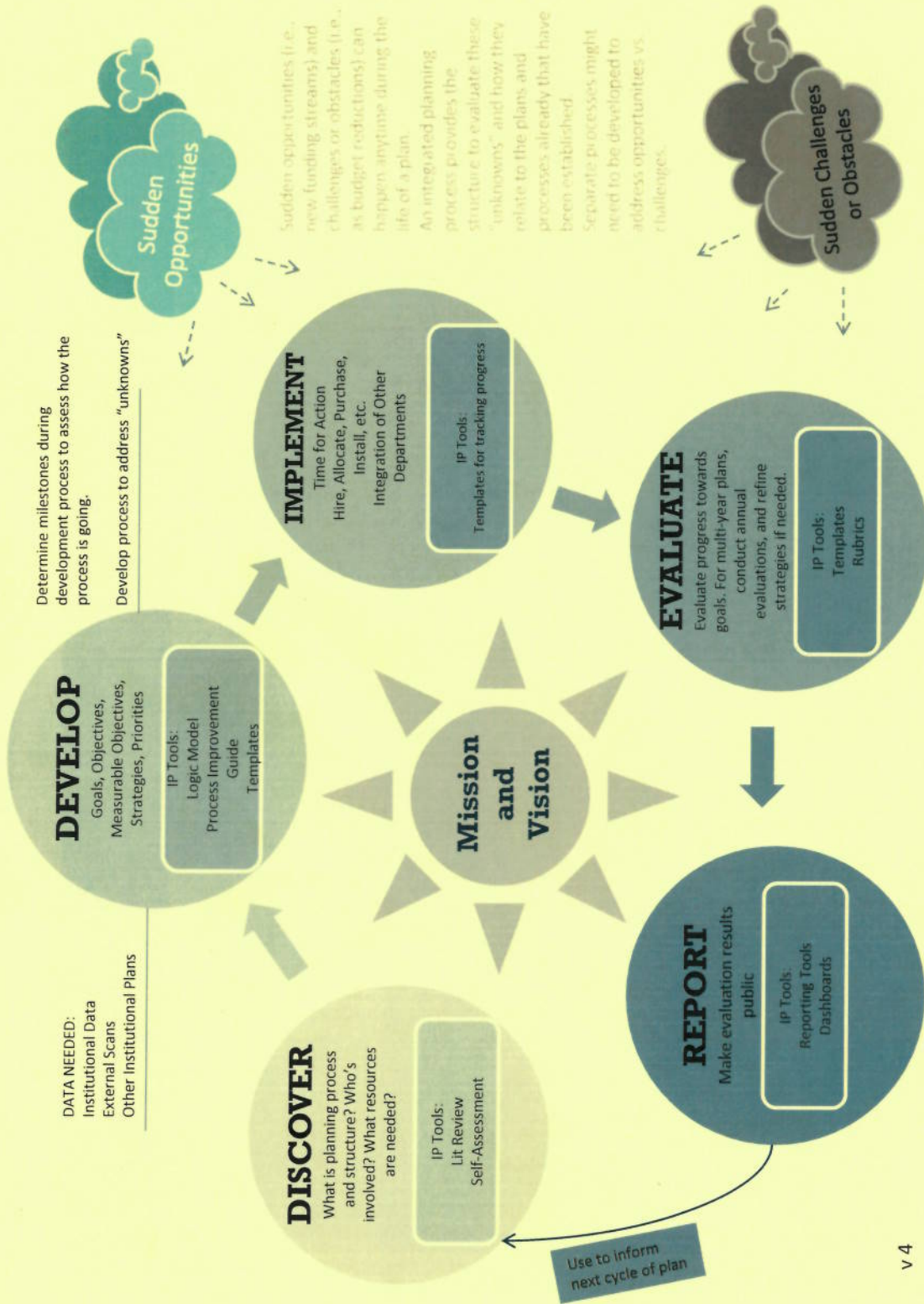


Conceptual Model of Integrated Planning



What pressing issue at your college needs to be addressed and how could the IP Model be useful in addressing this issue?

IP MODEL	Specify issue:
Discover	
Develop	
Implement	
Evaluate	
Report	
Mission/ Vision	
Opportunities/ Obstacles	



What is the “California Guided Pathways Model?”

The California Guided Pathways Model is an *integrated, institution-wide* approach to student success based on intentionally designed, clear, coherent and structured educational experiences, informed by available evidence, that guide each student effectively and efficiently from her/his point of entry through to attainment of high-quality postsecondary credentials and careers with value in the labor market.

Central to the pathways model are clear, educationally coherent program maps—which include specific course sequences, progress milestones, and program learning outcomes—that are aligned to what will be expected of students upon program completion in the workforce and in education at the next level in a given field. Students are helped from the start to explore academic and career options, choose a program of study, and develop a plan based on the program maps. These plans simplify student decision-making, and they enable colleges to provide predictable schedules, frequent feedback, and targeted support as needed to help students stay on track and complete their programs more efficiently. They also facilitate efforts by faculty to ensure that students are building the skills across their programs that they will need to succeed in employment and further education.

Guided Pathways Essential Practices

The four dimensions of the Pathways Model, together with essential practices under each, are the following:

1. Clarify paths to student end goals

- a) Simplify students’ choices with default **program maps** developed by faculty and advisors that show students a clear pathway to completion, further education and employment in fields of importance to the region.
- b) Establish **transfer pathways** through alignment of pathway courses and expected learning outcomes with transfer institutions, to optimize applicability of community college credits to university majors.

2. Help students choose and enter a pathway

- a) Bridge **K12 to higher education** by assuring early remediation in the final year of high school through the application of courseware technology in strong K12/higher ed partnerships, such as the TN SAILS model.
- b) Redesign traditional remediation as an **“on-ramp” to a program of study**, which helps students explore academic and career options from the beginning of their college experience, aligns math and other foundation skills coursework with a student’s program of study, and integrates and contextualizes instruction to build academic and non-academic foundation skills throughout the college-level curriculum, particularly in program “gateway” courses.

