RAND

Lost but Not Forgotten?

Community College Efforts to Track and Reengage Students Lost Before the Census Date

RITA T. KARAM

CHARLES A. GOLDMAN

DAVID MAHAN

SAYEEDA JAMILAH

DILLON LU

For more information on this publication, visit **www.rand.org/t/RRA3840-1**.

About RAND

RAND is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest. To learn more about RAND, visit www.rand.org.

Research Integrity

Our mission to help improve policy and decisionmaking through research and analysis is enabled through our core values of quality and objectivity and our unwavering commitment to the highest level of integrity and ethical behavior. To help ensure our research and analysis are rigorous, objective, and nonpartisan, we subject our research publications to a robust and exacting quality-assurance process; avoid both the appearance and reality of financial and other conflicts of interest through staff training, project screening, and a policy of mandatory disclosure; and pursue transparency in our research engagements through our commitment to the open publication of our research findings and recommendations, disclosure of the source of funding of published research, and policies to ensure intellectual independence. For more information, visit www.rand.org/about/research-integrity.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

About This Report

In this report, we analyze student attrition before the census date (which is the date by which community colleges count students as officially enrolled for each term) across community colleges in Texas, Kentucky, and California. We explore the magnitude of this issue, delve into the factors contributing to early student departures, and assess the strategies employed by colleges to enhance retention. Our findings and recommendations will be valuable to community colleges and community college systems, as well as federal and state policymakers and researchers focused on postsecondary education.

RAND Education and Labor

This work was conducted within RAND Education and Labor, a division of RAND that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. For more information, visit www.rand.org/education-and-labor or email educationandlabor@rand.org.

Funding

Acknowledgments

Summary

Community colleges play a key role in developing talent and increasing economic mobility in the United States (Jenkins and Fink, 2020). However, community college enrollment has been declining over the past decade. Much of the research on enrollment, persistence, transfers, and degree completion in community colleges focuses on only those students who are deemed officially enrolled—i.e., students still enrolled as of these schools' *census date*, which is the date by which community colleges count students as officially enrolled for each term. Focusing on only official enrollees misses a large share of the story. Far less is known about the magnitude of student dropouts *before* the census date and their reasons for dropping out. Limited research addresses this issue, and the existing studies often focus on individual institutions. To boost community college enrollment, these institutions could prioritize addressing the barriers faced by students who disengage during the period prior to the census date.

In this report, we examine the loss of students who leave their community college before the census date. Specifically, we investigate the critical periods spanning application, enrollment, and census date; different leakage points; and possible strategies to retain these students. We address the following questions:

1. What is the magnitude of student loss before the census date?
2. What approaches do colleges use to track students who leave college before the census date?
3. How are students' interactions structured with colleges prior to the census date? What key personal and institutional challenges do students and colleges encounter that contribute to student loss?
4. What outreach efforts do colleges have to reengage this group of students in the college's education process? Are these efforts perceived as effective?
5. What federal and state policies or incentives specifically target or affect this student population?

Approach

This study has two components: interviews we conducted at 15 community colleges and an in-depth case study at one of those institutions. To investigate the study questions, we employed a primarily qualitative approach. The study was implemented in three states—Texas, Kentucky, and California—each offering a variety of community college settings that vary in college size, student population, and urbanicity. These variations provide an opportunity to explore the research questions across different contexts. Kentucky is also distinctive because it operates all its community and technical colleges as a single system.

We collected interview data from 130 participants at the colleges, including system leaders, college leaders, support service directors and staff, and financial aid directors and staff. Additionally, we reviewed state policies to understand incentives for reengaging this group of students. We conducted a more in-depth examination of one of the colleges, Dallas College, which involved an additional 32 interviews with students who dropped out before the census date and an analysis of the college's administrative data to understand student attrition from application to census date.

As with any study of this nature, we faced limitations. The case study findings are specific to a select group of colleges and may not represent practices across all state community colleges. To enhance validity, we interviewed multiple staff members at each college and students who dropped out before the census date, although only 3 percent of contacted students participated. The experiences of these students, which were potentially more negative, should be considered in context. Despite this, common themes emerged that boosted our confidence in the results and revealed unique initiatives by some colleges.

Key Findings

Student Loss Magnitude and Tracking

- Community colleges that track this population lose 10 percent to 15 percent of their newly enrolled students before the census date. This figure increases to over 60 percent when accounting for the attrition rate from the application stage to enrollment.
- All colleges possess the data necessary to monitor student attrition from application and enrollment periods to the census date. However, not all institutions effectively use these data to track these students.
- Institutions face challenges because this information is often dispersed across various data management systems and requires considerable time and effort to integrate. Institutions also lack a clear definition of the stages for tracking students.

Navigating Student Interactions: Structural Approaches and Challenges in Colleges

- Delayed financial aid communication often leaves students with incomplete applications or unclear decisions at the enrollment stage, exacerbating financial challenges and hindering students' ability to stay enrolled beyond the census date.
- Students often face difficulties with the application and enrollment processes—whether because of personal challenges or unclear steps—which cause them to lose their way and disengage before the census date.
- Although all colleges send welcome emails and key communications, the volume and complexity of these messages can overwhelm students and hinder enrollment.
- Fragmented application and enrollment processes often confuse students, causing them to miss support opportunities and drop out early.
- During the application and enrollment phase, services vary in quality, and adviser interactions are often transactional. Without collecting formal information on students' nonacademic needs, advisers struggle to address these needs, build rapport, and connect students to resources.

College Efforts to Reduce Student Loss

- Colleges use automated messages to guide students through application and enrollment, but few colleges have dedicated staff or external vendors to support at-risk students or reengage students who dropped out before the census date.
- A few colleges in Texas and California and the Kentucky system address financial aid challenges by engaging students, connecting them to resources, and extending payment deadlines.
- To simplify application and enrollment, one college created a "One Hub Link" to directly connect students with staff, eliminating the need for students to schedule appointments or contact multiple people.
- A few colleges encourage staff to use early alert systems before the census date to identify at-risk students. They also employ alternatives, such as redesigning online courses with mandatory attendance verification, instead of relying on faculty to track physical attendance.
- None of the 15 colleges is monitoring the success of their efforts to reduce student loss.

Federal, State, and System Policies

- States do not mandate that colleges track pre-census populations, but in some states, such as Kentucky, the centralized system facilitates comprehensive student tracking from application through enrollment.
- Although federal policies emphasize post-census enrollment for financial aid eligibility, state policies in California and Texas incentivize colleges to retain students for credential completion. These policies may indirectly encourage pre-census retention efforts.
- Kentucky has implemented statewide strategies to address students' basic needs and expand program eligibility (e.g., for nutrition, housing, and child care), which improves access and may help retain students both before and after the census date.

Recommendations

Enhance Data Systems to Enable Routine Tracking and Monitoring

- Colleges should consolidate information technology systems to streamline student data access, enabling staff to track pre-census attrition and improve responsiveness during the application and enrollment phases.
- Colleges should adopt clear definitions of all handoff stages between students' first application and their official enrollment, as well as metrics to track students.

Improve Communication and Student Engagement

- Colleges should rethink welcome emails and key emails by simplifying and personalizing communication.
- Colleges should consider implementing text-messaging systems to provide customized information and links to resources.
- College messages should clearly communicate the handoff process to incoming students, providing the names of specific staff members with whom they will interact at each stage.
- To further improve the student handoff process, colleges should consider adopting a team-based case management approach in which each student is assigned to a specific team. Such teams could possibly be integrated into meta-majors (broad categories of related academic programs grouped by shared interests or career goals).
- Colleges should improve financial aid completion with timely prompts and address barriers for undeclared students who are ineligible for aid by redefining "undecided" options, extending major selection timelines, offering orientations, engaging staff in significant discussions, and partnering with high schools to support career exploration.
- Colleges should collect basic needs information on students during the early stages by implementing a brief, mandatory online survey that is integrated into application and enrollment systems.
- To develop staff capacity to engage students and build strong relationships, colleges should prioritize ongoing professional development, evaluate staff essential functions, and foster a culture of collaboration and commitment.

Implement a Monitoring System

- Colleges should develop a monitoring system to evaluate efforts to reduce student attrition. The system should define clear objectives, collect accurate pre-census data, track implementation progress, analyze implementation variations, and generate reports to guide corrective action.

Adopt State Policies That Support Pre-Census Students

- States should consider adopting Kentucky's approach to coordinating access to basic needs support and expanding eligibility to improve student access to these services and potentially increase college retention rates.
- States should consider connecting data sources that enable system and college leaders to track students from application through enrollment, retention, graduation, and the labor market.
- States can help colleges with technical assistance for data systems and resources to personalize outreach to students who are at risk of dropping out.

