

DRIVING TOWARD A DEGREE:

THE EVOLUTION OF PLANNING AND ADVISING IN HIGHER EDUCATION

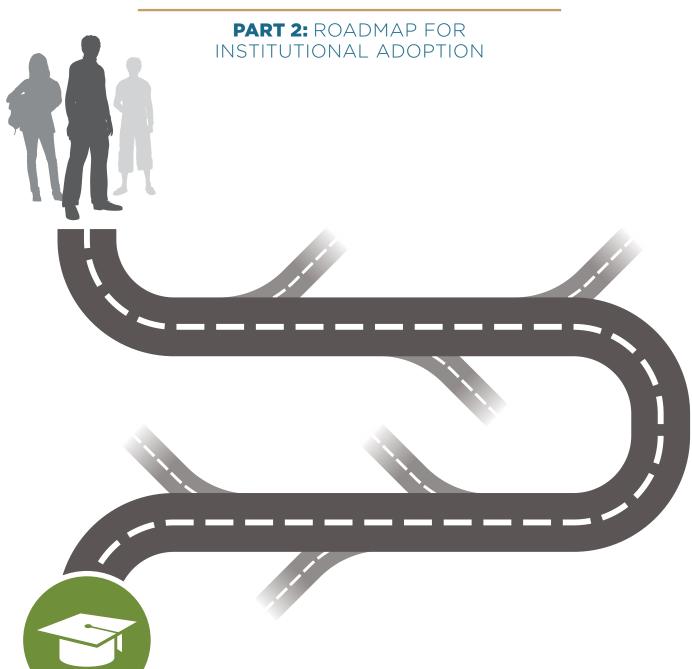


TABLE OF CONTENTS

3
5
10
18
22
24
25
26
27

INTRODUCTION

On-time student graduation and student retention are major challenges facing the US higher education system. Only 59% of full-time students beginning college will earn a degree within six years. At the community-college level, the picture is even bleaker. Fewer than 20% of students finish a two-year degree within three years, or a 10-month certificate program within 15 months. US institutions spend 5% to 12% of their budgets on student services, which equates to over \$1 billion spent annually on planning and advising services for students. Meanwhile, on-time student graduation rates and freshman retention rates have not improved over the last 10 years. These statistics are worse for first-generation college students and students of color. Increasingly, the higher education system is no longer the high-performance engine of social mobility that it once was.

In part 1 of **Driving Toward a Degree: The Evolution of Planning and Advising in Higher Education**, we described the fragmented state of planning and advising from a supply perspective. In this environment, cobbling together a holistic planning and advising experience for students can prove challenging for institutions. There are currently no vendors that offer a complete suite of products, and only a limited number address more than two or three key elements. Therefore, creating a coordinated solution requires integrating products from various vendors while simultaneously managing key process changes among institutional stakeholders. Understanding which product categories to prioritize in order to best meet an institution's specific needs can be a daunting task.

In general, there is a lack of change management capability among both vendors and institutions. This second and final paper in **Driving Toward a Degree: The Evolution of Planning and Advising in Higher Education** addresses these issues by laying out a decision-making roadmap for institutions to follow as they embark on a process to improve student retention and on-time graduation via integrated planning and advising.

Specifically, this paper addresses the following questions:

- How should institutional context shape a student success and retention strategy?
- How does the level of institutional commitment affect implementation of an integrated planning and advising system?
- What are effective practices for implementation that institutions can employ?

In this paper, we present two frameworks that serve as a guide to the key factors influencing a successful student success and retention strategy. Our first framework focuses on how institutional context should inform a school's strategy and discusses the institution-specific factors that shape student retention challenges. Our second framework focuses on the level of institutional commitment to student success and retention – a critical factor in implementation strategy – and provides a tool for institutional self-assessment. Based on our in-depth conversations with 20 institutions and 24 vendors, we also share some of the effective practices that institutions have used to overcome implementation challenges.

Executive Summary: A confluence of factors, including a shift to performance-based funding and declining student enrollment, has led to an increased focus on student retention and on-time graduation at postsecondary institutions. In response, over 100 vendors in the integrated planning and advising services market have introduced products aimed at improving student retention and graduation rates. These product offerings vary significantly in capability and maturity, but all aim to fix the inadequate model many institutions have in place, in which retention and advising efforts are disjointed and underserve the student. Our two-part series Driving Toward a Degree: The Evolution of Planning and Advising in Higher **Education** is intended to equip institutions with an understanding of this immature but quickly evolving vendor landscape. These papers also identify the gaps between the supply and demand sides of the market and, within the context of those realities, provide institutions with a guide for selecting and implementing a student success and retention strategy.

HOW SHOULD INSTITUTIONAL CONTEXT SHAPE A STUDENT SUCCESS AND RETENTION STRATEGY?

Institutional context, for this purpose, is defined as the characteristics of the people and processes involved in retention and student success within a particular organization. A student success and retention program cannot be successful without a thorough understanding of the problems it is attempting to solve. Retention problems may have entirely different sets of causes at different institutions. Every institution has a unique starting point, yet there is a tendency to offer the same best practices and models for all institutions to follow. For this reason, it is important to take a rigorous approach to defining the specific challenges at an institution.

Based on our conversations with institutions and vendors, we have identified three separate lenses to use when evaluating an institution's student success environment: learner type, stakeholders, and workflow.

THREE LENSES FOR ASSESSING AN INSTITUTION'S STUDENT SUCCESS ENVIRONMENT

1 LEARNER TYPE

What are the characteristics of the student populations that the institution serves?



2 STAKEHOLDERS

Who is accountable for improved retention and outcomes?



