

# IPAS Implementation Handbook



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## Introduction

One year after its debut in the EDUCAUSE Top 10 IT Issues rankings, “improving student outcomes” rose to the top of the list in 2014. In doing so, it beat out an array of perennially important IT concerns, including “funding IT strategically,” “service delivery strategy,” “sustainable online learning,” and other issues.<sup>1</sup> The alignment of IT with administrative and academic goals results in a powerful triangulation of resources that can be marshaled to foster student success. With increased computing power and the availability of a considerable amount and various types of student data, institutions of higher education have the opportunity to affect student outcomes using new and more efficient methods known as integrated planning and advising services (IPAS).<sup>2</sup>

Many institutions may already be employing de facto forms of analytics that are embedded in systems such as learning management systems (LMS) or other customer management software solutions. IPAS, however, embraces the intentional and systematic collection of student data from a variety of sources, analyzes them, and puts them into the hands of faculty, advisors, and counselors who can initiate interventions if necessary. In 2013, the Bill & Melinda Gates Foundation issued a call for proposals to colleges and universities in the United States to directly support a series of IPAS initiatives over the course of an 18-month period. Of the 90-plus applications received, 19 institutions’ projects were selected for funding; these institutions began carrying out their projects in the summer and fall of that year. On the heels of nearly a year of planning and implementing their respective IPAS solutions, we thought these institutions would be in an excellent position to share their experiences and observations, successes and setbacks, and practical advice and wisdom with other institutions that might be considering IPAS applications as part of a student success initiative. This report, the *IPAS Implementation Handbook*, is the culmination of our efforts to learn from this first cohort of IPAS institutions.

What follows includes an overview of the basic aspects and features of IPAS solutions, a consideration of the resources required to carry out an IPAS project, issues related to managing institutional changes that result from IPAS efforts, points to consider when putting together an IPAS project team, and an outline of the kinds of student success goals IPAS is designed to help institutions achieve. Additionally, this report provides some procedural advice regarding selecting a vendor, confronting and responding to challenges, identifying early successes, and thinking about assessment and evaluation of IPAS projects. The substantive portion of the handbook concludes with some general advice from these early-adopting IPAS institutions on a host of important topics.

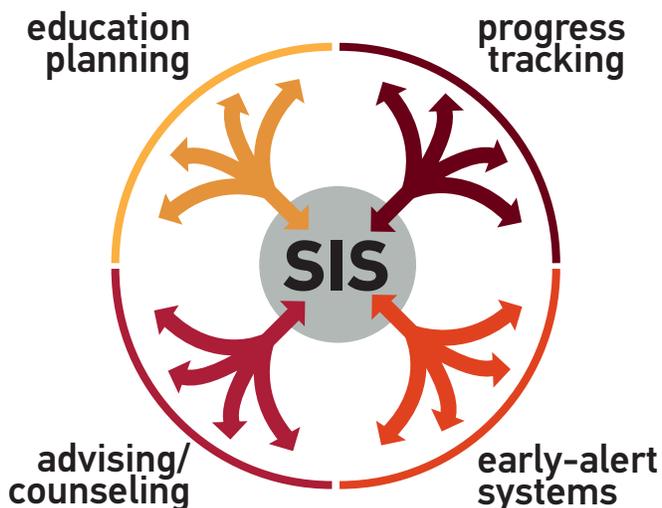
We also include two appendixes that offer some highly practical information. Appendix A includes questions that institutions asked themselves and vendors in preparation for their respective IPAS projects. Appendix B, which includes basic facts about each institution and its IPAS project, is included for easy comparisons between the 19 institutions in this study and easy reference for institutions wanting to compare themselves with the IPAS institutions.

### **Nine Things You Should Know about IPAS Projects**

- 1.** Among institutions included in this study, 84% deploy solutions from at least three of the IPAS domains of educational planning, progress tracking, early-alert systems, and advising and counseling.
- 2.** Improving the quality and accessibility of campus advising and counseling resources is the most frequently cited task IPAS applications are expected to carry out.
- 3.** IPAS projects are not simply IT projects; they are student success projects that require the cooperation and collaboration of various departmental, functional, and service units for successful implementations and outcomes.
- 4.** For a majority of institutions, expectations for implementation and ongoing resource expenditures for hardware, software, and staff FTE were met on average, but the amount of time necessary to plan, implement, and launch IPAS projects was more than expected.
- 5.** The most frequently cited change-management efforts for IPAS projects tend to focus on institutional priorities that align with strategic plans and involve key stakeholders and end users in the IPAS process.
- 6.** Despite their interest in IPAS solutions as end users, faculty and students tended to be excluded from change-management efforts related to their institutions' projects.
- 7.** Including a diversity of non-IT groups in all phases of IPAS projects—especially on the project committee—is viewed as essential for gathering feedback from potential end users and increases the likelihood of campus-wide buy-in for IPAS solutions.
- 8.** The two most serious vendor-related issues were difficulties associated with customizing IPAS solutions to fit institutional needs, and digitizing degree plans into a workable format.
- 9.** The approaches to assessing and evaluating IPAS projects primarily involve the tracking of key variables (e.g., usage, satisfaction, retention, articulation, and graduation) over time.

## IPAS Basics

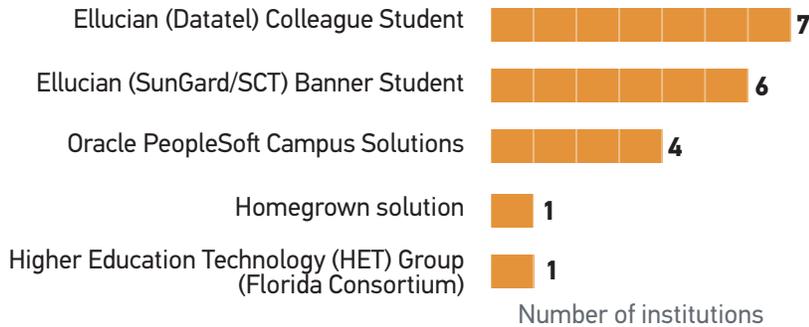
Integrated planning and advising services are “institutional capabilit[ies] to create shared ownership for educational progress by providing students, faculty, and staff with holistic information and services that contribute to the completion of a degree or other credential.”<sup>3</sup> The information and services that make up IPAS belong to any or all of the following four student success domains: education planning, progress tracking, advising and counseling, and early-alert systems. The data employed by IPAS solutions to facilitate improvements in student success are drawn from a limited number of centralized sources including student information systems (SIS), enterprise resource planning (ERP) systems, and learning management systems. The integrated relationships of centralized data systems to IPAS solutions resemble a hub-and-spoke model, with the former occupying the position of hub and the latter serving as the spokes (figure 1).



**Figure 1. IPAS integration with the student information system**

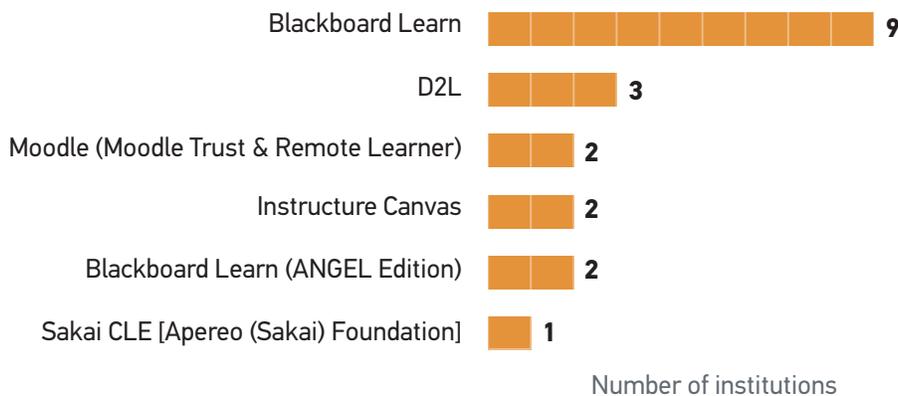
Issues related to the ease of data and systems integration are inherently tied both to the number, types, and ages of centralized systems and to the number and types of IPAS domains, solutions, and vendors involved.<sup>4</sup> In general, we hypothesize that the greater the number of variables at play, the more complex the project and the integration. The 19 institutions included in this study revealed considerable variation across each of these categories.

On the supply side of the equation, the majority of our institutions are using Ellucian products—Colleague (7) and Banner (6)—as their SIS software. Oracle’s PeopleSoft is employed by four of the institutions in our study, with the remaining two institutions using either a consortium-based system (HET) or a homegrown system (figure 2). Although the 19 institutions in this study do not constitute a representative sample of higher education institutions, the distribution of SIS software usage mirrors the data we have on colleges and universities in the United States.<sup>5</sup>



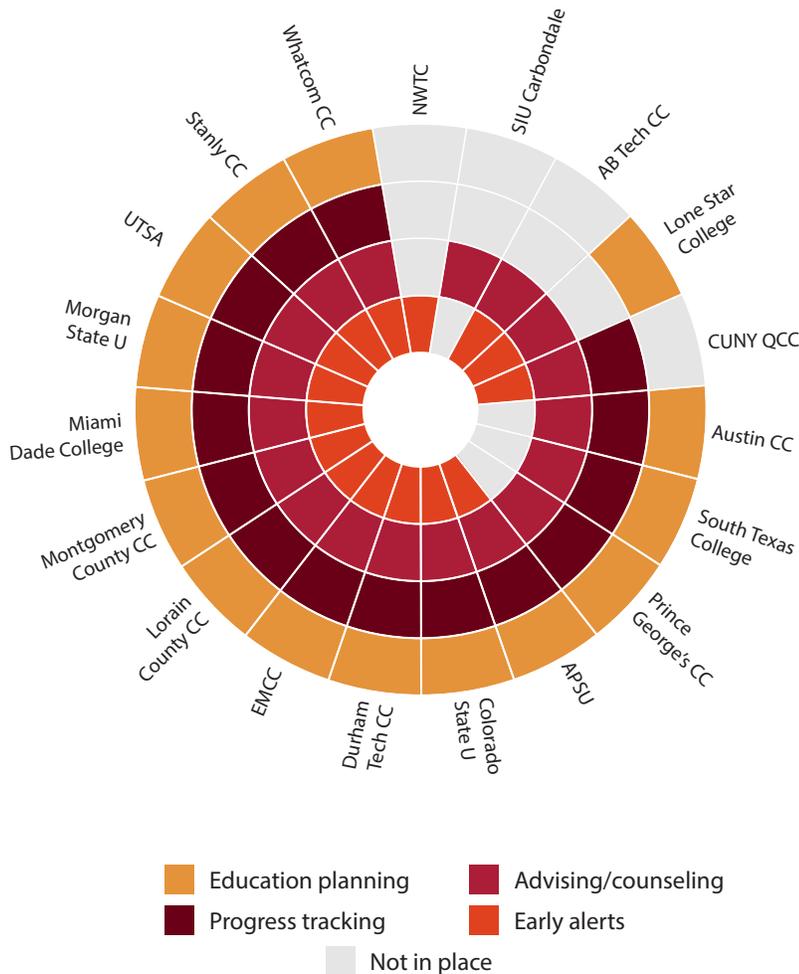
**Figure 2. Student information systems in use at the IPAS institutions in this study**

In terms of the LMS, a majority of institutions reported using a Blackboard product; a plurality were using Blackboard Learn (9), and another two were using the Blackboard ANGEL edition (figure 3). Other LMS products are distributed relatively evenly across the remaining institutions: D2L (3), Moodle and Canvas (2 each), and Sakai (1). Again, despite its lack of representativeness, the distribution of LMS usage among the 19 IPAS institutions roughly parallels that of the national averages.<sup>6</sup>



**Figure 3. Learning management systems in use at the IPAS institutions in this study**

On the demand side, there is greater consistency in terms of the IPAS domains in which institutions in this project are participating. Although advising and counseling was the most frequently cited IPAS domain adopted, each of the four domains was cited by at least 80% of institutions. However, the variation in the complexity of institutional choices of IPAS domains becomes more evident when examined in combination with one another. More than half of institutions reported implementing IPAS solutions that fall into all four domains, while another quarter reported engaging at least three of the IPAS domains. Of the remaining three institutions, only one has solutions focused on two IPAS domains. When disaggregated, these data reveal that beyond the combination of all four IPAS domains, the next most popular combination of IPAS domains is degree planning, progress tracking, and advising and counseling (figure 4). The remaining combinations are equally distributed, with only one institution each.



**Figure 4. Distribution of IPAS domain combinations, by institution**

We also asked institutional representatives to provide information about the specific tasks they hoped their IPAS solutions would perform. The most frequently cited tasks are related to improving the quality and accessibility of campus advising and counseling resources (table 1). These are followed closely by tasks related to providing students with information and access to information regarding progress within their program of study. We were able to identify three major categories of functions that institutions would like IPAS solutions to facilitate. The first is largely related to disseminating data and information about student progress, education planning, and early alerts to faculty, staff, and students. The second major category appears to concern improving processes surrounding the collection, analysis, and use of student data. The final category identified has to do with improving the advising and counseling services offered by the IPAS institutions. The remaining items, while important to our sample institutions in terms of both frequency and content, do not fall clearly into these three categories.

Select IPAS solutions explicitly based on the domains critical to your institution's student success initiatives.

**Table 1. Major groups of tasks to be facilitated by IPAS solutions**

Category	Item	Number of Responses
Data Dissemination	Provide students with feedback on their progress	15
	Provide faculty and/or staff easier access to student advising and counseling records	13
	Improve institutional ability to collect, analyze, and distribute student data	12
	Improve cross-departmental collaboration on student success initiatives	12
	Help students assess their chances of succeeding in a program	9
	Provide faculty and/or staff easier access to student academic records	7
	Help students assess their chances of succeeding in a course	7
Improving Processes	Create a mechanism to enable/improve early interventions	13
	Make scheduling appointments with advisors and counselors easier	10
	Track student progress in individual courses	7
	Centralize advising and/or counseling services	5
Improve Advising and Counseling	Create opportunities for more-meaningful advising sessions	17
	Track student progress throughout a program of study	16
	Provide students with self-service tools	15
	Provide students with individualized education plans	13
	Reduce advisors' and counselors' workloads	4
	Help students find careers that match their interests and skills	4
Other	Render campus advising and counseling resources more accessible	17
	Improve risk-identification and early-alert systems	14
	Foster an institutional culture dedicated to improving student success	13
	Reallocate campus resources	1

## Faculty and Student Interest in IPAS

Two of the most frequently cited groups of IPAS end users—faculty and students—expressed considerably positive and frequently aligned interest in obtaining and using data from each of the four IPAS domains. Eighty-three percent of faculty and 86% of undergraduate students expressed at least a moderate interest in using early alerts if academic progress in a course appears to be in decline. Additionally, 82% of faculty and 89% of students expressed at least a moderate interest in using IPAS information for making suggestions about how student performance might be improved. Finally, 84% of students were moderately, very, or extremely interested in receiving feedback about their academic performance compared with that of other students. As for progress tracking, students overwhelmingly reported interest in receiving support and information on their degree progress (93%) and having access to dashboards and visualizations of their personal data (89%). There is, however, considerably less support for automated tracking of course attendance by both faculty (62%) and students (65%). For academic planning, 89% of students are interested in having recommender systems provide guidance about what courses to take in the future; by comparison, faculty are less interested in course recommendation systems (68%). Although the task is not explicitly in the domain of advising and counseling, 91% of faculty and 86% of students are at least moderately interested in using IPAS analytics to provide interventions that include information regarding new or different academic resources that are available to students.\*

\* Eden Dahlstrom and D. Christopher Brooks, with a foreword by Diana Oblinger, *ECAR Study of Faculty and Information Technology, 2014*, research report (Louisville, CO: ECAR, July 2014), 14–16; Eden Dahlstrom and Jacqueline Bichsel, *ECAR Study of Undergraduate Students and Information Technology, 2014*, research report (Louisville, CO: ECAR, October 2014).