Conclusion

This report underscores the importance of addressing the challenges encountered by students who drop out before the census date, particularly the barriers within the application and enrollment processes. Although some colleges are improving these areas, further efforts are needed to streamline these processes, actively engage students, and track their progress before the census date to boost retention. Community colleges are advised to begin with the more accessible recommendations and establish a monitoring system to assess progress and implement necessary adjustments.

Contents

Figures and Tables

Figures

Tables

Introduction

Community college enrollment and student persistence have steadily decreased over the past decade, with a notable decline since the onset of the coronavirus disease 2019 (COVID-19) pandemic in 2020 (Jenkins, 2023). Despite some recovery in enrollment numbers—with 6.34 million students attending community colleges in fall 2024—figures remain 12.4 percent lower than pre-pandemic levels (National Student Clearinghouse, 2024). Recent research highlighting the ongoing enrollment challenges for community colleges revealed that, by fall 2023, only about one-quarter of these institutions had fully restored their pre-pandemic enrollment figures (Community College Research Center, 2025). At the same time that our study was conducted, the United States was in the midst of a historically strong labor market, with tens of thousands of open jobs and a lack of qualified candidates (U.S. Chamber of Commerce Foundation, Center for Education and Workforce, 2023a; U.S. Chamber of Commerce Foundation, Center for Education and Workforce, 2023b). This suggests that colleges should prioritize strategies to increase enrollment to meet workforce demand.

Given these conditions, it is critical to identify and remove structural barriers to community college enrollment and student persistence. Research indicates that a significant number of first-year students at community colleges do not continue their studies into the second year, with approximately 45 percent of the fall 2022 cohort estimated to have not returned to their institutions (National Student Clearinghouse Research Center, 2024).

Research typically begins by analyzing cohorts from the official census date, which occurs a few weeks into the term, rather than at the application or enrollment stages. Consequently, this approach may overlook a segment of students who could be instrumental in boosting college enrollment numbers.

A guide to student cohort analysis explains why counting students from the census date onward is less than optimal:

> Using the census date to determine who is in a cohort may exclude those students who dropped out earlier or who were unable to pay their tuition and fees. In either case, the institution excludes information on the experiences of some students—information that may be relevant to the student success agenda. (Voorhees and Lee, 2009, p. 5)

Understanding the critical periods between application, enrollment, and the census date would permit a much fuller examination of student loss and possible strategies to retain these students. Such strategies hold promise to improve outcomes for individual students who are lost under present practices and offer colleges an opportunity to strengthen their overall enrollment performance.

Previous Research

There is a well-established body of research on student dropout from community colleges. Vincent Tinto's model of student retention and subsequent updates serve as a foundational contribution, emphasizing academic and social integration as critical to reducing attrition within community college contexts (Davidson

and Wilson, 2016). These models primarily focus on key time points in a student's journey, such as the first year of enrollment or transitions between semesters, offering insights into institutional strategies to foster a sense of connection and address challenges faced by community college students, including financial constraints and external responsibilities.

However, research examining dropout during the earlier stages of the student life cycle—specifically between application and enrollment and up to the census date—remains limited. This gap overlooks early institutional processes that are designed to engage students during this critical period. This gap is particularly notable given that our review found that only a few papers address students who are "lost" during this period, specifically those who enroll in classes but are not attending as of the census date.

A review of articles available via Google Scholar in March 2025 identified six papers addressing this population within the United States. Of these papers, five relied on data from single institutions, and one used data from Achieving the Dream, which is a national organization focused on community colleges. Specifically, two studies analyzed data from individual community colleges (Bers and Nyden, 2000; Mery, 2001), three focused on universities (including one study on private institutions and adult learners) (Sadler, Cohen, and Kockesen, 1997; Renner and Skursha, 2023; Villano et al., 2018), and one study employed Achieving the Dream data to present broader principles and practices of longitudinal cohort analysis for examining student persistence (Voorhees and Lee, 2009).

Despite offering insights into pre-census attrition, the research is limited in scope and methodology and largely overlooks institutional processes: Only half of the studies were conducted in community college contexts.

Five of the papers included a quantitative component that assessed students exiting before the census date, while the study employing Achieving the Dream data examined student attrition, including dropouts before the census date. Methodologically, two of the six papers included a qualitative component: Bers and Nyden (2000) conducted telephone interviews, and Mery (2001) surveyed students who dropped out to explore their reasons for withdrawal. However, neither study examined institutional processes that may contribute to attrition before the census date in depth. Instead, both studies concluded that external factors—such as personal obligations or challenges beyond institutional control—were the primary drivers for student departure. The remaining four studies had a narrower focus, either concentrating on specific populations or particular interventions or on tracking students through limited data applications.

None of the studies included interviews with college administrators and staff who engage with students during the application and enrollment processes to understand systemic challenges. Moreover, much of the research was restricted in scope—either focusing on single institutions or specific populations, such as adult learners—which leaves significant gaps in understanding broader systemic issues within diverse community college settings.

The limited number of studies and their constrained designs underscore a critical need for research that examines early institutional processes and the obstacles that students encounter before the census date at community colleges.

Such research would provide valuable insights to inform policy development and enhance efforts to support student retention effectively.

Contribution of This Study

There is a growing need to focus on students who drop out before the census date. In this report, we address this critical issue for colleges to grow their student enrollment by systematically examining student loss across community colleges in three states: California, Texas, and Kentucky. We also explore the challenges that these colleges encounter in retaining this student population. Our objectives are to identify areas of

strength, pinpoint opportunities for improvement, and analyze the challenges and successes that community colleges experience in engaging these students throughout the application and enrollment processes and up to the census date. By contributing to the literature on an under-researched student population, our findings and recommendations aim to support community colleges, program developers, federal and state policymakers focused on student retention and higher education, and researchers working in these domains.

Research Questions and Methods

In this chapter, we present the questions that guided our research. We then provide detailed information on our methods and analytic approach. Finally, we discuss the limitations of the study.

Research Questions

In this study, we sought to understand student experiences from the application stage through enrollment for classes and the census date by answering the following five research questions:

1. What is the magnitude of student loss before the census date?
2. What approaches do colleges use to track students who leave college before the census date?
3. How are students' interactions with colleges before the census date structured? What key personal and institutional challenges do students and colleges encounter that contribute to student loss?
4. What outreach efforts do colleges have to reengage this group of students in the college's education process? Are these efforts perceived as effective?
5. What federal and state policies or incentives specifically target or affect this student population?

Study Approach

This study was carried out in two parts: One component encompassed 15 colleges, and the other focused on a single institution selected from among them.

The first component examines colleges' current understanding of this population (which we refer to as *pre-census students*) and their strategies to address losses for each milestone for a set of 15 colleges in three states: California, Texas, and Kentucky. We selected the colleges purposefully to represent urban, suburban, and rural settings with a variety of sizes and local conditions. We nested the study colleges within three states to develop an understanding of whether there are state policies and incentives that might affect college practices in tracking and targeting pre-census students. This component was conducted largely through semistructured interviews and focus groups with 130 administrators and staff: 53 in Texas, 43 in California, and 34 in Kentucky.

These interviews addressed the colleges' approaches to data collection and estimation of student loss from the application phase through the census date; the consequences of student loss; outreach, services, and efforts to reengage students, as well as barriers to students and to institutions in reengaging them; perceived effectiveness of reengagement efforts; and state policies. (For more information about the interviewees included in our research, see Table 2.1.) In a few cases, colleges and systems also provided quantitative reports about their pre-census population and its characteristics. We analyzed these reports to understand these colleges' awareness of the population and the practices they use to track them.

TABLE 2.1

Interviewees Included

Type	Number
College leadership	9
Student services (directors and staff)	51
Financial aid (directors and staff)	12
Special population programs	11
Admission	10
Institutional research and planning	28
Other (e.g., marketing, faculty lead guided pathway, partnerships with high schools)	9
Total	130

The second component of the study focuses specifically on Dallas College in a collaboration between RAND and the Dallas College Research Institute (RI). Dallas College was selected because it is one of the largest community colleges in the United States. It has relevant data elements that enable students to be tracked through their educational journey and those who exit before the census date to be identified. Together, we developed a systematic dataset and data management practices to track students through application, enrollment, census date, and beyond. We interviewed 23 college staff (included in the total in Table 2.1) to understand practices and challenges related to this population. We also interviewed 32 students who dropped out before the fall 2023 census date to understand their reasons for dropping out and the challenges they face in enrolling or reenrolling.

After the administrator and student interviews, we analyzed five specific issues or barriers relevant to the pre-census population. We then convened a series of workshops (involving about 60 staff in total) to address the different barriers related to financial aid, basic needs, advising, and relationships with high schools. These workshops validated and refined the descriptions of the barriers and developed potential strategies to address them. The RAND and RI team then prioritized the strategies for consideration by senior college leadership.

