attainment by three percentage points. For instance, we reduce Bottom Line's impact on persistence into Year 2 from seven percentage points to four percentage points; from six percentage points to three percentage points for Year 3; and eight percentage points to five percentage points for Year 4. We also vary Bottom Line's impact on degree attainment for Years 4 through 6 either from five percentage points to two percentage points (to reflect a lower impact), or from five percentage points to eight percentage points (to reflect a higher impact). These reductions and resulting OBF returns are reflected in the first row in the table.

We moreover model the more generous assumptions about Bottom Line's impact on persistence and degree attainment by adding three percentage points. For instance, we augment Bottom LIne's impact on persistence into Year 2 from seven percentage points to *ten* percentage points; from six percentage points to *nine* percentage points for Year 3; and eight percentage points to *eleven* percentage points for Year 4 (refer to the final row of the table).

In modeling out the lower and higher impacts that Bottom Line could have on persistence and degree attainment, We find that a given four-year university in Ohio could expect between $62,000 and $220,000 in OBF returns over a period of six years.[9] This range of estimated OBF returns that the Ohio university could expect could cover approximately 10% to 34% of Bottom Line's costs over a period of six years.[10, 11]

This analysis suggests that a university's investment in evidence-based but expensive college success interventions like Bottom Line may result in modest OBF returns that cover only a small share of the costs necessary to implement the program.

Importantly, OBF returns could be lower or higher when these same impact estimates are plugged into the forecasting tool for another four-year university in Ohio other than the one used for this specific modeling exercise. This is due to universities' different baseline productions of completed credit hours and degrees at the end of fiscal year 2018, which in turn generated different levels of OBF returns for individual institutions. Concretely these different baseline productions mean that plugging in, for example, a five percentage point increase for a given university results in a financial return that is specific to that university's performance outcomes to date.

An important caveat to this financial forecasting approach is that revenue projections for any one institution will be imprecise due to the fixed 'pot' of money available. As we pointed out earlier in this report, even if an institution improves on outcome measures like degree attainment, they may not realize funding increases if other institutions have improved at a similar or faster rate. For purposes of simplifying the use case for now, we assume that other universities' performance stays level on all outcome measures used in Ohio's OBF model.

Additionally, not all college success programs have rigorous evaluations of their impact on student outcomes. Lack of evidence-based estimates hinders institutions' ability to reasonably estimate improvements in student outcomes they might expect from investment in a college success program, and as a result how much OBF revenue they might receive.

Range of OBF returns OH four-year institution might reasonably expect based on Bottom Line's impact		If Bottom Line's impact on **degree completion** is:		
		Low	Moderate	High
If Bottom Line's impact on **retention** is:	Low	$62,000	$126,000	$190,000
	Moderate	$77,000	$141,000	$205,000
	High	$92,000	$156,000	$220,000

Section 3: Next Steps

As the preceding analyses indicate, even under the most generous predictions institutions in Ohio could only expect OBF revenue to defray a small share of the total costs of an evidence-based, high-impact college success program. In this section, we detail a three-part strategy we are pursuing to complement OBF revenue and support a comprehensive financial model to fund high-impact but resource-intensive interventions.

First, we are exploring how to integrate OBF models within a Pay for Success (PFS) framework. Second, and related to the first strategy, we are investigating whether there is a more holistic set of non-academic student outcomes that Bottom Line impacts (e.g., health or financial outcomes) which would potentially broaden the pool of potential funders willing to help pay for Bottom Line in a PFS framework. Finally, we are working with higher education institutions to build their capacity to more effectively model the marginal revenue and cost implications of low-income students persisting and graduating at higher rates. This could increase the case for institutions to invest more of their own resources into college success programs.

Integrating Outcomes-Based Funding in a Pay-for-Success Framework

We see a unique opportunity to integrate OBF models with another innovative financing model that has gained popularity over the past decade: Pay-for-Success (PFS). The PFS model transfers financial risk of investing in a social program that may or may not produce improvements in key outcomes from a traditional funder to a private investor (e.g., philanthropic foundation). If a rigorous evaluation shows that the program was effective, the project is a success and the initial private investor gets their money back from the government agency or other "end payer". If the program doesn't work, the private investor takes the financial loss. Well-designed PFS projects direct public dollars toward only programs that are rigorously evaluated and successful, thereby ensuring higher returns for taxpayer money.

Within the higher education context, a private investor like a philanthropic foundation could provide the working capital necessary to implement a student success program. A public agency or organization, like a state's higher education agency or a public university, would then agree to repay a portion of the program's costs to the foundation only if an independent evaluation shows that the program achieved a set of previously agreed-upon performance benchmarks. If the program doesn't meet the benchmarks, the philanthropic foundation absorbs the cost.

We see several potential benefits of carrying out a PFS project in states with OBF models to help pay for evidence-based programs, particularly in states like Ohio and Tennessee where OBF implementation is well underway. There is already close alignment between PFS and OBF, including a large overlap between each models' student outcomes of interest and evaluation criteria. Outcome metrics used in Ohio or Tennessee's OBF model like credit completion and degree attainment align closely with the metrics that public agencies and organizations and philanthropic foundations value as high priorities and thus may consider using as measures of success in a PFS project. OBF and PFS can leverage the same set of performance data to determine both success-contingent payments from college to foundation (under the PFS framework), and also higher education funding amounts from state to college (under the OBF model).

Consider a PFS project with Bottom Line in Ohio as a concrete example. At the start of a PFS project, a given university, philanthropic foundation, and Bottom Line would need to work together to identify the student target population, outcome metrics, and the performance benchmarks that indicate success. In parallel, the university could use the OBF forecasting method to calculate how much state funding they might expect to receive given Bottom Line's unique impact on student outcomes.

Suppose the Ohio university aimed to increase year-to-year retention by ten percentage points and four-year graduation rate by five percentage points through Bottom Line. Based on the financial modeling exercise from section 2, the university could expect to receive (a) $8,000 in OBF returns after two years of Bottom Line's program implementation, (b) $20,000 after the third year, and (c) $56,000 after the fourth year.