## Resources

One of the key questions surrounding any educational technology initiative is “How much will it cost?” The answer, or answers, to this question may not be as straightforward as one might hope and may require a thoughtful unpacking of what exactly is meant by the term “cost.” This section presents an overview of the resources required to implement IPAS solutions in service to student success at the 19 institutions under consideration here.

The human resources required to carry out institutional projects similar in size and scope to the IPAS projects considered here can frequently involve more individuals than project leaders originally predict. Furthermore, IPAS projects by definition are not strictly IT projects; because they are student success projects, faculty and staff from various departmental, functional, and service units may be called on to contribute to the success of planning, implementing, or maintaining IPAS systems. In general, it takes appreciably more staff FTE, both IT and non-IT, than expected to implement an IPAS project; however, fewer of each type are required for the long-term delivery and maintenance of IPAS solutions (figure 5).

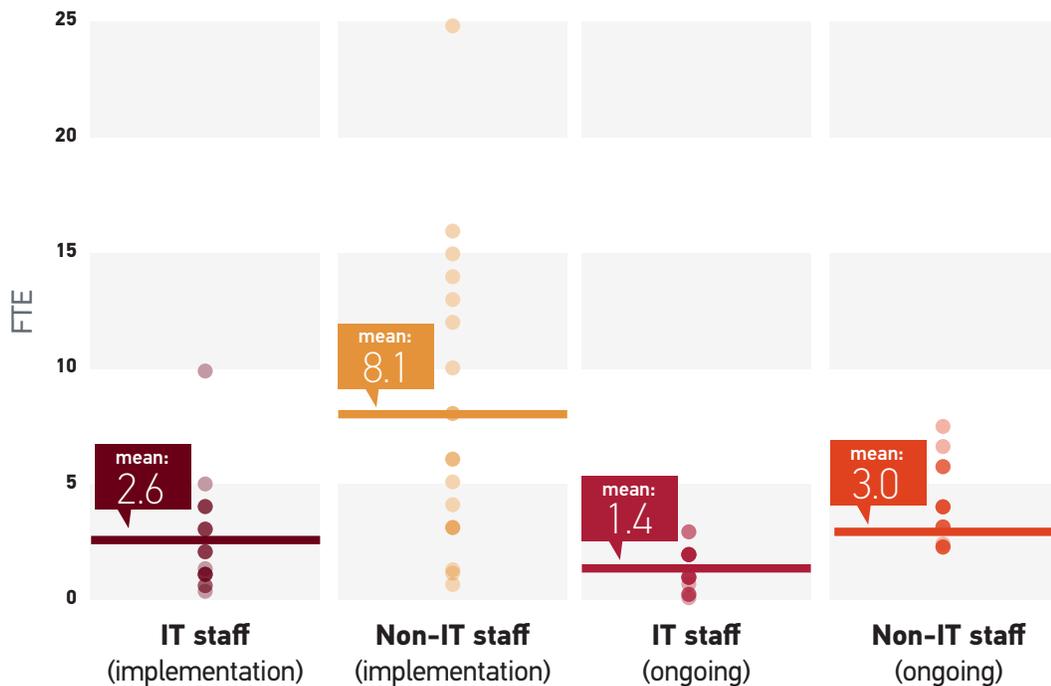


Figure 5. IPAS project staff FTE expenditures, by project phase

We asked project leaders to estimate the average number of internal staff FTE, both IT and non-IT, that participated in the implementation phase of the project. For the 19 participating institutions, the average number of IT staff FTE required to implement the various IPAS projects was 2.6. Variation in the number of IT staff involved was considerable. The smallest number of IT staff FTE reported was 0.25 (Durham Technical Community College); the largest number reported was 10.0 (the University of Texas at San Antonio).

In terms of non-IT staff committed to the implementation of IPAS solutions, the average number FTE reported was 8.1, also with a large amount of variation. The largest number of non-IT staff FTE committed to an IPAS project was at the University of Texas at San Antonio (25.0); the smallest number reported was at Asheville-Buncombe Technical Community College (0.5).

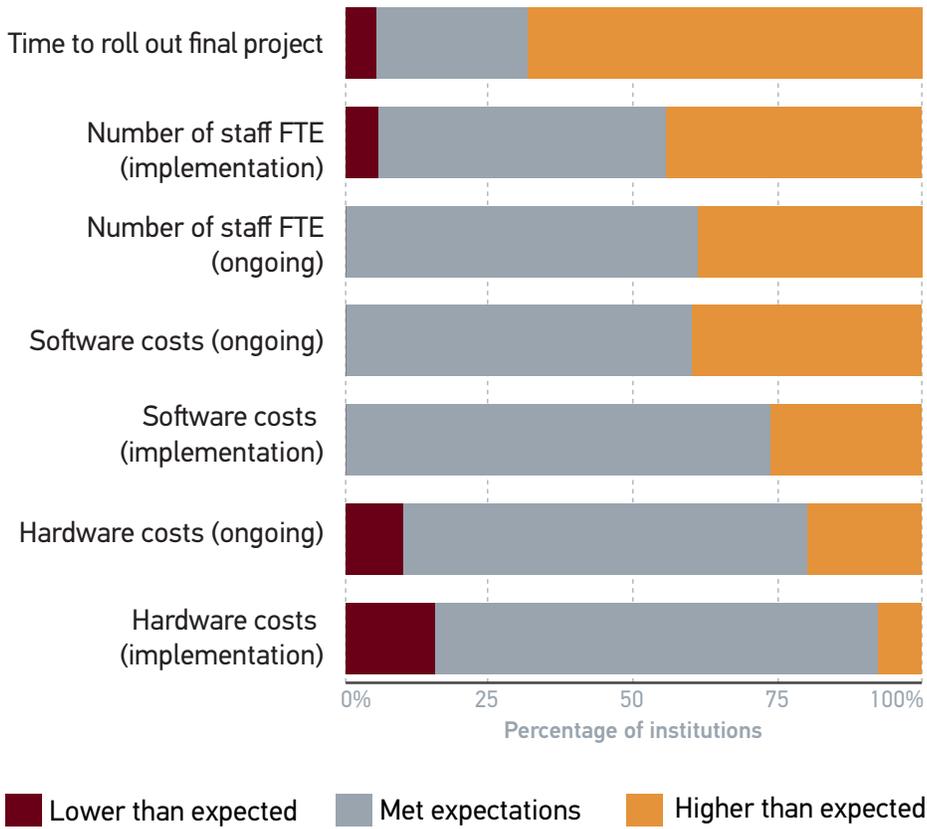
We also asked IPAS project managers to estimate the number of staff FTE required to maintain the systems once they had been implemented and launched. On average, respondents said that 1.4 IT staff FTE would be dedicated to the long-term upkeep of IPAS systems, with another 3.0 non-IT staff FTE from other functional units engaged in maintenance of live IPAS programs. The variation we observe in the number of FTE dedicated to running IPAS solutions and programs on an annual basis is considerably smaller than for the implementation. In terms of IT FTE, Austin Peay State University reported the lowest number after bringing its system online (0.1), while CUNY Queensborough and the University of Texas at San Antonio reported the largest number (3.0).

For non-IT staff, four institutions (Asheville-Buncombe Technical Community College, Austin Peay State University, Miami Dade College, and Montgomery County Community College) reported the lowest number of long-term FTE (1.0); South Texas College reported the largest number of non-IT FTE dedicated to IPAS in future years (7.0). That both the numbers and the ranges of FTE expended on IPAS projects during implementation are larger than on expected ongoing maintenance of the projects is unsurprising.

Because actual resource expenditures for a project can diverge considerably from original estimates, we asked respondents to describe the extent to which their expectations for costs were met or not met. A majority of institutions indicated that hardware expense expectations for both the implementation and the ongoing maintenance of the IPAS solutions were met (figure 6). With regard to software costs, again a majority of institutions reported that implementation costs met their initial expectations, but the remaining institutions found that these costs were somewhat higher than expected. While six institutions reported that the ongoing software costs somewhat exceeded expectations, about half of our IPAS institutions indicated that the ongoing costs were what they expected. In terms of staff FTE, nine of the institutions reported that their implementation expenditures were on target, but another eight

**Plan to dedicate considerable FTE resources, especially non-IT staff, to IPAS projects.**

indicated that FTE expenditures were either somewhat or much higher than expected. Similarly, ongoing FTE commitments met initial expectations for 60% of institutions but exceeded expectations at least somewhat at the remaining 40%. However, when we asked about expectations regarding the time it was supposed to take to roll out the final IPAS product, two-thirds of institutions indicated that it took either somewhat or much longer than expected, with only one-quarter claiming that their timeline expectations were met.



**Figure 6. Extent to which expectations regarding resource expenditures for IPAS projects were met**

Institutional representatives offered some explanations for these results when we asked for advice for institutions considering the implementation of IPAS solutions in support of student success. In general, IPAS project managers noted that defining the project scope early, having “a complete idea of the resources needed,” and “making sure [one’s] institution understands the obligation to the project” are critical for project budgeting. Regardless, as one institutional representative put it, “Plan to be over budget from the beginning of the IPAS implementation so that the institution is not caught off guard.”

Consistent with the data presented above, the most frequent and detailed resourcing advice concerned staffing issues. One of the most consistent refrains was the need to plan for and “allocate sufficient staff” to an IPAS project, including project management, IT developers, programmers, analysts, business staff, end-user training staff, advising staff, and even external consultants, if necessary.

Reasons for underestimating the staff required to implement IPAS were varied; they included having “to do more internal software development work than anticipated originally” due to vendor overestimations of timelines and deliverables, and needing to manage change to the new business practices, since “overcoming inertia takes time and planning.”

Advice regarding hardware and software costs consistently reflects the fact that expectations of hardware expenses were largely met, although one institution found that “hosted systems did not save as much money as [they] thought they would, compared to virtual, on-premise systems.” However, both short- and long-term software costs appear to have caught some institutions off guard. Software outlays exceeded expectations in myriad ways including, but not limited to, underestimating the initial software costs, needing to budget for annual individual staff licenses, and doing “more internal software development than anticipated originally.” One institution that attempted to save money by pursuing an open-source software solution found that it did not work as planned, given that the “costs are simply in different areas.”

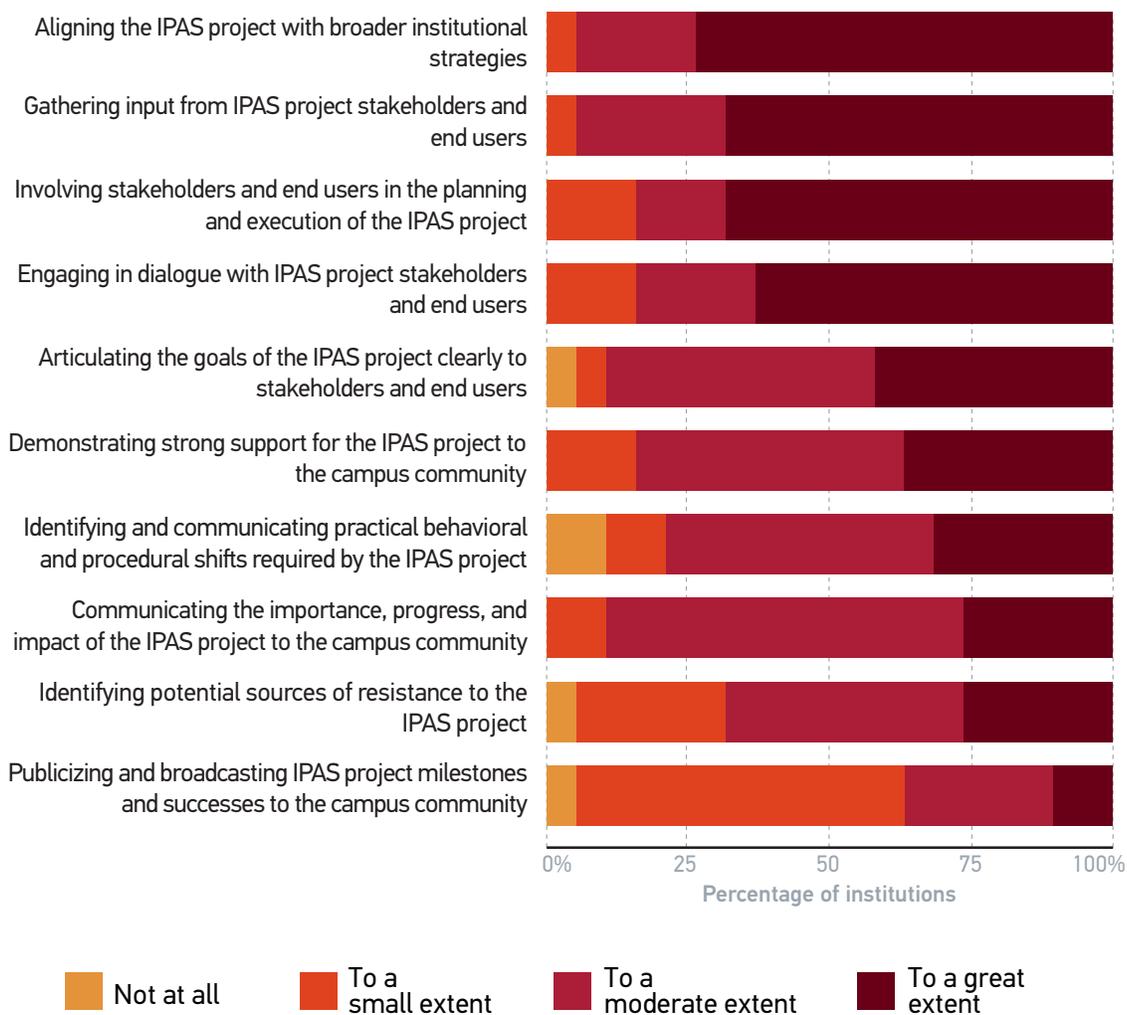
Time, however, proved to be one of the more difficult estimations to make when planning IPAS projects. Whether it is the reallocation of staff time from existing projects or regular duties, or preparing data for conversion, transfer, and integration to IPAS solutions, “the hidden areas may be in the time costs associated with current employees.”

**Plan ahead for cost overruns for hardware, software, and FTE—especially for the ongoing IPAS maintenance.**

## Change Management

As noted in a previous report on matters related to the integration of data and systems, change management is one of the key issues that confront any institution pursuing student success with IPAS solutions.<sup>7</sup> One of the main ingredients for successful change management identified in that report is the need to garner “campus buy-in for the new IPAS system(s), especially among end users.”<sup>8</sup> In this section, we explore the IPAS change-management efforts at the 19 institutions involved with this study, identify the extent to which different groups were included in IPAS change-management efforts, and offer advice concerning which non-IT groups or units should be involved with IPAS change management.

To better understand change-management processes, we asked respondents to identify the extent to which 10 common approaches have been undertaken since the inception of their IPAS projects. Except for “publicizing and broadcasting IPAS project milestones and successes to the campus community,” a majority of institutions reported engaging in each of the change-management efforts to either a great or a moderate extent (figure 7). On closer inspection, however, we can observe some interesting variation in the extent to which different change-management efforts were executed.



**Figure 7. Extent to which different IPAS change-management efforts were undertaken**

The four change-management items that majorities of institutions reported pursuing “to a great extent” were related either to aligning with institutional priorities or to involving stakeholders and end users in IPAS processes. These items are:

- Aligning the IPAS project with broader institutional strategies
- Gathering input from IPAS project stakeholders and end users
- Involving stakeholders and end users in the planning and execution of the IPAS project
- Engaging in dialogue with IPAS project stakeholders and end users.

A majority of institutions reported having engaged in five of the remaining six items to at least a moderate extent, including communicating the importance, progress,

and impact of the project; articulating project goals; demonstrating support for the project; identifying/communicating required behavioral/procedural shifts; and identifying pockets of resistance to the IPAS system.