Methodology

Qualitative Analysis

For the first component, we conducted in-depth interviews across participating colleges to address the research questions under investigation. To gather relevant information, we developed a set of interview protocols targeting college directors and staff with expertise in the application and enrollment processes. The interviews covered (1) the methods that colleges use to track students who withdraw before the census date, (2) the design and efficiency of colleges' application and enrollment processes, (3) how college staff engage with prospective students during these processes, (4) challenges faced by both students and staff throughout these processes, and (5) strategies for overcoming these challenges. Additionally, for the second component, we conducted interviews with students in Dallas College who withdrew before the census date, focusing on their experiences during the application-to-enrollment journey and the personal and systemic challenges they encountered.

To analyze the interview data, we organized the findings into the aforementioned five domains, identified subthemes within each domain, and compared the findings across various contexts. When discussing inter-

view results, we use *most* to denote that more than 50 percent of colleges shared similar responses or views, *some* to indicate 20 to 50 percent, and *few* to represent less than 20 percent.

Quantitative Analysis

We conducted quantitative analyses in collaboration with RI to develop a model for tracking various student groups and structural factors that may contribute to student attrition before the census date. We integrated multiple datasets from the college's systems into an analytic dataset that captures the student journey from application to enrollment for the academic year. Our analysis encompassed application and registration (enrollment) data for approximately 187,000 applicants from the summer 2021 term through the fall 2023 term, with particular emphasis on fall 2023. This work includes a model for tracking students. We employed logistic regression to identify structural and student characteristics that are associated with enrollment outcomes.

Limitations and Mitigating Strategies

Much of this study relies on the participation of 15 community colleges in the three states. Although we selected these colleges to represent various settings, our findings reflect the colleges that participated and may not represent the experiences or practices of all colleges in the three states or more generally. Most of our information from the colleges comes from the self-reports of our interview participants, which may not always be accurate or complete. We increased the validity of our findings by interviewing multiple administrators and staff at each college who represented different aspects of college leadership. Obtaining data from multiple sources is a method commonly used in qualitative research to obtain reliable information for complex issues. In a few cases, we also obtained quantitative data reports that added to the validity of our findings, but most colleges did not provide such data.

Our experience at Dallas College was more in depth and allowed us to triangulate among student interviews, college staff interviews, quantitative analysis, and the workshops we conducted. Specifically, we invited students who dropped out between registration and the census date of one semester. Only about 3 percent of such students responded to our email invitation to participate, so the students who did respond may have different characteristics than the general student population at Dallas College (and may have different views than students at other colleges). Also, by specifically sampling students who dropped out, we anticipated that they would have more-negative experiences and recollections than students who remained enrolled. Thus, it is important to interpret their responses in this light. Notwithstanding these limitations, we identified consistent themes across interviews conducted at various colleges, which further strengthened our confidence in the findings.

To the best of our knowledge, limited research has been conducted on student attrition at community colleges, particularly regarding tracking methods, reasons for withdrawal before the census date, and institutional strategies aimed at reducing such losses. Thus, despite the limitations noted previously, this report is the first systematic analysis of students who leave before the census date and offers novel insights, enhances our understanding of these challenges, and presents actionable recommendations for improvement.

Overview of This Report

Chapter 3 offers an overview of the student journey, from application to enrollment, along with our findings on how colleges monitor students who withdraw before the census date. In Chapter 4, we examine how

colleges organize interactions with students and the challenges influencing these interactions. Chapter 5 highlights the initiatives undertaken by the colleges included in the study to mitigate student loss before the census date. In Chapter 6, we review federal, state, and system-level policies that are pertinent to this student population. Drawing on these findings, Chapter 7 offers recommendations for strategies and policies aimed at more effectively addressing the needs of students before the census date. The appendix offers technical recommendations for managing data systems and tracking students.

Measuring and Tracking Student Loss

In this chapter, we address the first two research questions about the magnitude of student loss before the census date and the approaches that colleges use to track students who leave before the census date. First, we present a model of student pathways from application to enrollment and apply that model to estimate the magnitude of loss. Then, we reference administrator interviews across all the study colleges, along with in-depth quantitative work with Dallas College, to review administrators' experiences in tracking this population.

Student Pathways

Although community colleges vary somewhat in their requirements and procedures, students typically follow pathways similar to those depicted in Figure 3.1. Students begin by exploring various college options and then apply to one or more colleges. At community colleges, acceptance is often automatic if students show on their application that they meet the enrollment requirements (such as holding a high school diploma or an equivalent). Following their application, students often must meet additional requirements before they become registration-ready. These requirements are usually set at the state level and may include placement testing and vaccinations. Once these requirements are met, students become registration-ready and may register, thereby enrolling in classes. The next key milestone is continued enrollment past the census date. After the census date, students may complete their first term and persist to reenroll in subsequent terms.

Although financial aid applications are typically not required as a condition of enrolling in courses, many students at community colleges are eligible for aid and depend on it to meet their financial obligations. In the diagram, the financial aid application has a dotted line and ambiguous timing because it is a significant enrollment step but not a required one (as we will discuss in Chapter 4).

FIGURE 3.1
Student Pathways into the First Term of College
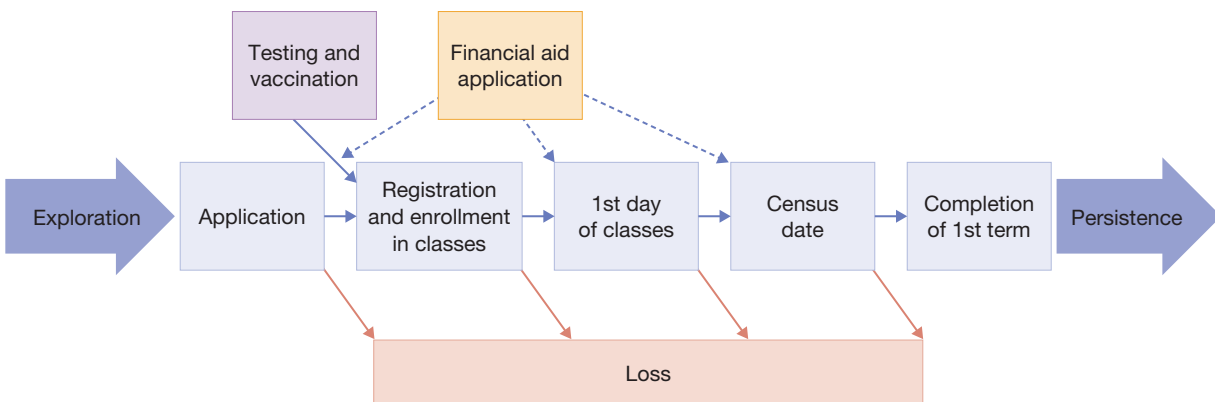
At each stage, some students are lost to the college. For example, some students who apply never register. Some students who register do not continue their enrollment. They either drop out or are withdrawn by the college before classes begin or after they start but before the census date. Even after the census date, students might continue to drop classes or disenroll entirely.

The Magnitude of Student Loss Before the Census Date

Some colleges indicated that their enrollments fell during the COVID-19 pandemic, and they are seeking ways to increase enrollment and retain the students they attract. As we discussed in Chapter 1, reducing losses before the census date could help colleges achieve their enrollment goals and better serve students.

Looking more specifically, over eight recent semesters (summer 2021 through fall 2023), Dallas College data show that between 11 and 16 percent of newly registered students each semester *enroll* in classes but drop out or are dropped by the college before the census date of their first semester.[1] Consistent with these findings, another college that provided us with statistical data on its enrollment pipeline reported that 12 to 13 percent of its newly registered students dropped out before the census date.

Measuring a different period, from *application* to the census date for measuring *enrollment*, Dallas College data show that between 31 and 38 percent of applicants remain enrolled past the census date—meaning that 62 to 69 percent either never enroll or drop before the census date.

Although we did not examine statistical data for most other colleges in the study, the few colleges with figures available said that they experienced similar loss rates, typically between 10 and 15 percent.

Overall College Experiences Tracking Students Through the Census Date

Next, we review the experiences of the study colleges based on our interviews with their leaders and staff. In our discussions with study college representatives, we find that some colleges track the population from application or enrollment through the census date, while others do not or have only recently started.

> Before last year, I don't think this was a population that anybody was paying attention to at all . . . [T]his is now a group that is getting some attention. So, the questions about who they are and why they are [dropping out are] just now being asked. (director, institutional systems)

One college representative indicated that the college was more concerned about retaining students from one semester to the next rather than the student loss occurring in the weeks surrounding the start of the semester. Other college representatives said that they track this population from application or enrollment through the census date for specific programs, such as those aimed at economically disadvantaged students, but not generally across their student population.

