INTEGRATING TECHNOLOGY AND ADVISING

Executive Summary

Studying Enhancements to Colleges' iPASS Practices

Alexander Mayer
Hoori Santikian Kalamkarian
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Lauren Pellegrino
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JULY 2019

CCRC COMMUNITY COLLEGE RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

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BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

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OVERVIEW

Across the United States, college graduation rates for low-income students are too low. There are many contributing factors: inadequate academic preparation, the cost of college, challenges balancing work and school, difficulties that many first-generation students face navigating college, and institutional practices that may unintentionally hold students back. A key element of the programs that are most effective at helping students stay on track is frequent advising, including reaching out to students who seem to be struggling. In many cases, however, resources limit the amount of time advisers can spend with students. Employing technology to improve the staff's ability to provide high-quality advising can be an attractive strategy for institutions looking to make system-wide changes.

Integrated Planning and Advising for Student Success (iPASS) is an initiative funded by the Bill & Melinda Gates Foundation to support colleges that seek to incorporate technology into their advising and student services. In iPASS, such technology is intended to increase advising's emphasis on a student's entire college experience, enabling advisers to more easily (1) intervene when students show early warning signs of academic and nonacademic challenges, (2) regularly follow up as students progress through college, (3) refer students to tutoring and other support services when needed, and (4) provide personalized guidance that reflects students' unique needs.

To study how technology can support advising redesign, MDRC and the Community College Research Center partnered with three institutions already implementing iPASS: California State University, Fresno; Montgomery County Community College; and the University of North Carolina at Charlotte. The three institutions increased the emphasis on providing timely support, boosted their use of advising technologies, and used administrative and communication strategies to increase student contact with advisers. The enhancements at all three institutions are being evaluated using a randomized controlled trial research design.

This report shows that the enhancements generally produced only a modestly different experience for students in the program group compared with students in the control group, although at one college, the enhancements did substantially increase the number of students who had contact with an adviser. Consequently, it is not surprising that the enhancements have so far had no discernible positive effects on students' academic performance. The findings also highlight the potential for unintended consequences. Before the study, each of the institutions had required that certain groups of students see an adviser before registering for classes in the next semester. Each institution expanded this preregistration requirement to include all students in the study's program groups, but at one institution, the requirement appears to have contributed to a small reduction in earned credits.

Even though the enhancements have not yet produced clear improvements in students' academic performance, in interviews, some staff members at the institutions indicated that their work in the iPASS initiative and their work on the enhancements studied here are important steps toward a stronger system to support students and help them succeed. In general, the institutions in this study have made progress in making advising technologies and data accessible to students, advisers, and faculty — and in experimenting with new strategies to use these technologies in student advising — but each also faced challenges.

It is still early, and there is much to learn about how to use technologies and advising practices to drive improvements in student outcomes. Institutional practices are changing; the next step is to build on these advances to produce larger changes in the student experience.

PREFACE

Community colleges and broad-access four-year institutions make college possible for millions of low-income students across the country. Unfortunately, many students face numerous academic and nonacademic obstacles to postsecondary success. A growing body of evidence shows that strong advising and student support practices can help alleviate some of these obstacles. Many institutions, however, have high student-to-adviser ratios, which limit the time advisers can spend with students, make it difficult for advisers to provide sufficient academic guidance, and reduce their opportunities to help students take advantage of other support services. To help address these challenges, many institutions are adopting new technologies designed to assist advisers and students. Colleges are still learning how best to integrate these new technologies, and it is not yet clear whether this approach will prove effective.

Integrated Planning and Advising for Student Success (iPASS) is an initiative funded by the Bill & Melinda Gates Foundation to help colleges redesign their student support services with the aid of technology. The initiative includes a research component to build knowledge about what works and to share lessons from the institutions' experiences. This report details the efforts of three institutions to extend their iPASS work to a larger group of students, with new enhancements. These institutions worked with MDRC and the Community College Research Center to evaluate the effects of the enhancements using a random assignment study.