In addition, we asked respondents to identify the extent to which various functional units and campus groups were included in change-management efforts (figure 8). Central IT was the unit most frequently cited as being involved to a great extent (more than 80% of institutions), with advising units following closely behind (more than 70%). Neither of these findings should be surprising, given that the former is responsible for the technological integration of data and systems to make IPAS systems work and the latter is the unit associated with the IPAS domain that our institutions most frequently implement. Most of the remaining units involved in the management of changes associated with IPAS were involved to either a great or a moderate extent. These include senior institutional leadership, student affairs, the registrar's office, institutional research, counseling, and academic affairs. Only three entities were largely left out of change-management efforts: teaching and learning centers, financial aid, and faculty. Students, whose success is the very reason institutions undertake IPAS initiatives, were included to the following extents: great (3 institutions), moderate (7), small (4), and not at all (5). In addition to these offices, units, and groups, respondents identified a number of other entities at their respective institutions that participated in change-management initiatives. These included distance learning (Lorain County Community College), other student support services such as tutoring (Northeast Wisconsin Technical College), the business office (East Mississippi Community College), a "Completion by Design" team (Asheville-Buncombe Technical Community College), the Office of Strategic Initiatives (South Texas College), and an IPAS Advisory Committee (Morgan State University).

The extent to which students were included in IPAS change management efforts:

Great extent =

**15.8%**

Moderate =

**36.8%**

Small =

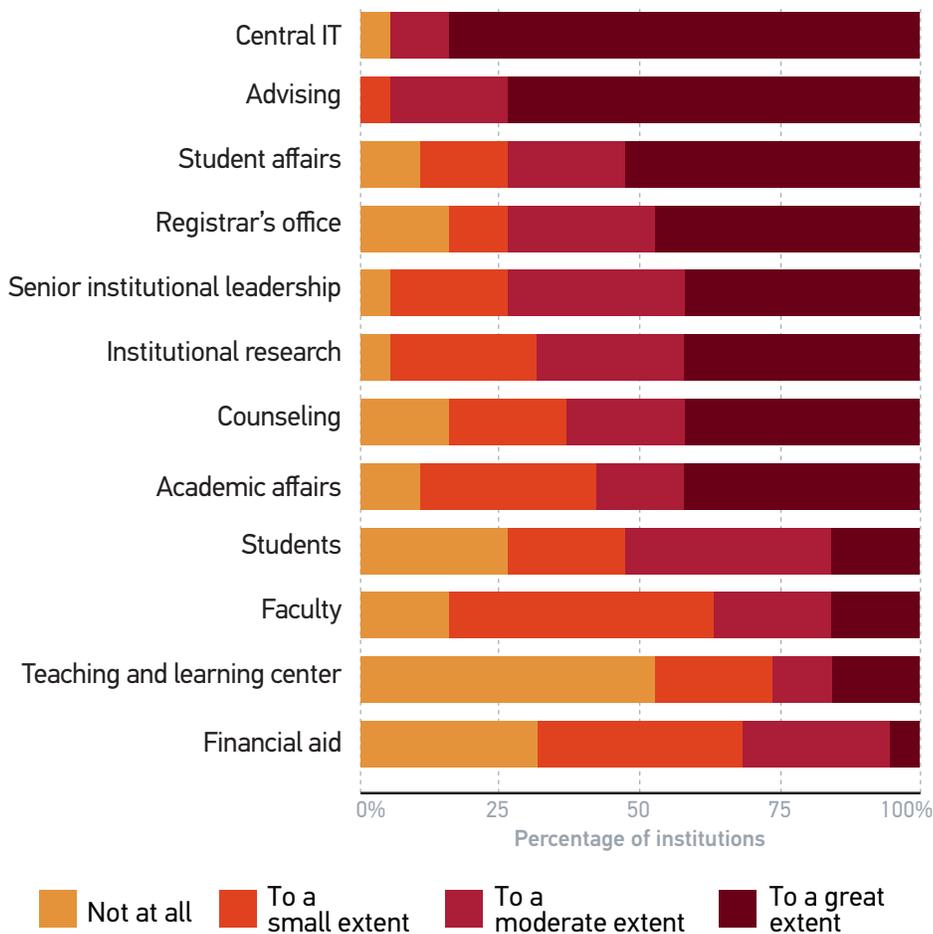
**21.1%**

Not at all =

**26.3%**

"IT can develop the greatest IPAS project, but if it does not have feedback or relevance to end users, the use of the product will be minimal."

—IPAS project representative



Make a greater effort to move beyond the stakeholder and institutionally focused change management efforts to reach out to all possible end-user groups.

**Figure 8. Extent to which different campus entities were included in IPAS change-management efforts**

Respondents were also given the opportunity to offer advice about the inclusion of non-IT groups or units in managing change related to the implementation of IPAS solutions. The one message common to almost all responses was that non-IT participation is *critical* to the success of the project. To be sure, IT is important, especially since “the IT team members understand the abilities and limitations of the products,” but they “can only manage the backside of the implementation.” As one respondent put it, “IT can develop the greatest IPAS project, but if it does not have feedback or relevance to end users, the use of the product will be minimal.” Taking this advice into account early is important in order to avoid the potential delays experienced by Asheville-Buncombe Technical Community College: “Our team approached [the IPAS project] as a ‘software’ change and [then] realized that the bigger institutional culture needed to change—that is when we discovered our college was not as ready for IPAS as we had originally expected.”

In the responses gathered, there are two reasons for the near-universal advocacy for bringing non-IT participants into the fold, and they are highly interconnected. First, including non-IT groups during all phases of the IPAS project—planning, implementation, testing, and launch—is viewed as essential for gathering feedback on usability, connectivity, and functionality from potential end users. Given that the “end user understands the functionality of the products and often has an end goal in sight,” she needs “to be involved in the design and implementation of new processes and technology tools that improve execution.” Second, inviting stakeholders from outside IT elicits buy-in by signaling to the broader campus community that the IPAS initiative is one grounded in partnership for the greater good of the students in whose service they operate. The organizational change required to accommodate a campus-wide shift in culture and procedure is rendered easier by getting end users familiar with and excited about the IPAS solutions to evangelize the larger campus community even if they are not directly involved with the implementation or usage of the new tools. This was the approach taken by Stanly Community College, which included “more individuals during the demos and early hands-on training [that] allowed them to see the benefits firsthand but also allowed the project management team to identify users who were ... excited about the new tools [and] who were then identified as good candidates for the first testing group.” The hope behind such a strategy is that “[a]ttitudes will shift dramatically after users see how the solution will make their jobs easier and help students.”

### **Including non-IT stakeholders...**

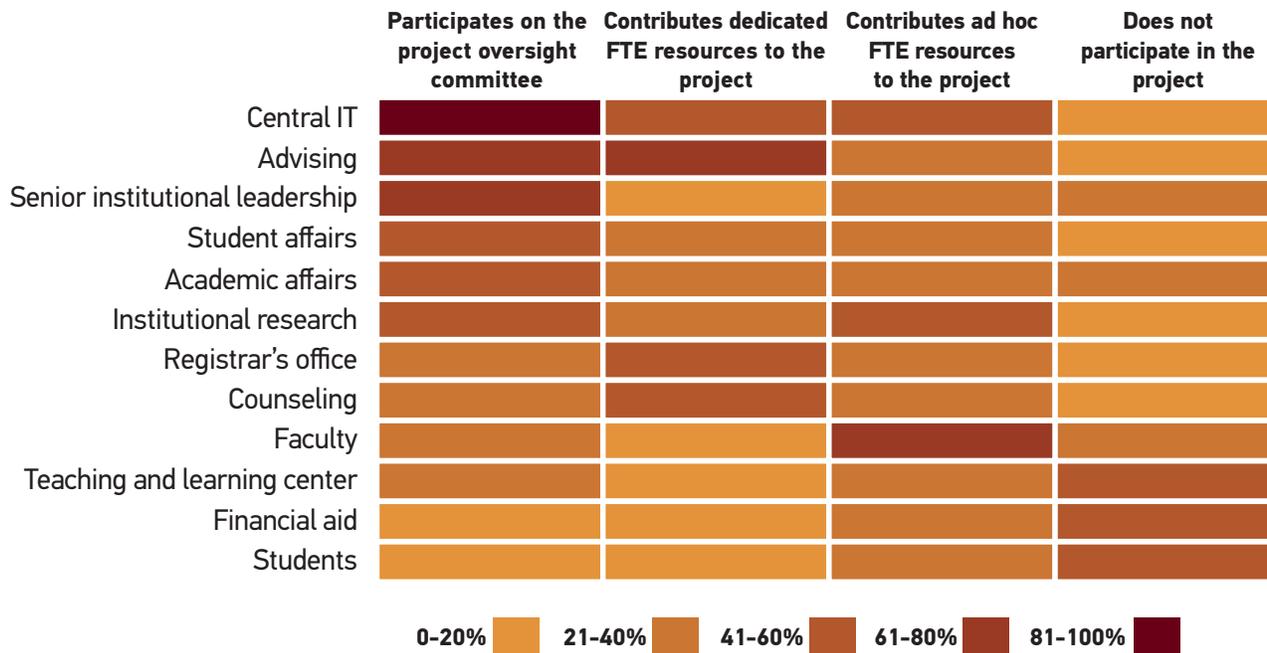
1. Improves the final product by gathering feedback on usability, connectivity, and functionality from potential end users.
2. Telegraphs that the project is grounded in a partnership designed for student success and thereby increases the levels of project support and end-user buy-in.

## Implementation Teams

One of the dominant themes that emerged from the EDUCAUSE report on data and systems integration was the importance of diversity in composition of the IPAS implementation team. We observed that the success of IPAS data and systems integration projects is associated with the composition of the implementation teams; that is, implementation teams comprising numerous stakeholders from and representatives of groups vested in IPAS student success initiatives, working cooperatively and backed by institutional leadership, were associated with successful IPAS projects. We also noted that the specific units and groups participating in an IPAS initiative might vary by the type of institution and the scope of the project, but suggested that teams “include only necessary personnel to avoid unwieldy group dynamics, project tangents, and other inefficiencies that accompany larger project committees.”<sup>9</sup> For this report, we gathered data on both the composition of IPAS project teams and the level of involvement for each functional unit or group representative.

We asked project leads to indicate whether 12 entities that might reasonably contribute to or benefit from the completion of an IPAS project participated on the project committee, contributed dedicated resources to the project, contributed ad hoc resources to the project, or did not participate on the project. In terms of IPAS project team members for our 19 institutions, the most frequently cited participants included central IT, advising, senior leadership, student affairs, and academic affairs (figure 9). These numbers are consonant with our earlier observation that student success initiatives with administrative support and IT expertise are critical to IPAS projects. Furthermore, a unit’s or group’s presence on the IPAS project committee is associated with greater change-management efforts directed toward that group. For example, students, financial aid, and teaching and learning centers were the least frequently named members of IPAS project teams. Although the number of cases is far too small to formally test our speculative hypotheses that the composition of the IPAS committee varied by institution type and IPAS project size, a pattern persists in the data suggesting a relationship between these factors.

While advising and central IT also top the list of units and groups that contribute dedicated resources to IPAS projects, it is the registrar’s office, counseling services, student affairs, and institutional research that round out the most frequently relied-on resources. However, teaching and learning centers, financial aid, and students were each listed by only one institution as participating regularly with dedicated resources in their institution’s IPAS projects. The ad hoc contribution of resources to IPAS projects, however, was relatively more evenly distributed across groups and units. On the lower end of the ad hoc contributions are senior institutional leadership, student affairs, and financial aid; on the upper end are faculty, institutional research, and central IT.

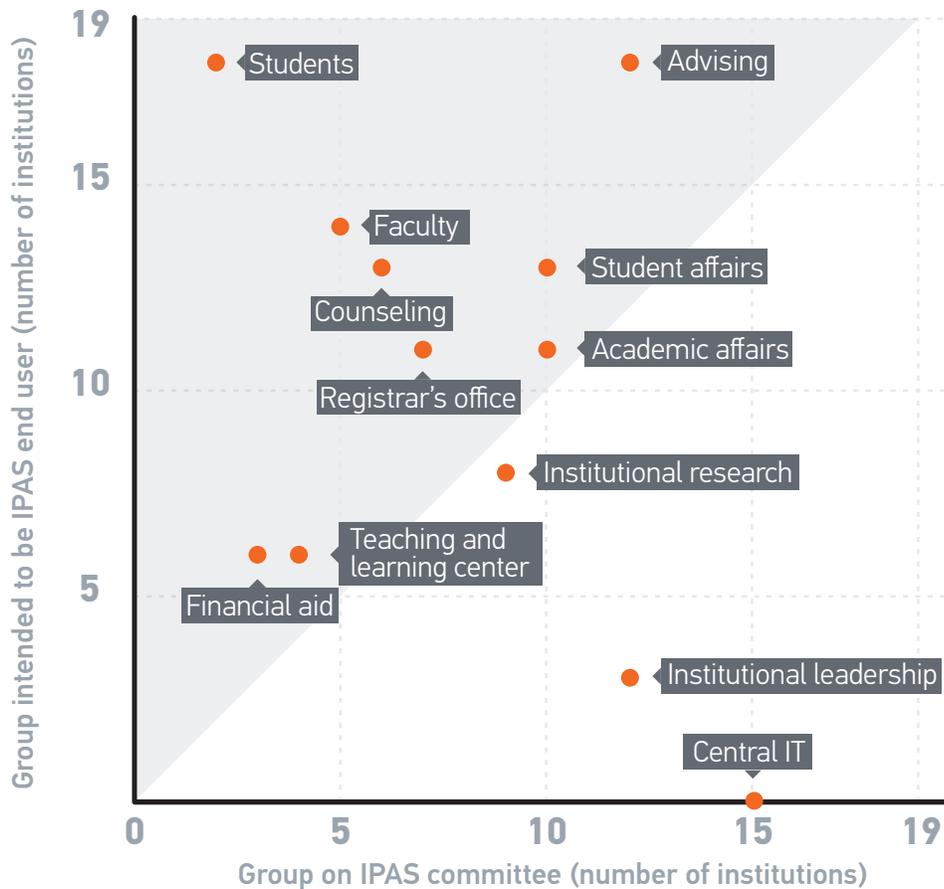


**Figure 9. Percentage of functional unit and group participation in and contributions to IPAS among the 19 institutions in the study**

None of the institutions reported a lack of participation in the IPAS project by central IT or advising, a finding corroborated by our data that suggest advising is the primary IPAS domain being pursued by our institutions, and central IT has the technical skills required to integrate IPAS solutions with existing data and systems. A more interesting finding concerning the IPAS implementation teams relates to the groups or units that have *not* been involved in the projects. Four institutions reported that senior leadership does not participate in their institution’s IPAS projects. Another four institutions reported that faculty did not participate in IPAS projects on their campuses. While this might be a cause for concern given that many faculty are required to use IPAS solutions for the programs to benefit students, it seems that the exclusion is primarily one of expediency and scale; three of the four institutions that lacked faculty participation are very large doctoral institutions (Colorado State University, Southern Illinois University at Carbondale, and the University of Texas at San Antonio). Additionally, large doctoral institutions are more likely to have professional teams of advisors that perform the roles and functions for which faculty were historically responsible, especially at smaller institutions, rendering inclusion of the latter moot. Finally, eight institutions reported that students did not participate in their IPAS projects, a number that should give pause for two reasons: First, students constitute one of the primary end-user groups for IPAS solutions; second, IPAS solutions are designed explicitly for the purpose of promoting student success.

Surprisingly, the inclusion (or lack thereof) of key stakeholders and functional units on IPAS project oversight committees appears to be inversely, or negatively, related to whether the units or groups in question are expected to be end users (figure 10). Groups or units located below the diagonal served on IPAS implementation committees more commonly than they were considered to be potential IPAS end users; those positioned above the diagonal are units and groups that were considered to be potential IPAS end users more often than they were included on IPAS project committees. The farther any data point is from the diagonal, the greater this disparity.

On the one hand, it makes sense that central IT, institutional leadership, and institutional leadership would play significant roles in supervising the implementation of IPAS solutions to the potential exclusion of students, faculty, and counselors, who are busy with the tasks of learning, teaching, and counseling. On the other hand, end-user buy-in for the institutional use of IPAS software solutions to promote student success is a perennial concern. While we do not have empirical evidence that end-user buy-in is lagging at institutions that have *not* included students, faculty, and advising in the formal decision-making process, anecdotal evidence suggests that including the groups in at least an ad hoc manner increases the likelihood of broader support and use of the new tools.