These estimated returns year after year, based on existing evidence of the program's impact, may give the university the assurance and motivation to make success-contingent payments under a PFS framework. The university could moreover use this estimate to inform how much they agree to pay back at the end of the PFS contracting period if Bottom Line meets the performance benchmarks. While this means that the philanthropic organization doesn't get the receive the full 100% of its initial investment, receiving at least some portion of the initial investment may be more appealing for foundations than the traditional model of doling out philanthropic dollars and receiving 0% in return.

Engaging a More Diverse Set of Funders for Evidence-Based Programs

Rigorous experimental studies of student success interventions have traditionally focused on academic outcomes such as enrollment, persistence, degree attainment, and credit completion. Despite the promising evidence base for these interventions, we know less about how they impact non-academic outcomes.

Some interventions, particularly those that provide more holistic support to students, could conceivably improve not only academic outcomes like persistence or graduation, but also non-academic outcomes like financial health and physical well-being. Beneficiaries of such improvements include not only students but also a wide range of private and public entities like financial institutions or healthcare providers. For example, decreased use of public health resources like emergency rooms leads to cost savings for hospitals and taxpayers; and fewer credit card defaults lead to greater profits for banks.

If an independent evaluation shows that a college success program directly improves non-academic outcomes for its students, we could engage a more diverse set of non-traditional funders to help pay for the program in a PFS framework. For each non-academic outcome that Bottom Line is able to impact, there is conceivably a non-traditional funder that experiences the ensuing benefit and whose investment in the program --either as a front-end funder or end-payer--makes financial sense.

Consider a local private hospital in Ohio as an example of a non-traditional funder. In the healthcare industry, patients with Medicaid and the uninsured who make a trip to the emergency room are associated with negative profits for hospitals.[12] If Bottom Line students are more likely to make fewer trips to the emergency room because they have better overall health, as an example, we could monetize the value of this benefit for the private hospital. This reduction in cost to the local hospital could motivate them to consider participating as an end-payer in a PFS agreement and paying back a share of the Bottom Line program costs to a foundation that paid the upfront costs.

To this end, we partnered with NORC at the University of Chicago to implement a survey that investigates Bottom Line's impacts on non-academic outcomes like improved physical and psychosocial health, financial literacy, civic engagement, and contact with the criminal justice system.

Investigating Marginal Costs and Benefits to Higher Education Institutions

More broadly than with OBF models, institutions may directly benefit financially from college success programs that generate meaningful improvements in student outcomes through other funding streams like increased tuition revenue. Yet from the higher education institutions we have engaged with, most seem to have limited capacity to calculate the marginal revenue and cost implications that stem from college success programs generating substantial improvements in persistence or completion.

As part of this project, we are exploring a collaboration with a state's higher education agency to more closely examine how low-income students persisting and graduating at different rates affect institutions' revenue streams (such as tuition) and expenditures (such as instructional costs). To the extent that institutions can work toward a more precise understanding of the incremental costs and benefits of increased persistence, they may identify substantial net revenue gains from an investment in evidence-based programs--which, in turn, may support institutional leaders to make a stronger case to invest resources in college success programs.[13]

Conclusion

Nearly thirty states have adopted some form of outcomes-based funding to allocate higher education public dollars to higher education institutions. Colleges and universities' s ability to estimate revenue returns through these OBF models for future fiscal years is crucial. Given the current structure of OBF models, however, it is risky for colleges to do financial forecasting with confidence.

Supporting our higher education system to produce more college graduates is more urgent than ever before. Yet public colleges universities face ongoing state funding cuts and philanthropic foundations' finite resources can't fill the financial gap. It is critical that we start looking at alternative and more creative ways to spur more sustainable investments in effective student success interventions.

Memos Exploring the Promises and Challenges of using the OBF Forecasting Strategy to Sustainably Fund High-Impact College Success Programs

The remainder of this report presents memos from various higher education experts on the potential for innovative financial models to sustain high-impact college success programs.

1. **Bottom Line**: Bottom Line discusses the challenges associated with traditional funding models for high-impact college success programs like Bottom Line, and how this forecasting strategy helps works toward a more sustainable funding approach.
2. **Carnegie Corporation of New York (CCNY)**: The Corporation discusses the unique role philanthropy can play—as a catalyst, convener, and collaborator—in the creation, adoption, and diffusion of sustainable solutions that promote college success for all students. Current barriers inhibit many students' pathways to active participation in a robust democracy and success in a global economy, outcomes that guide the Corporation's grantmaking within its Education Program.
3. **HCM Strategists**: HCM discusses the importance of well-designed outcomes-based funding models in aligning institutional strategies and state priorities to improve educational outcomes. HCM then reflects on the promises and challenges of the OBF forecasting tool and strategy in helping higher education institutions with strategic decision-making.
4. **Nick Hillman**: OBF expert Professor Nick Hillman explores the effectiveness of OBF models in motivating higher education institutions to improve educational outcomes. Nick furthermore reflects on how partnering with a third-party evidence-based intervention could impede colleges' ability to improve their own campus-based student success strategies.

Endnotes

1. Carnevale, A.P., Smith, N., & Strohl. J. (2014). Recovery: Job growth and education requirements through 2020. Center on Education and the Workforce, Georgetown Public Policy Institute, Georgetown University. Retrieved from https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.ES_.Web_.pdf

2. Bailey, M. J. and S. Dynarski (2011). Inequality in College Entry and Completion. In Whither Opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children, edited by Duncan, G. J. and R. J. Murnane. New York, NY: Russell Sage.