Connecting College Data

Tracking students generally requires connecting information from multiple data sources to yield an integrated picture of the student experience. Although all colleges in the study have computerized student information systems, they face significant challenges in connecting the necessary data to enable the robust tracking of students. Colleges often need to combine data from multiple systems, such as the application system,

---

[1] Students continuing from a previous semester are not included in these calculations.

registration system, and enrollment or course management system. These systems can have significant barriers to integrating data across them. Some colleges have integrated data warehouses or other strategies to bring data together from various systems to enable tracking and decision support. But others have to (or would have to) rely on manually merging data snapshots from multiple systems to track this population.

Colleges in Texas and California operate their own data systems and provide periodic reports on their student enrollment to their state or system authorities. On the other hand, Kentucky's community and technical colleges operate as an integrated system with a single database that the system office operates on behalf of all the colleges in the system. As a result, Kentucky's colleges are relieved of the burden of maintaining and connecting information sources. Kentucky respondents reported fewer challenges in connecting and interpreting data on students because the system office has prioritized these functions. Furthermore, when the system adds a new report template or data management feature (sometimes in response to a request from a single college), that new item is automatically available to every college in the system. Because of these practices, colleges in Kentucky seem to have more ability to track students than most of the study colleges in Texas and California.

Some colleges reported using multiple commercial data products for different portions of the study journey. These systems generate frictions that inhibit easy data flow.

Apart from these concerns about connecting systems, the quality of data on crucial measures can be inconsistent. Our work with Dallas College identified several concerns with the quality of data entered into various systems, rendering some of it unusable for analysis. For example, datasets often missed dates when key milestones like placement tests were completed.

Definition of Student Loss

We found that definitions of student loss varied across the colleges in our study. Consistent with its integrated practices, Kentucky's system views student loss at the system level. If a student registers for courses at one college in the system and then drops those courses and registers at another system college, the system does not consider that student lost. In Texas and California, colleges considered students lost if they dropped their classes at the college, even if they registered elsewhere in the state.

Using Data for Decisionmaking

Many colleges use their data systems to monitor student progress in general ways before the term begins. For example, it is common for colleges to receive reports on the number of students who have enrolled in the weeks leading up to the start of the term, but these reports do not support analysis at the individual-student level. Deeper student-level analysis may reveal patterns in enrollment processes that could be subject to future intervention. These analyses could examine whether students who register early or late are more or less likely to persist through the census date (or other milestones).

> [W]e track our student enrollment essentially the day they enroll up to the census date. And if we start [fall] registration in March, hopefully we register a couple hundred students in March, more in April, May, so on and so forth. But what we find is that students who register early in the registration cycle and students who register at the very last minute are the ones who are most likely dropped for nonpayment. (leader, student services)

Other analyses could examine which requirements students have not completed to become registration-ready, such as testing, vaccination, or the submission of prior transcripts. Some colleges that do track pre-census students in a general way do not produce actionable lists of students for follow-up by college staff. In contrast, an administrator from one college with a well-developed tracking and reporting system explained how their reporting produces actionable information as follows:

> [Our] report includes indicators of things that a student or that an applicant still needs to provide to get enrolled. Say, if they need to provide transcripts, then that is indicated on the report. Our admissions and enrollment folks know students that are ready to enroll, those that are not ready to enroll, but then what they need to provide to then take their enrollment process to the next step. (leader, institutional research)

This college is able to harness an integrated data picture to identify actions that specific students need to take to become registration-ready so they can enroll in courses.

Some colleges have specific systems for withdrawing from courses in which students may supply a reason for dropping (often from a provided list of common reasons). Some of these colleges use data analysis to identify more-general patterns that can be influenced through future interventions, in part by examining these student responses.

> Everybody's worried about retention and success, obviously. So, we can find patterns. [W]e have found a few maybe that can help direct . . . our interventions [at] the problems. Some of the problems we can't address though. And that's the withdrawal process itself. Students are allowed to withdraw themselves without any stopgap measures until midterm. . . . [T]here's no kind of checkpoint in the system where a counselor's going to get in touch with them and say, "Hey, I saw this request and I just wanted to check in with you." (leader, student success)

Dallas College Experiences Tracking Students

In this section, we focus on Dallas College's experience tracking students during this study. We collaborated with RI staff to measure student loss at various points and to analyze information about the students and their experiences. The analytic techniques are similar across stages. We use our findings to offer suggestions that other colleges can use in tracking.

Descriptive Statistics

In collaboration with Dallas College, we used descriptive statistics to measure students' progression from application through enrollment. Figure 3.2 illustrates a funnel diagram that can be used to present such descriptive analyses. We also examined enrollment patterns across different racial and ethnic groups and age ranges to identify similarities and differences. The analysis indicates a significant drop-off in prospective students between the application and enrollment stages, with approximately 65 percent of applicants not proceeding to enroll in classes. Of the 35 percent of applicants who do enroll (register), 11 percent withdraw between the first day of class and the census date.

Our analysis also examined how many students registered shortly before the term began to understand the strain that late registrations place on the college's systems and the personnel responding to their needs (see Figure 3.3). Approximately 30 percent of the students enroll within the last two weeks before the beginning of the term. In Chapter 3, we discuss the strain this registration pattern places on college resources.

Regression Analysis

We worked with Dallas College to conduct regression analysis to explore relationships among various student characteristics and structural factors capturing milestones for the application and enrollment processes. Specifically, we used logistic regression for the binary outcomes of students who

- registered (enrolled in courses) after applying
- remained enrolled past the census date after registering.

FIGURE 3.2
Enrollment Funnel Diagram

Fall 2023 Semester

44,473 first-time college student applications

Of these, 15,319 (34%) registered

Of these, 1,552 (11%)
dropped out;
13,767 (89%)
remained enrolled
past census date
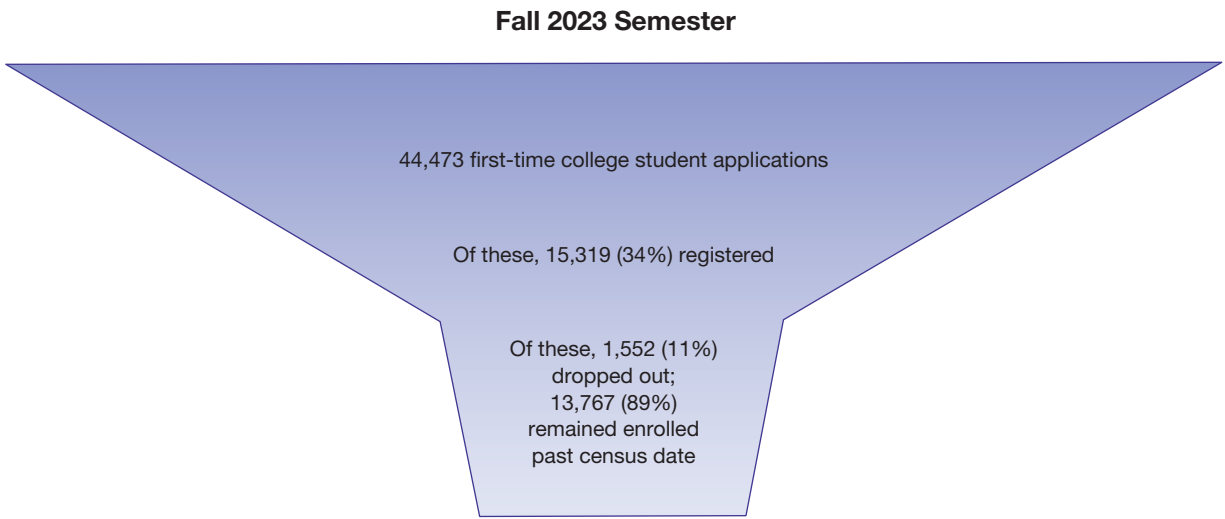
SOURCE: Features information from the Dallas College data system.