**Figure 10. IPAS project committee participants (y-axis) versus intended IPAS end users (x-axis) by institutional unit or group**

The composition of the teams appears to be related to the strategies by which IPAS project teams were assembled. Responses to our inquiry about this process revealed three basic strategic patterns:

- A number of institutions took what we might call a *pragmatic* approach, selecting committees based primarily, if not solely, on the professional capabilities, skill sets, and knowledge required to plan and execute a major technologically based student success initiative.
- A majority of institutions in this study took a more *inclusive* approach involving not only the aforementioned experts but also end users (e.g., advisors, counselors, faculty, and students), either formally or informally, as a way to gain insight into the user experience and to broaden campus support for the IPAS initiative.
- On occasion, some IPAS project teams were assembled using a *delegative* approach. That is, a project manager is assigned and/or a supporting team is appointed to investigate, plan, implement, and launch a suite of IPAS solutions with little consideration for breadth of functional unit or end-user representation.

Emphasize the importance of diversity when forming the IPAS project oversight committee.

In describing the methods by which their respective IPAS project teams were created, institutions revealed variations in the organizational structure. The first of these is largely *unitary* in nature; that is, the project team is largely self-contained, with a small team composed of cross-functional stakeholders or a centralized group of staff representatives led by an assigned project manager. These unitary project teams appear to function largely on their own without entering into formal collaboration with other entities at the institution. The second organizational structure resembles a *federal* model. A relatively small core team or steering committee made up of individuals from key functional units and/or administrative offices is nested within larger peripheral and/or semiperipheral teams consisting of other stakeholders and end-user groups who are called on to participate in the decision-making processes.

In terms of decision-making processes, almost all institutions reported that meetings were held regularly, often weekly. Additionally, those institutions deploying Starfish solutions often reported that the vendor was included in those meetings, especially during the implementation phase of the project. Although there is no clear explanation for why some institutions chose one of the aforementioned organizational forms over another, the structure of the assembled teams does appear to be associated with the decision-making process. Institutions that use the federal model tended to report that decisions were arrived at by consensus, collaboration, and cooperation, especially with end users; institutions that followed a more unitary model tended to rely more on a smaller core of committee members and have limited input from external sources or feedback from subject-matter experts to make final decisions.

Certainly, there are a number of ways in which an institution can assemble and organize an IPAS implementation team. These things may be influenced by a host of factors that include institutional culture, financial and human resources available to carry out the project, the expected project timeline, and the impetus behind the project. Institutions need to be aware that these choices may have an impact on how the decision-making process is carried out. Even though the institutions under consideration here appear not to have suffered long-term negative outcomes for the project based on the method of project team assembly, structure, and decision making, institutions contemplating an IPAS implementation need to consider the implications for decision making and project success associated with any combination of these procedural and organizational options. Regardless, we maintain that the composition of the IPAS project team should be diverse and as broad as possible, including end users in the process early, often, and, if possible, formally.

**Structure the IPAS project committee to emphasize the decision-making processes desired, but consider the trade-offs.**

## IPAS Project Goals

By definition, the primary goal of any IPAS initiative is the promotion of student success. Given the breadth of possible meanings that concept could include, it is necessary to unpack the term to understand more clearly and specifically what different institutions mean by the term “success” and to identify potentially measurable outcomes by which the efficacy of an IPAS project can be assessed. Moreover, it is possible that the introduction of IPAS solutions might be a proverbial sea change, benefiting institutions in ways beyond the improvement in student achievement. In this section, we offer an overview of the primary goals for students, advisors and counselors, faculty, and the institutions themselves as identified by our IPAS project leads.

Despite a considerable amount of variation in the items identified as student-oriented goals resulting from IPAS initiatives, the thematic consistency of student success, empowerment, and relationships is remarkable. In addition to the desire for improved student learning, most institutions listed some combination of the following as potential indicators that IPAS efforts are paying off:

- Increased levels of student engagement
- Improvements in student retention rates
- Improvements in student persistence rates
- Steady progress toward earning a certificate, degree, or other credential
- The completion of a course of study marked by graduation, transfer, or both

In addition to these oft-cited administrative benchmarks of student success, most institutions identified empowerment as a student-level outcome for their projects. Empowerment goals emphasized things such as

- Establishing self-service opportunities for creating and modifying degree plans
- Scheduling and appointment setting
- Reviewing relevant academic (and even financial aid) information
- Proactively contacting relevant student support services

Finally, a smaller contingent of IPAS institutions indicated their hope that the project would result in improved relationships with advisors, counselors, and faculty by

- Lowering barriers to effective communication
- Transcending routinized advising processes
- Creating opportunities for more meaningful and satisfying interactions
- Offering higher-quality advising and counseling experiences

Instead of themes for the advising/counseling, faculty, and institutional goals, the analysis clearly revealed categorical distinctions between process- and outcome-oriented IPAS objectives. For advisors and counselors, institutions aim to improve outdated, analog, or inefficient procedures related to accessing student data,

IPAS goals for students focus on student success, student empowerment, and improved relationships between students and their advisors, counselors, and instructors.

Goals for faculty, advisors, counselors, and institutions focused on improvements in processes and measurable outcomes of student success.

updating student records, and maintaining consistent record-keeping protocols. These improvements are enhanced further by having access to a host of digital tools that consolidate data across siloed systems, monitor student progress, and offer risk assessments for students. That these analyses are rendered immediately actionable via built-in or appended communication tools so that information can be shared with appropriate student success staff for timely interventions is believed to be a proverbial game changer for advising and counseling staff. In terms of measurable outcomes, the IPAS initiative should result in increases in both the numbers and quality of alerts and interventions that in turn will result in deeper, more meaningful relationships between advisors/counselors and students.

Given that faculty at some institutions serve as student advisors in addition to their teaching and research roles, many of the IPAS faculty-oriented goals institutions aim to achieve resemble those mentioned above. Procedurally, IPAS solutions should provide faculty with a more holistic approach to teaching and advising students, since they will have better access to student data that are consolidated and more comprehensive. Faculty will also have opportunities to update and maintain student records with flags, notes, and other relevant information. Additionally, IPAS software affords faculty the ability to communicate and share information with students and other student success staff easily, accurately, and quickly. These efforts are expected to foster the growth of a culture of student success based on more effective student interactions, more engagement and involvement with the individual student, and improved collaboration and cooperation between faculty and staff in other units across campus.

Although clearly related, institution-level IPAS goals are necessarily more general than those for faculty, advisors/counselors, and students (table 2). Among the most frequently cited procedural outcomes are:

- The streamlining of processes related to student data collection, analysis, and accessibility
- The improving of the efficiency of institutional business practices as they relate to student support services
- The empowering of students to take ownership of their academic futures
- The improving of cross-departmental collaboration by reducing information silos and opening channels for better communication and information sharing

For substantive outcomes, institutions consistently cite the familiar improved rates of retention, persistence, completion, and engagement. Additionally, IPAS is viewed as a possible money-saver for students in that degree plans and progress tracking can reduce the number of “zombie” courses students take that do not fulfill graduation or program requirements, thereby helping them move through their programs efficiently. Finally, the adoption and usage of IPAS solutions by students, faculty, and staff is intended to foster deeper and more meaningful relationships and connections between these groups.

**Table 2. IPAS project goals for advisors/counselors, faculty, and institutions**

	<b>Procedural Outcomes</b>	<b>Substantive Outcomes</b>
Advisors/counselors	<p>Improve processes related to storing, accessing, updating, and using student data</p> <p>Centralize access to student data and records</p> <p>Monitor student progress</p> <p>Offer risk assessments for students</p> <p>Improve methods of communication for sharing and acting on student data</p>	<p>Increase in the number and quality of early alerts</p> <p>Increase in the number and quality of interventions</p> <p>Improve relationships with students</p>
Faculty	<p>Provide more holistic approach to teaching and advising</p> <p>Provide better access to more comprehensive student data</p> <p>Improve methods of communication with students and student support staff</p>	<p>Foster a culture of student success</p> <p>Improve student interactions</p> <p>Increase levels of engagement and involvement with students</p> <p>Improve collaboration and cooperation with support staff</p>
Institutions	<p>Streamline processes related to student data collection, analysis, and accessibility</p> <p>Improve efficiency of institutional business practices</p> <p>Empower students to take ownership of their academic future</p> <p>Improve cross-departmental collaboration and communication</p>	<p>Improve retention, persistence, and completion rates</p> <p>Improve levels of student engagement</p> <p>Save students money via degree planning and progress tracking</p> <p>Improve relationships between students, faculty, and staff via IPAS solution adoption</p>

## IPAS Project Processes

In this section we will explore the selection of an IPAS vendor, the challenges experienced during IPAS implementation, the solutions to problems identified, and the issues and approaches to evaluating and assessing the success of an IPAS project.

### Vendor Selection

When considering the IPAS needs of an institution, two categories of issues emerge beyond the basics related to costs and benefits: data and systems integration, and functionality. A majority of the institutions included in this study mentioned that integration issues were a major concern when considering IPAS vendors and solutions. Some institutions claimed to be looking for IPAS software that could fully integrate with their existing systems and expressed a preference to use vendors with whom they had an existing relationship or who provided their SIS, ERP, or LMS. Others were not as concerned with brand familiarity per se but with whether IPAS solutions could integrate with each other or with various enterprise systems regardless of vendor. Still others were concerned about the ability and willingness of vendors to develop customized integration solutions for their particular needs.

Most institutions noted that they were concerned about IPAS solutions' existing functionality, flexibility, and ease of use, as well as the potential for those attributes to be altered or improved on. In this sense, colleges and universities wanted to obtain the most customizable and flexible system possible to meet their respective institutional needs. The most frequently mentioned functionality was the ability to have faculty, advising and counseling staff, and students communicate from within the tool itself. Communications functionality within IPAS solutions would improve the efficiency and ease of providing feedback and recommendations for student services and was considered easier than leaving the tool and using a separate e-mail client to perform the same task.

Institutions also expressed an interest in having centralized data storage systems for IPAS solutions that would allow both easy access to data on individual students by any number of parameters (e.g., by course, by year) and an easy method for entering data on students (e.g., appointment notes, documents). With regard to early-alert systems, many institutions desired the ability to raise flags with specific warnings attached rather than relying on a simple stoplight system (e.g., red, yellow, green). They also wanted the ability to add comments with respect to why the flags are raised or lowered and to automate these processes algorithmically as much as possible. Finally, in pursuing a degree plan IPAS solution, institutions expressed hope that it could be integrated with existing registration systems so that students could be enrolled into planned courses automatically.

**Customize IPAS solutions to fit institutional needs, but be aware of the costs associated with doing so.**

We also asked IPAS institutional representatives to provide us with questions that they either had asked vendors as they were making their decisions or, in retrospect, wish they had asked. The types of questions they did ask were either broadly procedural in scope—some of which probably lie beyond the purview of IPAS vendor expertise—or narrowly focused and detail-oriented. The broader questions involved such concerns as how to “manage and prioritize students in need of services,” how to promote the “use of existing services and increase positive interactions,” how to “make it easier for advising staff to share information and manage student cases,” and the extent to which vendors had taken precautions to protect student data in accordance with FERPA guidelines. On the more detailed side, institutions reported asking vendors about the timeline for implementation from start to finish, how to get an overview of instructor activity from the software, how to display information regarding the ending or closing of a student-alert case, and how difficult it would be to convert analog degree plans into a digitized format.

Given the particularities of the individual cases, the range of responses to our query about questions institutions *wished* they had asked is so varied as to defy categorization. The most frequently noted questions were again related to functionality (e.g., case management issues, ability to provide early alerts, verification of stated functionality, authentication) and integration (e.g., general data and systems integration issues; vendors’ previous experience with CRM, ERP, and SIS higher education systems; and ability to connect with registration systems). Other questions institutions reported wishing they had asked addressed concerns ranging from the technological impact of IPAS on current advising and admissions processes and the timeliness and scope of customization requests, to the training models for IPAS administrators and end users and how best to incorporate early-alert interventions into the institutional culture and processes surrounding student services. Finally, some institutions expressed the wish that they had inquired more about the resources (e.g., time, money, personnel) required to carry out an IPAS implementation. For a more comprehensive list of questions obtained from IPAS institutions, see appendix A.

## Challenges and Solutions

Any major IT endeavor will face challenges and setbacks during implementation and delivery. In addition to asking IPAS institutions to identify obstacles to a smooth implementation of IPAS solutions, we asked about the approaches and solutions that served either to mitigate the effects of or resolve the problems they faced during this process. The challenges confronting all the IPAS institutions parallel closely those identified in the “Data and Systems Integration” report.<sup>10</sup> That is, while some of the issues identified by IPAS project leaders were technological in focus, many were related to processes associated with change management and policy changes.

### Major vendor-related challenges:

1. Programming degree plans/paths with complex requirements, rules, and exceptions can be quite difficult and time-consuming.
2. Customizing IPAS solutions can be quite complex and requires considerably more time and effort than expected.

The technological problems ranged from the generic (“technology glitches”) to the specific (“uploading faculty, staff, and student photos”) and included things that resulted from both institutional and vendor issues. The most frequently cited technical challenges with the IPAS implementation were connected to the data required for the systems to perform the tasks for which they were designed:

- Getting data into and out of the IPAS solution
- Displaying data in a usable and meaningful format
- Integrating data collected from different sources
- Generating the proper definitions
- Identifying the parameters for secondary and tertiary data calculations
- Cleaning data for use

A host of other specific issues were identified that appear to lie at the intersection of institutional and vendor ownership:

- Experiencing delays in activating flags in early-warning systems
- Resolving duplicate records
- Differentiating active terms (current terms) from ongoing terms (all terms combined)
- Requiring faculty and staff to adopt new credentials due to character-length requirements in the new systems
- Configuring student attributes properly
- Having links update properly
- Programming seamless transitions between applications
- Updating system videos
- Needing the system to accept credit cards

Two major vendor-related challenges were identified:

1. Institutions using the degree planning and progress tracking functionalities of IPAS tools found the process of programming analog degree paths with complex requirements and exceptions into those systems to be quite difficult. In at least one case, the programming of the exceptions and rules has yet to be resolved satisfactorily.
2. Several institutions noted that the time and complexity involved in customizing IPAS solutions exceeded the institutions’ initial expectations. Although several IPAS institutions appreciate the flexibility and welcome the opportunity to have customizable solutions, they noted that the process has rendered even the simplest of tasks quite difficult.

Certainly, IPAS vendors appear to be responsive to institutional concerns, but the gap between their expectations and the reality of how much customization is required to get these systems online and working as promised—over 30 specialty requests at a single institution—needs to be closed.

Representatives from several institutions noted change-management issues, several of which hold long-term implications for end-user buy-in for the new IPAS solutions. Some institutions noted the challenge of managing change as a way to overcome potential end-user resistance in only a generic way (e.g., getting faculty, staff, and students familiar with the tools and used to the new process). However, a few schools offered a self-diagnosis of what had transpired to make these processes trying. For some institutions, the presence of competing IT initiatives kept the IPAS project from garnering the recognition and support it needed across campus. Other institutions reported losing key administrators and staff who served as the initial visionaries and champions of the IPAS project. Still others noted that change-management challenges emerged from issues related to how the IPAS solutions were rolled out for general use (e.g., not properly incentivizing end users, indecision regarding which features to make available and when, rolling out IPAS for students during finals). Finally, one institution admitted that the project leaders focused far more on the selection and implementation of the products than on IPAS as a concept and what it could do to improve student success.

The policy challenges mentioned by respondents to our questionnaire were significantly fewer than the technological or change-management challenges. They were also different from the policy challenges—defining the parameters for interventions and defining the structure of degree plans—identified in the “Data and Systems Integration” report. Instead, one institution explained that when the initial decision to limit students’ registration options based on their degree plans was dropped, it led to students’ complaining that they had too many options, thereby revealing a need to consider more clearly which software features would and would not be deployed. Another institution discussed how the entire project was requiring a fundamental advising culture shift for students, faculty, and staff as they moved from drop-in meetings to scheduled appointments. Although it is not clear whether the decision to introduce IPAS solutions stemmed from institutional reforms or whether IPAS solutions served as the catalyst for broader institutional changes, at least two institutions identified the complete transformation of the advising process and policies as posing a host of challenges for their institutions.