3. Scrivener, S., Weiss, M. J., Ratledge, A., Rudd, T., Sommo, C., & Fresques, H. (2015). Doubling graduation rates: Three-year effects of CUNY's Accelerated Study in Associate Programs (ASAP) for developmental education students. New York, NY: MDRC. Retrieved from http://www.mdrc.org/sites/default/files/doubling_graduation_rates_fr.pdf

4. Bird, K., Castleman, B.L., Denning J.T., Goodman J., Lamberton C., Rosinger K.O. (2019). Nudging at Scale: Experimental Evidence from FAFSA Completion Campaigns. NBER Working Paper No. 26158. Retrieved from https://www.nber.org/papers/w26158

Gurantz, O., Howell, J., Hurwitz, M., Larson, C., Pender, M., & White, B. (2019). Realizing Your College Potential? Impacts of College Board's RYCP Campaign on Postsecondary Enrollment. (EdWorkingPaper: 19-40). Retrieved from Annenberg Institute at Brown University: https://doi.org/10.26300/nqn3-sp29

5. For a more thorough synthesis of OBF models: Driving Better Outcomes: Typology and Principles to Inform Outcomes-Based Funding Models.

6. The tool assumes an overall flat funding environment since the total amount of higher education funding set aside for Ohio's OBF model is fixed. Additionally, the tool uses actual funding distribution data from Fiscal Year 2018 as the baseline for calculating funding returns. OBF is responsible for 100 percent of community college funding and 80 percent at four-year institutions in Ohio. For a more technical appendix on the forecasting tool, refer to Appendix A.

7. Bottom Line is a high-touch college access and success program that provides one-on-one advising for low-income and first-generation high school seniors and college students. Bottom Line advisors use a holistic approach when working with students, focusing on a wide range of student-centered milestones such as earning good grades, staying on track toward graduation, managing the cost of college and personal finance, planning ahead for future career goals, and more. Because we can observe empirical impacts on student outcomes that drive financial returns in Ohio's OBF model, like graduation, Bottom Line became a logical college success program candidate to use in the financial forecasting use case.

Interim results from an ongoing rigorous experimental study of Bottom Line's Success Program can be found here. Persistence impacts for the 3rd year after high school graduation that are included in the case study come from unpublished analyses, but we will update the link in the report when the updated working paper is released.

8. Ohio's OBF model uses three metrics for four-year institutions: course completions, degree completion, and doctoral and medical. The model assigns greater weight to degree completions (50%) and course completions (30%) than to doctoral and medical (20%). Bottom Line's programmatic model directly relates to only two of these three metrics: course completions and degree completions.

9. For simplicity, we kept the differential rate of FTE completion the same between treatment and control for all six years of the modeling use case.

10. Back-of-the-envelope calculations suggest that the total cost for Bottom Line to serve 100 students for Years 1 through 4 is approximately $480,000. As students graduate after Years 4 and 5, the cost for Bottom Line to serve the remaining students is approximately $87,600 and $74,400, respectively. A unique programmatic feature of Bottom Line is that, even if a student transfers to another institution, Bottom Line continues working with that student. For example, if a Bottom Line student transferred from one Ohio university to another higher education institution in Ohio, Bottom Line would continue working with that student for up to six years (or until they graduate).

11. The given institution's estimated funding returns would be higher or lower if they factored into the model positive or negative changes in outcomes for peer institutions.

12. Wilson, Michael, and David Cutler. "Emergency department profits are likely to continue as the Affordable Care Act expands coverage." *Health affairs (Project Hope)* vol. 33,5 (2014): 792-9. doi:10.1377/hlthaff.2013.0754

13. At the same time, it's also possible that a deeper analysis of these financial implications for institutions may reveal that the costs incurred by the institution are in fact greater than the revenue gains. For example, perhaps an institution incurs a cost greater than the revenue gain from serving an additional Pell-eligible student. If in fact the cost-benefit analysis suggests that the revenue gains cannot keep up with the costs incurred, institutions may be dissuaded from contracting with or paying for such college success interventions.

Memo: Bottom Line

Finding Pathways to College Success for All

The Need

It is commonly accepted that a college degree is a key engine of economic mobility. Students from low-income backgrounds who obtain a college degree are five times more likely than their peers to escape poverty. However, while access to a college education has increased slightly over the last few years, college completion rates have not.

Though numerous social programs support children from cradle to 18 years old, a gap exists once a student leaves high school at the critical moment of transition to higher education. This leaves a lack of clarity of responsibility for the low college completion outcomes. Some say the students as young adults should take responsibility. Some college staff proffer that secondary schools didn't prepare struggling students for college-level work. Community leaders argue that complicated college bureaucracies are difficult for anyone to navigate, much less a first generation college-goer. We are left with an appallingly low college graduation rate and lots of people pointing fingers.

But, it doesn't have to be this way. As one of the first community-based organizations to focus on college completion, Bottom Line is dedicated to cutting through the bureaucratic red tape and the lack of accountability by guiding individual students on the path towards their college degrees.

An Example of a High Impact College Advising Program

For more than 20 years, Bottom Line has been helping the students we serve change their lives by building a future through college acceptance, college graduation and career-readiness. We serve students from application to college graduation with a holistic, one-on-one advising model. We recruit two groups of first generation students from low-income backgrounds: 1) rising high school seniors applying to college and 2) soon-to-be high school graduates who are on a 4-year degree track. During our application process, we ensure that we are meeting students with the greatest needs – those whose families live on less income than 200% of the federal poverty guidelines and who are in the first generation of their family to attend college.

Our *Success* program serves college students and is focused on completion and career readiness. Our one-on-one advising focuses on supporting students toward specific milestones relating to their goals. Full-time Advisors work with students for the duration of their school year, first by establishing a trusting relationship. From there, Advisors tailor their sessions, engagement, and follow-up to the needs of each student and the specific challenges they may be facing. Our Advisors deliver targeted services to our students based on their needs as they progress through school. These services support student achievement of key milestones, that include: picking a major, accumulating credits to stay on track to graduate, earning a good GPA, developing their career interests, accumulating work experience, renewing financial aid, managing the cost of college, and learning how to identify and solve life challenges.