3 WORKFLOW

What tools can enable integration, feedback loops, and improved productivity?



LEARNER TYPE

The types of students an institution serves should be a key consideration when developing a student success and retention strategy. Each student segment has distinct challenges, and an institution's strategy should be tailored accordingly. For instance, distance learners do not experience the same kind of faculty interaction as on-campus students, and so strategies that rely on faculty to raise flags for at-risk students will be trickier to implement and may not be effective in targeting the right students. Similarly, part-time and post-traditional students regularly encounter challenges that are experienced less frequently by full-time students, such as balancing work and family commitments. Within institutions, different subgroups may require unique strategies.

At one New York community college, the primary retention challenge was the underpreparedness of large portions of the student population. In response, the institution encouraged faculty to deploy alerts in conjunction with referrals to the learning center, in order to provide targeted remediation to struggling students. Another four-year institution had a large population of students receiving financial aid. Financial assistance would expire for many of these students after they accumulated 150% of their degree hours. At that point, many had still not completed their degrees, but they were forced to drop out because they could no longer pay tuition. As a result, the school implemented degree-planning software that allowed students to map out a path to their degree within the allotted timeframe.

At Florida Atlantic University, where 80% of the students are commuters, the institution set up "drive-through" advising stations in parking garages between the hours of 5:00 p.m. and 7:00 p.m. to best serve these students as they were leaving campus for the day. Within four months of piloting the program, advisors had met with 500 students in parking garages.¹

Institutions should consider whether they have the appropriate processes and systems in place to field the challenges faced by their various student groups. The following three factors should be considered when evaluating the student composition of an institution:

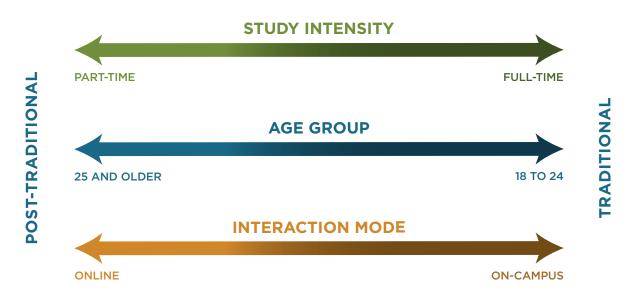
- **Study Intensity** Refers to the enrollment status of the student and the number of credit hours. Part-time students have different needs than students attending full-time. In particular, standard graduation and retention metrics may not apply to part-time students whose educational goals are fundamentally different than degree attainment.
- **Age Group** Refers to the age of the student. Many institutions will not only be serving the typical 18- to 22-year-old learner but will also have a large portion of post-traditional adult learners who face unique challenges and often are trying to balance competing priorities.
- Interaction Mode Refers to the way in which students engage with the institution, whether primarily through classes on campus, online, or a blend of both.

At the intersection of these questions about learner type is a segmented understanding of an institution's student population. Standard segmentation techniques have helped institutions target services to students on the basis of socioeconomic factors, but most would agree that these parameters do not adequately identify students who pose the greatest attrition risk. Overlaying learner variables (full-time/part-time, online/on-campus, younger/older) with other demographic elements can facilitate the creation of

¹Inside Higher Ed, "Drive-Up Advising," May 2015, https://www.insidehighered.com/news/2015/05/19/florida-atlantic-u-offers-academic-advising-parking-garages.

a planning and advising infrastructure that is attuned to student needs. Ultimately, institutions should be designing an advising experience that is personalized to the unique educational and career goals of each student. Building a robust segmentation around learner types is the first step along this path.²

THREE PRIMARY FACTORS FOR ASSESSING LEARNER TYPE



STAKEHOLDERS

One of the key challenges of improving student success and retention stems from the diversity of stakeholders and organizational silos that are typically involved in providing student support services. Students turn to many different resources, including advisors, coaches, professors, and administrators, for advice and support, and yet most of these contact points do not have a holistic view of the student's needs or circumstances. In addition, various informal advisors may not be aware of the complete array of resources at the student's disposal. Providing a coordinated response regardless of where the student may choose to initially seek support is a complex undertaking.

Technology can help to bridge some of the communication gaps by facilitating information flow between stakeholders. Product offerings in the planning and advising space can also serve as a central hub for connecting stakeholders, including students, to all the resources available to them. In addition, these technology solutions can serve as monitoring systems that allow any participant in a student's success plan to easily review the history of the student's engagement with the institution and other stakeholders.

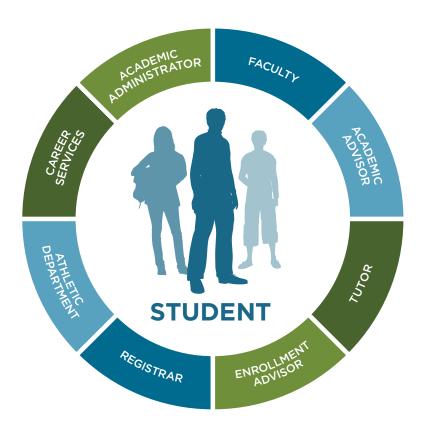
An analysis of the stakeholders should inform which tools and processes need to be adopted to ensure that the right information is being communicated to the appropriate groups of people. This initial assessment should shine light on the communication silos that need to be bridged to facilitate the exchange of necessary information. One community college that we interviewed was specifically searching for a product that allowed more communication between faculty and advisors, and applied this criterion to the vendor selection process.

²The Gates Foundation has developed a 16-question online survey to further segment the student population by assessing where a student falls among eight identified common attitudes and mindsets.