The institutions in this project approached the study as a learning endeavor and an opportunity to make research-informed design decisions as they expand iPASS practices. iPASS is an ambitious initiative, and the early findings presented in this report show that, while the enhancements modestly changed students' experiences, they have not yet produced clear positive effects on students' outcomes. At one college, the expansion of a commonly used strategy to require students to see an adviser before registering for classes appears to have led to a small negative effect. Each of the institutions, however, made progress integrating technology and data with advising, getting more students in to see advisers, and expanding the content of advising sessions. Each also faced difficulties. The findings reinforce that institutional change is challenging and that it often takes time before reform efforts are converted into substantial changes in students' experiences.

The report describes the diligent and thoughtful work college staff members did to enhance their student support services, providing lessons on the use of technology in advising practice. A report next year will provide more detail on the qualitative findings outlined in this report. A final report will provide longer-term data so colleges can better understand how to incorporate technology into their advising practices.

Gordon L. Berlin
President, MDRC

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EXECUTIVE SUMMARY

There is wide recognition that postsecondary graduation rates for low-income students are too low. Multiple factors contribute to poor college outcomes, including inadequate academic preparation, the cost of college, challenges balancing work and school, difficulties that many first-generation students face navigating college, and institutional practices that may unintentionally hold students back. Colleges and universities are experimenting with new strategies to improve student persistence and completion. Frequent, proactive advising has emerged as a key element of the most effective programs that help students stay on track to graduation.

In many cases, however, resources limit the amount of time advisers can spend with students and inhibit the delivery of frequent and consistent high-quality advising. Advisers at community colleges and broad-access universities generally have large caseloads (some colleges assign as many as 1,200 students to a single adviser). Employing technology to improve the staff's ability to provide high-quality advising can be an attractive strategy for institutions looking to make system-wide improvements. Theoretically, if colleges use advising technology effectively, advisers can improve their efficiency, spending less time on administrative tasks and more time on student support informed by data. In practice, however, it is not yet clear whether this use of technology and data will be enough to measurably improve student outcomes.

Integrated Planning and Advising for Student Success (iPASS) is an initiative that the Bill & Melinda Gates Foundation began funding in 2013 to support colleges incorporating technology into their advising and student services. In iPASS, technology is intended to increase advising's emphasis on a student's entire college experience, enabling advisers to more easily (1) intervene when students show early warning signs of academic and nonacademic challenges, (2) regularly follow up as students progress through college, (3) refer students to tutoring and other support services when needed, and (4) provide personalized guidance that reflects students' unique needs.

To continue to understand how technology can support advising redesign, MDRC and the Community College Research Center partnered with two broad-access universities and one community college to refine and extend the schools' work under their existing iPASS grants and to study the effects of the enhancements on student outcomes. Using a random assignment research design and qualitative research, including interviews with students, advisers, and administrators, the study will provide rigorous evidence about the effects of the enhancements and help the institutions advance their work and inform the field.

THE STUDY OF ENHANCED iPASS

The three schools involved in this study present the opportunity to study the intervention in notably different contexts. California State University, Fresno (Fresno State), which is designated as a Hispanic-Serving Institution, and the University of North Carolina at Charlotte (UNCC), which serves a large number of transfer students, are both large four-year institutions with graduate schools,

serving mostly full-time students. Montgomery County Community College (MCCC) is a two-year college in suburban Pennsylvania, and about two-thirds of its students attend part time.

The project was supported by institutional leaders and entailed collaboration between college staff members and researchers to design a two-semester program that extended the institutions' existing iPASS work to certain groups of students with some enhancements. One of the primary approaches was to require at least a subset of students to meet with an adviser at least once, enforced by a registration hold. The institutions aimed to enhance the quality of that advising session by encouraging advisers not only to talk with students about challenges they may be facing, but also to lead a discussion of academic and career goals informed by data gathered from technology adopted as part of the iPASS initiative. To motivate this type of discussion, each institution designed a college-specific "toolbox," a document that outlines three to four learning outcomes for students focused on information, skills, and cognitive development; topics for discussion; and questions for each topic that advisers may consider using to engage students.[1] The enhancements also increased use of early-alert systems, in which faculty members flag students who appear to be struggling in the first part of the semester.