- c) Provide **accelerated remediation** to help *very poorly prepared* students succeed in college-level courses as soon as possible.

3. Help students stay on path

- a) Support students through a strong **advising** process, embedded and ongoing in the pathway experience and supported by appropriate technology, to help students make informed choices, strengthen clarity about transfer and career opportunities at the end of their chosen college path, ensure they develop an academic plan with predictable schedules, monitor their progress, and intervene when they go off track.
- b) Embed **academic and non-academic supports** throughout students' programs to promote student learning and persistence.

4. Ensure that students are learning

- a) Establish program-level **learning outcomes** aligned with the requirements for success in employment and further education in a given field and apply the results of learning outcomes assessment to improve the effectiveness of instruction across programs.
- b) Integrate **group projects, internships, and other applied learning experiences** to enhance instruction and student success in courses across programs of study.
- c) Ensure incorporation of **effective teaching practice** throughout the pathways.

Essential Capacities for Guided Pathways Reforms

Research and experience in the field indicate that the following capacities are essential for motivating and supporting higher education institutions and systems to undertake the broad-scale institutional reforms involved in implementing guided pathways effectively and at scale.

- **Leadership** demonstrating skills for managing and sustaining large-scale transformational change.
- Broad and authentic **engagement** of college faculty and staff—particularly advisors—in the design, implementation, evaluation, and ongoing improvement of pathways for students.
- **Institutional will and capacity to use data and evidence** to design academic and career pathways, monitor student progress, and implement needed improvements over time.
- **Technological tools and infrastructure** appropriate to support student progress through guided pathways.
- Commitment to the level of **strategically targeted professional development** that will be required to design and implement pathways at scale.
- **Policy conditions** established at the state, governing board, system, and institutional level that provide incentives, structures and supports for pathway design and implementation at scale while removing barriers.
- A **continuing action research agenda** that examines the efficacy of guided pathways and develops practical knowledge and tools to support effective implementation at scale.



Guided Pathways: Planning, Implementation, Evaluation

Creating guided pathways requires managing and sustaining large-scale transformational change. The work begins with thorough planning, continues through consistent implementation, and depends on ongoing evaluation. Colleges should assess their readiness for intensive, broad-based change before beginning this work.

PLANNING

ESSENTIAL CONDITIONS

Make sure the following conditions are in place – prepared, mobilized, and adequately resourced – to support the college's pathways effort:

- Strong leadership throughout the institution
- Faculty, staff, and student engagement
- Commitment to using data
- Capacity to use data
- Technology infrastructure
- Professional development
- Favorable policy (state, system, and institutional levels)

PLANNING/PREPARATION

Understand where you are and prepare for change by:

- Engaging stakeholders and making the case for change
- Establishing a baseline for key performance indicators
- Developing flowcharts of how students choose, enter, and complete programs
- Developing an implementation plan with roles and deadlines

SUSTAINABILITY

Commit to pathways for the long term and make sure they are implemented for all students by:

- Determining barriers to sustainability (state, system, and institutional levels)
- Redefining the roles of faculty, staff, and administrators as needed
- Identifying needs for professional development and technical assistance
- Revamping technology to support the redesigned student experience
- Reallocating resources as needed
- Continuing to engage key stakeholders, especially students
- Integrating pathways into hiring and evaluation practices

IMPLEMENTATION

CLARIFY THE PATHS

Map all programs to transfer and career and include these features:

- Detailed information on target career and transfer outcomes
- Course sequences, critical courses, embedded credentials, and progress milestones
- Math and other core coursework aligned to each program of study

HELP STUDENTS GET ON A PATH

Require these supports to make sure students get the best start:

- First-year experiences to help students explore the field and choose a major
- Full program plans based on required career/transfer exploration
- Contextualized, integrated academic support to help students pass program gateway courses
- K-12 partnerships focused on career/college program exploration

HELP STUDENTS STAY ON THEIR PATH

Keep students on track with these supports:

- Ongoing, intrusive advising
- Systems for students to easily track their progress
- Systems/procedures to identify students at risk and provide needed supports
- A structure to redirect students who are not progressing in a program to a more viable path

EARLY OUTCOMES

Measure key performance indicators, including:

- Number of college credits earned in first term
- Number of college credits earned in first year
- Completion of gateway math and English courses in the student's first year
- Persistence from term 1 to term 2
- Rates of college-level course completion in students' first academic year

ENSURE STUDENTS ARE LEARNING

Use these practices to assess and enrich student learning:

- Program-specific learning outcomes
- Project-based, collaborative learning
- Applied learning experiences
- Faculty-led improvement of teaching practices
- Systems/procedures for the college and students to track mastery of learning outcomes

Revisit conditions, sustainability, and implementation. Continuously improve pathways by building on elements that work and adjusting or discarding elements that are not serving all students well.

EVALUATION

Guided Pathways Demystified:

Exploring Ten Commonly Asked Questions
about Implementing Pathways



Dr. Rob Johnstone
National Center for Inquiry & Improvement

OVERVIEW



This report is designed for higher education leaders and explores ten commonly asked questions about implementing guided pathways. It addresses concern about compromising our higher education values, practical considerations about control and enrollment, and apprehensions about the impact on students' learning and development—all issues that will need to be addressed to successfully pursue a guided pathways effort.

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Acknowledgements

Over the past seven years, the movement known as guided pathways has transitioned from relative infancy to more rapid consideration and adoption. I have been heartened to see this evolution, where today seemingly everybody I talk to in my travels around the country is reading and considering the recent book from Tom Bailey, Shanna Jaggars, and Davis Jenkins with the Community College Research Center, Teachers College, Columbia University titled *Redesigning America's community colleges: A clearer path to student success (2015)*. Davis in particular deserves a lion share of the credit for helping drive this movement forward in the early days, and continuing to help lead and shepherd it now and into the future.