Another large public university lamented that institutional leaders often do not consider the needs of all the stakeholders when choosing technology, and that they specifically tend to ignore the needs of advisors. The institutional tools that administrators use to assess the retention challenges of the institution as a whole are very different than the tools an advisor needs to obtain a holistic view of individual students. This distinction is often ignored in the decision-making process, and one of the easiest ways to rectify this practice is to give advisors, and all other stakeholders, a seat at the table early on in the process. Institutions that recognize advisors as key stakeholders early in the process tend to be more successful in making necessary changes to their advising infrastructure. For instance, at one community college we spoke to, an advisor was responsible for implementing alerts for at-risk students in coordination with the institution's IT department. As a result, she was heavily invested in the success of the retention initiative and led the evolution of the school's advising approach to a more proactive model.

Of particular importance is the type of advising structure in place at the institution. A decentralized structure, in which advisors are housed in their respective academic units rather than in one large central administrative unit, can lend itself to greater communication challenges, which the chosen technology should address. Additionally, institutions should consider all of the types of advisors that exist to support students, such as faculty advisors, career advisors, and academic advisors, in order to ensure that they can all share and communicate pertinent student information.

INSTITUTIONAL STAKEHOLDERS



WORKFLOW

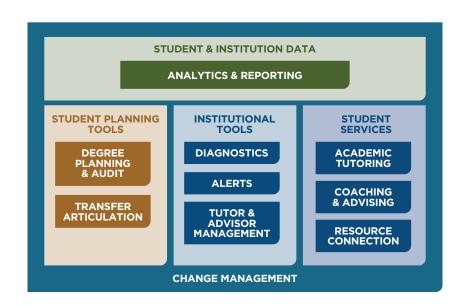
Institutions must also consider how their organizational workflows align with the nine planning and advising product categories introduced in part 1 of this series (see below). Vendor solutions can and should help to standardize and streamline processes, but the technology should not define the process. When adopting a technology that enables a particular workflow or process, institutions should seek to strike a balance between replicating well-established processes in the technology and adopting new processes as a result of the technology. Some institutions we interviewed candidly suggested that the adoption of new technology was a mechanism to force adoption of improved processes. We recognize this reality but want to encourage institutions to first establish a vision for continuous workflow improvement.

Part of this analysis involves considering what technology and workflows are currently in place that a new system would need to integrate with. For instance, before implementing a degree-planning system, institutions should consider how this technology would integrate with existing course-planning processes and course registration infrastructure.

Systems integration is only one aspect of workflow analysis. Decision makers must ask themselves what information they are looking to gather, what parties that information needs to be communicated to, and what processes or interventions should be set into action based on the collected data. Ultimately, these solutions serve to connect students who need help with the resources to enable them to succeed, and a granular analysis of how this will work at the specific institution is a prudent step to take prior to adopting technology.

More than a handful of institutions we spoke to struggled when initially implementing an alert system because they had not planned for the massive increase in the number of students identified as needing assistance based on the risk factors and business rules used in the system. We spoke to one institution that, because of its limited advising capacity, was looking for technology that tiered and prioritized alerts so that advising resources could be focused where they had the potential to be most effective. At larger schools with decentralized advising functions, case management tools were seen as particularly important for monitoring and sharing information about individual students. The common theme across these examples is the need to coordinate the application of new technology with process changes, capacity planning, and stakeholder needs.

PLANNING AND ADVISING PRODUCT CATEGORIES



FROM CONTEXT TO ACTION

A rigorous analysis of the institution through the three lenses of learner type, stakeholders, and workflow can immensely improve the probability of choosing appropriate planning and advising solutions. These considerations can provide a critical foundation for the development of an integrated infrastructure for improving student success and retention. In particular, the above framework can help institutions to define and articulate their student success and retention challenges by assessing the following:

- Which student groups are being targeted by the student success and retention initiatives, and what are the characteristics of these populations?
- Who is directly or indirectly responsible for improving outcomes, and how will the institution ensure that these individuals are both supported and acting as a team?
- How can technology enable streamlined workflows and communication across the institution, and how prepared is the institution to adopt it?

Once the institution has determined its needs, the next consideration is the nature of the commitment the institution has to making the necessary changes. While all institutions are genuinely committed to improving student outcomes, the commitment doesn't always come from the same place in the organization, and resources are often constrained. Implementing a holistic and integrated planning and advising system involves navigating a complex set of processes and making an upfront investment that pays dividends over time, and a high level of institutional commitment increases the chance of success.

HOW DOES THE LEVEL OF INSTITUTIONAL COMMITMENT AFFECT IMPLEMENTATION OF AN INTEGRATED PLANNING AND ADVISING SYSTEM?

Assessing the students, institutional stakeholders, processes, and technology that a holistic planning and advising solution needs is only the first part of the planning process. An implementation strategy that does not take into account the level of existing support and resources at the institution runs the risk of early failures that can erode confidence in the program and threaten its long-term viability. Implementation refers here not only to the technological integration of new products and systems but also to the process of garnering buy-in from the appropriate stakeholders and end users, promoting effective use of the systems, and operationalizing processes and workflows.

The framework laid out in this section is intended to serve as a guide for defining and articulating the level of commitment at an institution. For an accurate self-assessment, it is critical to conduct an honest self-appraisal regarding the resources and support for adopting an integrated planning and advising solution at the particular organization. While institutional commitment may appear to be strong in a strategic plan, this can be virtually meaningless if resources and leadership are not aligned to the same goal. Self-assessing the level of commitment can serve as a foundation for facilitating thoughtful and deliberate conversation at an institution regarding the direction of a student success and retention plan.