The goal of our *Success* program is for our students to earn a degree, accrue limited debt (no more than $36K), and build a strong foundation for their career, defined by securing a "first destination" after college that promotes their continued advancement in the workforce.

Understanding the Financial Obstacle

In the last decade, there has been growing attention on the issue of low college graduation rates for certain groups and at certain colleges, keen awareness of the burgeoning talent gap facing employers and general agreement that something must be done. There is also alignment that first generation college students need some kind of legitimate guidance and/or mentoring across the financial, academic and socio-emotional spectrum to ensure they graduate from college. What has yet to be addressed, is how to pay for it.

At Bottom Line we spend about $1,350 per student per year (including development and administration costs), to offer Bottom Line's one-on-one services to college students. As a non-profit social service agency dedicated first and foremost to student support, private philanthropy has consistently been our key partner. We serve as many students in each region as the generosity of wealthy individuals, corporations, and foundations allows. However, there is simply not enough philanthropy to satisfy the need for high quality college success services.

Using an Outcome Based Approach

To tackle this problem change must come to the way universities and our public higher education systems in general value and fund student success on campus.

First, more information is necessary. Colleges and the large public systems must be able to identify the costs of a drop-out and the value of a student retained. With that information, creative changes can be made to incentivize new models of support. In the current economic climate, it is unlikely that additional funding is on the way, so we must focus re-purposing dollars to make investments designed to change behavior and make improvements to systems that are currently not maximizing student graduation rates.

With more awareness of how the funds are saved and spent, options including Pay for Success, and other outcome based funding models can be used to develop new solutions for students, including:

1. Colleges could re-apportion some of their student support dollars to offer enhanced support programs (external or internal) for particular subsets of their student population
2. States can support the focus on outcomes, by incentivizing schools with additional dollars when they increase graduation rates of first generation college-goers and repurpose some of the dollars targeted for financial support through state scholarships by combining the financial support with evidenced-based advising programs like Bottom Line.
3. The Pell program could explore shifting some resources to support student support services which would in turn increase the graduation rate and eliminate the significant wasted dollars invested in students who use a year or two of Pell and never graduate.

A Path Forward

First generation college students who come from low income backgrounds often need a range of support and targeted mentoring to ensure they complete a college degree. We must design our higher education systems to provide that support – not just at the well-endowed colleges that can make those investments, but especially at the large public colleges and universities. Offering high impact advising at these schools is possible with some new ideas about how to repurpose dollars, incentivizing what works and building partnerships between colleges and evidenced-based programs like Bottom Line.

Memo: Carnegie Corporation of New York (CCNY)

"Investing Toward Sustainability"

Submitted by Saskia Levy Thompson and Marisa Siroka

"In bestowing charity, the main consideration should be to help those who will help themselves; to provide part of the means by which those who desire to improve may do so; to give those who desire to use the aids by which they may rise; to assist, but rarely or never to do all." — Andrew Carnegie, "The Gospel of Wealth"

Writing at the turn of the twentieth century, Andrew Carnegie set forth a new rationale for philanthropic giving that stood in stark contrast to the charitable norms of the day. Philanthropy, Carnegie believed, should never degenerate into pure almsgiving. Rather, philanthropy should serve as a catalyst for sustainable change.

This approach to philanthropy was inspired by Carnegie's lived experience, which also cultivated his belief in the transformative power of knowledge. These mutually reinforcing values informed the creation and early grantmaking practices of the Carnegie Corporation of New York, which was chartered in 1911 "to promote the advancement and diffusion of knowledge and understanding among the people of the United States." In the century that ensued, the Corporation has pursued this mission in its Education Program, which aspires to a long-term vision in which American public education prepares all students to be active participants in a robust democracy and to be successful in a global economy.

The education sector is now one of the largest beneficiaries of philanthropic dollars, and total grantmaking to PK-12 education is on the rise. Yet, philanthropy constitutes a relatively small percentage—less than one third of one percent—of total education funding in this country. Total grantmaking to PK-12 education was $2.1 billion in 2014, up approximately 50% from $1.4 billion in 2007, but still much less than total public school expenditures for 2014, which exceeded $650 billion.[1] The promise of philanthropy, therefore, lies not in the absolute dollars granted, but rather in the value added by its limited resources. Philanthropy cannot sustain institutions, but it can catalyze innovation that stimulates sustained improvements.

As we enter an era of acutely constrained education funding, the imperative to act upon this promise is more urgent than ever before. Political decisions have resulted in continuously diminishing resources for core serves like education, widening a gap that philanthropy would not be able to fill even in the best circumstances. In this contemporary context, the Corporation's New Designs to Advance Learning portfolio seeks to advance Andrew Carnegie's charge to catalyze (rather than subsidize) positive change through a three-pronged investment strategy. First, we invest in innovative programs that enable whole child success and can serve as evidence proofs of what is possible. Second, we aim to build the adult capacities and mindsets needed to design and implement these programs, as well as the system-level capacity and public policies that will accelerate their proliferation and strengthen their sustainability. Finally, we seek opportunities to capture and diffuse the knowledge that emerges from these efforts such that any one investment can have broader application and impact. In this framework, the Corporation's grantmaking and other philanthropic investment has a role at each juncture in the research, development, and adoption arc: supporting innovation and codification of promising practices; testing their efficacy; building capacity to enable

their adoption; and advancing a learning agenda that broadly diffuses salient developments. In all of these ways, philanthropic resources can be leveraged for the development and diffusion of sustainable solutions.