It is due to the efforts of many people that I could now write this paper on the most commonly asked questions about guided pathways. Those of us who were national assistance partners in the initial phases of Completion by Design were in the trenches of early work to promote this movement, including Davis Jenkins, Tom Bailey, Peter Crosta and Sung-Woo Cho of CCRC; Michael Collins, Lara Couturier, and Gretchen Schmidt (now with the American Association of Community Colleges Pathways Project) of Jobs for the Future; Alison Kadlec and Isaac Rowlett of Public Agenda; and Priyadarshini Chaplot of the RP Group (and now NCII). It is through my collaboration with these big yet practical thinkers that I honed my own perspective on this proposition for significantly improving the success of hundreds of thousands of students.

Of course, this paper wouldn't have been possible without the support of the Bill & Melinda Gates Foundation for Completion by Design in general, and specifically for the support of the blog post series on www.completionbydesign.org. Thanks also to Jill Wohlford and Kelley Fong who've been invaluable in making sure the blog post series has the great content it does from a wide range of national leaders in guided pathways.

Finally, I am in deep appreciation to my colleague, friend, and NCII editor-in-chief Kelley Karandjeff, who took a series of ten disconnected blog posts written in my occasionally humorous and always folksy style and helped me turn it into this paper. She does amazing work, and I appreciate her efforts.

Dr. Rob Johnstone

Founder and President
NCII



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Introduction

College educators know the completion agenda is here to stay. In response, practitioners are seeking real solutions that support a fundamental redesign of our nation's colleges so we can ensure that more students can achieve their educational goals and earn family sustaining wages. One such strategy is the guided pathways approach, which aims to better structure student connection, entry, progress, and completion of certificates and degrees with market value or transfer to four-year institutions with junior standing in a major (see textbox, *Guided Pathways Defined*). Multiple efforts are taking root across the country to implement the guided pathways approach at scale, including the Bill and Melinda Gates Foundation's *Completion by Design* (CBD) initiative in Ohio, North Carolina, and Florida; the Lumina Foundation's *Guided Pathways to Success* (GPS) effort in Indiana, Georgia, and Tennessee; The Kresge Foundation's *Pathways* projects in Arkansas and Michigan and *Centers for Student Success* with a pathways focus in Connecticut, New Jersey, Ohio, and Texas; and the *Texas Completes* initiative.

While implementing guided pathways is a relatively new movement, initial evidence from related initiatives demonstrates a positive impact on student progress and completion (see page 8 for more information). The NCII's own experience working with the abovementioned efforts and the work underway among early adopters suggests the guided pathways approach represents an institution's best chance to move past innovating on the margins for a small number of students to fundamentally transforming the learner experience throughout their trajectory at the college. In doing so, we can achieve the gains in outcomes at scale that represent not numbers on a page, but in reality, potentially hundreds of thousands of student lives improved upon achievement of their goals.

At the same time as we share this optimism, enthusiasm, and passion for the futures we

Guided Pathways Defined

These highly structured student experiences encourage completion by:

- *Establishing clear roadmaps to students' end goals that include articulated learning outcomes and direct connections to the requirements for further education and career advancement*
- *Incorporating intake processes that help students clarify goals for college and careers*
- *Offering on-ramps to programs of study designed to facilitate access for students with developmental education needs*
- *Embedding advising, progress tracking, feedback, and support throughout a student's educational journey*

(Jenkins & Choo, 2014; Bailey, Jagers, & Jenkins, 2015)

can improve, we recognize that promoting, let alone enacting, such a significant change is not for the faint of heart. Fundamental redesign means calling into question the traditional paradigm that we have been operating under with our students for at least decades, and perhaps centuries. It requires a hard look at the values and beliefs on which our systems are based and demands we explore whom the traditional system was designed for and for whom it currently works well. In addition to making us feel a bit uncomfortable, this exploration can also surface genuine apprehensions about comprising our institution's effectiveness and sacrificing our students' progress and success as we work to implement and optimize guided pathways approaches.

Through hands-on technical assistance and countless interactions with faculty and administrators, NCI and its national partners including the Community College Research Center (CCRC), Jobs for the Future (JFF), and Public Agenda regularly encounter numerous **inquiries about designing and implementing guided pathways that demonstrate these concerns**. In reflecting on these issues, **ten common questions emerge** (see textbox, *Top Ten Questions about Guided Pathways*). Some are controversial and others are practical in nature; all are genuine issues that represent a deep concern for our students and the institutions at which a wide range of practitioners dedicate their time and energy; as such, these questions will likely arise and need to be addressed in any effort to adopt guided pathways.

Top Ten Questions about Guided Pathways

- **Concerns about compromising our higher education values:**
 1. Isn't college a meritocracy where the strong and smart succeed, and the weak, underprepared, or unmotivated don't?
 2. Isn't free choice the cornerstone of American higher education?
 3. Won't we sacrifice quality when we move to guided pathways?
 4. Won't we lose the heart of a liberal arts education when we make students' journeys more structured?
- **Practical considerations about control and enrollment:**
 5. Won't faculty lose control over what is taught in their discipline?
 6. Won't we lose enrollment at our college if we decrease swirl with increased structure—or by making things mandatory?
- **Apprehensions about the impact on students' learning and development:**
 7. Isn't all of this "hand-holding" going to create graduates that can't navigate the workplace and the "real world"?
 8. Don't students benefit when they "find themselves" by what looks like wandering to the observer?
 9. How can students be expected to make career decisions at age 18 or 19?
 10. Don't students change careers four to seven times? Given this context, why would we put them on structured pathways?

NCII has designed this resource for higher education leaders, particularly community college and state university faculty and administrators who are:

1. Interested in or attempting to implement guided pathways and may be encountering push-back from peers, OR
2. Tentative about a guided pathways movement taking place on their campus

This paper seeks to offer concrete, and in many cases, nontraditional responses to these questions. We organize these questions into three groups:

- Concerns about compromising our higher education values
- Practical considerations about control and enrollment
- Apprehensions about the impact on students' learning and development

These responses are in no way designed to represent what we feel to be the “right” way of answering these important questions or to attempt to establish the final word on any of these subjects. Conversely, we offer these insights specifically to **assist educators in facilitating your own thoughtful, productive dialog with colleagues about these redesign strategies in the quest for strengthening your students' completion and success.**

Concerns about Compromising our Higher Education Values

Four of the most provocative questions we encounter in discussions about guided pathways relate to the very foundation of our country's higher education system. They center on issues of access, choice, quality, and breadth, including the following:

1. Isn't college a meritocracy where the strong and smart succeed, and the weak, unmotivated, or underprepared don't?
2. Isn't “free choice” the cornerstone of American higher education?
3. Won't we sacrifice quality when we move to guided pathways?
4. Won't we lose the heart of a liberal arts education when we make students' journey more structured?