WHAT IS INSTITUTIONAL COMMITMENT?

Institutional commitment is defined here as the degree to which an institution's leadership, strategic plan, and funding are tied directly to retention and student success. The level of alignment across these three factors appreciably affects how easy or difficult it will be to fund student success and retention initiatives, gain traction for and increase use of new technology, and adopt a culture of continuous improvement. While strong leadership support and funding levels are desirable at any institution, the reality is that the institutions with the greatest retention and on-time graduation challenges have very limited resources.

Funding limitations can be particularly constraining at two-year institutions, which are often chronically underfunded. A large obstacle to securing funding is the substantial up-front investment that planning and advising solutions require, with expected return on investment (ROI) materializing over the course of several years. One institution that we spoke to noted how a long-term perspective toward ROI runs counter to the way that most budgeting processes allocate resources. Convincing those who control the purse strings to see the long-term value in the investment can be difficult. While most vendors tout potential ROI to customers, these figures are not necessarily enough to convince institutional leaders, who, out of necessity or habit, focus on the short term.

While it is possible to implement an impactful planning and advising initiative with any level of commitment, the strategy and tactics for implementation should vary based on the realities of the specific institution. Practices that institutions may want to deploy will likely differ based on the level of leadership and monetary support behind the initiative.

WHAT ARE THE THREE LEVELS OF INSTITUTIONAL COMMITMENT?

From our research, we have found that institutions generally fit into one of three models of institutional commitment. While institutions may not fall squarely into a single category, or may be in the process of transitioning from one level to another, these three levels serve as benchmarks for comparison when assessing the state of an institution.

Institutional Commitment Level to Student Success and Retention Efforts	Characterized by	Common Attributes
Retention as a Strategic Priority	a clearly defined strategic direction with backing from leadership, extensive financial support, and commitment of resources to student success and retention initiatives	Student success and retention are written into the strategic plan Strategic initiatives are tied to student success and retention efforts, with clear accountability and dedicated personnel (e.g., a retention coordinator to manage efforts and monitor outcomes) Budget and strategic plan are aligned
Retention as an Institutional Initiative	a strategic commitment to student success and retention that may not align in practice with resources or leadership attitude	 Student success and retention are on leadership's radar (likely due to performance-based funding or accreditation issues) Vision is in place, but there is no implementation plan Budget is not tied to student success and retention efforts There is unclear ownership of retention and on-time graduation, with limited accountability
Retention as a Grassroots Initiative	a lack of leadership or resource commitment and a student success and retention effort that is largely driven by individual departments rather than a top-down mandate	 Leadership is not focused on student success and retention Efforts are siloed and driven by individual departments or individual employees

INSTITUTIONAL PROFILES

The following tables provide examples of institutions that have successfully implemented integrated planning and advising solutions with varying levels of institutional commitment. The implementation approach differed for each one, and these examples illustrate how successful programs can be put into action at any institution.

RETENTION AS A STRATEGIC PRIORITY: COLORADO STATE UNIVERSITY

STARTING POINT	IMPLEMENTATION APPROACH	STUDENT SUCCESS AND RETENTION INITIATIVES
 4-year public institution with 32,000 students Students are primarily full-time, traditional students who attend classes on campus Doctoral-degreegranting institution Level of commitment to retention: Leadership started planning in 2006, which led to the creation of a Strategic Retention Plan Central budget funding tied to 22 retention initiatives (\$4M) Retention planning involved the whole university Focus is on enhancing learning through increased student engagement in the curriculum and co-curriculum, and through enriching the collaboration between academic and student affairs 	1. Created a university-wide vision • Designed a 22-initiative strategic plan with collective input 2. Augmented HR infrastructure • Assigned accountability for results at the VP level • Created a role to provide focus and coordination • Created new successfocused positions, including 50 "academic support coordinators" • Formed action-oriented committees focused on outcomes 3. Built a center focused on learning • Provided resources for faculty on pedagogy and for students on learning effectiveness/enrichment 4. Used data to inform decisions • Measured key metrics to show ROI for budget requests	 Involved students more fully in academic planning Chose CollegeSource for degree planning and audit and course demand planning Provided proactive student support Homegrown alert system pulls data from multiple sources, including EAB tool and Campus Labs Beacon Implemented Ellucian Mobile to engage students via text messages Implemented Data Systems Integration Initiative Developed reporting dashboards in-house, particularly for advisors Became a founding member of Unizin, a member organization focused on advancing learner analytics
	et: Retention improved from 82% aduation rates increased from 629	

Source: Institutional Interviews

RETENTION AS A STRATEGIC PRIORITY: PAUL SMITH'S COLLEGE

STARTING POINT	IMPLEMENTATION APPROACH	STUDENT SUCCESS AND RETENTION INITIATIVES	
 4-year private college with 1,000 students Students are primarily traditional students who attend classes on campus Level of commitment to retention: Conducted a self-study review that found problems centering around communication and information flows (information not going to the right place) In 2008, leadership drafted a comprehensive plan to improve student success and retention Board immediately approved a contract with Starfish (in the midst of a budget deficit) and provided a budget for implementation and ongoing support 	1. Merged Retention Office with Academic Success Center to encourage buy-in • Faculty viewed the word "retention" as an add-on; "academic success" aligns more closely to faculty goals 2. Utilized change management principles • Recognized faculty/ staff for performing new behaviors (such as raising/clearing flags) to create short-term wins 3. Built a culture of evidence • Linked retention data to revenues • Developed clear measures of performance and benchmarks	1. Strategic plan stressed the need to improve communication flows • Chose Starfish for early alerts and advisor management • Added Rapid Insight to pull information from Starfish, SIS, and other systems, to measure ROI of efforts 2. Implemented mandatory student action plans for at-risk students to: • Review course expectations • Provide supplemental instruction • Review note-taking methods 3. Academic Success Center suggested OER resources designed to improve student engagement • Quizlet, Wunderlist, inClass, Alarmy, Focus Booster, etc.	
Impact: Retention efforts have returned roughly \$5.8M in total cost savings since 2010			