The solutions to the problems identified by institutional representatives were specific to the challenges. Those institutions experiencing technical setbacks emphasized the efforts and skills of their teams and their willingness to resolve the problems systematically (e.g., coding around software deficiencies, troubleshooting and brainstorming solutions, testing and writing scripts, and modifying solutions to integrate better with existing systems). When the expertise of the implementation team reached its limits or the strain on resources became untenable, institutions reached out to the vendors to resolve problems or hired outside consultants and project managers to shepherd the project through the thornier technical terrain.

**Understand that the introduction of IPAS solutions may necessarily prompt unplanned sea changes in processes and policies.**

On the change-management front, the most frequently cited solutions were related to engagement and outreach to the communities impacted the most by the introduction of IPAS tools. One institution reported a multipronged approach to getting students on board with IPAS: “We are exploring the opportunity of training students in Student Planning while they are waiting to see a counselor prior to registration. We are [also] working on converting part of the Student Success Center into a coffee shop area... to foster a social-support network of peers and engage students in conversation with guests from different campus offices... .” Another institution indicated that the challenges to adoption are being met head on: “We have included other departments and have initiated earlier contact with faculty for support... . We have created a communication plan that will allow a better understanding of all parties responsible and how each department can support the rollout.” On the policy-change front, two general solutions were presented. On the one hand, one institution noted that new policies were being explored to enforce the use of the new tools and to identify naturally occurring business processes into which the IPAS solutions could be embedded; on the other hand, one institution found that the only things leading to changes were “top-down decrees.”

## Successes

Because institutions and the scope of their projects differ, the responses to our inquiry about major successes with the implementation of IPAS vary significantly. Those institutions not as far along in the process as some of their peers emphasized more general successes related to the processes associated with the implementation of their respective IPAS solutions. A couple of institutions discussed their staggered, or step-wise, approaches to implementation by which they launched only certain elements at a time; they claimed that this engendered the production of useful feedback and led to more training opportunities, resulting in improved processes and greater campus buy-in. At least two institutions reported experiencing a culture shift to one that emphasized and “focused to a much greater extent on student success and improving learning.” Still another pair of institutions claimed that dialogue generated across departments and functional units and the cross-functional collaboration that resulted from those interactions were among the crowning achievements of the IPAS implementation project thus far.

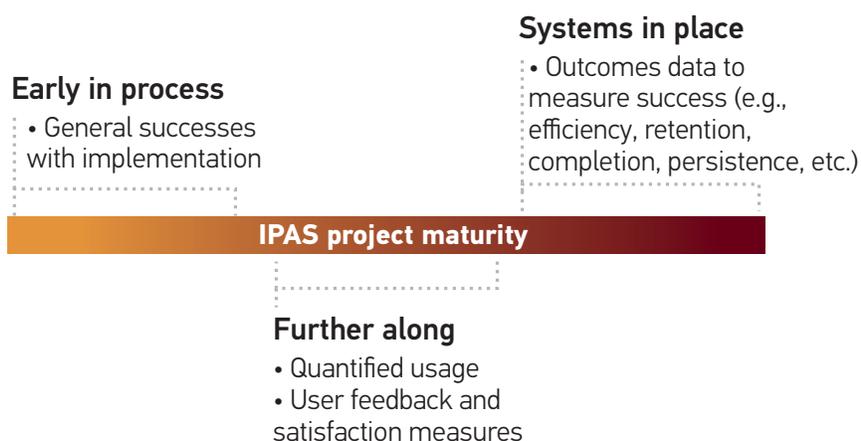
For those IPAS institutions a bit further along, two types of information were pushed forward as markers of success. First, whether generally anecdotal or backed up by quantitative data, reports from nearly half of all institutions cited usage of the IPAS solutions (e.g., number/percentage of faculty, staff, and/or students using the systems; number of flags raised and lowered in the system; attendance records; number of degree plans created/revised; and number of appointments made) as their greatest success. Second, several IPAS institutions reported garnering feedback from users about their experiences and offered data on satisfaction levels and reports on the

ease of use for these systems. One respondent went so far as to say that the feedback received from students changed the entire approach of IT to student-centered projects: “[The college] now involves students more in the implementation [of] software that impacts them directly.”

Finally, two institutions that have had their IPAS systems in place for longer than the others reported outcomes data as a measure of the success of their project. For one institution (Montgomery County Community College), improvement in the efficiency of the advising process was reported; not only were more students scheduled for advising appointments with the IPAS system, but it was also done with a reduced staff. Furthermore, the same respondent noted that her institution had cut the rate of no-shows to advising appointments in half as a result of the IPAS technologies. For the other institution (Lone Star College), the project leader noted that the institution had experienced increases in completion and success rates for certain types of courses and that persistence rates improved across semesters. While these numbers are certainly promising, more research will be required to assess and evaluate the impact of IPAS solutions on student success. It is that topic that we turn to now.

## Evaluation and Assessment

Unfortunately, assessment and evaluation of the impact of IT projects are often afterthoughts, not considered until the project is complete or nearly complete. For the IPAS projects included in this study, an evaluation and/or assessment plan was required as part of the application process. We asked the IPAS project leads in our study to share the approaches to evaluating and assessing their respective projects by providing a simple overview of the types of things an institution might consider when developing an evaluation or assessment protocol (figure 11).



**Figure 11. Assessment and evaluation metrics, by level of IPAS project maturity**

Think about evaluating and assessing your IPAS project as part of the planning process.

Several institutions noted that functional units that conduct institutional research, evaluation, and assessment were primarily responsible for gathering and analyzing data related to IPAS success, offering very little in the way of detail. Most respondents, however, indicated that a number of variables were being tracked longitudinally, especially those having to do with usage, satisfaction, and other forms of feedback. Although many cited only univariate measures such as retention, persistence or completion rates, grades, GPAs, number of flags raised or lowered, traffic, and usage patterns, a few institutions indicated the intent to use bivariate and correlational analysis to better understand how, for example, raising flags affected student grades. In what appears to be a quasiexperimental design, one of the IPAS institutions indicated that it was using the results from two control groups as a baseline against incoming students who will have access to the full suite of solutions. The experiment will help the institution understand clearly what, if any, impact IPAS has on student success. Regardless of the measures being used to evaluate and assess IPAS projects, it is important to identify measures early and take steps to embed the data-collection methods into the process of implementation in order to gather data that can be used to demonstrate effectiveness and return on investment.

## Advice from IPAS Institutions

Given that the purpose of this handbook is primarily to provide information to institutions of higher education that might be considering investing in, implementing, and deploying an IPAS solution (or IPAS solutions) to promote student success, we asked representatives explicitly what advice they have for someone in their position at a potential IPAS college or university. Although the responses were varied, many pieces of advice overlapped, providing a fairly clear set of recommendations. In addition to the nuggets of advice offered below, the general recommendation of reaching out to a few IPAS institutions, especially ones that are very similar to your own (appendix B), is an excellent starting place.

### Administration

Senior institutional leadership support (at the level of president, vice president, and provost) was identified as critical by a small group of institutions, with at least one institution insisting that “leadership must be in the driver’s seat.” Even those institutions that did not have senior leadership spearheading the IPAS project or dictating the parameters stated that administrative support for the project is quite important to win over senior staff members and to strengthen the resolve of the institution that embarking on an IPAS project is a worthwhile endeavor.

### Project Team

Again, advice for IPAS project team composition emphasizes having the “right parties at the table from the very beginning,” that is, a “campus-wide team of collaborators” from functional units across the institution. Those identified as the “right parties” include key stakeholders, the college or university business office, and likely end users, including students, faculty, and staff. Considerable emphasis was placed on having IT work closely with other members of the project team to understand their respective roles and functions so as to avoid having the IPAS project devolve into merely a transactional technology project. Finally, one institution that had experienced considerable turnover among project team members recommended having backups from each unit represented so that should a member of the team be lost, the implementation process could continue unabated.

### Strategy

Once the team is assembled, IPAS project leads recommend taking the time to plan out the entire project, adopting a “coherent, cohesive strategy and operational plan.” The strategy should also keep the larger goal of improving student success central to the project and avoid getting sidelined or distracted by peripheral issues.

Furthermore, build in a process to continually “assess and reassess the institution’s willingness to do what needs to be done internally” to make the project succeed.

## **Vendor and Software**

In general, IPAS institutions recommended being proactive with regard to reviewing and selecting a technology solution or solutions that work best for your institution. There are numerous options and several IPAS dimensions worth consideration, so selecting “a tool that works for your environment, meets your [predefined] outcomes, and can be sustained” is critical. Several institutions warned against promises of customization, suggesting instead the selection of a product that will do as much of what is required out of the box as possible, because it can save both time and money in the long run. Regardless of whether a customized IPAS solution is selected, in general having “well-defined expectations for the vendor and agree[ing] on deliverables and deadlines” is sage advice.

## **Resources**

The general advice surrounding the resources it takes to implement IPAS solutions is that institutions should not underestimate the amount of money, time, and human resources required to purchase, implement, and maintain such systems. The significant investment, especially of human resources, was a theme that was repeated by several institutional representatives. For those leading the project or serving as project manager, one institution recommended considering release time from regular duties and other assignments, given the magnitude of the IPAS project.

## **Stakeholder and End-User Support**

Campus buy-in is one of the themes that has repeatedly emerged in a variety of contexts, so it is not surprising that it appears in our list of recommendations from the institutions. As noted earlier, bringing all relevant stakeholders and possible end users to the table early and often in the process of implementing IPAS solutions is critical to garnering the support required for the success of the project. Additional recommendations include, but are not limited to, releasing the IPAS products in stages so as to gain traction with users, keeping the campus aware of the progress being made (even if it means sharing setbacks and failures), and engaging the faculty in the decision-making process, as their support is often critical to the success of such projects.

## Conclusion

The 19 IPAS projects that informed the preceding analysis embody fully the principle of improving student outcomes by leveraging technology, the number 1 IT issue for 2014. IPAS represents a holistic approach to promoting student success that is attentive to administrative concerns about retention, persistence, and graduation; to faculty interest in improving student learning outcomes; and to IT professionals' desire to harness, consolidate, and analyze the wide range of student data that are increasingly available. Each institution that participated in this project has a story about its IPAS journey to share, shaped by the institutional characteristics, the systems and data available, the IPAS solutions it selected, and the approaches it took to plan, implement, launch, and evaluate the impact of IPAS projects. Conversely, there are enough similarities across the 19 institutions to afford the opportunity to generalize about their experiences. Whether in general or in specific, this handbook and its appendixes offer insight into the approaches and issues that colleges and universities contemplating IPAS projects can and should consider as they move forward.

## Recommendations

The robust data collected from the 19 institutions in this study produced a number of findings that have led to the following key recommendations regarding IPAS implementation issues and processes:

- **Select IPAS solutions explicitly based on the domains critical to your institution's student success initiatives.** Selecting multiple domains, often three or all four, is commonplace and almost always includes the advising and counseling domain.
- **Plan to dedicate considerable FTE resources, especially non-IT staff, to IPAS projects.** IPAS projects are not merely IT projects; they are student success projects that require the participation of many units and groups from across campus. This is true for both the implementation phase and the ongoing maintenance of IPAS projects.
- **Plan for cost overruns for hardware, software, and FTE, especially for the ongoing IPAS maintenance.** Even though most institutions claimed costs met expectations, the remaining institutions tended to report higher-than-expected costs.
- **Make an effort to move beyond the stakeholder and institutionally focused change-management efforts to reach out to all possible end-user groups.** There is room for greater communication and outreach to constituents not directly involved with the implementation of IPAS solutions, especially students and faculty. Such efforts should pay dividends in getting greater end-user buy-in for IPAS solutions and the student success initiatives, of which end users are a part.
- **Emphasize the importance of diversity when forming the IPAS project oversight committee.** Since IPAS solutions are used by many different groups and units from around campus to promote student success, including them in the decision-making process is important for two reasons. First, it improves the quality of the implementation by gathering valuable experiential insight and specialized information about how the solutions will be used. Second, it encourages campus buy-in to the use of the solutions by signaling to the campus that it is a community project for the good of students.
- **Structure the IPAS project committee to emphasize the decision-making processes desired, but consider the trade-offs.** Vertically organized committee structures with centralized authority make decisions more efficiently but can limit opportunities for input and discussion. More horizontally (or federally) organized committees may take longer to implement IPAS systems, but they lead to a final product that is informed by multiple perspectives.

- **Customize IPAS solutions to fit institutional needs, but be aware of the costs associated with doing so.** Customizability is one of the most important features institutions look for in IPAS software, but the amount of time and effort required for customization is not trivial and should be planned for in the project implementation schedule and budget. It should also be considered in relation to ongoing operational and maintenance costs.
- **Understand that the introduction of IPAS solutions may necessarily prompt unplanned sea changes in processes and policies.** Whether IPAS is part of a larger student success initiative or is intended to be a stand-alone project, the introduction of IPAS software solutions likely will serve as a catalyst for rethinking the manner in which business practices—especially those related to advising, counseling, and scheduling—are conducted.
- **Think about evaluating and assessing your IPAS project as part of the planning process.** Identifying project metrics, data, and goals and settling on a methodology for data collection and analysis at the beginning of the project is necessary to effectively evaluate and assess outcomes. Without baseline measures and/or longitudinal data, there is no way to make measurable claims about the impact of IPAS on goals.

## Methodology

A questionnaire comprising 30 closed- and open-ended questions was distributed on May 29, 2014, to individuals identified by the Bill & Melinda Gates Foundation as project leaders at the 19 institutions included in this grant-funded project. The questionnaire remained open until June 19, 2014. We had a 100% response rate to the questionnaire.

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## Appendix A. Questions to Consider Asking When Considering IPAS Vendors and Solutions

To help readers who have yet to embark on the process of selecting and implementing IPAS solutions at their institution better understand some of the issues they may confront, we asked respondents from the 19 institutions receiving funding from the Bill & Melinda Gates Foundation to tell us what kinds of information is important for different aspects of the project. Specifically, we provided two prompts:

1. What questions did you ask *about your institutional IPAS needs* when deliberating which IPAS vendor and/or solution to adopt?
2. What questions did you ask or wish you had asked *IPAS vendor representatives* when deliberating which IPAS vendor and/or solution to adopt?

This appendix contains responses to those items categorized by issue area. Where possible we have preserved the original words of respondents in quotation marks.

