



An Overview of NCII & JFF's Guided Pathways Return-on-Investment Model

Over the six years since the first national guided pathways initiative - *Completion by Design* - kicked off in 2011, the movement has picked up speed at a highly unusual pace for higher education. Those of us at the Community College Research Center (CCRC), the National Center for Inquiry & Improvement (NCII), Jobs for the Future (JFF) and Sova who have had the honor of serving as national assistance partners in this work since the beginning of the movement have been heartened by colleges around the country's willingness to engage in long-term, deep reform at scale to ensure optimal pathways for their students. These guided pathways are designed to ensure that our students experience an increased ability to move through our institutions to reach their goals of direct entry to the workforce and a living wage or transfer to four-year institutions with junior standing in their desired major with no credit loss.

There is much work still to do, and while the guided pathways approach that colleges implement to improve their student outcomes are designed to lead to improvement in student progression and completion outcomes, a significant concern still emerges from a college standpoint: **Can we afford to do this?** Of course, educators are sympathetic to the societal, economic and moral considerations that drive us to want to change the conditions for our students so that many more of them can reach their goals. Yet, at the end of the day colleges have to pay their bills, and they must do so in an environment where resources available to them are generally shrinking, not expanding.

Additionally, many broad access 4-year colleges and community colleges are facing new enrollment pressures, due to competition from for-profit institutions and shifts in demographics and college-going rates in their local populations. Most colleges are feeling the reality that the proverbial "revolving door" of entering students may in fact no longer be revolving in the way it used to. While colleges have for years focused on enrollment management, the "new" enrollment management reality is that colleges need to stay healthy by getting more value out of their existing and potentially smaller student populations moving forward. This value can be realized by fewer students dropping out and more students making progress toward and eventually completing their certificates and degrees. Thus, the mission of the college from a moral and ethical standpoint is increasingly intertwined with the college's bottom line and enrollment management.

Thus, there are multiple reasons for investing in student success; however, the economic reality of colleges still exists and they need to make sure that any guided pathways investments have a return from an economic standpoint. Interestingly, we don't seem to have much of an issue describing why a new or expanded approach is "too expensive"; but we sometimes forget to consider the effects of those approaches and the potential for them to generate downstream revenue to at least partially if not fully offset the incremental costs. This is the heart of the return-on-investment approach we introduce below; when considering guided pathways reforms, we need to consider not only the costs but the revenue potentially generated by incremental tuition and apportionment funding.

Approaches to Fiscal Considerations

There are numerous ways to address the fiscal considerations of doing things differently at a college. The three which have received the most attention in recent years are:

1. **Cost Analysis Approaches**: An analysis of what it costs to “do things differently” versus the traditional model.
2. **Cost Effectiveness / Return-in-Investment (ROI) Approaches**: An investigation of not only the incremental costs to the college but also the potential for *incremental revenue* that may be generated to offset the costs or even create a net savings.
3. **Cost per Completer / Cost per Transfer Approaches**: A calculation of the amount of funding it takes to generate a given outcome – usually cost per completer or transfer. The challenge here is figuring out what “funding” we will include; it can be either the entire college budget, instructional costs, or instructional and student service costs.

Other approaches involve investigating the cost savings and wage gains for students and the economic impact to community, but are outside the scope of this work and we would suggest are ancillary to the main issue most colleges face – whether they can afford the incremental costs of doing things differently. It’s our experience that the costs to the college tend to dominate most conversations about the fiscal impact of innovative approaches, usually without much consideration for incremental downstream revenue.

Over the past 20 years in industry and higher education, NCII and its Founder & President Rob Johnstone have addressed return on investment issues by developing relatively simple models in Excel that companies and colleges could customize for their own populations, proposed outcomes and funding mechanisms. NCII created a couple of these ROI models for its partner JFF and its *Accelerating Opportunity* projects, and we are excited to be releasing this guided pathways ROI model together.

Ultimately, **we developed these models to support the case that colleges should design guided pathways reforms for the entire range of students** who desperately are in need of them. However, colleges also need to understand that guided pathways reforms need to “work”, in that they need to actually move the needle on student progression and completion to not only generate the desired moral / ethical outcomes but some financial return on the increased investment from the college.

Quick Exploration of the Model

The NCII-JFF Guided Pathways ROI toolkit has three parts: (1) this overview document; (2) the Excel model to calculate costs, potential incremental revenue and ROI; and (3) a Word document with instructions on how to customize the model at your college. The instructions document will walk you through the model, its calculations, and data that you need/can customize to your college and what is calculated automatically. A key point to emphasize is that the model is designed to consider the incremental costs of doing things differently under a guided pathways umbrella to serve students; it thus assumes that the current suite of approaches is the “baseline” against which incremental costs and the potential downstream revenue can be estimated. In doing so we can keep the ROI model relatively simple and unburdened by a full analysis of the costs of running a college.

More generally, the ROI model has five domains:

- Section 1: New FTEIC students in the modeled Fall term
- Sections 2-4: Incremental cost sections, including staffing and incremental fixed costs
- Section 5: Funding assumptions per FTE/unit
- Section 6: Incremental units & improvement goal
- Section 7: Potential Revenue & ROI

One important note to consider is that while Section 1 on the number of students, Sections 2 thru 4 on the cost estimates, and Section 5 on the funding assumptions are all relatively straightforward to get “actual” data to feed into the model, Section 6’s incremental units / improvement goal are usually done in more of a “informed estimate” approach. This is because most colleges don’t have detailed outcomes data on what happens when guided pathways reforms are implemented. Also, there’s not much of a national evidentiary foundation to get very precise about such estimates; while we hope to develop such a research base in the coming years, for now colleges are left to make such estimates without it. One exception to this is listed in the box to the right and summarizes data collected on developmental education reforms in the 2005-2009 timeframe in California. In any event, colleges should consider a range of “improvement estimates” in Section 7 to investigate their effect on the fiscal bottom line.

More generally, suggested uses of the model include estimating potential incremental revenue gains based on improvement goals, determining the “break-even” increase in downstream incremental units you would need to cover a given cost structure, or exploring what might happen if a program was scaled up from its current size to much larger size. Given the limitations of the evidentiary database listed above, perhaps the most useful outcome of using the ROI model is to determine the “break-even” improvement rate to cover an estimated cost structure of guided pathways reforms. In any case, the “back-of-the-envelope” type of approach provided here is designed to start internal conversations on a college campus rather than be the definitive word; we would strongly encourage the practitioners that this model is designed for to work with their chief business officers to refine the assumptions and integrate the approach into the models the CBOs use at their campus.

Closing Thoughts

In closing, we hope that this relatively simple ROI model can be useful to you, even if it’s not intended to be a detailed econometrics model or zero-based budgeting exercise. If you have questions about or suggestions for the model, please contact Dr. Rob Johnstone at rob@ncii-improve.com.

Real World Data on Improvement

An earlier version of this ROI modeling approach was created in California in 2005 to model developmental education reforms. In 2010, we were able to use actual improvement data from four California community colleges to calculate the 3-year improvement in incremental units/FTES, which were 6%, 18%, 36%, and 47% respectively at four CA CCs.

While guided pathways reforms are much broader and deeper than these developmental education reforms, the range of the improvements is instructive and it is also likely that the students served by those developmental education reforms are going to similarly benefit from guided pathways reforms.