FIGURE 3.3
Illustration of Registration by Date
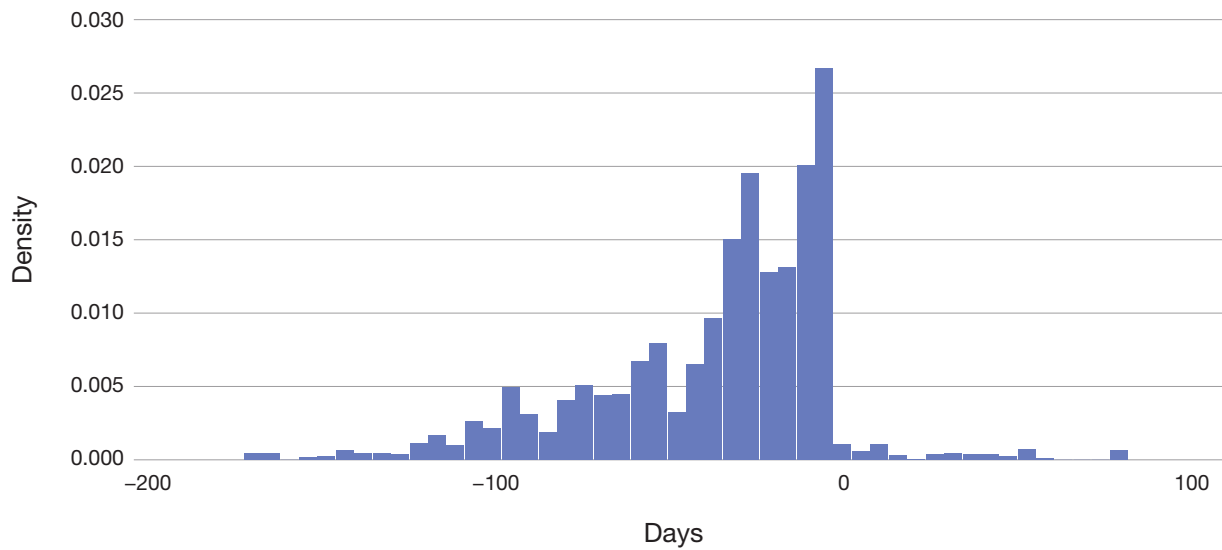
SOURCE: Features information from the Dallas College data system.

NOTE: Day zero is the first day of classes. Negative values indicate the number of days the student registered before the first day of the semester. Positive values indicate the number of days the student registered after the first day of the semester. Density indicates the fraction of students falling into each range shown in a bar.

This analysis found that student characteristics and indicators of key milestones on the way to becoming registration-ready were associated with the probability that students remain enrolled past the census date. (Because several of these milestones are usually required to register, it generally does not make sense to model registration after applying—only for those who remained enrolled past the census date.) These milestones include required placement tests, vaccinations, and the completion of financial aid applications. The Dallas College data system allowed us to capture the date that each milestone is completed so that it could be compared with the term's start date. We found that patterns differed based on when students completed these milestones. Generally, the earlier the milestone was completed, the higher the likelihood that the student remained enrolled. Table 3.1 illustrates how such an analysis can be presented in a table format; in this table, arrows indicate the associations that were statistically significant (at the 0.05 level) in the regression. Although Dallas College's systems could not report whether each student had met with an adviser at various points, that information would be valuable to include in the future or at other colleges.

The analysis also found that student characteristics—such as gender, race and ethnicity, and age—were associated with their likelihood of remaining enrolled past the census date. Table 3.2 presents student characteristics in a simplified format that is similar to Table 3.1.

RI staff also experimented with some machine learning models. However, college leadership preferred the logistic regressions because they were easier to interpret and provided information on the strength of associations between student loss and explanatory variables.

Targeting Effort and Developing Interventions Using Analysis

Using the logistic regression models described previously, RI staff produced estimates of each applicant's probability of enrollment past the census day for the applied term. This enrollment probability score was updated weekly and integrated into the student profile within a system that allowed college success coaches to view it. Success coaches were encouraged to use the tool and target support to students who were estimated to have a higher likelihood of enrolling.

TABLE 3.1

Milestone Analysis Using Regression Model

Milestone	Chance of Remaining Enrolled Past Census Date After Registering
Vaccine	
Completed or waived?	↑
Days completed before start of semester	↑
Placement test	
Completed or waived?	↑
Days completed before start of semester	↑
Financial aid application	
Completed?	↑
Days completed before start of semester	↑

SOURCE: Features information from the Dallas College data system.
NOTES: The milestone analysis includes associations from multiple regression models on Dallas College fall 2023 applicants. ↓ = negative association; ↑ = positive association; – = no significant association.

TABLE 3.2

Student Characteristics Analysis Using Regression Model

Characteristic	Chance of Registering After Applying	Chance of Remaining Enrolled Past Census Date After Registering
Selected a program on application	↑	↑
Prior dual-credit student	↑	↑
Previous applications	↓	–
Asian (vs. White)	↑	↑
African American (vs. White)	↓	↓
Hispanic (vs. White)	–	–
Male	↑	–
Generation Y (vs. Generation X)	–	↑
Generation Z (vs. Generation X)	↓	↑

SOURCE: Features information from the Dallas College data system.
NOTE: This analysis includes associations from multiple regression models on Dallas College fall 2023 applicants.
↓ = negative association; ↑ = positive association; – = no significant association.

The success coaches gave positive feedback on the tool. They appreciated that the information about each student's predicted probability of enrollment was visible directly in the student record and that they could sort students according to these probabilities. Success coaches found that sorting records helped them prioritize their efforts toward students with whom their efforts had a greater chance of success (generally those with high predicted probabilities).

Generally, the regression models and descriptive statistics on key factors influencing student enrollment could be used by colleges to shape intervention strategies aimed at improving student retention. College leaders found the new analyses to be valuable in developing their student success strategies, although specific interventions were not developed during the study period.

Conclusion

The colleges in our study have data about students that cover their application-to-enrollment journey and past the census date. These data, however, tend to be stored in different systems. Some colleges monitor student progress in very general ways, but the data do not allow for student-level analysis or action at the individual-student level. Even among those colleges that use individual data, some do not provide individual data to college staff who can intervene. Some of these colleges lack clear definitions of the stages for tracking students before the census date. Dallas College consolidated information from the various data systems to track students. This system enabled it to develop both descriptive and predictive models, which college staff used to prioritize their efforts.

How Colleges Structure Interactions with Students (and Challenges That Affect Interactions)

To address the third research question about colleges' interactions with students, we draw on interviews with college staff and students, as well as reviews of relevant documents pertaining to the application and enrollment processes. This section begins with an overview of various enrollment models. Subsequently, we analyze the factors related to both students and colleges that contribute to student attrition during the application-to-enrollment processes up to the census date. We present findings collectively across the three states and various college characteristics (e.g., urbanicity versus rurality) because our analysis did not reveal differences between them. In this chapter, we focus on overarching themes and insights that apply broadly to student loss.

Enrollment Models

We begin by describing the enrollment models starting from the application process. We used the interviews we conducted at 15 colleges to identify three distinct enrollment models, tailored to align with each college's unique capacities and resources. The key distinctions among these models are their mode of delivery, the structure of student handoffs during the application-to-enrollment journey, and the requirement for students to meet with college staff (e.g., coach, adviser) during the enrollment process.

Hybrid Enrollment Model with Required Adviser Support and Multiple Handoffs

Most participating colleges use this hybrid model. Prospective students apply to colleges using a statewide online application system, which forwards their information to the selected colleges. After applying, students receive a welcome email and key emails from the college that outline the necessary steps to complete the registration and enrollment processes. These emails are often detailed and include information on next steps, such as submitting a meningitis vaccine record, completing initial placement testing, attending orientation sessions, and other processes that may be specific to individual institutions. Not all colleges emphasize the importance of completing the Free Application for Federal Student Aid (FAFSA) or state financial aid applications in their emails because this process is not mandatory for enrollment at all institutions.

Under this model, colleges assign staff from various offices to support students in becoming registration-ready and enrolling in courses. During both the application and registration-ready stages, college staff (such as college coaches or enrollment and admissions counselors [titles vary by institution]) are available to support students. Their responsibilities include addressing general questions, helping to complete forms, providing referrals to other departments when necessary, and ensuring that all requirements are fulfilled. Ensuring that all requirements are fulfilled may involve guiding students through placement testing, submitting high school records, and meeting immunization requirements. Students who fall behind on required steps receive reminders via email or text, which often include office contact numbers for assistance or options for

in-person meetings. The frequency and extent of these reminders vary by college. Once prospective students are deemed ready for registration, they are handed off to advisers, success coaches, or navigators. (Although titles vary by college, hereafter, we will refer to them as advisers.) Under this model, first-year college students are required to meet with advisers before enrolling in courses. These consultations can be conducted either in person or virtually. Advisers are crucial in helping students develop their educational plans and select appropriate first-term courses. Additionally, they address various concerns, such as assisting undecided students in exploring potential fields of study and providing guidance on academic and nonacademic support services. For students who express specific needs during their sessions, advisers offer referrals to relevant resources or services, such as counseling, tutoring, child care, or transportation.

Some colleges reported that a significant number of their students reach this stage without completing their FAFSA, state financial aid applications, or submitting related documents. As a result, these students are referred to a financial aid adviser to finalize their paperwork and explore payment options in case their FAFSA application is not approved. After students enroll, they are transitioned to their academic advisers. A few colleges indicated that they delay this additional student handoff for another year for selected competitive programs, such as nursing.