Source: Institutional Interviews

RETENTION AS AN INSTITUTIONAL INITIATIVE: WHATCOM COMMUNITY COLLEGE

STARTING POINT	IMPLEMENTATION APPROACH	STUDENT SUCCESS AND RETENTION INITIATIVES
 2-year community college with 11,000 students 50% of students are full-time Institutional challenges: Reeling from a 30% cut in state funding resulting from the recession of 2008 Loss in funding coincided with a 25% increase in enrollment, leaving the college struggling to serve more students with the same number of staff and fewer resources Level of commitment to retention: Whatcom's retention initiatives were initially driven by individual departments Becoming an Achieving the Dream school initiated a review of student success and retention data Leadership has a long-term commitment to retention and is committed to funding its contract with Hobsons going forward, but there is still a lack of funding for additional personnel Strategic retention plan is in progress 	 Rolled out a pilot group for alerts to work out glitches Identified early wins, which supported buy-in across faculty and other stakeholders Ran trainings to encourage buy-in Added staff to manage processes Created a role dedicated to fielding alerts Brought on two "faculty coordinators" to garner faculty buy-in and to conduct trainings Hired part-time staff to help with technological implementation Reorganized advising structure and advising room Worked on shifting advising to a more comprehensive model Added computers in advising room to support student-advisor collaboration in degree planning Used first-year success course to promote early career exploration and degree planning 	 Implemented Hobsons platform to support early alerts, degree planning, advisor scheduling, and virtual orientation Hobsons served all needs through a single platform Established first-year experience program Face-to-face new student orientation Developed a first-year-cohort model student success course Expanded access and continued support through a virtual first-year engagement platform Designed accelerated learning pathways for math and English Implemented extensive faculty professional development in active teaching and learning strategies
	ollout, 2,300 students have creat mentation, and 43% of faculty us	

Source: Institutional Interviews

We also spoke to a number of institutions in the Grassroots Initiative category that were implementing initiatives with varying levels of success. Retention and on-time graduation initiatives at these schools were often mandated and funded by external grants or organizations rather than leadership, and they were typically driven by an ambitious subgroup of employees who were able to see the potential value of these tools. Often, these employees were handicapped not only by limited funds but also by a lack of influence needed to encourage coordinated change across the institution. By and large, these institutions struggled to achieve the same level of impact as institutions with greater commitment levels, but gains were nonetheless observable.

HOW CAN AN INSTITUTION SELF-ASSESS ITS LEVEL OF COMMITMENT?

There are specific factors to consider when assessing the level of commitment at an institution. The self-assessment on the following page provides institutions with five questions to reflect on in order to determine their level of institutional commitment.

FOR EACH OF THE FOLLOWING QUESTIONS, CHOOSE THE STATEMENT THAT BEST DESCRIBES THE INSTITUTION.

TO WHAT EXTENT IS STUDENT SUCCESS AND/OR RETENTION INCLUDED IN YOUR INSTITUTION'S STRATEGIC PLAN? A Student success and/or retention is written into my institution's strategic plan, accompanied by actionable steps toward implementation. B Student success and/or retention is written into my institution's strategic plan at a high level, but actionable steps toward improvement have not been identified. Student success and/or retention is not included in my institution's strategic plan. TO WHAT EXTENT IS THERE CLEAR OWNERSHIP AND ACCOUNTABILITY OVER STUDENT SUCCESS AND RETENTION INITIATIVES AT YOUR INSTITUTION? A Ownership of student success and retention initiatives is clearly defined, and individual persons or departments are held accountable for achieving goals. B Ownership of student success and retention initiatives is fairly clear, but there are no mechanisms to ensure accountability for meeting goals. © Ownership of student success and retention initiatives is unclear. HOW ARE STUDENT SUCCESS AND RETENTION INITIATIVES FUNDED AT YOUR INSTITUTION? A Institutional leaders commit funding for student success and retention initiatives in the institutionwide budget. B Funding for student success and retention initiatives comes from individual department operating budgets. © Student success and retention initiatives receive minimal or no funding. TO WHAT EXTENT ARE MECHANISMS IN PLACE TO TRACK PERFORMANCE OF STUDENT SUCCESS AND RETENTION INITIATIVES? A Key performance indicators are in place and tracked regularly for all initiatives. B Key performance indicators are in place and tracked regularly for certain initiatives. C On-time graduation rates and student retention rates are not tracked. HOW WELL DO STAKEHOLDERS COLLABORATE ACROSS THE INSTITUTION ON STUDENT SUCCESS AND RETENTION INITIATIVES? A Strong communication channels exist between key stakeholders. Cross-functional committees and student success coordinators manage communication flows. B Communication channels exist between departments, but large communication gaps exist. C There is no cross-departmental collaboration in support of student success and retention initiatives. FOR EACH ANSWER, SHADE IN A CORRESPONDING BOX BELOW. THE CATEGORY WITH THE MOST SHADED BOXES IS YOUR INSTITUTIONAL COMMITMENT LEVEL. **RETENTION AS RETENTION AS AN RETENTION AS A** A STRATEGIC PRIORITY INSTITUTIONAL INITIATIVE **GRASSROOTS INITIATIVE**

WHAT ARE EFFECTIVE PRACTICES FOR IMPLEMENTATION THAT INSTITUTIONS CAN EMPLOY?