	<b>What questions did you ask about your institutional IPAS needs when deliberating which IPAS vendor and/or solution to adopt?</b>	<b>What questions did you ask or wish you had asked IPAS vendor representatives when deliberating which IPAS vendor and/or solution to adopt?</b>
General	<ul style="list-style-type: none"> <li>• What <i>existing</i> functionality, flexibility, and potential do the IPAS solutions offer?</li> </ul>	<ul style="list-style-type: none"> <li>• What is the vendor’s level of experience regarding education records?</li> <li>• What is the long-term cost of the IPAS solution?</li> <li>• What is the implementation time, start to finish?</li> </ul>
Integration	<ul style="list-style-type: none"> <li>• How well will the solutions “accept data imports and provide data extracts”?</li> <li>• Is the IPAS solution offered by “a vendor with whom we already [have] a relationship, such as our SIS or LMS [vendor]”?</li> <li>• Will the IPAS solution offer “true integration with our ERP”?</li> <li>• Does the IPAS vendor have “experience with our ERP [or other systems] vendor”?</li> <li>• Will the solution have “a centralized system that would allow for easy access of a large amount of student information, rather than use a number of separate systems to house this information”?</li> <li>• How well can the system be “integrated with existing systems”?</li> <li>• Will we be able “to stick with [the] primary ERP vendor...to minimize dealing with too many third-party vendors”?</li> <li>• Will the product selected “be able to fully integrate with existing systems”?</li> <li>• Can the solution “integrate our various systems”?</li> </ul>	<ul style="list-style-type: none"> <li>• How easily can the system integrate with the SIS and other campus systems?</li> <li>• How “difficult and time consuming will it be to import data from our ERP system into the IPAS system”?</li> </ul>

*cont’d*

	<b>What questions did you ask about your institutional IPAS needs when deliberating which IPAS vendor and/or solution to adopt?</b>	<b>What questions did you ask or wish you had asked IPAS vendor representatives when deliberating which IPAS vendor and/or solution to adopt?</b>
Customization	<ul style="list-style-type: none"> <li>• How customizable is the system?</li> <li>• Will the IPAS solution allow us “to use our current degree audit setup with the new software”?</li> <li>• “What vendor seems the most flexible and willing to work with our special SIS needs? Is there a single vendor that we can work with on all of our goals that is compatible with our special SIS needs?”</li> </ul>	<ul style="list-style-type: none"> <li>• What is “the cost and timeline of configuring the system to [the] desired specifications”?</li> <li>• How difficult is it to set up the degree plans from which students can choose?</li> <li>• “How likely will enhancement requests be honored, and what is the timeline” for doing so?</li> </ul>
Functionality	<ul style="list-style-type: none"> <li>• Will students “have the ability to register from their [degree] plan”?</li> <li>• Will it be possible for “student-advisor communication to occur through the tool”?</li> <li>• Will the early-alert system allow for “e-mail communication between student-instructor and instructor-student services offices”?</li> <li>• Does the solution offer the ability to push out “specific warnings rather than a green-light/red-flag icon”?</li> <li>• Does the solution provide a “method of notifying students of campus services which did not require the student to make a campus/office visit”?</li> <li>• Will the system “support the redesign initiative of more strongly connecting students with their assigned advisors”?</li> <li>• Will the system “quickly provide feedback on students and help them connect with services”?</li> <li>• Will the system provide “at your fingertips access to student information by course”?</li> <li>• Will the system allow for “a focus on raising flags, responding to surveys, and writing comments”?</li> <li>• “Who can give us the most robust early-alert information and provide us an easy-to-use tool”?</li> <li>• Will the tools “allow student[s] to plan out the courses that they would take several semesters in advance”?</li> <li>• Will the tools “allow students to register directly from their degree plan, thus limiting their ability to register for off-track courses”?</li> <li>• Can the solution “give advisors a place to store all appointment notes and documents associated with each student”?</li> </ul>	<ul style="list-style-type: none"> <li>• Is there a possibility to move directly from the IPAS system to the registration system?</li> <li>• What is the ability of the vendor to provide early alerts?</li> <li>• Is the stated functionality viable and scalable to institutions of varying sizes?</li> <li>• What are the products’ current limitations, especially with regards to registration functionality and authentication?</li> </ul>

*cont’d*

	<b>What questions did you ask about your institutional IPAS needs when deliberating which IPAS vendor and/or solution to adopt?</b>	<b>What questions did you ask or wish you had asked IPAS vendor representatives when deliberating which IPAS vendor and/or solution to adopt?</b>
Other	<ul style="list-style-type: none"> <li>• “How can we provide these services at minimum cost without sacrificing efficiency?”</li> </ul>	<ul style="list-style-type: none"> <li>• Can the vendor “actually deliver on their promises”?</li> <li>• What impact will the technology have on the “current advising process, admissions processes, and remedial/developmental students [who] cannot necessarily adopt the spelled-out degree plans”?</li> <li>• What administrator training opportunities does the vendor provide? What is the training model for the system?</li> <li>• What is the “process of incorporating early-alert interventions into our institutional processes/ culture”?</li> <li>• How does one “manage and prioritize students in need of services to reach the most critical needs first”?</li> <li>• How does one “promote [the] use of existing services and increase positive interactions with students”?</li> <li>• To what degree does the solution “make it easier for advising staff to share information and manage student cases”?</li> <li>• How easy is it to “get an overview of instructor activities as well as advising workflow/ activities”?</li> <li>• Are the solution’s comments capabilities FERPA compliant?</li> </ul>

## Appendix B. Institution Reference Sheets

To facilitate comparisons, this appendix includes data and information relevant to IPAS projects for all 19 institutions included in this study. The data are derived both from the EDUCAUSE Core Data Service (CDS) and a questionnaire completed by IPAS representatives from each institution. The information provided includes the following:

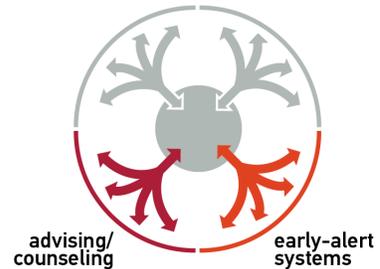
- Institution name and address
- Institution URL
- Institution size
- Number of full- and part-time undergraduate and graduate students
- LMS
- SIS
- IPAS domains
- IPAS solutions
- Expected IPAS tasks
- IPAS goals
- FTE expenditures\*
- Expectations regarding IPAS expenditures
- Extent of change-management efforts
- Extent of inclusion in change-management efforts
- Participation in IPAS projects
- Intended IPAS end users

\* These values are early estimates and are subject to revision.

## Asheville-Buncombe Technical Community College

340 Victoria Rd., Asheville NC 28801-4897

[www.abtech.edu](http://www.abtech.edu)



<b>Size category:</b>	5,000–9,999
<b>Full-time undergraduates:</b>	3,195
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	4,883
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Moodle (Remote Learner)
<b>SIS:</b>	Ellucian (Datatel) Colleague Student
<b>IPAS solutions:</b>	Student Success Plan, Unicon

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	X
Other:	

## Asheville-Buncombe Technical Community College *cont'd*

### IPAS goals:

- Stabilize enrollment
- Increase program retention rates
- Increase term-to-term retention rates
- Increase course retention/completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	.50	.25
<b>Non-IT Staff</b>	.50	1.00

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Don't know
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Somewhat higher than expected
Number of FTE (ongoing)	Much higher than expected
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a small extent
Demonstrating strong support for the IPAS project to the campus community	To a small extent
Engaging in dialogue with IPAS project stakeholders and end users	To a small extent
Gathering input from IPAS project stakeholders and end users	To a small extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a small extent
Aligning the IPAS project with broader institutional strategies	To a moderate extent
Identifying potential sources of resistance to the IPAS project	To a great extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a small extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

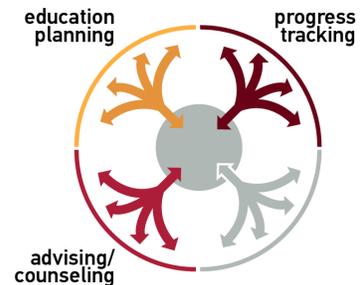
**Asheville-Buncombe Technical Community College** *cont'd*

<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a small extent
Central IT	Not at all
Registrar's office	To a great extent
Institutional research	To a small extent
Academic affairs	Not at all
Student affairs	To a great extent
Faculty	Not at all
Advising	To a great extent
Counseling	To a small extent
Teaching and learning center	Not at all
Financial aid	To a moderate extent
Students	Not at all

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership				X	
Central IT	X		X		
Registrar's office	X	X			
Institutional research			X		
Academic affairs				X	
Student affairs		X			
Faculty				X	
Advising		X			
Counseling			X		
Teaching and learning center				X	
Financial aid			X		
Students					X

**Intended IPAS end users:** Registrar's office, student affairs, faculty, advising, counseling, financial aid, students

**Austin Community College District**  
 5930 Middle Fiskville Rd., Austin TX 78752  
[www.austincc.edu](http://www.austincc.edu)



**Size category:** 20,000 and above  
**Full-time undergraduates:** 9,905  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 33,410  
**Part-time graduates:** N/A  
**LMS:** Blackboard Learn  
**SIS:** Ellucian (Datatel) Colleague Student  
**IPAS solutions:** Civitas Degree Map

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	X
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other: Use predictive analytics	X

**Austin Community College District** *cont'd*

**IPAS goals:**

- Increase graduation rates
- Increase persistence from fall to spring
- Increase persistence from fall to fall

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	2	2
<b>Non-IT Staff</b>	16	5

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Much higher than expected
Hardware costs (ongoing)	Don't know
Software costs (ongoing)	Don't know
Number of FTE (ongoing)	Somewhat higher than expected
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a moderate extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a moderate extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a moderate extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

## Austin Community College District *cont'd*

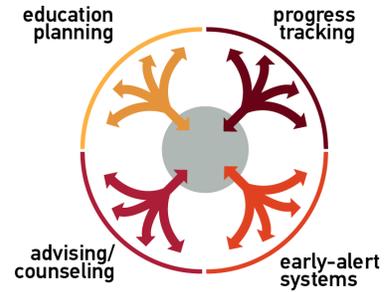
Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a moderate extent
Academic affairs	To a small extent
Student affairs	To a great extent
Faculty	To a small extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	Not at all
Financial aid	To a moderate extent
Students	To a great extent

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X				
Central IT	X				
Registrar's office		X			
Institutional research		X			
Academic affairs			X		
Student affairs	X				
Faculty			X		
Advising	X				
Counseling	X				
Teaching and learning center					X
Financial aid				X	
Students			X		

**Intended IPAS end users:** Senior institutional leadership, registrar's office, institutional research, academic affairs, student affairs, faculty, advising, counseling, financial aid, students

## Austin Peay State University

601 College St., Clarksville, TN 37044  
[www.apsu.edu](http://www.apsu.edu)



**Size category:** 10,000–19,999  
**Full-time undergraduates:** 6,994  
**Full-time graduates:** 302  
**Part-time undergraduates:** 2,741  
**Part-time graduates:** 560  
**LMS:** D2L  
**SIS:** Ellucian (SunGard/SCT) Banner Student  
**IPAS solutions:** Starfish CONNECT, Starfish EARLY ALERT

Expected IPAS Tasks	
Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	
Provide students with self-service tools	
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	
Other:	

**Austin Peay State University** *cont'd*

**IPAS goal:**

- Provide useful information to help the advisor point the student to success

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	.50	.10
<b>Non-IT Staff</b>	1.00	1.00

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Somewhat higher than expected
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	Somewhat higher than expected
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Somewhat longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a small extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a small extent
Gathering input from IPAS project stakeholders and end users	To a moderate extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a small extent
Aligning the IPAS project with broader institutional strategies	To a small extent
Identifying potential sources of resistance to the IPAS project	To a small extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	Not at all
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	Not at all

**Austin Peay State University** *cont'd*

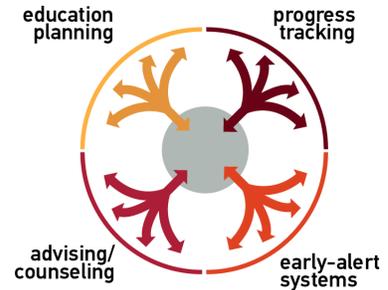
<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a small extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a moderate extent
Academic affairs	To a great extent
Student affairs	To a small extent
Faculty	To a small extent
Advising	To a moderate extent
Counseling	To a small extent
Teaching and learning center	To a moderate extent
Financial aid	To a small extent
Students	To a moderate extent

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership	X		X		
Central IT	X		X		
Registrar's office	X				
Institutional research	X				
Academic affairs	X				
Student affairs	X				
Faculty	X				
Advising	X				
Counseling	X				
Teaching and learning center	X				
Financial aid	X				
Students	X				

**Intended IPAS end users:** Academic affairs, faculty, advising, teaching and learning center, students, tutors

## Colorado State University

102 Administration Building, Fort Collins, CO 80523-0100  
[www.colostate.edu](http://www.colostate.edu)



**Size category:** 20,000 and above  
**Full-time undergraduates:** 20,336  
**Full-time graduates:** 2,880  
**Part-time undergraduates:** 2,916  
**Part-time graduates:** 4,527  
**LMS:** Blackboard Learn  
**SIS:** Ellucian (SunGard/SCT) Banner Student  
**IPAS solutions:** Homegrown solution(s), Blackboard Analytics, Campus Labs Beacon, CollegeSource u.direct, CollegeSource u.achieve, Education Advisory Board (EAB) Student Success Collaborative

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	X
Track student progress throughout a program of study	X
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	X
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other: Make advising more efficient and effective	X

**Colorado State University** *cont'd*

**IPAS goals:**

- Improve retention rates
- Improve persistence rates
- Improve completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	4	2
<b>Non-IT Staff</b>	12	6

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Somewhat more than expected
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Somewhat more than expected
Time to roll out final product	Met expectations

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a small extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a small extent

## Colorado State University *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a small extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a great extent
Academic affairs	To a moderate extent
Student affairs	To a great extent
Faculty	To a small extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	To a great extent
Financial aid	To a moderate extent
Students	To a moderate extent

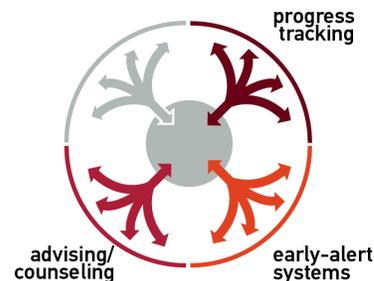
Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership				X	
Central IT	X	X	X		
Registrar's office	X	X	X		
Institutional research	X	X	X		
Academic affairs	X	X	X		
Student affairs	X	X	X		
Faculty				X	
Advising	X	X	X		
Counseling	X	X	X		
Teaching and learning center	X	X			
Financial aid	X				
Students			X		

**Intended IPAS end users:** Registrar, institutional research, academic affairs, student affairs, advising, counseling, students

## CUNY Queensborough Community College

222-05 56th Ave., Bayside, NY 11364

[www.qcc.cuny.edu](http://www.qcc.cuny.edu)



<b>Size category:</b>	10,000–19,999
<b>Full-time undergraduates:</b>	9,383
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	6,328
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Blackboard Learn
<b>SIS:</b>	Oracle PeopleSoft Campus Solutions
<b>IPAS solutions:</b>	Starfish CONNECT, Starfish EARLY ALERT

### Expected IPAS Tasks

Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	X
Track student progress throughout a program of study	
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	
Other:	

**CUNY Queensborough Community College** *cont'd*

**IPAS goal:**

- More effective use of resources

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	4	3
<b>Non-IT Staff</b>	6	2

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	N/A
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Higher than expected
Hardware costs (ongoing)	Higher than expected
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Higher than expected
Time to roll out final product	Met expectations

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a great extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a moderate extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

**CUNY Queensborough Community College** *cont'd*

<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	To a moderate extent
Institutional research	To a great extent
Academic affairs	To a great extent
Student affairs	To a great extent
Faculty	To a great extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	Not at all
Financial aid	Not at all
Students	To a small extent

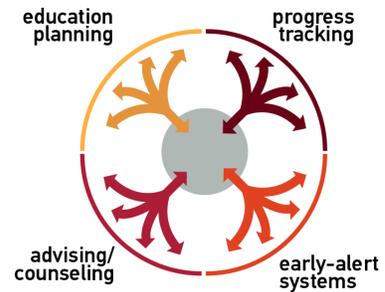
<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership	X				
Central IT	X				
Registrar's office			X		
Institutional research		X			
Academic affairs	X				
Student affairs	X				
Faculty	X		X		
Advising		X			
Counseling		X			
Teaching and learning center				X	
Financial aid				X	
Students				X	

**Intended IPAS end users:** Faculty, students

## Durham Technical Community College

1637 Lawson St., Durham, NC 27703-5023

[www.durhamtech.edu](http://www.durhamtech.edu)



<b>Size category:</b>	5,000–9,999
<b>Full-time undergraduates:</b>	1,584
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	3,520
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Sakai CLE (Aperio [Sakai] Foundation)
<b>SIS:</b>	Ellucian (Datatel) Colleague Student
<b>IPAS solutions:</b>	Student Success Plan

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

## Durham Technical Community College *cont'd*

### IPAS goals:

- Increase completion rates
- Increase persistence rates
- Increase graduation rates
- Increase transfer rates to senior institutions