We explore these questions in the following section.

1. Isn't college a meritocracy where the strong and smart succeed, and the weak, unmotivated, or underprepared don't?

Let's start with one of the most controversial and pervasive questions. It is a concern that typically remains unspoken in large groups yet frequently surfaces in the safety of department meetings and one-on-one conversations with practitioners. This question has deep roots in the history of higher education in general, an institution that traditionally restricted broad access. The notion that strictly those perceived as qualified and smart can and should get a college degree reflect race and class issues dating back centuries. In 15th and 16th century Europe, only the White ruling class attended university. In the past 70 years, the US has certainly traveled a significant distance toward democratizing access to postsecondary education. The passage of the General Infantry (GI) Bill after World War II and the concomitant creation and massive expansion of the community college system across our nation have led far more Americans to pursue postsecondary education.

Yet, **it is debatable that we have sufficiently adjusted our higher education model to ensure everyone we welcome has an equal chance of achieving high quality credentials with clear labor market value.** Data on completion rates at most community colleges and many regional public four-year colleges certainly suggests otherwise. For example, in a chapter of *Rewarding Strivers* (The Century Foundation, 2010) titled "How Increasing College Access Is Increasing Inequality, and What to Do about It," Carnevale and Strohl offer compelling evidence on how income quartile impacts college graduation rates. This research shows that when observing students who score in the middle range on the SAT (between 1,000 and 1,200), 66% from the top income quartile graduate college by age 24. For those in the lowest income quartile, it is 17%.

Simply put, this is a shocking finding. These are students at the **same band of ability** as measured by their SAT scores, and **yet students from the highest income quartile are four times more likely to get a degree by age 24 than students in the lowest income quartile.** If you only look at top performers—students who have above 1,200 SAT scores—the trend persists. The highest income quartile achieves a college degree 82% of the time by age 24, while those in the lowest income quartile do so just 44% of the time.

In reflecting on such data, and likely on our own experience in the field, it is difficult to conclude that

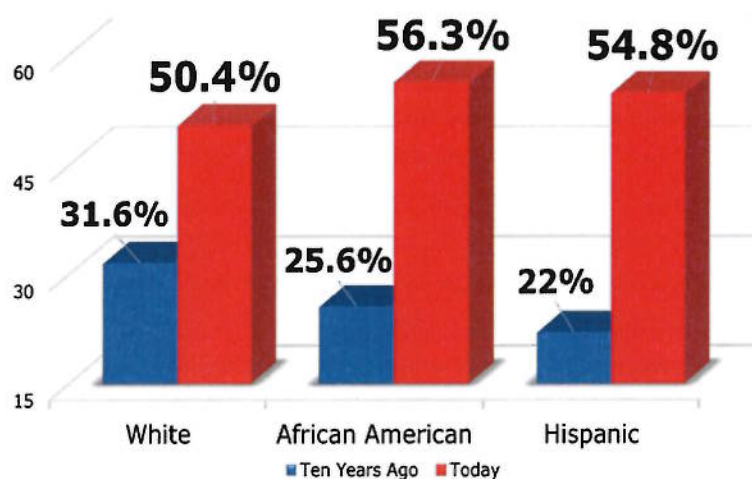
Figure 1. The Graduation Gap by Income Quartile (Tough, 2014)



college actually is a meritocracy where those who are capable and qualified can successfully accomplish their goals. Even further and equally importantly, we posit that higher education has in no way tested the limits of what students are capable of achieving under a new or redesigned set of conditions, structures, and processes, including the guided pathways approach. Systems that have adopted guided pathways strategies (e.g., the Georgia State University and the Florida State University systems), and institutions in the early stages of implementation (e.g., the City University of New York (CUNY) and the City Colleges of Chicago), are beginning to realize notable improvements in completion rates, without sacrificing quality. For example, students participating in CUNY’s Accelerated Study in Associate Programs (ASAP) have realized large and significant differences in terms of retention, movement through developmental course work, credit accumulation, and graduation rates (when compared to non-ASAP students); currently, ASAP’s cross-cohort three-year graduation rate is 52% versus 22% for comparison group students.¹

Even more notable are increases in success rates for the very groups we often quietly surmise cannot succeed—students of color and/or low-income learners (see *Figure 2. Graduation Rates for Georgia State Universities, Before and After Adoption of Guided Pathways*). **We have only scratched the surface on how far we can evolve our efforts to serve and how significantly we can increase the results for our entire range of students.**

Figure 2. Graduation Rates for Georgia State Universities, Before and After Adoption of Guided Pathways



2. Isn’t “free choice” the cornerstone of American higher education?

While encounter this question in a range of forms, they all center around the observation that, in moving toward structured pathways, we might be departing from what makes the US higher education system great—the vast amount of choice. Yet, both social science

¹ For more information, visit <http://www1.cuny.edu/sites/asap/evaluation/>.

research and clarification about what choice looks like in a guided pathways system suggest students may be better supported in understanding and selecting options under this model.

First, we know much more now from behavioral economics and social psychology about how humans make choices than we did a half-century ago. Research studies from both fields have investigated the number of options individuals can reasonably process and still make strategic choices. While there's a large amount of scholarly inquiry into and disagreement about the presence, conditions for, and size of these effects, there exists a case for limiting choice which gained steam in the early 2000s, perhaps most popularly with Thaler and Sunstein's *Nudge* (2008). In addition, there is often a quietly held opinion in higher education that students should be able to make the same rational decisions we in the field would make when faced with the similar choices, with the accompanying assumption that there is a clear and easily attainable answer. There's a wealth of research on how relatively irrational many of our decision-making processes are (e.g. Tversky and Kahneman, 1974). So at the very least, if students are like the rest of us, it seems that asking those with expertise to guide and architect their choices would be invaluable.