One example of this is the Corporation's support for the learning agenda surrounding the work of Bottom Line, a program that provides one-on-one services to help low-income, first-generation students get into and graduate from college. An ongoing experimental study (randomized control trial) of Bottom Line's counseling interventions has begun to demonstrate that the organization's high-touch, high dosage counseling has a significant positive impact on low-income students' persistence in and completion of college. These findings present a compelling argument for increasing the availability of Bottom Line's services among those students most likely to benefit from them, which prompts several questions about how to scale and sustain the program. Specifically: 1) how can interventions like Bottom Line be sustained in an enduring way (i.e. within a publicly-funded model and absent a philanthropic subsidy)? and 2) how might we monetize and measure the enduring impacts of such an intervention, including academic impacts like college persistence and completion, but also extending to a broader set of life outcomes?

To explore these questions, we have invested in two knowledge building efforts. First, working in partnership with Nudge4 Solutions Lab at the University of Virginia and under the leadership of Dr. Benjamin Castleman, the Corporation provided support to convene cross-sector collaborators—Bottom Line, Nudge4 Solutions Lab, institutions of higher education, financial experts, and members of the business and nonprofit communities—to collectively identify impediments to scaling the Bottom Line program and work towards a sustainable solution. This group has identified outcomes-based funding models as an appropriate approach that would distribute program costs across the full spectrum of beneficiaries, and the group is now working towards the development of such a model. Of note, this is not the first foundation-supported effort to develop innovative financial approaches. In Cleveland, the George Gund Foundation supports outcomes-based funding initiatives across a variety of issue areas, including health, education, and criminal justice. In New York City, Bloomberg Philanthropies has invested in social impact bonds as a strategy to reduce juvenile recidivism. In Massachusetts, the Laura and John Arnold Foundation, New Profit, and the Boston Foundation have collaborated on an initiative with similar goals. While the experiments that comprise this emerging knowledge base will continue to present early successes as well as failures, philanthropy is perhaps uniquely suited to accept the risk inherent in innovation such that promising theories can become proven ones. When experiments fail, philanthropy is well-positioned to surface salient lessons for the field and use that knowledge to inform the next experiment. It is a process of continuous learning, iteration, and improvement.

The second knowledge building effort aligns with the Corporation's goal to promote a broader definition of student success, and will more robustly inform the outcomes-based funding equation described above, by enabling NORC at the University of Chicago to undertake an analysis of the nonacademic life outcomes that may be impacted by Bottom Line's college success program. While educators and innovators sector-wide are increasingly focused on interventions that attend to students' social, emotional, and academic development, the instruments used to measure impact remain narrowly focused on academic indicators. Bottom Line's interest in exploring, and rewarding, alternative measures of student success—including health and career outcomes—represents an opportunity to provide an evidence proof for a methodology around how to measure success in these other domains, which could be applicable to and inform practice across the K-16 spectrum.

Barriers to college success, and impediments to scaling and sustaining high-quality college success programs, stand in the way of many students' pathways to active participation in a robust democracy and success in a global economy, and prevent our public education system from delivering on the promise of providing "those who desire to improve" the opportunity to do so. Philanthropy has a unique role to play—as a catalyst, convener, and collaborator—in the creation, adoption, and diffusion of sustainable solutions. In fulfilling these functions, the Corporation seeks to bring Andrew Carnegie's 1911 charge to bear in a way that can inform the most pressing challenges of today.

---

[1] Information about grantmaking for education is provided by the Foundation Center. Information about public expenditures on education is provided by the National Center for Education Statistics. These figures exclude spending on higher education.

Memo: HCM Strategists

In FY 2019, 32 states were implementing or developing some form of performance or outcomes-based funding (OBF) formula for at least one higher education sector (two-year or four-year). [1] Well-designed OBF policies are intended to align state investments with state and institution goals and priorities, most often increasing educational attainment. These funding models can provide important financial incentives not reflected in other revenue models for institutions to scale student success-focused interventions and programmatic reforms. However, as these funding models become more wide spread it is important to understand the theory behind these models, the variation between models, best practices for development and implementation, and how institutions can be supported so they can effectively respond to the incentives in the models. Specifically, institutions will benefit from better understanding model incentives and the potential financial impacts of implementing and sustaining reforms targeted at increasing student success. One way states can support this capacity building is through the development of forecasting tools. These tools can estimate potential returns realized through OBF and inform strategies with the highest impact.

This memo overviews institution responses to well-designed OBF models and considerations for increasing capacity at institutions to better inform the sustained implementation of reforms and strategies aligned to the OBF objectives. We then explore the usefulness of forecasting tools in assisting institutions in planning and strategic decision making.

Institution Response to Outcomes-Based Funding

In addition to better aligning state investments in postsecondary education with broader attainment and equity priorities, well-designed OBF models can provide important financial incentives for institutions to adopt programs and policies that advance student success. [2] Research has shown that institutions have responded to these models by reforming academic policies, such as developmental education, implementing degree pathways, and expanding certificate offerings. [3] The financial incentives have also spurred institutions to evaluate how certain policies impact the student experience, leading to revised advising and counseling systems, implementation of early alert systems, reformed tutoring and orientation programs, and increased use of data analytics. [4] Institutions have also responded through strategic financial investments that impact student success, such as hiring additional student advisors, transitioning to block tuition, and eliminating graduation fees. [5] Additionally, institutions have been shown to place a greater focus on STEM fields and low-income and adult students. [6]

It is important to note that not all institutions respond, or have the ability to respond, to these models in the same way. Response largely depends on institutional characteristics. State systems and coordinating and governing boards should focus on building this institutional capacity concurrent with OBF model implementation. [7] This can be accomplished by sharing best practices for student success initiatives, assisting with data analysis, providing financial assistance for the implementation of new student success reforms, and helping institutions better understand the OBF model mechanics and the incentives imbedded in the model.

The Importance of Well-Designed Outcomes-Based Funding

Just as there is variation among institution response to OBF models, there is also a great deal of variation among outcomes-based funding models themselves. Some models are particularly well-designed to elicit institutional response, while others are less-so. The differences in models can largely be illustrated by comparing the two waves of performance funding. The first wave began in the late 1970s and lasted through the 1990s. The models in this wave were not particularly well-designed. These models did not prioritize degree completion, funds were typically small and came only as bonuses, rather than built into base funding, performance metrics were either too vague or too varied, and states rarely rewarded intermediate success. [8] Additionally, these models often relied on targets and goals, and did not differentiate across the diversity of missions, educational offerings, and types of students served.