Students are not assigned to the same advisers throughout these processes. Students are referred to different advisers depending on who is available. None of the participating colleges implemented a case management approach to enrolling students.

Online Enrollment with No Required Adviser Support or Handoffs

A few community colleges primarily offer an online process for student application and enrollment, minimizing in-person interactions and handoffs. Like the hybrid model, students begin by completing an online application, which triggers welcome emails detailing steps, such as account setup, orientation, advising, assessments, and other key milestones. These emails also guide students through the financial aid application process, providing a comprehensive checklist of necessary actions. Students have access to various online support options, including one-on-one sessions with advisers, online workshops, and virtual communication platforms. Although in-person sessions are available, they are less common, and the choice to use these services is entirely up to the students. The detailed steps are expected to take students through advisement and help them create their own one-semester education plan and self-enroll in courses.

> After application and then before enrollment, they have those steps to success. So we give them this checklist of things they should do. We don't block them from enrollment if they don't do it, but that's how we're going to get them all the information about being a college student. (vice president, student services)

In this model, colleges emphasize the importance of students meeting with their advisers to ensure that their education plans are accurate and aligned with their academic goals. Although this step is not mandatory, advisers are available to help refine and verify plans that students create using online tools, such as degree audits or program guides.

A representative of one college stated that students who fail to complete the required online steps are sent reminders every two weeks leading up to the start of the term. Typically, students are allowed to enroll even if they have not completed all the steps. However, once the term begins, the college ceases communication with students who have not fulfilled the requirements.

Special Programs or Pathways

Representatives at all the colleges we interviewed reported that their special programs—such as dual enrollment with high schools or initiatives targeting specific populations, such as economically disadvantaged students (e.g., Educational Opportunity programs,[1] Promise programs,[2] Ready to Work [RTW],[3] or California Work Opportunity and Responsibility to Kids [CalWORKs][4])—operate with distinct structures. These tailored frameworks are designed to guide prospective students through the colleges' application and enrollment processes more effectively. Colleges designate specific staff for these special programs (although this is still not a case management model), allowing them to engage more closely with targeted populations through a hands-on approach and frequent interactions. For example, a few of the colleges with strong partnerships with high schools use a shared staffing model in which the high school and college share the cost of coordinators or counselors. This specially designated staff has early conversations with high school student populations regarding the application and financial aid processes. They conduct workshops on financial aid, identify students' academic and nonacademic needs early in the academic process through frequent engagement, connect them to appropriate resources, and follow up with them over the phone during the summer if they have not completed their registration readiness steps. Unlike the two models above, such programs also have specific deadlines for completing and submitting financial aid and other forms.

> We have staff that actually are paid for by the college and some of our local school districts. And so their charge is to do applications for admission and schedule FAFSA nights to help students do financial aid applications . . . so during the school year, we are doing multiple follow-ups for applications and financial aid in those groups. So for a high school student who has not yet graduated, we have staff in the high schools that are doing that regular contact, and then as soon as the student graduates from high school, then they pass over to our recruitment team who then reengages that group as well . . . if there's pieces where they're not registered or if they need to provide documentation, those shared college coordinators kind of serve as a linking pin between the campus and the high school . . . And they'll call and remind them they're actually on their campuses during the semesters. And so they'll work with them during that point. And then when summer's out, they'll work [on] the phone. (adviser, student success)

They also continue meeting with the students throughout the term to dissuade them from dropping out of college after they enroll in courses.

> Yes, we do [monitor this student population beyond getting them ready to enroll]. If they're taking five in-person classes and it's their first semester . . . we'll help them navigate along with their adviser to ensure that we're being realistic. (director, workforce development)

Furthermore, one college indicated that its designated counselors for special populations work closely with faculty advisers during course enrollment to ensure that students' courseloads are realistic. This exam-

---

[1] Educational Opportunity programs are state-funded programs designed to support students facing social, economic, educational, or language disadvantages at California community colleges. Their goal is to help students enroll, stay in school, transfer, and successfully complete their educational goals by providing additional resources beyond standard college services.

[2] Promise programs are designed to increase access to higher education, especially for underserved populations, by reducing financial barriers.

[3] The RTW program is a state-funded program designed to support low-income parents who are pursuing education at Kentucky Community and Technical College System institutions.

[4] CalWORKs is a public assistance program in California designed to provide financial aid and support services to eligible low-income families with children, including support to enroll in community colleges.

ple illustrates how counselors for special populations stay actively involved with students throughout the enrollment process and beyond.

What Challenges Do Students Face That Contribute to Student Loss?

Students encounter various personal obstacles that affect their ability to remain enrolled beyond the census date. Both college staff and students we interviewed agreed that financial challenges were prevalent, with many students seeking full tuition coverage or assistance with fees. Most of the students we interviewed indicated that one of the reasons they dropped out after enrolling and before the census date was the lack of approved financial aid. The increasing costs of tuition, textbooks, and other expenses can be overwhelming for students who begin the term without approved financial aid or a clear financial plan to cover these costs. This financial strain sometimes forces students to make the difficult decision to leave college before the census date to prioritize their jobs and financial stability over continuing their education.

Most colleges also drop students who have enrolled but not completed the FAFSA and shown the ability to pay before the start of the term to ensure that colleges maintain a revenue stream and reduce the risk of financial loss.

Students and college staff have cited several other reasons for students dropping out between application and the census date, including the challenge of balancing education with work and family responsibilities and a lack of prioritization of college. Additionally, conflicts between work and class schedules can also lead to students dropping out.

> [A] lot of them will probably come with the idea, "Okay, I'm going to enroll in classes, but I'm looking for a job." And sometimes they start looking for that job and they get that job and realize that now it conflicts with their schedule, and what do they do? They stop attending school rather than trying to change their schedule. (counselor, special population programs)

> Scheduling is another one where they sign up for classes . . . [and] end up having to drop them because their work won't accommodate. (director, institutional systems and analytics)

Transportation is another barrier that can lead to students dropping out before the census date. Many students from economically disadvantaged backgrounds face limited access to timely and affordable transportation options. This obstacle affects the initial phases of their educational journey by hindering their ability to engage with financial aid advisers and other college staff who facilitate enrollment. In some cases, students must physically visit the college to resolve financial aid or registration and enrollment issues, making transportation a crucial factor in their academic success.

> [The college] said they can't fax over the [FAFSA] paperwork as in the promissory note, they couldn't do that and all this other stuff. And the [college] is really far away from me. I was trying to take the classes online, but they kept trying to make me go up there [to fix the financial aid issue] and I told them that I had car troubles and they weren't listening to that. (student)

> We [the college] also serve a greater area that's very rural in some ways. And sometimes transportation is a challenge and if something happens with their car or their ride falls through it ends up being a problem. (adviser, student services)

Moreover, a few of the students we interviewed revealed that they were struggling with mental health challenges stemming from personal factors, such as divorce, family conflicts, or other significant life events.

These challenges often became overwhelming, prompting them to decide to drop their courses before the census date because they prioritized addressing their personal circumstances over continuing their education.

> About July [or]August, I started having marital problems. And things had just gotten to be just emotionally . . . I couldn't deal with it. I ended up filing for a divorce from my husband. And, of course, naturally with all of that, there was just a lot of things going on. I couldn't mentally focus [on remaining enrolled in the courses] and I just felt like it was just competing priorities at that point. (student)

A few of the students we interviewed also reported facing multiple personal barriers that led them to drop out before the census date. Additionally, some students mentioned that personal challenges, difficulties navigating the college system, or difficulties accessing support staff contributed to their early departure. Colleges corroborated these findings, noting that students sometimes struggle with the application and enrollment processes regardless of whether the system is hybrid or online.

> [W]e would get the applications, we would answer the phone, help whoever walked in the door, those sorts of things. But we've discovered a lot of students need handholding. They need someone to come alongside them and assure them every step of the way, "What do you need help with? What can we do to help you?" (director, admissions)

What Challenges Do Colleges Face Related to the Application and Enrollment Processes?

This section examines the institutional challenges that colleges face during the application and enrollment processes leading up to the census date, which contribute to student attrition. Many challenges overlap across these processes, but we note those distinctions when specific issues are tied to a particular phase or period.

Key Emails for Prospective Students

Colleges routinely send automated welcome emails and follow-up communications to student applicants, detailing the steps required to become registration-ready and enroll in courses. These emails often emphasize crucial tasks, such as completing the meningitis vaccine or waiver, fulfilling initial placement testing requirements or obtaining a waiver, and submitting necessary documents to the college. Although this information is essential, concerns have been raised about the potential for information overload. When emails contain too much detail or are sent in rapid succession, applicants may feel overwhelmed, might be unsure where to start, or might even miss critical steps. Clear and concise communication is vital in this process.