Determining institutional level of commitment can help to guide the implementation strategy to ensure a successful rollout. The following practices are an aggregation of strategies we found to be successful at institutions that we interviewed.

EFFECTIVE PRACTICES FOR STRATEGIC PRIORITY INSTITUTIONS

1. CREATING CROSS-DEPARTMENTAL COMMITTEES TO OPERATIONALIZE EFFORTS

Student success and retention committees that meet regularly can be an extremely effective way to ensure that processes and workflows are adopted consistently throughout the institution. They are also an important tool for operationalizing and expanding best practices from one department to the rest of the institution. Committees may be particularly effective in an institution with a decentralized advising model, but they can add value at any organization. One four-year private institution that we interviewed emphasized that "just because you have cylinders of excellence does not mean that information is flowing." Cross-departmental meetings are one way to ensure that relevant information is communicated across the organization.

2. AUDITING OF ADVISING MODEL AND CAPACITY

The adoption of tools like alerts and degree-planning systems requires support from advising and counseling functions. Prior to implementing these solutions, it is wise to perform an initial assessment of current advising capacity. While these products allow advisors to focus their time more effectively on those students who need the most help, integrated planning and advising often necessitates a transition to a more proactive advising model, which in many cases increases advisors' workload. According to the 2011 NACADA National Survey of Academic Advising, the median caseload of full-time professional academic advisors is 296 advisees.³ There is considerable debate about what constitutes the "right" ratio. While institutions should ensure that they have the capacity to field the increased advisor demand prior to rolling out these systems, determining the staffing ratio must be balanced with the expected gains in retention. Over time, investing in advising capacity should be self-funding, as tuition revenues rise with higher retention rates.

3. INVESTING IN REPORTING CAPABILITIES

Institutions tend not to prioritize reporting tools when planning their technology investments. This can be a mistake, as quality reporting can be integral to the long-term viability of an institution's planning and advising program. Strategic use of data not only can influence budgeting but can also garner buy-in within the organization. Therefore, institutions should prioritize investing in quality reporting tools and the personnel needed to utilize them. A data-centric approach to improving student success and retention should begin before the vendor selection process and should guide the institution's selection of tools and products. Rather than perceiving data as an output that occurs after a student success and retention strategy is established, institutions should think of data as an input that continuously informs and improves strategic direction. Leaders of planning and advising initiatives need to ask of themselves (and of the technology solutions they are considering), "What information will we provide to each stakeholder? Is it actionable? Is it delivered at the point of need?"

³ National Academic Advising Association, "2011 NACADA National Survey of Academic Advising," http://www.nacada.ksu.edu/Portals/0/Clearinghouse/documents/Chapter%206%20-%20Professional%20Advisor%20Load%20-%20FINAL.pdf.

EFFECTIVE PRACTICES FOR INSTITUTIONAL INITIATIVE INSTITUTIONS

1. LEVERAGING WELL-RESPECTED DEPARTMENTS

Some institutions have created new "student success" departments that are responsible for implementing new technology and processes related to retention and on-time graduation. While having dedicated personnel is an important resource, a challenge associated with new departments is that they are not already embedded in established processes and are often not equipped to collaborate with established departments. In some cases, it may make sense to partner with a highly regarded department on campus when implementing a new program, so as to ease the process of gaining traction and credibility within the institution. We spoke to one private university that made the decision to combine its retention office with its academic support department, which was a more established and well-utilized department that consequently had more sway when it came to implementing new processes.

2. BUILDING END-USER ADOPTION

One of the primary challenges of moving a new technology off the ground is convincing people to use it. At an institution where use of a new system is not mandated (and perhaps even where it is mandated), encouraging adoption needs to be approached delicately and thoughtfully.

Trainings can serve as an easy way to encourage use of a new system. Often, resistance to a new technology or process can stem from the perception that the system is too complicated or difficult to use. By equipping faculty, students, and advisors with the knowledge to efficiently use new technology, institutions can eliminate a significant barrier to adoption. Many vendors will provide training sessions, webinars, or materials for institutions to take advantage of, but institutions are encouraged to run their own training programs as well. While most trainings are focused on faculty and advisors, we spoke to one community college system that also ran training sessions for students in order to encourage them to use the school's degree-planning system. While the session reviewed the technical skills required to use the system, it also helped students understand the importance of planning and encouraged them to take ownership of their success plans. Embedding these training opportunities in other high-need, high-visibility training events ensures greater participation.

Several institutions we spoke to also used rewards or recognition for faculty who engaged heavily with new technology, in order to encourage use.

3. ENSURING COMMUNICATION LOOPS ARE CLOSED

End-user adoption can prove to be a constant challenge, and once people start to use the system, it is important that they have a positive experience that encourages them to continue. For instance, when asking faculty to raise flags for students who are not engaged, there should be mechanisms in place to communicate that those flags have been acted on elsewhere in the institution. If there is a perception that alerts are not being utilized, faculty will quickly lose motivation to use them. A private four-year school that we spoke to emphasized that clear communication of when and how alerts would be triaged was critical to faculty buy-in at the institution.