Currently, the path through general education at most community colleges resembles the menu at the Cheesecake Factory—hundreds of options and never enough time to even read through them before we are asked to order. Not surprisingly, **students faced with this multitude of choices struggle with course selection, and the requirements are often so confusing that they make those “irrational choices”** we refer to above by picking courses off their desired pathway, or satisfying the same requirement multiple times. Another net effect of this vast amount of choice is that it is very hard for students, their faculty, and/or student services advisors to actually identify how far they are along their path to goal completion. The degree audit systems many institutions have put in place are useful in this determination, but they exist *because* our course and program offerings are in such a state of chaos. Essentially, the path through our institutions is so complex that we need a computer program with the ability to parse through literally millions of options to make sense of an individual's student's progression on their transcripts. Given this, it is incredibly rare for anyone to know at a glance where a student is in her/his educational journey and what s/he should take next.

Of course, it does not have to be this way. Parts of our community college and baccalaureate-level institutions have a history of implementing rigorous structure and demonstrating a high degree of completion: cohort-based career technical education (CTE) programs, most graduate programs, transfer paths for community college athletes, and increasingly STEM pathways. The reasons for their strong show of completion are myriad, yet **one conclusion we must reach when reflecting on these programs is that structure matters.**

Second, the implementation of guided pathways does not require *removing* choice; rather, **it encourages organizing it into a “choice architecture” that is planned rather than**

haphazard. Institutions like Queensborough Community College (NY), the City Colleges of Chicago (IL), Guttman Community College (NY), Arizona State University (AZ), and Georgia State University (GA) are employing the “meta-major” or “focus area” approach which asks students who are relatively undecided to choose between one of five to nine paths, which then lead to many other majors downstream in the student trajectory. Again, consistent with the behavioral economics and social psychology literature, this notion seems to map better to what we know about how we can make rational choices. **Combined with structured programs on the back end, it keeps students maintaining forward momentum toward goal completion,** even when they are undecided.

Finally, **structured pathways are designed to shift the focus of student choice from picking courses to selecting programs,** which still enables them to choose from a wide range of options. This structure suggests a significant transition in thinking—for students, educators, and institutions—to the ultimate decision point being which program will either lead to (1) further education with junior standing in a major at the university level after transfer, or (2) direct entry into the workforce. Conversations with student services professionals often reveal that they do not see students until their final semesters at the institution—late in their process under the traditional system, and certainly much too late in an environment that encourages early program selection. **To help students focus on picking a program versus courses, we also need to integrate career planning far earlier in their higher education journey.**

3. Won't we sacrifice quality when we move to guided pathways?

The specter of losing quality or “dumbing down our degrees” (a term we’ve heard in college conversations) is clearly a significant concern on a number of fronts. At the same time, we submit that we are challenged to define the quality that exists in our country’s current higher education system. When specifically considering the community college sector, we have mainly focused our attention in the past decade on measuring the attainment of general education (GE) or liberal arts learning outcomes for students completing associate’s degrees. In doing so, colleges have typically defined anywhere between four and 15 GE or institutional learning outcomes (ILOs), which largely center on some iteration of what we at Foothill College in the mid-2000s coined the four “Cs”: communication, computation, critical thinking, and citizenship.

Given that nearly all colleges have some form of these four topics in their ILO statements, it seems reasonable to treat them as the core set of GE or liberal arts outcomes from which to assess the “quality” of the current system. Admittedly, colleges find it difficult to actually assess learner achievement of these outcomes, with approaches focusing on generalized or standardized tests, portfolio assessment, and/or common rubrics using samples of student

work. Methodological challenges aside, **we are in our relative infancy reaching any conclusions about the quality of these ILOs as achieved under the traditional model. In turn, we suggest that it is hard to compare what we might gain or lose under a new model of guided pathways;** clearly, we need to develop more insight around this issue of assessment.

At the same time, we do have some evidence of what quality exists in achieving these outcomes under the traditional model, which comes from surveys of employers who receive community college graduates. While equally true of graduates of baccalaureate and graduate level programs, the surveys most commonly **suggest that graduates of all three higher educational systems struggle most in the workplace on the exact general learning outcomes we seek to achieve—especially problem solving, communication, and computation.** Rarely do employers express major concerns with graduates' skills and knowledge specific to their degree (e.g. accounting, nursing, automotive technology). While many factors likely contribute to this finding, it certainly does not lend weight to the argument that our current higher education system leads to as high a level of quality as we might desire on GE learning outcomes.

So, how does the guided pathways reform effort relate to these issues of quality? Educators express concern that **a streamlined set of choices for students will lead to decreased quality in the achievement of these GE outcomes, and thus a diminished liberal arts education. Yet, no literature appears to exist supporting the assertion.**

To further make this point, it is important to define what we mean by the "system." In this discussion, the current community college GE system is defined by the ten to 14 courses that each student takes to fulfill her/his liberal arts requirements. Whether or not the student chooses these courses from a list of 500, 50, or 14 default electives, each learner still only takes ten to 14 courses designed to prepare them in the liberal arts. **Nothing actually changes on this front under a guided pathways model. The ten to 14 courses students take still work together to form the GE package and thus are the foundation for attainment of the four key learning outcomes** outlined above (communication, computation, critical thinking, and citizenship). So, it seems hard to argue that quality as defined by the achievement of these GE outcomes would drop under a guided pathways approach.