Beginning in the mid to late 2000s, several states, led by Ohio, Tennessee, and Indiana, began implementing new models that addressed these weaknesses. The new models, typically, help elicit institutional response by:

- Using a limited number of metrics directly aligned with state priorities. In many cases the state goals are centered on increasing educational attainment levels. For this reason, degree and certificate completion are often prioritized in the models. However, including other metrics such as progression and transfer can help to recognize intermediate success.

- Directly addressing the varying missions of institutions through differentiated metrics and weightings. For example, a comprehensive university with an access-based mission may have different metrics and weightings than a large research university with a mission more focused on research and graduate level programs. This helps guard against mission-creep and allows institutions to succeed under the OBF model by focusing on their specific missions.

- Prioritizing the success of traditionally underserved students. The models recognize that additional resources are required to serve traditionally underrepresented students, such as low-income, adult, academically underprepared, and ethnic and racial minority students. Outcomes earned by these students are commonly worth more than outcomes earned by traditional students or are treated as separate metrics in the models.

- Utilizing significant amounts of funding, including funding from institutions' base-appropriations. This addresses two problems with early models. First, too little funding is not enough to garner attention, shape priorities, and influence institution actions. Second, a model will not be sustained in times of flat or declining funding if it is only based on new funding. Institutions need to be certain that the model will be sustained and that current efforts to improve student success will be rewarded in future models. Prioritizing model stability is also important when allocating a significant amount of funding. The model must be predictable and not allow for drastic year-to-year swings in funding that may negatively affect institution planning.

- Being formula driven, meaning the models do not consist of explicit targets and goals. Formula driven models promote continued success, whereas target and goal-based models only reward success up to a certain point. For example, if a degree-production target is achieved, there is no incentive to produce an additional degree.

Even among newer models there is significant variation in adherence to best practices. For a comprehensive categorization of outcomes-based funding models, please see HCM Strategists' Driving Better Outcomes: FY19 State Status & Typology Update. [9]

Forecasting Tool Considerations

The forecasting tool featured in this document allows users to estimate the change in Ohio universities' State Share of Instruction (SSI) funding due to changes in completed FTE and undergraduate degree production. Users can enter percent changes in outcomes into the tool dashboard and see the estimated shifts in state appropriations for all universities. These percent changes can be based on institutional projections, or preferably on rigorous research demonstrating the impact an institution can expect from investing in a particular program or student success initiative. This tool, and similar tools that could be developed for other states, have several potential benefits. First, they can give institutions a sense of a funding model's stability and make clear the incentives in the model. This may allow institutions to become more comfortable with the funding model and ease transition during implementation. Second, forecasting tools can assist with institutional planning as institutions can enter outcome production scenarios to better estimate future appropriations. Institutions can also enter more extreme scenarios to see the range of possible positive and negative funding outcomes. Finally, institutions can more concretely estimate returns from specific student-success initiatives, giving a better sense of where to strategically invest resources for the highest return.

The forecasting tools have several limitations. In general, as the complexity of a funding model increases, the usefulness of a projection tool may decline. The forecasting tools also require assumptions about the institution's own performance on outcomes that factor into the OBF model, the performance of other institutions, and future state funding increases or decreases. Specific to the Ohio tool featured here, users can only make assumptions for course completions and degree completions of undergraduates. The complete Ohio SSI model also includes graduate course completions and degree completions, as well as research doctoral and medical set-asides.

Examples of questions institutions can ask themselves while using the tool include:

- What are the policies that could be used to increase the outcomes in the funding model? What is the cost of implementing these policies? How much additional state funding would be generated from the outcome increases?

- Increases in which outcomes offer the largest return on investment? How are these highest-return outcomes currently being addressed through institutional policies and program investments?

- Increases in outcomes associated with which student populations offer the largest return on investment? How are these student populations currently being targeted and supported?

- What are the worst and best-case scenarios for outcome changes and the resulting state funding? How would the institution respond under each scenario?

- How does the model align with institution mission? Does the model properly recognize the mission of the institution?

Well-designed OBF models can be an important tool for states to advance goals for increased student success. These models can also create important financial incentives for institutions to scale the implementation of student success strategies. However, these policies cannot be developed without intentional focus on the key design components most likely to create incentives for sustained institutional response. Further, OBF does not stop with adoption. Rather, states can and should support institutional capacity to evaluate the impact of various student success strategies and identify those interventions with the greatest potential to support student success. One such resource is the development of forecasting tools that allow institutions to better understand the funding incentives of the OBF model and support longer-term planning and budgeting.

---

[1] Scott Boelscher and Martha Snyder, *"Driving Better Outcomes: Fiscal Year 2019 State Status and Typology Update."* HCM Strategists (2019).
http://hcmstrategists.com/promising-policy/wp-content/uploads/2019/04/DRIVING-BETTER-Outcomes-Fiscal-Year-2019-State-Status-Typology-Update_Final_Final.pdf

[2] Kevin Dougherty and Associates, *"Implementing Performance Funding in Three Leading States: Instruments, Outcomes, Obstacles, and Unintended Impacts."* Community College Research Center (2014).
https://www.tc.columbia.edu/faculty/kd109/faculty-profile/files/g-performance-funding-three-leading-states2011.pdf

[3] Kevin Dougherty and Associates, *"Implementing Performance Funding in Three Leading States: Instruments, Outcomes, Obstacles, and Unintended Impacts."* Community College Research Center (2014).
https://www.tc.columbia.edu/faculty/kd109/faculty-profile/files/g-performance-funding-three-leading-states2011.pdf