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	.25	.25
<b>Non-IT Staff</b>	1.15	1.15

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	N/A
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Somewhat higher than expected
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Don't know
Number of FTE (ongoing)	Somewhat higher than expected
Time to roll out final product	Higher than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a great extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

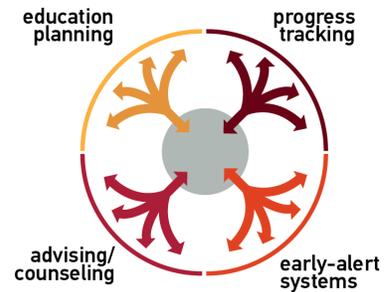
**Durham Technical Community College** *cont'd*

<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a moderate extent
Institutional research	To a great extent
Academic affairs	To a moderate extent
Student affairs	To a moderate extent
Faculty	To a moderate extent
Advising	To a great extent
Counseling	To a moderate extent
Teaching and learning center	To a moderate extent
Financial aid	To a small extent
Students	To a small extent

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership			X		
Central IT	X	X			
Registrar's office	X				
Institutional research	X	X			
Academic affairs	X				
Student affairs	X	X			
Faculty	X	X	X		
Advising	X	X	X		
Counseling			X		
Teaching and learning center	X		X		
Financial aid			X		
Students	X				

**Intended IPAS end users:** Registrar's office, institutional research, academic affairs, student affairs, faculty, advising, counseling, teaching and learning center, students

**East Mississippi Community College**  
 1512 Kemper St., Scooba, MS 39358-0158  
[www.eastms.edu](http://www.eastms.edu)



**Size category:** 1,000–4,999  
**Full-time undergraduates:** 2,698  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 2,000  
**Part-time graduates:** N/A  
**LMS:** Instructure Canvas  
**SIS:** Ellucian (Datatel) Colleague Student  
**IPAS solutions:** Ellucian Colleague Student Planning, SmartEvals DropGuard

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	X
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

**East Mississippi Community College** *cont'd*

**IPAS goals:**

- Increase retention rates for first-time/full-time cohort
- Decrease the number of students on academic probation and suspension
- Decrease the number of students on financial aid probation and suspension

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	1	2
<b>Non-IT Staff</b>	4	5

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Somewhat lower than expected
Software costs (implementation)	Somewhat higher than expected
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	Somewhat lower than expected
Software costs (ongoing)	Somewhat higher than expected
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Somewhat higher than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a small extent
Engaging in dialogue with IPAS project stakeholders and end users	To a moderate extent
Gathering input from IPAS project stakeholders and end users	To a moderate extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a small extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

**East Mississippi Community College** *cont'd*

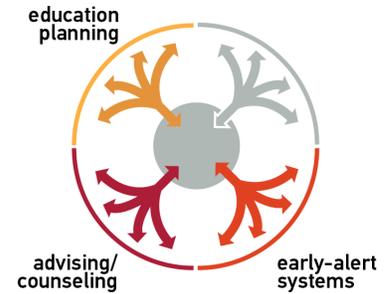
<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	Not at all
Central IT	To a great extent
Registrar's office	To a moderate extent
Institutional research	To a moderate extent
Academic affairs	Not at all
Student affairs	To a small extent
Faculty	To a small extent
Advising	To a small extent
Counseling	To a moderate extent
Teaching and learning center	Not at all
Financial aid	Not at all
Students	To a moderate extent

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership				X	
Central IT	X	X	X		
Registrar's office			X		
Institutional research	X	X	X		
Academic affairs				X	
Student affairs			X		
Faculty			X		
Advising			X		
Counseling			X		
Teaching and learning center			X		
Financial aid			X		
Students			X		

**Intended IPAS end users:** Registrar's office, institutional research, academic affairs, faculty, advising, counseling, teaching and learning center, financial aid, students, tutors

## Lone Star College System

5000 Research Forest Dr., The Woodlands, TX 77381-4399  
[www.lonestar.edu](http://www.lonestar.edu)



**Size category:** 20,000 and above  
**Full-time undergraduates:** 19,633  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 40,795  
**Part-time graduates:** N/A  
**LMS:** D2L  
**SIS:** Oracle PeopleSoft Campus Solutions  
**IPAS solutions:** Education and Career Positioning System (ECPS)

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	
Provide students with self-service tools	
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	
Help students find careers that match their interests and skills	X
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	
Other:	

**Lone Star College System** *cont'd*

**IPAS goals:**

- Increase the usage of effective and mixed technologies of all stakeholders
- Increase the amount of vital student data that all stakeholders can access
- Increase the number of students who are retained across all disciplines

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	1	1
<b>Non-IT Staff</b>	8	3

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Somewhat lower than expected
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Somewhat more than expected
Number of FTE (ongoing)	Somewhat more than expected
Time to roll out final product	Met expectations

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a moderate extent
Gathering input from IPAS project stakeholders and end users	To a moderate extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a moderate extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a small extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

**Lone Star College System** *cont'd*

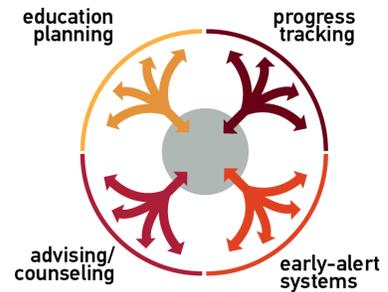
<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a great extent
Central IT	To a moderate extent
Registrar's office	To a small extent
Institutional research	To a great extent
Academic affairs	To a small extent
Student affairs	To a small extent
Faculty	To a small extent
Advising	To a moderate extent
Counseling	To a moderate extent
Teaching and learning center	Not at all
Financial aid	Not at all
Students	To a great extent

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership	X				
Central IT			X		
Registrar's office			X		
Institutional research	X	X			
Academic affairs				X	
Student affairs				X	
Faculty			X		
Advising	X	X			
Counseling		X	X		
Teaching and learning center				X	
Financial aid				X	
Students			X		

**Intended IPAS end users:** Advising, counseling, students, parents

## Lorain County Community College

1005 North Abbe Rd., Elyria, OH 44035-1691  
[www.lorainccc.edu](http://www.lorainccc.edu)



**Size category:** 10,000–19,999  
**Full-time undergraduates:** 3,918  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 8,738  
**Part-time graduates:** N/A  
**LMS:** Blackboard Learn–ANGEL Edition (ANGEL LMS)  
**SIS:** Oracle PeopleSoft Campus Solutions  
**IPAS solutions:** Unicon

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	X
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

**Lorain County Community College** *cont'd*

**IPAS goals:**

- Increase retention rates
- Decrease time-to-completion rates
- Decrease overall student costs
- Guide students to careers that best match their interests and skills

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	5	2
<b>Non-IT Staff</b>	3	3

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Much lower than expected
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Somewhat higher than expected
Hardware costs (ongoing)	Don't know
Software costs (ongoing)	Don't know
Number of FTE (ongoing)	Don't know
Time to roll out final product	Somewhat longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

## Lorain County Community College *cont'd*

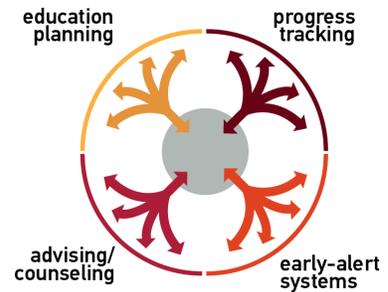
Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a great extent
Academic affairs	To a great extent
Student affairs	To a great extent
Faculty	To a moderate extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	To a great extent
Financial aid	To a great extent
Students	To a moderate extent

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X				
Central IT	X	X	X		
Registrar's office	X	X	X		
Institutional research	X		X		
Academic affairs	X		X		
Student affairs			X		
Faculty			X		
Advising		X	X		
Counseling		X			
Teaching and learning center			X		
Financial aid		X			
Students				X	

**Intended IPAS end users:** Senior institutional leadership, registrar's office, institutional research, academic affairs, student affairs, faculty, advising, counseling, teaching and learning center, financial aid, students

## Miami Dade College

300 NE 2nd Ave., Miami, FL 33132-2297  
[www.mdc.edu](http://www.mdc.edu)



**Size category:** 20,000 and above  
**Full-time undergraduates:** 26,211  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 40,490  
**Part-time graduates:** N/A  
**LMS:** Blackboard Learn-ANGEL Edition (ANGEL LMS)  
**SIS:** Higher Education Technology Group (HET Group)  
**IPAS solutions:** Campus Labs Beacon, Campus Labs Baseline, Campus Labs CollegiateLink, Campus Labs SSI noncognitive assessment

Expected IPAS Tasks	
Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	X
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	X
Other: Support an institutional culture dedicated to improving student success. Also, these were our initial expectations; it's not clear our vendor will be able to deliver on all of these.	X

**Miami Dade College** *cont'd*

**IPAS goal:**

- Support the overall Student Achievement Initiatives (SAI) goals

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	1	1
<b>Non-IT Staff</b>	3	1

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	N/A
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Don't know
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a great extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a moderate extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

**Miami Dade College** *cont'd*

<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a small extent
Central IT	To a great extent
Registrar's office	Not at all
Institutional research	Not at all
Academic affairs	To a small extent
Student affairs	To a moderate extent
Faculty	To a small extent
Advising	To a moderate extent
Counseling	Not at all
Teaching and learning center	Not at all
Financial aid	Not at all
Students	To a small extent

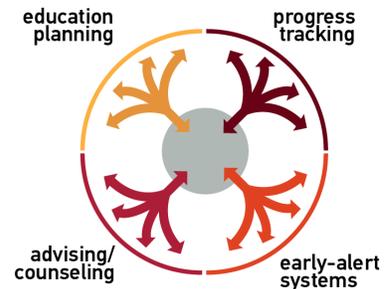
<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership				X	
Central IT	X	X			
Registrar's office				X	
Institutional research				X	
Academic affairs				X	
Student affairs		X	X		
Faculty			X		
Advising		X	X		
Counseling				X	
Teaching and learning center				X	
Financial aid				X	
Students				X	

**Intended IPAS end users:** Student affairs, advising, students, faculty coaches/mentors

## Montgomery County Community College

340 Dekalb Pike, Blue Bell, PA 19422-0796

[www.mc3.edu](http://www.mc3.edu)



<b>Size category:</b>	10,000–19,999
<b>Full-time undergraduates:</b>	5,013
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	8,632
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Blackboard Learn
<b>SIS:</b>	Ellucian (Datatel) Colleague Student
<b>IPAS solutions:</b>	Blackboard Analytics, Ellucian Colleague Student Planning, Starfish CONNECT, Starfish EARLY ALERT

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	X
Track student progress throughout a program of study	X
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

## Montgomery County Community College *cont'd*

### IPAS goals:

- Improve student success and retention
- Create a more engaged teaching faculty to promote student success
- Foster a deeper and more meaningful connection between students and faculty
- Keep MCCC as a successful destination for students

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	3	1
<b>Non-IT Staff</b>	6	1

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Somewhat higher than expected
Number of FTE (implementation)	Somewhat higher than expected
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Somewhat longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a great extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a great extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a great extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

**Montgomery County Community College** *cont'd*

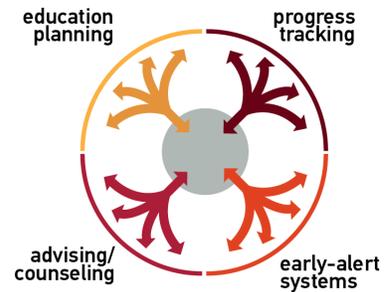
<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a moderate extent
Academic affairs	To a small extent
Student affairs	To a moderate extent
Faculty	To a small extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	To a small extent
Financial aid	To a small extent
Students	To a moderate extent

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership	X				
Central IT		X			
Registrar's office		X			
Institutional research			X		
Academic affairs			X		
Student affairs		X			
Faculty			X		
Advising		X			
Counseling		X			
Teaching and learning center			X		
Financial aid				X	
Students			X		

**Intended IPAS end users:** Institutional research, academic affairs, student affairs, faculty, advising, counseling, students, tutors

## Morgan State University

1700 East Cold Spring Lane, Baltimore, MD 21251-0001  
[www.morgan.edu](http://www.morgan.edu)



**Size category:** 5,000–9,999  
**Full-time undergraduates:** 5,794  
**Full-time graduates:** 707  
**Part-time undergraduates:** 797  
**Part-time graduates:** 654  
**LMS:** Blackboard Learn  
**SIS:** Ellucian (SunGard/SCT) Banner Student  
**IPAS solutions:** Starfish CONNECT, Starfish EARLY ALERT

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	
Track student progress throughout a program of study	
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

**Morgan State University** *cont'd*

**IPAS goals:**

- Adoption of Starfish
- Increase consistency of process and data
- Increase levels of engagement
- Increase levels of course completion
- Increase persistence rates
- Improve degree completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	2	2
<b>Non-IT Staff</b>	3	3

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	N/A
Software costs (implementation)	Somewhat higher than expected
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a moderate extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a moderate extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

**Morgan State University** *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	To a moderate extent
Institutional research	To a great extent
Academic affairs	To a great extent
Student affairs	To a moderate extent
Faculty	To a moderate extent
Advising	To a great extent
Counseling	To a small extent
Teaching and learning center	To a small extent
Financial aid	To a small extent
Students	To a moderate extent

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X				
Central IT	X	X			
Registrar's office		X			
Institutional research	X	X			
Academic affairs	X	X			
Student affairs			X		
Faculty			X		
Advising	X	X			
Counseling			X		
Teaching and learning center			X		
Financial aid				X	
Students			X		

**Intended IPAS end users:** Registrar's office, academic affairs, student affairs, faculty, advising, teaching and learning center, students, tutors

**Northeast Wisconsin Technical College**  
 2740 W Mason St., Green Bay, WI 54307-9042  
[www.nwtc.edu](http://www.nwtc.edu)



**Size category:** 5,000–9,999  
**Full-time undergraduates:** 3,429  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 6,515  
**Part-time graduates:** N/A  
**LMS:** Blackboard Learn  
**SIS:** Oracle PeopleSoft Campus Solutions  
**IPAS solutions:** Starfish CONNECT, Starfish EARLY ALERT

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	X
Track student progress throughout a program of study	X
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

**Northeast Wisconsin Technical College** *cont'd*

**IPAS goals:**

- Increase course completion rates
- Increase program completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	3	2
<b>Non-IT Staff</b>	15	3

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	N/A
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a great extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a great extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

## Northeast Wisconsin Technical College *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a moderate extent
Institutional research	To a moderate extent
Academic affairs	To a great extent
Student affairs	To a great extent
Faculty	To a great extent
Advising	To a great extent
Counseling	To a moderate extent
Teaching and learning center	To a great extent
Financial aid	To a moderate extent
Students	To a small extent

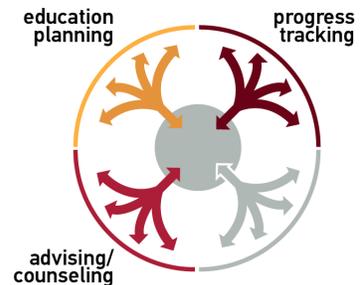
Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X		X		
Central IT	X	X			
Registrar's office		X			
Institutional research	X				
Academic affairs	X				
Student affairs	X				
Faculty	X				
Advising	X				
Counseling	X				
Teaching and learning center	X				
Financial aid	X				
Students				X	

**Intended IPAS end users:** Senior institutional leadership, registrar's office, institutional research, academic affairs, student affairs, faculty, advising, counseling, teaching and learning center, financial aid, students, tutors

## Prince George’s Community College

301 Largo Rd., Largo, MD 20774-2199

[www.pgcc.edu](http://www.pgcc.edu)



<b>Size category:</b>	10,000–19,999
<b>Full-time undergraduates:</b>	4,059
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	9,765
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Blackboard Learn
<b>SIS:</b>	Ellucian (Datatel) Colleague Student
<b>IPAS solutions:</b>	Ellucian Colleague Intelligent Learning Platform, Ellucian Mobile, Ellucian Student Finance, Ellucian Student Planning Module, Starfish CONNECT