On the other hand, we posit that our ability to monitor and improve students' achievement of GE outcomes—the hallmark of a liberal arts education—will likely improve under a guided pathways approach. At the moment, the traditional model expects students to select these ten to 14 courses from a long list of possibilities, most often in an unguided way. We also assume they will somehow assemble their chosen courses in a manner that results in a high level of achievement of these GE outcomes. Simply from a backward design standpoint, this reliance on random course selection and arrangement suggests a lower likelihood of consistently producing high achievement of outcomes. Conversely, it seems that **if we**

empower subject matter experts—discipline faculty from the programs in which students are pursuing degrees—to select and arrange courses, we will achieve a more optimal combination of classes for each student and ultimately better results. As a model developed under CBD, Sinclair Community College (OH) recently did just that, asking each of their discipline’s faculty to suggest a short list of GE electives that would be best for students who graduate in that discipline. This clarity is likely to result in the benefits achieved by institutions such as Georgia State University, Florida State University, and Arizona State University (ASU). For example, ASU has greatly reduced the number of students “off-path” from as high as 48% in the first years of their pathways redesign down to under 6% after a couple of years.

4. Won’t we lose the heart of a liberal arts education when we make students’ journeys more structured?

This question surfaces time and again in faculty discussions about guided pathways. Like the apprehensions addressed above, it comes from a very real concern that in moving to guided pathways, we will lose key qualities at the heart of American higher education. In this case, educators worry that we will surrender the breadth that ensures students have broad exposure to a range of subjects and build a foundation of knowledge and skills that prepare students for not only their first job but also career shifts throughout their lives (for further discussion, see questions 8 and 9 starting on p. X). They also express concern that this movement will reduce the likelihood an educated citizenry, believing that society benefits when its members are educated on an array of topics including arts, humanities, social science, mathematics, and natural science courses.

We continue to submit that colleges can realize improved liberal arts education outcomes with their students under a guided pathways model. Let’s build on the above discussion of quality. As part of that exploration, we noted a liberal arts education has always been defined for our associate’s degree and/or transfer students as a series of ten to 14 courses through which they build GE outcomes. We explained that under a guided pathways model, students take the exact same number of courses as they did under the traditional model.

Taking this point further, let’s break those ten to 14 courses down into their component domains. Hop on most community college websites, and you will find a fairly typical set of GE requirements, intended to define liberal arts education for that institution. To illustrate this point, we looked at one California community college’s GE requirements for an associate’s degree:

- Three arts and humanities courses
- Three social science courses

- Two communications/English courses
- Two history/cultures courses
- Two science courses
- One mathematics course

In this college’s case, the GE requirement adds up to 13 courses, which combined with seven more program-specific courses, reach the 60 units necessary for degree completion. If this institution embraced highly structured pathways, it might **ask program faculty to identify default GE electives that best align with their program outcomes and arrange them with program-specific courses into clear pathways to completion.** In doing so, the college could design their programs to have the same distribution of the GE requirements as they do today. In turn, the requirement of breadth—core to a liberal arts education—remains the same. Again, the only change is the empowering of faculty to identify what the optimal courses are for students in their programs. Perhaps more importantly, we would also ask the faculty to consider *how* the courses fit together to produce this liberal arts education we all value. We submit that this type of focus and intentionality would result in improved student GE outcomes.

Ultimately, **nothing is lost in terms of GE under a guided pathways model; rather, we might very well gain** benefit that staunch defenders of the liberal arts education model should embrace—a **more predictable set of liberal arts outcomes that a greater number of students actually achieve upon completion.**



Practical Considerations about Control and Enrollment

Two practical issues also surface in conversations about guided pathways that relate to the day-to-day autonomy of educators and college operations. These include:

5. Won’t faculty lose control over what is taught in their discipline?
6. Won’t we lose enrollment at our college if we decrease swirl with increased structure—or by making things mandatory?

We explore these concerns below.

5. Won't faculty lose control over what is taught in their discipline?

This difficult question requires a nuanced answer, recognizing that the adoption of guided pathway calls for faculty to cede ownership in some respects while gaining it in others. **In reality, faculty control over their discipline has been shifting in recent decades.**

Historically, faculty have operationally controlled their discipline, determining what courses they teach and what content they cover. In a course-focused model, this feature makes sense. If it does not matter which courses students take within a discipline to satisfy requirements, then faculty would be free to teach whatever offerings they so desired. Yet, public universities have not actually used this model in their undergraduate divisions for quite some time, and it certainly is not in place at community colleges where a myriad of articulation agreements specify which courses “count” for junior standing in a given major at a receiving transfer institution.

The recent adoption of clear and structured transfer paths (a close cousin of the guided pathway model) in a number of states reflects this evolution. These transfer paths attempt to (1) ensure students' lower-division units apply after transfer, and (2) reduce the financial and time burden that comes with excess units, a particularly acute problem for low-income learners. States such as Florida, Mississippi, and Washington have relatively established transfer pathway systems, and many other states such as North Carolina and California are working to structurally guarantee that students do not lose the credits they earned at a community college upon transfer. **These stronger transfer pathways have already had the effect of at least partially determining what courses community college faculty will teach;** it is difficult for a community college to justify offering courses that do not count for junior standing in a major at key receiving universities (unless they are for the cohort-based direct-to-career programs or short-term career advancement students).

On the other hand, faculty ownership over the courses they suggest for students in their programs is essential to the effective implementation of the guided pathways model. That is, accounting faculty should know better than anybody else which GE courses would best prepare somebody to serve as an accountant. For example, we can look to the abovementioned effort undertaken by Sinclair Community College (OH) to redesign all 180 of its programs through participation in the Completion by Design initiative. When the college embarked on this reform, it empowered program faculty to identify two-year pathways for full-time students and four-year pathways for part-time learners, including recommended default GE electives that would best prepare participants to enter their given field upon program completion.

So yes, it is true that faculty may experience a shift in the ownership over the courses taught in their discipline as transfer pathways become more common, a shift that has already been in the works for quite some time. At the same time, at the local level, faculty should gain

more control over determining the courses that comprise their programs. Ultimately, this evolution will be better for students in the long run if it helps more of them complete certificates and degrees and transfer without losing so many credits.