4. USING PILOT GROUPS FOR A GRADUAL ROLLOUT

For institutions in this category, a gradual rollout serves multiple purposes. First, it prevents resources from being overwhelmed while the institution discovers its own threshold for accommodating the student success and retention efforts that are being implemented. This helps to avoid early failures. Second, focusing on a subset of the institutional population eases the burden of having to gain buy-in from a large group of people during the early stages of implementation. Finally, pilot groups allow institutions to evaluate the effectiveness of a particular strategy or technology before rolling it out to the organization at large. This approach limits financial risk and overcomes the ROI hurdle. One community college we spoke to, knowing that it did not have the capacity to field all the at-risk alerts that a vendor solution would produce, decided to start implementation with a small subset of its 30,000 students and to use the pilot stage to measure outcomes while building its capacity.

5. ADOPTING INTUITIVE TECHNOLOGY

All would agree that complex or difficult-to-understand technology inhibits end-user adoption. Several institutions we talked to struggled with technology purchases that took months to integrate with other systems, and months to gain traction with key user groups. If an early-alert system requires a complicated sequence of actions, faculty members are less likely to engage with it. Similarly, reporting tools that create dashboards that are difficult to interpret are unlikely to be successful in transforming data into action. We spoke to a small private four-year institution that was considering implementing a degree-planning tool and was evaluating vendors. One of its top priorities was ensuring that the tool allowed users to find all relevant information in one place. The institution emphasized that "you cannot expect busy end users to go to three or four places to get the information that they need."

EFFECTIVE PRACTICES FOR GRASSROOTS INITIATIVE INSTITUTIONS

1. IDENTIFYING INFLUENTIAL CHAMPIONS

In an environment where leadership support for improving student success and retention is lacking, identifying influential champions within the institution can be critical to the success of the program. These are people who have the power to sway the thinking of others regarding an integrated planning and advising program. Finding champions early on in the implementation process is critical in helping the program gain traction and support. One community college we interviewed attributed the significant growth in program use in the early days of implementation to positive word of mouth.

2. PURSUING EXTERNAL GRANTS

In organizations where funding is not aligned to improving student success and retention, it is important to seek alternative sources of funding to drive adoption of technology and support for these initiatives. The appendix contains a list of federal grant programs that could potentially be used for these efforts. We spoke to one institution whose student success and retention initiatives were funded almost exclusively through a combination of federal and foundation grants.

3. LIMITING THE NUMBER OF NEW TECHNOLOGY SOLUTIONS INTRODUCED AT ONE TIME

For an institution with limited resources, implementing a new technology can take up an enormous amount of human resources, funding, and energy across the organization. Therefore, it may be wise to ensure that the rollout of an integrated planning and advising system does not coincide with other major technology implementations, such as a change in the school's student information system vendor.

4. MANAGING EXPECTATIONS

At grassroots initiative institutions where there may be a lack of understanding or knowledge about planning and advising solutions, it is critical to maintain realistic expectations when it comes to ROI. These initiatives cannot be expected to have immediate returns, but rather, student outcomes and revenue savings should be expected to play out over several years. Because this type of initiative requires planning that is counter to the way that most institutions budget – which is to follow programs with visible, near-term ROI – managing expectations around timing of returns is important. However, these efforts should not detract from the fact that these initiatives have the potential to save an institution from losing significant revenue over time.

GOING FORWARD

By 2025, the US labor market will face a shortage of 11 million college graduates, according to Georgetown University's Center on Education and the Workforce. What will it take to close this gap? Every year, close to 3 million students enroll in a degree-granting postsecondary institution for the first time, with about 1.1 million of those students enrolling in community colleges. If completion rates at community colleges improved by 15%, and those at four-year institutions improved by 10%, we estimate that this gap could be reduced by approximately 30%, with more than 3 million additional graduates over 10 years. Potential gains to student outcomes are significant if institutions can learn to leverage technology to reach and engage the populations of students whose needs go unaddressed by the current planning and advising structure. These gains are not just important for closing the labor shortage gap but are also imperative to ensure successful futures for the students in question. The same Georgetown study found that two-thirds of US jobs will require schooling beyond high school by the same year. Few opportunities will remain for those who do not complete a degree program.

THE GRADUATE GAP

THE PROBLEM

According to a study by Georgetown University's Center on Education and the Workforce, **two-thirds** of all jobs in the US will require schooling beyond high school by **2025**, creating a shortage of

11 MILLION college graduates.

THE SOLUTION

Increasing completion rates by 10% at 4-year postsecondary institutions and 15% at 2-year institutions would narrow the gap by adding

3.6 MILLION college graduates by 2025.

Success in the form of a truly integrated planning and advising system would enable a student to progress smoothly through her postsecondary experience, connecting her to the resources she needs and facilitating timely outreach by those invested in her success. In an integrated institution, for example, a student who strays from his degree plan would in short order be engaged by his advisor, who may learn that the student is struggling to pay tuition and refer him to the financial aid counselors or other resources. The financial aid counselor would be able to immediately pull up the student's history, as well as relevant case notes made by his advisor. Every interaction between the student and the institution would be recorded, not only enabling better targeted attention to the student but also forming, in aggregate, an invaluable data set that the institution can harness to continuously improve its programs.

As the first paper in this series noted, the supplier market, although quickly evolving, is fragmented and still in the early stages of maturity. Vendors vary greatly in their level of product sophistication and breadth, but no vendor offers a full suite of products covering all nine of the planning and advising categories that further student success and

⁴ Gates Notes, "Help Wanted: 11 Million College Grads," June 2015, http://www.gatesnotes.com/Education/11-Million-College-Grads.

⁵ National Center for Education Statistics, IPEDS database, 2014.

retention. Furthermore, while offerings within some of these categories, such as Tutor & Advisor Management, are relatively advanced, other categories, like Analytics & Reporting, are still in the early stages of development.