Expected IPAS Tasks	
Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	X
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	
Other:	

**Prince George’s Community College** *cont’d*

**IPAS goals:**

- Improve student self-service capability for advising process
- Improve access to students seeking information about their respective academic majors
- Improve access to students seeking information about the progress being made toward completion
- Improve efficiency of the advising process
- Increase the number of students who can obtain advising support

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	2	1
<b>Non-IT Staff</b>	10	5

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Somewhat higher than expected
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Much longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a small extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a moderate extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

## Prince George's Community College *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a small extent
Academic affairs	To a small extent
Student affairs	To a great extent
Faculty	To a small extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	Not at all
Financial aid	To a small extent
Students	To a great extent

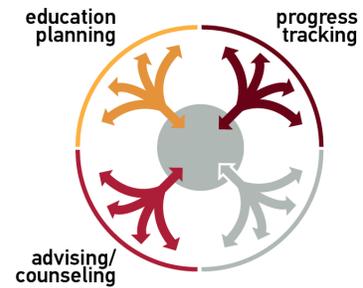
Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership			X		
Central IT	X				
Registrar's office		X			
Institutional research			X		
Academic affairs			X		
Student affairs	X				
Faculty			X		
Advising	X				
Counseling		X			
Teaching and learning center				X	
Financial aid			X		
Students		X			

**Intended IPAS end users:** Student affairs, faculty, advising, counseling, students

## South Texas College

3201 W Pecan, McAllen, TX 78502-9701

[www.southtexascollege.edu](http://www.southtexascollege.edu)



<b>Size category:</b>	20,000 and above
<b>Full-time undergraduates:</b>	10,492
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	20,332
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Blackboard Learn
<b>SIS:</b>	Ellucian (SunGard/SCT) Banner Student
<b>IPAS solutions:</b>	Ellucian Degree Works

Expected IPAS Tasks	
Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	
Other:	

**South Texas College** *cont'd*

**IPAS goals:**

- Keep students on track in their programs of study
- Increase completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	4	2
<b>Non-IT Staff</b>	14	7

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Somewhat higher than expected
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Met expectations

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a moderate extent
Gathering input from IPAS project stakeholders and end users	To a moderate extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a moderate extent
Identifying potential sources of resistance to the IPAS project	To a small extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a small extent

**South Texas College** *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a small extent
Academic affairs	To a great extent
Student affairs	To a great extent
Faculty	To a small extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	To a small extent
Financial aid	To a small extent
Students	Not at all

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X				
Central IT	X	X			
Registrar's office	X	X			
Institutional research			X		
Academic affairs	X	X			
Student affairs	X	X			
Faculty			X		
Advising	X	X			
Counseling	X	X			
Teaching and learning center				X	
Financial aid				X	
Students				X	

**Intended IPAS end users:** Registrar's office, student affairs, faculty, advising, counseling, students

## Southern Illinois University Carbondale

Lincoln Dr., Carbondale, IL 62901-4512

[www.siu.edu](http://www.siu.edu)



<b>Size category:</b>	10,000–19,999
<b>Full-time undergraduates:</b>	12,387
<b>Full-time graduates:</b>	2,674
<b>Part-time undergraduates:</b>	1,743
<b>Part-time graduates:</b>	2,043
<b>LMS:</b>	D2L
<b>SIS:</b>	Ellucian (SunGard/SCT) Banner Student
<b>IPAS solutions:</b>	Education Advisory Board (EAB) Student Success Collaborative

Expected IPAS Tasks	
Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	
Improve risk-identification and early-alert systems	
Create a mechanism to enable/improve early interventions	
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	
Other:	

## Southern Illinois University Carbondale *cont'd*

### IPAS goals:

- Decrease the number of major changes
- Reduce the amount of time to graduation

FTE Expenditures (estimated)		
	IPAS Implementation Period	IPAS Annual Maintenance
IT Staff	1.25	0.25
Non-IT Staff	5.00	2.00

Expectations Regarding IPAS Expenditures	
Hardware costs (implementation)	N/A
Software costs (implementation)	Somewhat higher than expected
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Somewhat higher than expected
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Somewhat shorter than expected

Extent of Change-Management Efforts	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a small extent
Engaging in dialogue with IPAS project stakeholders and end users	To a small extent
Gathering input from IPAS project stakeholders and end users	To a moderate extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a moderate extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	Not at all
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	Not at all
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	Not at all

## Southern Illinois University Carbondale *cont'd*

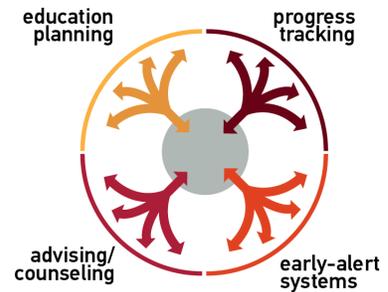
Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	Not at all
Institutional research	To a great extent
Academic affairs	To a great extent
Student affairs	Not at all
Faculty	Not at all
Advising	To a moderate extent
Counseling	Not at all
Teaching and learning center	Not at all
Financial aid	Not at all
Students	Not at all

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X				
Central IT			X		
Registrar's office				X	
Institutional research			X		
Academic affairs	X				
Student affairs				X	
Faculty				X	
Advising			X		
Counseling				X	
Teaching and learning center				X	
Financial aid				X	
Students				X	

**Intended IPAS end users:** Advising

## Stanly Community College

141 College Dr., Albemarle, NC 28001  
[www.stanly.edu](http://www.stanly.edu)



<b>Size category:</b>	1,000–4,999
<b>Full-time undergraduates:</b>	1,152
<b>Full-time graduates:</b>	N/A
<b>Part-time undergraduates:</b>	1,836
<b>Part-time graduates:</b>	N/A
<b>LMS:</b>	Moodle (Moodle Trust)
<b>SIS:</b>	Ellucian (Datatel) Colleague Student
<b>IPAS solutions:</b>	Student Success Plan

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

**Stanly Community College** *cont'd*

**IPAS goals:**

- Improve cross-departmental collaboration
- Improve student success rates
- Improve completion rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	1	1
<b>Non-IT Staff</b>	13	2

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Somewhat higher than expected
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Met expectations

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a great extent
Demonstrating strong support for the IPAS project to the campus community	To a great extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a great extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

**Stanly Community College** *cont'd*

<b>Extent of Inclusion in Change-Management Efforts</b>	
Senior institutional leadership	To a great extent
Central IT	To a moderate extent
Registrar's office	To a small extent
Institutional research	To a small extent
Academic affairs	To a great extent
Student affairs	To a great extent
Faculty	To a great extent
Advising	To a great extent
Counseling	To a great extent
Teaching and learning center	To a small extent
Financial aid	To a small extent
Students	Not at all

<b>Participation in IPAS Projects</b>					
	<b>Participates on the project oversight committee</b>	<b>Contributes dedicated FTE resources to the project</b>	<b>Contributes ad hoc FTE resources to the project</b>	<b>Does not participate in the project</b>	<b>Don't know</b>
Senior institutional leadership		X			
Central IT	X	X			
Registrar's office			X		
Institutional research			X		
Academic affairs	X	X			
Student affairs	X	X			
Faculty	X	X			
Advising	X	X			
Counseling	X	X			
Teaching and learning center			X		
Financial aid			X		
Students				X	

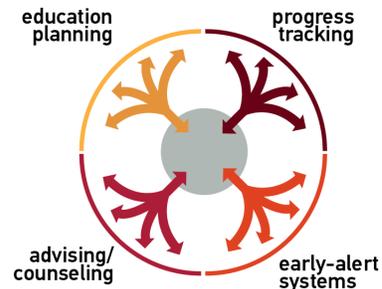
**Intended IPAS end users:** Registrar's office, institutional research, academic affairs, student affairs, faculty, advising, counseling, financial aid, students

## The University of Texas at San Antonio

One UTSA Circle, San Antonio, TX 78249-1644

[www.utsa.edu](http://www.utsa.edu)

<b>Size category:</b>	20,000 and above
<b>Full-time undergraduates:</b>	21,186
<b>Full-time graduates:</b>	1,982
<b>Part-time undergraduates:</b>	4,793
<b>Part-time graduates:</b>	2,513
<b>LMS:</b>	Blackboard Learn
<b>SIS:</b>	Ellucian (SunGard/SCT) Banner Student
<b>IPAS solutions:</b>	Microsoft Dynamics CRM



### Expected IPAS Tasks

Provide students with individualized education plans	
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	X
Track student progress throughout a program of study	X
Track student progress in individual courses	
Provide faculty and/or staff easier access to student academic records	
Provide faculty and/or staff easier access to student advising and counseling records	
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	X
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	
Help students assess their chances of succeeding in a program	
Improve institutional ability to collect, analyze, and distribute student data	
Foster an institutional culture dedicated to improving student success	
Improve cross-departmental collaboration on student success initiatives	
Other:	

**The University of Texas at San Antonio** *cont'd*

**IPAS goals:**

- Increase four-year graduation rates
- Improve relationship between students and advisors

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	10	3
<b>Non-IT Staff</b>	25	3

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Met expectations
Number of FTE (implementation)	Met expectations
Hardware costs (ongoing)	Met expectations
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Met expectations
Time to roll out final product	Somewhat longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a moderate extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a great extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a moderate extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a great extent

## The University of Texas at San Antonio *cont'd*

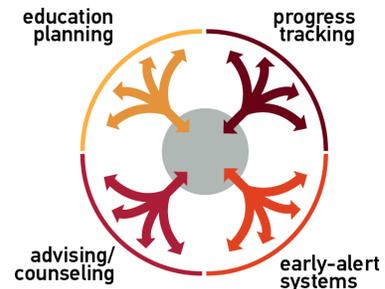
Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a great extent
Central IT	To a great extent
Registrar's office	Not at all
Institutional research	To a great extent
Academic affairs	To a small extent
Student affairs	Not at all
Faculty	Not at all
Advising	To a great extent
Counseling	Not at all
Teaching and learning center	Not at all
Financial aid	Not at all
Students	Not at all

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X	X			
Central IT		X	X		
Registrar's office				X	
Institutional research	X				
Academic affairs				X	
Student affairs				X	
Faculty				X	
Advising	X	X	X		
Counseling				X	
Teaching and learning center				X	
Financial aid				X	
Students				X	

**Intended IPAS end users:** Advising, students

## Whatcom Community College

237 W Kellogg Rd., Bellingham, WA 98226  
[www.whatcom.ctc.edu](http://www.whatcom.ctc.edu)



**Size category:** 1,000–4,999  
**Full-time undergraduates:** 2,435  
**Full-time graduates:** N/A  
**Part-time undergraduates:** 2,117  
**Part-time graduates:** N/A  
**LMS:** Instructure Canvas  
**SIS:** Homegrown solution  
**IPAS solutions:** Hobsons AgileGrad, Hobsons Retain

Expected IPAS Tasks	
Provide students with individualized education plans	X
Render campus advising and counseling resources more accessible	X
Make scheduling appointments with advisors and counselors easier	X
Centralize advising and/or counseling services	
Track student progress throughout a program of study	X
Track student progress in individual courses	X
Provide faculty and/or staff easier access to student academic records	X
Provide faculty and/or staff easier access to student advising and counseling records	X
Provide students with feedback on their progress	X
Provide students with self-service tools	X
Improve risk-identification and early-alert systems	X
Create a mechanism to enable/improve early interventions	X
Reallocate campus resources	
Reduce advisors' and counselors' workloads	X
Create opportunities for more-meaningful advising sessions	X
Help students find careers that match their interests and skills	
Help students assess their chances of succeeding in a course	X
Help students assess their chances of succeeding in a program	X
Improve institutional ability to collect, analyze, and distribute student data	X
Foster an institutional culture dedicated to improving student success	X
Improve cross-departmental collaboration on student success initiatives	X
Other:	

## Whatcom Community College *cont'd*

### IPAS goals:

- Institute mandatory degree plans
- Institute mandatory orientation
- Increase retention rates
- Increase graduation rates

<b>FTE Expenditures</b> (estimated)		
	<b>IPAS Implementation Period</b>	<b>IPAS Annual Maintenance</b>
<b>IT Staff</b>	3	0.7
<b>Non-IT Staff</b>	8	2.0

<b>Expectations Regarding IPAS Expenditures</b>	
Hardware costs (implementation)	Met expectations
Software costs (implementation)	Somewhat higher than expected
Number of FTE (implementation)	Somewhat higher than expected
Hardware costs (ongoing)	N/A
Software costs (ongoing)	Met expectations
Number of FTE (ongoing)	Somewhat higher than expected
Time to roll out final product	Somewhat longer than expected

<b>Extent of Change-Management Efforts</b>	
Communicating the importance, progress, and impact of the IPAS project to the campus community	To a moderate extent
Demonstrating strong support for the IPAS project to the campus community	To a moderate extent
Engaging in dialogue with IPAS project stakeholders and end users	To a great extent
Gathering input from IPAS project stakeholders and end users	To a great extent
Involving stakeholders and end users in the planning and execution of the IPAS project	To a great extent
Aligning the IPAS project with broader institutional strategies	To a great extent
Identifying potential sources of resistance to the IPAS project	To a great extent
Articulating the goals of the IPAS project clearly to stakeholders and end users	To a moderate extent
Publicizing and broadcasting IPAS project milestones and successes to the campus community	To a small extent
Identifying and communicating practical behavioral and procedural shifts required by the IPAS project	To a moderate extent

**Whatcom Community College** *cont'd*

Extent of Inclusion in Change-Management Efforts	
Senior institutional leadership	To a moderate extent
Central IT	To a great extent
Registrar's office	To a great extent
Institutional research	To a small extent
Academic affairs	To a moderate extent
Student affairs	To a great extent
Faculty	To a moderate extent
Advising	To a great extent
Counseling	To a small extent
Teaching and learning center	Not at all
Financial aid	To a moderate extent
Students	To a moderate extent

Participation in IPAS Projects					
	Participates on the project oversight committee	Contributes dedicated FTE resources to the project	Contributes ad hoc FTE resources to the project	Does not participate in the project	Don't know
Senior institutional leadership	X		X		
Central IT	X		X		
Registrar's office	X		X		
Institutional research			X		
Academic affairs			X		
Student affairs	X				
Faculty			X		
Advising	X				
Counseling			X		
Teaching and learning center				X	
Financial aid				X	
Students			X		

**Intended IPAS end users:** Registrar's office, academic affairs, student affairs, faculty, advising, counseling, students

## Notes

1. See “[Top-Ten IT Issues: 2000–2014](#).”
2. Susan Grajek and the 2013–2014 EDUCAUSE IT Issues Panel, “[Top-Ten IT Issues, 2014: Be the Change You See](#),” *EDUCAUSE Review* 49, no. 2 (March/April 2014).
3. Ronald Yanosky, *Integrated Planning and Advising Services: A Benchmarking Study*, research report (Louisville, CO: ECAR, March 2014), 4, available from the ECAR [IPAS Research Hub](#).
4. D. Christopher Brooks, *IPAS Implementation Issues: Data and Systems Integration*, research report (Louisville, CO: ECAR, June 2014), 10, available from the ECAR [IPAS Research Hub](#).
5. The distribution of SIS platforms among U.S. higher education institutions is approximately as follows: Ellucian (58%); Oracle (24%); homegrown (7%); and other (11%).
6. In the United States, LMS usage is distributed in the following manner: Blackboard Learn (42%); Moodle (Moodle Trust) (17%); D2L (10%); other (7%); Sakai CLE (Sakai Foundation, 5%); Blackboard Learn–ANGEL Edition (ANGEL LMS, 5%); Instructure Canvas (4%); Moodlerooms Joule (4%); Sakai CLE (rSmart, 3%); and Blackboard Learn–CE (Web CT Campus Edition, 2%).
7. Brooks, *IPAS Implementation Issues*, 19–20.
8. *Ibid.*, 19.
9. *Ibid.*, 22.
10. *Ibid.*, 16–23.