6. Won't we lose enrollment at our college if we decrease swirl with increased structure—or by making things mandatory?

This question hits on a primary concern of all community college administrators—enrollment. At present, most colleges have either all or a significant portion of their funding driven by enrollment. Given this financing structure, and an overall funding level that is remarkably low compared to those often found in the university and K-12 systems, community college leaders are rightfully concerned that scaled redesign efforts overall and strategies like guided pathways in particular will hurt enrollment.

However, observation of early adopters of guided pathways indicates that these institutions have not experienced a drop in enrollment. Contextually, it is important to recognize that **community college enrollments across the nation have been down in recent years**. If you compare enrollments at your college or in your system between 2011-2012 and now, you have likely experienced a 10% and 20% decline—likely due to shifts in the economy that often drive community college enrollments. Around 2011, the economy was at its worst in most areas, and community colleges experienced increased enrollment by what tends to be a largely transitory population of individuals who go back to work when the economy improves. Thus, recent drops are not particularly surprising given corresponding improvements in our nation's economic outlook. Yet, **when you look at colleges like Miami Dade (FL) and Guilford Technical Community College (NC) that have simultaneously implemented increased structure and more mandatory onboarding requirements such as advising and orientation, enrollments have not been significantly affected**.

Another consideration related to enrollments is that only *existing* students can leave in response to changes such as the implementation of guided pathways, and we suggest this loss is likely inconsequential. That is, if you change a policy such as requiring advising every semester, only current students know what the policy was like before you made the change. In nearly all cases, **new students will adapt to the structural changes because they do not know anything different**. If a small number of learners leave because of these changes, we submit they were likely to leave anyway. Conversely, **the number of students you retain because of this redesign will likely be far greater**.

Finally, we can make a case for **vastly increased enrollments downstream if these major structural redesigns work**. The overall average number of units per student will actually rise significantly if more of them are able to advance in their programs of study. While colleges will lose some units from students having a tighter roadmap and fewer excess credits, these

reductions are likely to be offset by the increase in learners persisting through certificate and degree completion.

Apprehensions about the Impact on Students' Learning and Development

Finally, educators rightfully raise numerous concerns about the impact of guided pathways on students' learning and development, such as restricting maturation and independence, hampering self-discovery, and tracking students on a specific career trajectory. Frequent questions include:

7. Isn't all of this "hand-holding" going to create graduates that can't navigate the workplace and the "real world"?
8. Don't students benefit when they "find themselves" by what looks like wandering to the observer?
9. How can students be expected to make career decisions at age 18?
10. Don't students change careers four to seven times? Given this context, why would we put them on structured pathways?

We explore these questions below, providing one response to questions 9 and 10 given their collective focus on the effect of structured pathways on students' career exploration and development.

7. Isn't all of this "hand-holding" going to create graduates that can't navigate the workplace and the "real world"?

While this concern surfaces only on occasion, it is worth consideration. The idea here is that the world is a complicated place to navigate, and thus we should make college equally complex to ready graduates for the challenges they will ultimately encounter in life. Two primary responses emerge, one that requires some reflection on the purposefulness of

those complicated systems we have established in our institutions and another that relates to the issue of equity.

To start, **we question the learning value of complex systems and processes that even those of us who work in higher education often have a hard time navigating.** For example, in the mid 2000s, a handful of chief academic and student services officers in the California Community College system asked some of faculty and administrators to apply for college and participate in the onboarding process. They reported the same chaos, frustration, and disenfranchisement that our students do. In another experiment, we gave a portion of the math placement test to some members of a community college board of trustees. More than half of them tested into developmental education, claiming the math was not relevant to their real-world work, and in turn, calling into question why it should be relevant to students.

The experience of Miami Dade's redesign team offers another example. When reaching an impasse about whether or not to adopt guided pathways, they asked more than 25 non-biology faculty to identify the ideal associate's degree path for a student seeking to transfer to Florida International University in biology, using only the tools available to students (e.g., website, catalog). Three hours later, these faculty were unable to complete the task, and thus had the epiphany that their college needed to embrace more structured pathways in order to help their students navigate the institution.

It seems the complexity we have developed within our colleges has served less to educate and empower our learners and more to dissuade our students from achieving their goals. Even more disconcerting, this logic has the inevitable consequence of perpetuating inequity across our higher education system and denying college degrees to historically underserved populations and/or first-time college students. These populations often do not have the social capital or the familial experience with higher education to help them navigate the complexities and confusion presented by our institutions. In turn, **this thinking presents a significant equity issue—especially when we have data suggesting that those students can succeed when the colleges create the right conditions,** including the use of guided pathways.

While the real world certainly will present our graduates with a healthy dose of challenge and adversity, it seems unnecessary to make students' lives complicated to prepare them for that inevitability. Rather, we submit that it would be more purposeful to strengthen student achievement of the GE/liberal arts education learning outcomes that will help them navigate that complex world upon completion.

8. Don't students benefit when they "find themselves" by what looks like wandering to the observer?

This common question, often well intended, hits on a real concern that increasing structure means decreasing the opportunity for students to discover their true passions and calling. Yet a growing body of evidence suggests that students may in fact be seeking greater support in this discovery process. For example, the Research and Planning Group for California Community College's Student Support (Re)design study summarized surveys and focus groups with nearly 1,000 California community college students (including completers, leavers, and those in progress) about what they found supportive of their success. The research team identified "six success factors" both through a review of existing literature on support and through their conversations with students (Booth et al., 2012). Two factors rose to the top: (1) "directed," defined as "students have a goal and they know how to achieve it," and (2) "focused," defined as "students stay on track, keeping their eyes on the prize." Students indicated they were clamoring for structure and guidance to help navigate the maze of choice at community colleges, underscoring themselves the value of guided pathway redesign efforts.

Public Agenda recently found similar findings in a study of Indiana students (Kadlec & Gupta, 2014), and Public Agenda and WestEd (2012) also found related findings in joint CBD focus groups in Florida, North Carolina, Ohio, and Texas. The Community College Research Center Teachers College, Columbia University, has commented on the issue as well in working papers such as *Get with the Program* (Jenkins & Choo, 2014) and *The Shapeless River* (Scott-Clayton, 2011), supporting the idea that increased structure is not only a design strategy that many in the field are confident will help students more quickly achieve their goals and at higher rates, but is also an approach that students themselves are seeking.