An adviser expressed concerns that the volume and complexity of these emails might overwhelm students, discouraging them from completing the registration process and navigating enrollment successfully:

> They get this welcome letter that says, congratulations and here's all the things that you need to do, but, as of yet, nobody has talked to them face to face over the phone so they can ask questions, bounce back and forth. . . . But my thoughts are, if they're enrolling or applying for college in June, they're not going to start college until August. Then they get all of these letters and emails, all this stuff, they get overwhelmed, and they think, "No, I don't think this is for me." (adviser, student services)

Administrators at one college, which used an online application and enrollment platform, reported tailoring its key emails to align with the demographics provided in student applications. This tailoring ensured that the information shared was highly relevant while reducing the risk of overload.

[I]f they're a high school student, they get messaging specific to being a high school student, and if they're a veteran student, they immediately get an email about being a veteran student and then how to contact our veterans office. If they're a returning student, they get an email: "[Do] you have any external transcripts [from another college]? Send them to us." (vice president, student services)

Financial Aid

Our interviews revealed that not all colleges include financial aid information in their welcome or key emails to students, potentially because it is not required for enrolling in courses. This is true for students applying through the hybrid and online models mentioned above and is less relevant to students in the special programs. Although it is essential to avoid overwhelming applicants with excessive information, many interviewed students and most participating colleges cite financial aid issues or the inability to pay as the primary reasons for students withdrawing or being dropped by the college after enrollment and before the census date. Thus, providing precise, accessible financial aid details early in the process is extremely valuable.

Some colleges reported sending separate emails from their financial aid offices to remind incoming students to apply for aid. Those initiating the application process receive follow-up reminders about any outstanding requirements. However, our interviews suggest that colleges lack proactive strategies to ensure that students receive comprehensive financial aid information at an early stage.

Interviews with financial aid advisers and students who withdrew before the census date highlighted that many students find the financial aid application process confusing. Students often lack critical knowledge about the college's financial aid requirements, timelines, and decisionmaking processes. For instance, students are frequently unaware of how long financial aid decisions take or which documents their colleges need to finalize those decisions.

Once you apply, it seems like they [college financial advisers] should get all of that [financial] information. Once you apply, you get approved, then someone should take on that responsibility to go with the next steps. Okay, well, does this person have all [the] documents for financial aid? Is their GPA [grade point average] where it should be? Are there steps where it's supposed to be? If it's not, what do we need to do? How do we reach out to them or when do we reach out to them to try to fix it and come up with other plans? (student)

[W]e still have a lot of students who show up and get a schedule [for courses] and have no idea how they're going to pay for it because they haven't even started the financial aid process. We want them to start it months and months and months in advance. But sometimes that doesn't happen. (vice president, student affairs)

Yet, completing the financial aid process is crucial to prevent colleges from withdrawing students for nonpayment or students dropping out because of financial constraints. Some students are selected for verification, which can be time-consuming and may delay the approval process, causing confusion about the required documents. Additionally, students must submit transcripts from every college they have previously attended. However, some students face difficulties obtaining these transcripts because of outstanding balances at previous institutions, per those colleges' policies.

The special program model—which includes partnerships with high schools offering dual enrollment, Educational Opportunity programs in California, and RTW programs in Kentucky—has a more targeted approach than the hybrid and online models to ensure that applicants complete their financial aid forms. This model employs dedicated staff who help applicants complete their financial aid forms and guide them through the document requirements for approval. Staff achieve this by conducting multiple workshops in

which participants receive hands-on support, including completing the necessary paperwork during the sessions.

> We'll be also engaged with [high school students] financial aid night. . . . We have workshops for the students and their parents to discuss financial aid and what that means as a holistic approach, starting from the application process, the FAFSA, and getting all the way through receiving that financial aid. (director, financial aid]

Selecting a Major Is a Barrier to Being Eligible for Financial Aid

Federal Title IV law stipulates that students enrolled in credit-bearing courses recognized by their institution as part of a degree or certificate program are eligible for federal financial aid (Higher Education Act of 1965, Title IV). However, there is considerable variation among participating colleges in how they interpret the criteria for being classified as "certificate- or degree-seeking." A few community colleges adopted a more restrictive interpretation of the law, categorizing undeclared students as not meeting the certificate- or degree-seeking requirement, which is an eligibility condition for all Title IV programs and many state financial aid programs.

> They have to have a valid major study to get financial aid. We do actually flag their account. If . . . we receive a FAFSA and there's no major on file, they do get notified [that] they would need to pick one. We wouldn't transmit funds or award anything until that's done, but they do get a notification. (director, financial aid)

Undecided incoming students at these colleges may hastily select a program to meet the aid requirements. Alternatively, they may need to consult with advisers to discuss their program choices during enrollment. However, as discussed later in this chapter, significant bottlenecks in scheduling these advising meetings can limit conversations between students and advisers.

Financial Aid Systems, Staffing, and Capacity Affect Responsiveness

Colleges strive to finalize and notify students of their financial aid awards—such as grants, scholarships, loans, or work-study—before the academic term begins. This process includes determining how much financial aid each student qualifies for and putting together the official offer.

However, the timeliness with which colleges process applications and verifications varies depending on when students submit their application for financial aid and the college's processes and staff capacity. Students who submit their applications shortly before the start of the term experience delays in receiving a decision. This is because colleges must complete their review processes, which sometimes require the student to submit additional documents.

Furthermore, a few of the participating colleges that indicated staffing issues cited challenges in processing a high volume of last-minute applications. At one college, for example, the number of financial advisers was reduced by about 40 percent after campus consolidation. During the time of our interviews, a new contract for establishing a call center was being implemented to overcome this barrier. The call center is intended to reduce wait times on hold and free up advisers to provide more in-depth support. At the same college, the effectiveness of financial aid information systems has a big impact on customer service, response times, and the quality of work. The college is transitioning its financial aid processing to a new platform in an effort to enhance system efficiency, although such changes inherently come with risks.

Student interviews also pointed to variation in financial advisers' capacity as having an impact on the processing of the financial aid papers and documents. Although some students indicated that financial advisers provided them with the information they needed to complete the process, others reported that the advisers

they spoke to did not share how financial aid works or what steps students should take to ensure that the advisers have all the information.

> I just think they [financial advisers] weren't really helpful with the information that they were giving me. And also, with how my financial aid work[s]. It is just something that I was lost with as well. . . . I kept asking her how that was, or how that worked. (student)

Many students reported difficulty accessing financial advisers, partly because of the high student-to-adviser ratio. Students mentioned long waiting times on the phone or at the financial advisers' offices. Other students reported that it took advisers several days to respond to their emails.

> I would call the phone number and send an email, but it would be maybe three, four days before I would get back an email. But then the email wouldn't answer the question that I was asking. (student)

Students whose financial aid was denied would also have liked the financial advisers they spoke with to have shared different payment plans and timelines for such plans.

> I think that they should do better about, okay, if someone can't pay the minimum for a down payment for the payment plan, I don't feel like they should just drop them. I feel like they should call, and they should say, "Well, when would you be able to start this payment plan?" To get an understanding because they drop me without me even knowing. So, I feel like they should be more communicative when it comes to people who do need those payment plans. (student)

College Application and Enrollment Processes

Colleges' processes from application to enrollment are not streamlined, especially under the hybrid model, because they involve multiple mandatory handoffs.

Colleges designate various types of staff to assist students, with position titles—such as admission counselors, enrollment specialists, advisers, college coaches, navigators, and success coaches—differing by institution. These staff members are tasked with actively guiding students through various aspects of the application and enrollment processes to ensure clarity, support, and a seamless experience at every step. Although the staff understand their respective roles and responsibilities, incoming students often struggle to differentiate among them. For example, enrollment specialists or college coaches are designated to help students with their college application to ensure that they are registration-ready (e.g., have completed or waived the meningitis vaccines and placement test). Students who are registration-ready are then handed off to advisers who are assigned to enroll students in courses. In some colleges, students are handed off once more to academic advisers after enrollment.

This lack of streamlining can create confusion, frustration, and unnecessary hurdles for students, potentially leading to disengagement from the process of getting registration-ready or enrolling in courses. It might also lead to students dropping out after enrolling and before the census date if students keep experiencing fragmented processes that might require additional handoffs to academic advisers.