The study enrolled eligible students through passive consent[2] and randomly assigned them to a program group, which was offered the two-semester enhanced iPASS program, or a control group, which received the institution's typical advising services — a version of unenhanced iPASS. The institutions offered the iPASS enhancements for two semesters, and students were enrolled in the study in two cohorts: 5,244 students were randomly assigned in the first cohort in spring 2017, and 2,767 students were randomly assigned in the second cohort in fall 2017, for a total of 8,011 students, with 3,760 in the program group and 4,251 in the control group. First-semester findings presented here include both cohorts; the second-semester findings are available only for the first cohort.

IMPLEMENTATION FINDINGS

The enhancements generally produced only a modestly different student experience for those in the program group, compared with what students in the control group experienced, although at Fresno State, the enhancements did substantially increase the number of students who had contact with an adviser. Each of the institutions also faced challenges with resource constraints and adviser capacity.

California State University, Fresno

Fresno State wanted to use early alerts more effectively to help students experiencing academic or nonacademic distress and also wanted to use an academic planning technology called MyDegreePlan to help students figure out what pathway they wanted to take and how to stay on track. To achieve

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1   Elizabeth Wilcox, "An End to Checklist Thinking: Learning-Centered Advising in Practice," NACADA Clearinghouse (2016), www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/An-End-to-Checklist-Thinking-Learning-Centered-Advising-in-Practice.aspx.

2   The eligibility criteria varied by institution; details are given in the following sections. "Passive consent" means that students who met the study criteria were automatically enrolled. They were notified of their enrollment by email and allowed to opt out of having their data collected.

these objectives, the university designed enhanced advising practices with four key components: training for students on MyDegreePlan; additional early-alert surveys to faculty members who taught students in the program group; phone calls and emails from peer mentors; and required advising appointments to map students' education plans, address early alerts, and discuss strategies for staying on course to degree completion. Fresno State placed a registration hold on all students in the program group to enforce the advising appointments.

Key findings:

- Advisers informed students in the program group about MyDegreePlan and held degree planning training sessions as intended, but student participation was low.

- A significantly higher proportion of students in the program group received an early-alert flag than did students in the control group (about 35 percent versus 6 percent in their first semester).

- Peer mentors experienced some challenges reaching students by phone or email. During the first semester, they generally focused on reminding students about the advising session.

- The enhancements resulted in a substantial increase in the number of students who had contact with an adviser. Almost all students in the program group, compared with less than half of the control group, had contact with an adviser at least once.

- Advisers described addressing each topic listed in the toolbox, though there was variation in how they integrated this tool into their advising practice.

Montgomery County Community College

MCCC's iPASS enhancements targeted a group of students who were generally not receiving the college's existing iPASS services: at-risk continuing students in a degree program who were not already required to meet with an adviser. Students eligible for the study were those determined to have a "low" or "moderate" likelihood of persisting to the next semester, based on the college's predictive analytics tool. To provide advisers and students with more data on students' academic status and career aspirations, faculty members were asked to complete an additional early-alert survey for students in the program group; program group students were asked to self-report academic and nonacademic issues that could impede their academic progress; and program group students were asked to complete a career assessment, to use in conversations with advisers. The requirement to meet with an adviser was enforced through a registration hold.

Key findings:

- Advisers disagreed with the risk assessment of the predictive analytics tool and reported concerns that some students who seemed to be performing well had been determined to be at risk.

- Advisers received more early-alert data on students in the program group than on students in the control group in the first semester but not in the second semester.

- Few students completed the self-report survey, which was not required, and some older students and students near graduation found the required career assessment to be time consuming and unnecessary.

- The program increased outreach to students about academic issues, and advisers sent students personalized emails about early alerts, but it is unclear whether students read those emails.

- The program increased the number of advising appointments, but many students did not meet with advisers until after the semester ended.