While certainly our colleges certainly enroll students who want more time to wander and appreciate less structure, this research suggests the group may be much smaller than originally understood. We also submit that the wandering to find yourself model can work if you have the resources and time to explore. However, with increasingly larger proportions of our students encountering significant financial barriers, we may need to confront that wandering is a luxury of the select few who can afford it. Conversely, low-income students may particularly need a clear picture of the how their investment of time and monetary resources will pay off—another benefit of a structured pathway to a well-defined outcome.

Furthermore, the idea that students will discover their passions by wandering the curriculum and exploring a variety of courses seems inefficient. It requires enrolling in a wide range of courses in a somewhat disconnected nature. Perhaps another way to find out what students like is to provide them with better and earlier career exploration and assessment of personal interests before they start their higher education journey. This way,

students can at least narrow down the possibilities and/or try the most likely candidate. This approach connects to our earlier discussion of providing undecided students structures for guided exploration such as meta-majors and career focus areas such as those at Queensborough College or the City Colleges of Chicago.

Finally, we assert that those who have “found” themselves by wandering tend to be us—those who ultimately chose a career in higher education—and we personally value that type of journey. Yet, a review of completion and student perspectives data tells us that significant numbers of students do not realize their calling this way. It does not make this journey any less meaningful for those who pursue it. However, we submit that we should be able to design a system that allows for both self-discovery and efficiency.

9. How can students be expected to make career decisions at age 18?

And

10. Don't students change careers four to seven times? Given this context, why would we put them on guided pathways?

While these questions differ slightly, with one focusing on the age at which students are making career decisions and the other centering on the number of times most adults change careers, there are more similarities than differences between them. Both deal with the relationship between guided pathways and career decisions and preparation. They are often posed with the general suggestion that community college students will confront more ambiguity than certainty in the workplace, and thus guided pathways might not be the best solution for navigating this maze. However, we posit that this **model actually prepares students to both enter the workplace with clarity about their interests and abilities and develop the foundational skills and knowledge needed to facilitate career advancement over time.**

First, we recognize that there will always be students who change majors and shift career aspirations. However, at least part of the reason this happens so often **in our current higher education context is that students do not receive career services early enough in their community college trajectory.** At most institutions, career services are not integrated into pre-enrollment, college success, or first-year experience programs where they would be most helpful. Students often do not get a chance to discover what they do or do not like about their chosen major until later in the course sequence, typically late in their educational journey. **Guided pathways incorporate this critical career exploration upfront**

in students' experience, helping both our younger and nontraditional learners examine their interests, match them to careers, identify programs leading into those careers, and select a pathway accordingly.

Additionally, this model allows colleges to design the early semesters so that **early common coursework in a career focus area keeps many downstream program options open as long as possible**, as Lorain Community College (OH) has done with their business programs (and is in the process of doing with others). For example, through streamlining and looking holistically at their business programs, Lorain was able to identify seven courses that could be taken in the first two semesters that kept students “on path” with 12 different business degrees, including Accounting, Administrative Office Information Systems, Business Administration and Computer Information Systems. By adopting such an approach, we can **help students explore and make more informed and structured decisions, and ensure they lose little ground when they shift within a discipline.**

Additionally, as discussed above in questions two through four, these pathways **include high-quality GE coursework that is intentionally selected for each pathway**, allowing students to achieve communication, computation, critical thinking, and citizenship outcomes in the context of their selected path. With this deliberate and strong GE foundation in place, students are **more likely to have the ability to shift employment within a pathway as well as the capacity to understand how to go about changing careers** if needed or desired.

For some time now, students have been confronted with a work world in which they will likely change careers many times. Has our traditional approach equipped students for these career changes any better than what would happen under a more structured and intentional set of pathways? Data suggests otherwise—indicating that under our current system, too few students complete the preparation required to even enter employment. We submit that through the guided pathways approach, we **can help more students accomplish a certificate, degree, and/or transfer and place them on a path leading to security for their family and personal and professional advancement.**



Conclusion

Clearly, higher education leaders raise these questions about guided pathways with good intentions—surfacing concerns about the students and the institutions they hold dear. Yet, the collective journey through these questions reinforces the idea that guided pathways can

be a strong lever for helping more students complete college and enter the workplace with the preparation needed to achieve security for their families, personal growth, and professional advancement. NCII has never been more hopeful and excited about the future of our colleges than now. As the guided pathways movement takes root in and expands across our public postsecondary institutions, we envision a system transformed over the next decade, and the lives of hundreds of thousands of students improved.

Get Started with Guided Pathways

We invite you to join in this movement. You can begin by opening a discussion with your colleagues about both the authentic issues and merits of implementing guided pathways in the context of your own college. You can use these ten questions to talk with peers and practitioners about the goals you have for your students, the ground-level concerns you hope to address, and the ways your institution might apply a guided pathways approach accordingly. You can also tap the resources listed below and call on NCII to help facilitate your exploration and implementation of guided pathways.

For more information on guided pathways...

- Read *What We Know about Guided Pathways* from Community College Research Center, Teachers College, Columbia University (<http://ccrc.tc.columbia.edu/publications/what-we-know-about-guided-pathways-packet.html>)
- Learn about the American Association for Community College's Pathways Project (<http://www.aacc.nche.edu/Resources/aaccprograms/pathways/Pages/default.aspx>)
- Review Jobs for the Future's *Policy Meets Pathways: A State Policy Agenda for Transformational Change* (<http://www.jff.org/publications/policy-meets-pathways-state-policy-agenda-transformational-change>)
- Discover reports, tools, and resources from the Bill & Melinda Gates Foundation's Completion by Design initiative (<http://www.completionbydesign.org/>)

To learn about the National Center for Inquiry and Improvement...

- Visit www.inquiry2improvement.com
- Contact Dr. Rob Johnstone, Founder and President, rob@inquiry2improvement.com

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