On the demand side, we see an even greater challenge. Institutions generally lack information about the planning and advising market, the range of existing products, and how offerings are differentiated. Because heightened focus on on-time graduation and student retention is a relatively recent trend, budgets for student success and retention initiatives tend to be underfunded and shortsighted. Institutions also frequently lack the knowledge, experience, and resources to effectively implement these solutions.

Bridging the gap between the supply and demand sides of the market will require changes on the parts of both vendors and institutions. Vendors need to become more adept at integrating solutions across the nine-category product framework, while at the same time maintaining and advancing product sophistication. They also need to become better at integrating with other vendors so that institutions can more easily create a holistic solution. While recent acquisitions and expansions in the market likely indicate that vendors are trying to provide a more holistic solution, time will tell whether these combinations live up to their potential. Additionally, suppliers rarely offer robust change management capabilities, leaving the bulk of the burden of implementation on institutions. They will need to provide more on this front to meet the needs of their customers.

For their part, institutions lack the knowledge to effectively implement an integrated planning and advising system. Because implementation requires not only technical integration but also heavy change management, institutions will need to acquire the expertise to execute these initiatives effectively. Institutions also currently lack the required resources to implement a high-quality planning and advising solution. Priority must be given to supporting student success strategies at the leadership and budget levels.

Given that the two sides of the market are not yet aligned, the frameworks introduced in these papers seek to provide a path for institutions with any level of resources and preparedness to adequately educate themselves about the solutions available and to design a strategy that is realistic and suited for their particular set of circumstances. In the long term, institutions will need to adjust the way they think about implementing an integrated planning and advising infrastructure and create an effective culture around student success and retention in order to solve these challenges.

As institutions design their planning and advising initiatives holistically and become more informed buyers and implementers of products, they will tremendously increase the potential for improving student success and retention in postsecondary programs.

ACKNOWLEDGMENTS

The papers in this series owe much to the support and engagement of a diverse group of individuals and organizations.

We would like to thank the 40+ suppliers and institutions that we interviewed for this paper. We greatly appreciate the input of all our interviewees and survey respondents, as well as their overall contribution to advancing the field's knowledge of student success and retention in postsecondary education.

Thanks also to the Postsecondary Success team at the Bill and Melinda Gates Foundation for their support of this work. In addition, the teams at Communications Strategy Group and Can of Creative were incredibly patient and understanding as we moved from ideas to drafts to professional execution of these two white papers.

Finally, any errors, omissions, or inconsistencies across these two publications are the responsibility of Tyton Partners alone.

BIOGRAPHIES

GATES BRYANT, Partner

Gates Bryant is a general manager and strategy consultant with a successful track record of bridging the gap between innovative strategy and practical execution. He joined Tyton Partners as a partner in 2011.

MATT CLAISE, Principal

Matt Claise is a strategy consultant and market research professional with over six years of consulting experience working with a diverse array of companies, governments, and non-profit organizations focused on mission-critical issues within strategy, operations, and human capital. He joined Tyton Partners as a principal in 2014.

KARISHMA ROOPCHAND, Associate

Karishma Roopchand is a strategy consultant and market research professional with five years of experience. She joined Tyton Partners as an associate in September 2014 and is an Education Pioneers Analyst Fellow. In this role, she provides strategy and research support to organizations in the education sector.

ABOUT TYTON PARTNERS

Tyton Partners, formerly Education Growth Advisors, is the leading provider of investment banking and strategy consulting services to the global knowledge sector. Built on the tenets of insight, connectivity, and tenacity, Tyton Partners leverages in-depth market knowledge and perspective to help organizations pursue solutions that have lasting impact.

As an evolved advisory services firm, Tyton Partners offers a unique spectrum of services that supports companies, organizations, and investors as they navigate the complexities of the education, media, and information markets. Unlike most firms, Tyton Partners understands the intricacies and nuances of these markets and plays an integral role in shaping the efforts that drive change within them. The firm's expertise is predicated on its principals' years of experience working across market segments – including the preK-12, postsecondary, corporate training, and lifelong learning sectors – and with a diverse array of organizations, from emergent and established private and publicly traded companies, to non-profit organizations, institutions, and foundations, to private equity and venture capital firms and other investors.

Tyton Partners leverages its deep transactional and advisory experience and its extensive global network to make its clients' aspirations a reality and catalyze innovation in the global knowledge sector.

For more information about Tyton Partners, visit *tytonpartners.com* or follow us at @*tytonpartners*.

APPENDIX

FEDERAL GRANT RESOURCES

Grant Program	Description	Focus	Average Award	Approximate Annual Funding	Number of Awards	Duration
Federal -Title III Parts A & B	Strengthening Institutions Program	Student service programs that improve success	\$400K/yr	Part A: \$80M Part B: \$230M	Part A: 35 (2014) Part B: 97 (2013)	Up to 5 years
Federal - TRIO	Student Support Services	Tutoring and counseling programs for low-income, high-needs students	~\$280K/yr	\$290M (2015)	1,024 (2014)	Up to 5 years
Federal - Title V HSI	Hispanic- Serving Institutions	Tutoring and counseling programs; student support services	\$650K (max award/yr)	\$95M (2013)	120 (2013)	Up to 3 years
Federal - FIPSE	Fund for the Improvement of Postsecondary Education	Improving retention and completion for veterans	~\$200K/yr	\$27.3M (2010)	1 (2013) 2 (2012) 10 (2011)	Up to 3 years

TO ACCESS OUR OTHER PUBLICATIONS AND SIGN UP FOR OUR INSIGHTS NEWSLETTER, PLEASE VISIT: tytonpartners.com/library