University of North Carolina at Charlotte

UNCC's iPASS enhancement model focused on identifying at-risk students and conducting outreach and advising sessions with them. In its effort to provide more at-risk students with enhanced services, the university used registration holds, frequent and sustained communication with students, and a toolbox to guide advising sessions. The enhancements were designed to provide more data to students and advisers, including early alerts about student progress in key courses: A unique component of UNCC's enhancement model was an alert to students in the program group if they were enrolled in a "critical progression" course for their majors, such as Principles of Accounting for business majors or General Chemistry for biology majors. The institution asked the instructors of these courses to use the early-alert feature in the fourth week of the semester and send either warnings or positive feedback. After receiving the Week 4 early alerts, advisers encouraged students with early alerts to make an appointment for a face-to-face advising session. When midterm grades arrived, advisers would place registration holds on students who received two D or F grades or one D or F in a critical progression course.

Key findings:

- Students in the program group received considerably more communications from advisers than students in the control group.

- Similar proportions of students in the program and control groups were flagged for early alerts.

- Except for the Colleges of Business and Liberal Arts and Sciences, all the UNCC colleges that participated in the study already used mandatory registration holds that require all students to meet with advisers, so the registration hold provided limited contrast.

- Slightly more students in the program group had contact with an adviser. About 73 percent of the program group had contact with an adviser during the first semester of the intervention, compared with nearly 69 percent of the control group, a statistically significant difference; in the second semester, there was no significant difference.

- Most advisers used some portion of the toolbox and, in doing so, reported slightly more in-depth conversations with both groups of students.

EARLY FINDINGS ON STUDENT OUTCOMES

Overall, the enhancements to iPASS have not yet produced discernible positive effects on students' academic performance.

- At Fresno State, the iPASS enhancements produced no statistically significant effects on students' short-term educational outcomes.

- At MCCC, the enhancements to iPASS had a slightly negative estimated effect on students' academic progress, with statistically significant reductions of 0.3 credits in both credits attempted and credits earned in the first semester. The mechanics of the registration hold may have negatively affected enrollment in seven-week courses that began midsemester. If a program group student with a registration hold attempted to register for one of these courses, the student would have had little time before the add/drop deadline to contact the adviser to remove the hold. After two semesters, for the first cohort, students in the program group had earned an estimated 0.55 credits fewer than students in the control group. The estimated negative effect on credits attempted in the courses for which the add/drop period fell after the registration hold was placed (which includes summer courses) is 0.32 credits.

- At UNCC, the iPASS enhancements produced no statistically significant effects on students' short-term educational outcomes.

CONCLUSION

iPASS is an ambitious initiative to integrate technology, data, and advising. The ultimate goal is to improve student outcomes through improved advising practices. So far, the enhancements undertaken by institutions in this study have not produced clear evidence of improvements in student outcomes. This appears to be largely because the enhancements generally produced only a modestly different student experience for students in the program group, compared with students in the control group.

Still, some staff members at the institutions believe that their work in the iPASS initiative and their work on the enhancements studied here are important steps toward a stronger system to support students and help them succeed. It is clear that more work is needed: Across the three institutions, large proportions of students who were identified as being at high risk still earn Ds or Fs, or do not persist into subsequent semesters of college. In many ways the experiences of the institutions in this study highlight both the opportunities and the challenges that this kind of effort presents. Cross-departmental collaboration allowed the institutions to build on existing strengths and implement new strategies for many students. Collecting and responding to data about college students during the semester, however, remains a challenge. While promising, advanced data analytics carries risks; simpler, more transparent solutions still work better in some cases. And policies can have unintended consequences: Although registration holds can get more students to meet with advisers, the institutional and student-specific details are important.

This report provides a closer look at how three institutions engaged in a careful process to enhance and study their iPASS implementations. In addition to rigorous evidence about the impacts of the

enhancements, the report describes important lessons from the institutions' efforts to expand and enhance their iPASS reforms. A subsequent report will provide greater detail about the implementation of iPASS enhancements, in addition to guidance for practitioners interested in redesigning their advising practices using new technologies. A final report will document the effects on longer-term student outcomes.

ABOUT MDRC

MDRC IS A NONPROFIT, NONPARTISAN SOCIAL AND EDU-CATION POLICY RESEARCH ORGANIZATION DEDICATED TO learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York; Oakland, California; Washington, DC; and Los Angeles, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff members bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-prisoners, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

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Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.