Kate Callahan, Kasey Meehan, and Kathleen Shaw, *"Implementation and Impact of Outcomes-Based Funding in Three States: High-Level Findings."* Research for Action (2017).
https://www.researchforaction.org/publications/implementation-impact-outcomes-based-funding-three-states-high-level-findings/

Nate Johnson and Takeshi Yanagiura, "*Early Results of Outcomes-Based Funding in Tennessee."* Lumina Foundation Issue Papers (2016).
https://www.luminafoundation.org/files/resources/early-results-tn-0314-1.pdf

[4] Rebecca Natow and Associates, *"Institutional Changes to Organizational Polices, Practices, and Programs Following the Adoption of State-Level Performance Funding Policies."* Community College Research Center (2014).
https://ccrc.tc.columbia.edu/media/k2/attachments/institutional-changes-following-performance-funding-policies.pdf

Kate Callahan, Kasey Meehan, and Kathleen Shaw, *"Implementation and Impact of Outcomes-Based Funding in Three States: High-Level Findings."* Research for Action (2017).
https://www.researchforaction.org/publications/implementation-impact-outcomes-based-funding-three-states-high-level-findings/

Erik Ness, Mary Deupree, Denisa Gándara, *"Campus Responses to Outcomes-Based Funding in Tennessee: Robust, Aligned, and Contested."* The Ford Foundation (2015). https://www.tn.gov/content/dam/tn/thec/bureau/fiscal_admin/fiscal_pol/obff/research/Campus_Responses_to_OBF_in_Tennessee_-_Ford_Foundation.pdf

[5] Kate Callahan, Kasey Meehan, and Kathleen Shaw, *"Implementation and Impact of Outcomes-Based Funding in Three States: High-Level Findings."* Research for Action (2017). https://www.researchforaction.org/publications/implementation-impact-outcomes-based-funding-three-states-high-level-findings/

Nate Johnson and Takeshi Yanagiura, "*Early Results of Outcomes-Based Funding in Tennessee."* Lumina Foundation Issue Papers (2016). https://www.luminafoundation.org/files/resources/early-results-tn-0314-1.pdf

Erik Ness, Mary Deupree, Denisa Gándara, *"Campus Responses to Outcomes-Based Funding in Tennessee: Robust, Aligned, and Contested."* The Ford Foundation (2015). https://www.tn.gov/content/dam/tn/thec/bureau/fiscal_admin/fiscal_pol/obff/research/Campus_Responses_to_OBF_in_Tennessee_-_Ford_Foundation.pdf

[6] Erik Ness, Mary Deupree, and Denisa Gándara, *"Campus Responses to Outcomes-Based Funding in Tennessee: Robust, Aligned, and Contested."* The Ford Foundation (2015). https://www.tn.gov/content/dam/tn/thec/bureau/fiscal_admin/fiscal_pol/obff/research/Campus_Responses_to_OBF_in_Tennessee_-_Ford_Foundation.pdf

Amy Li and William Zumeta, *"Performance Funding on the Ground: Campus Responses and Perspectives in Two States."* TIAA Institute (2016). https://www.tiaainstitute.org/publication/performance-funding-ground-campus-responses

[7] Kevin Dougherty and Associates, *"Implementing Performance Funding in Three Leading States: Instruments, Outcomes, Obstacles, and Unintended Impacts."* Community College Research Center (2014). https://www.tc.columbia.edu/faculty/kd109/faculty-profile/files/g-performance-funding-three-leading-states2011.pdf

[8] Nicholas Hillman, *"Why Performance-Based College Funding Doesn't Work."* The Century Foundation (2016). https://tcf.org/content/report/why-performance-based-college-funding-doesnt-work/

[9] Scott Boelscher and Martha Snyder, *"Driving Better Outcomes: Fiscal Year 2019 State Status and Typology Update."* HCM Strategists (2019). http://hcmstrategists.com/promising-policy/wp-content/uploads/2019/04/DRIVING-BETTER-Outcomes-Fiscal-Year-2019-State-Status-Typology-Update_Final_Final.pdf

Memo: Nick HIllman

Today, at least 30 states are implementing or designing outcomes-based funding (OBF) policies for higher education. [1] The intuition behind OBF is appealing and straightforward: *financial incentives will focus colleges' attention on improving educational outcomes*. Furthermore, with these incentives, colleges will strategically use performance data to adopt evidence-based programs that improve student success. This brief highlights three areas where this appealing intuition misfires and offers promising alternatives for addressing educational problems.

Dealing With Complexity

Colleges and universities are large and complex organizations with a wide range of educational missions. Each institution is comprised of hundreds and even thousands of employees, many of whom are highly-trained professionals working directly, if behind the scenes, with students. Financial aid administrators, academic advisors, institutional researchers, health service providers, and a host of others far beyond faculty members are all involved in student success over the course of several semesters and years.

When tasks are complex and involve multiple actors who on their own have little direct control over the outcome, or when outcomes are poorly measured, incentives are likely to misfire. [2] For example, incentives can create goal displacement, where one way to deal with complexity is by focusing on a narrow set of performance indicators – often at the expense of others. Another way to deal with complexity is by skimming, or limiting services to those who are most likely to perform well in the first place. When these conditions arise in complex organizational settings, pay-for-performance will likely exacerbate these problems, as illustrated through Nobel Laureate Bengt Holmström's work on contract theory. [3]

Campus officials might look to evidence-based college success interventions, like CUNY ASAP, Bottom Line, or Inside Track as a strategic way to improve outcomes. [4] This is a promising development but does not remove the complexity outlined above. Adding new interventions may actually create new layers of complexity if: a) it is unclear through what *specific channels* the intervention works; b) the intervention encourages *skimming*; and c) the performance measures encourage *goal displacement*.

Tapping Professional Networks

Professionals on the ground work closest with students and are often in the best position to understand and help address the various problems students face. These professionals have an intrinsic motivation to serve students well regardless of external accountability pressures. Financial incentives work best when employees *lack* intrinsic motivation; in fact, high-stakes accountability can damper this motivation and make organizations poorer performers. [5]

To avoid these pitfalls while capitalizing on the assets of campus expertise, policymakers should collaborate with shared governance groups and professional associations. Doing so would not only help policymakers diagnose the root causes of educational problems but would help create a degree of buy-in across a wide range of professionals on campus. But if OBF policies are designed and

communicated primarily through presidents' and provosts' offices, rather than through existing campus or statewide professional networks, then the policy is likely to have limited support and will be viewed as an external accountability tool rather than one truly committed to continuous improvement. As a result, the chances of using performance accountability data to implement and monitor student success initiatives will be limited if it overlooks the very stakeholders involved in those efforts. If campus officials plan to adopt an evidence-based student success intervention in response to OBF, they should do so through shared governance and extensive feedback from campus professionals involved in the wide range of support services these programs might provide. Failing to do so will result in suboptimal implementation if: a) campus stakeholders are not *actively engaged* in the planning process; b) leadership teams turn over and the program is *no longer supported*; or c) the intervention is deemed inappropriate for the specific campus *setting and context*.

Using Performance Data

A surprising finding from the performance management literature is that public organizations tend to improve outcomes *after* governments abandon high-stakes financial incentives. [6] In complex public services, it is best to leverage performance data for "internal learning" where accountability data is used to facilitate ongoing dialogue, planning, and strategic decision-making within professional networks. [7]

If OBF helps professional networks generate the performance data necessary to plan and evaluate their efforts, then it may contribute to organizational learning. However, using data for internal learning is something colleges already do – or strive to do – regardless of whether a state uses OBF. For example, Georgia is not an OBF state yet Georgia State University stands out as a national example of how to use data for continuous improvement and internal learning. [8] By leveraging new technology and data, leadership teams work collaboratively to find new ways to monitor and support student success. This suggests colleges can indeed sharpen their focus on outcomes in the absence of OBF; perhaps the absence of OBF even encourages innovation and collaboration.

When considering evidence-based interventions, campus officials should identify specific ways the performance data will contribute to organizational learning. Who will use the data, how, and with what resources? Some interventions may operate via third-party providers (e.g., Bottom Line) operating outside the governance structure of the college. This will make organizational learning even more complicated if performance data are not looped back into campus professional networks, thus limiting colleges' ability to fully engage in organizational learning. Accordingly, campus officials should: a) ensure data is *collected and shared* in mutually supportive ways; b) use performance data to develop and support *continuous improvement*; and c) encourage intra and inter-university *collaboration* to share promising practices and resources.

Conclusion

Data and accountability are absolutely necessary for improving education and promoting civil rights. States play a central role in helping campuses leverage performance data for continuous improvement. However, there are many ways states could go about promoting continuous improvement and this brief shows how high-stakes financial incentives may work against these very goals.

In broad-access colleges serving the majority of the nation's low-income students and students of color, campuses have highly unequal levels of financial, human, and technological resources to adequately meet their students' full range of needs. They are also dealing with complex problems stemming from institutional racism, poverty, and inequality. Penalizing colleges for "under-performing," pitting campuses against one another for scarce resources, and rewarding colleges for past-performance are surefire ways to reinforce these very problems. But by investing in these colleges and helping them develop internal capacity to solve difficult problems, states will be far more likely to improve educational outcomes and may even start to address inequalities.

---

[1] HCM Strategists (2018). Driving Better Outcomes. http://hcmstrategists.com/wp-content/uploads/2018/03/HCM_DBO_Document_v3.pdf

[2] Bell, Fryar, & Hillman (2018). When Intuition Misfires: A Meta-Analysis of Research on Performance-Based Funding in Higher Education. In *Research Handbook on Quality, Performance, and Accountability in Higher Education*, Edited by Hazelkorn, Coates, & McCormick. https://www.e-elgar.com/shop/research-handbook-on-quality-performance-and-accountability-in-higher-education

[3] Royal Swedish Academy of Sciences (2016). The Prize in Economic Sciences: Popular Science Background. https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2016/popular-economicsciences2016.pdf

[4] Strumbos, D.; Linderman, D.; & Hicks, C. Postsecondary Pathways Out of Poverty: City University of New York Accelerated Study in Associate Programs and the Case for National Policy. Russell Sage Foundation Journal of the Social Sciences, 4(3), 100-117 https://www.rsfjournal.org/doi/full/10.7758/RSF.2018.4.3.06

Castleman, B. & Goodman, J. (2017). Intensive College Counseling and the Enrollment and Persistence of Low-Income Students. Education Finance and Policy, 13(1), 19-41. https://www.mitpressjournals.org/doi/full/10.1162/edfp_a_00204?mobileUi=0

Bettinger, E. & Baker, R. (2014). The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising. Educational Evaluation and Policy Analysis, 36(1), 3-19. http://journals.sagepub.com/doi/abs/10.3102/0162373713500523

[5] Ritz, Brewer, & Neumann (2016). Public Service Motivation: A Systematic Literature Review. *Public Administration Review*, 76(3), 414-426. https://onlinelibrary.wiley.com/doi/abs/10.1111/puar.12505

[6] Moynihan & Kroll (2016). Performance Management Routines that Work: An Early Assessment of the GPRA Modernization Act. Public Administration Review, 76(2), 314-323. https://onlinelibrary.wiley.com/doi/abs/10.1111/puar.12434

[7] Jakobsen, Baekgaard, Moynihan, & van Loon (2018). Making Sense of Performance Regimes: Rebalancing External Accountability and Internal Learning. *Perspectives on Public Management and Governance*, 1(2), 127-141. https://academic.oup.com/ppmg/article/1/2/127/4259367

[8] Fausset (2018). Georgia State, Leading US in Black Graduates, Is Engine of Social Mobility. New York Times https://www.nytimes.com/2018/05/15/us/georgia-state-african-americans.html