> And then a few years ago, we noticed that, okay, we get them to this point [after enrolling in courses] and then it's like, well, let me get you with your adviser. And we would have trouble, oh, I've left them messages. I can't get them. They won't call me back. That sort of thing. And we were like, why can't we, at least for first-time students, not do so [many] transfers. (director, admissions)

> Faculty advisers aren't as accessible with us. They don't have the office hours that we have. We're accessible. We have a system set up where they can go in and schedule their own appointment with us anytime. Faculty

don't have that. . . . I feel like that transition from staff to faculty, it's a little bit different for students. They're not sure where to go or who to contact once they do leave us. . . . That's one issue that I've been trying to work on is just trying to get us all on the same page. (director, advising)

Moreover, students may not always connect specific processes to particular offices or realize that these processes might not follow a fixed sequence. For instance, at one college, financial aid is managed under student affairs, which includes advisers. Although the financial aid process often serves as an early point of contact between students and student affairs, there are times when students meet with financial aid staff only after consulting with their enrollment adviser.

The other thing I was just thinking of too is, and I don't necessarily think that students think of this regarding student affairs, but financial aid . . . is under student affairs. I don't . . . think that they probably make the connection that this is student affairs, but we are coming into contact with them through that process too. And that's usually earlier on. They're doing that sometimes before they even meet with their adviser. Other times it's after they meet with their adviser. (associate vice president, student affairs)

I think the biggest challenge is that as [students] going from high school into the college, they don't understand or they're not aware of the pathways of communication with [colleges]. And so they tend to come in and [the] majority of the responses, well, I just didn't know. I think that they're not getting the information from us or they're not aware of how to receive the information from us, where that information is located. (financial technician, financial aid)

This situation contributes more to students' confusion and frustration regarding the processes. Some students find themselves assigned to different staff members at different times, which can lead to inconsistency in communication and support. Some colleges have not clearly specified which types of questions should be directed to particular staff members. As a result, students may not engage with the appropriate staff for their specific stage in the process. Additionally, some students reported being connected with whichever staff member was available to answer their questions. This approach is problematic because different staff members have varying levels of knowledge, resulting in inconsistent answers or solutions to the same inquiry.

They should have assigned one specific adviser for [each student]. When I first met the adviser, that should be my regular adviser so that [adviser] knows my case. Every time I go there, I get a new adviser. I have to explain . . . [the] same thing from the beginning. And ultimately, the thing I get from them is very different solutions. (student)

The Quality and Timeliness of Services Provided During Registration and Enrollment Period Varied

Our interviews indicated that advisers who support enrolling students into courses vary in their capacity and style of interaction with students. Some advisers tend to be transactional in their interactions with students instead of focusing on building relationships with them. Building a relationship is often more valued by students, especially those who are undecided, have specific academic or basic needs, or are first-generation college attendees navigating a complex and unfamiliar system.

Student interviews revealed that advisers also varied in their assistance with choosing programs and courses in which to enroll. Some students indicated that their interaction with advisers tended to be procedural and matter-of-fact. Advisers did not attempt to understand student needs and interests to jointly determine with the students which courses are best for them. Furthermore, advisers did not provide adequate time to engage undecided students with meaningful discussions about careers and related programs. A few students interviewed shared that this interaction influenced their decision to drop the courses they had enrolled

in before the census date because they felt that those classes did not align with their academic needs or goals. Adviser interactions with students tended to focus on processes but not the bigger picture.

> And then with the classes, I just wish I had more support with that. . . . Maybe more help with looking at what classes I really needed. She was just telling me like, "Oh yeah, you need to take [this] or you can take art." And I was just like, that's not something that I want to do. She was just throwing me all this career stuff and I was like, "Yeah, I don't think that's for me." (student)

The college staff we interviewed identified several factors that hinder their ability to adopt a more relational approach with students. First, a large proportion of students seek enrollment just a few weeks before the start of the term. This surge limits the amount of time that college staff can spend with students discussing their career, program interests, educational needs, and noneducational needs.

> [I]f you [the student] come in April to prepare for fall, you're going to get a 45-minute conversation that's really thorough. But if you come in the week before classes start, that's a 15-minute wham-bam quick session. (director, advising and transfer programs)

Our analysis of fall 2023 data from Dallas College found that two-thirds of students (67 percent) registered in the six weeks before classes started, with 28 percent doing so in the last two weeks before classes began. Our analysis also showed that the students who registered during the last two weeks were 37 percent more likely to drop before the census date, compared with those registered two to six weeks before classes start. Although the college opened registration for fall 2023 earlier than usual (about six months before classes began), very few students registered this early.

Second, colleges often face significant resource limitations, particularly in the availability of staffing and the ability to manage high adviser caseloads, which can restrict the time that advisers can spend advising students. These gaps make it difficult for staff to engage in meaningful, transformative conversations with students that could address personal goals, career aspirations, and overall student development. With constrained resources, advisers may struggle to provide the level of individualized attention that some students, especially those navigating complex educational pathways or personal circumstances, might require.

> [W]e've got a real resource gap in being able to provide, not the information students need, but to really walk them through it. We know all of the content we need to share, but we don't always have time and energy to give it in a personal way, which is where I really think we lose a lot of students. (registrar)

Third, as we discuss in the next section, most participating colleges lack sufficient information about students' nonacademic needs before the mandatory enrollment meeting, which makes it challenging to engage in meaningful discussions tailored to those needs.

Fourth, a substantial number of students have undeclared majors at enrollment. Advisers are not adequately trained to engage in career-driven conversations with these students to guide them toward declaring a program of study that aligns with their career interests. Additionally, last-minute enrollments often leave insufficient time for these discussions.

Student Basic Needs

As discussed previously, incoming students have multiple nonacademic needs. To help meet these needs, services are available through colleges (e.g., food pantries, gift cards) or via contracts with external organizations (e.g., health services). However, most colleges in this study lack a formal system to identify students' basic needs between application and enrollment before students meet with an adviser. Most colleges collect

this information through surveys sent to enrolled students later in the term, frequently targeting first-year students. Delaying identifying students' basic needs prevents college staff from addressing their challenges during the application and enrollment periods, connecting them to targeted resources, and fostering early relationships with support staff. This lack of timely intervention can exacerbate students' struggles, increasing the risk of disengagement and contributing to early dropout.

> That's something that I actually don't know [referring to nonacademic services]. I don't even know if there's any tutors or anything to help assist with the courses if I get behind or start lagging behind on the courses. (student)

Basic needs conversations may be included in orientation sessions. However, as noted below, these sessions are not mandatory at all colleges and typically concentrate on logistical aspects of college life. Moreover, holding these conversations during orientation, which generally takes place after student enrollment, may not benefit students who need this information earlier to decide whether to proceed with enrollment based on the resources available at the college.

Although basic needs data are not collected for most incoming students, college staff assigned to special programs take detailed notes on the students they interact with. However, when students transition to meeting with enrollment advisers, these notes are not easily transferred. At one college, enrollment advisers must log into a separate information system to access these notes, which complicates their ability to respond to student needs efficiently.

Value of Education at the College

Interviews revealed that some students—including those from affiliated high schools—had limited awareness of the educational opportunities, programs, and services offered at the community college they applied to. This lack of information influenced their choice to drop out before the census date, even after enrolling in courses. The unawareness stemmed from students choosing to apply to community colleges as backup options in case their primary educational plans fell through without investigating how the college could align with their goals. For example, one Promise scholarship student intended to attend a four-year university but applied to a community college to safeguard against potential financial aid shortfalls. Although the student enrolled in classes, they dropped them before the census date once they were accepted to the university. Had the student been aware of the community college's offerings, they might have chosen to complete required courses at a lower cost before transferring.

Interviews with college staff suggest that insufficient marketing efforts targeting prospective students contribute to this disconnect. Some colleges adopt a transactional approach rather than fostering meaningful connections with prospective students. Additionally, colleges with high school partnerships often assume that students will enroll without actively promoting the colleges' value. Because high school students typically apply to multiple institutions, their final decisions often depend on how effectively each college communicates its benefits.

> Most of the time they [students] don't know what we offer or they don't know what they want. If they don't know what they want, then that's even a bigger challenge because we can offer all these things and say this is what we have. A lot of them don't know what to choose or they're not aware. A lot of them don't know that we offer degrees that are two years, that it takes two years to complete. (adviser, special population programs)

Student Orientation

Study colleges offered orientation sessions after students enroll in courses. According to our interviews, these sessions have the potential to reduce student dropouts before the census date when they are designed to proactively address educational opportunities, fields of study, and financial aid concerns—areas in which incoming students often need support during this critical period. However, orientations are probably not meeting these needs. College staff interviews suggest that orientation sessions primarily focus on logistic processes, such as navigating the learning management system, setting up student accounts, and accessing general college resources.

> We have different breakout sessions. One of the breakout sessions is with student navigators so they can let students know all the different resources that they can offer them, and different things they can do for them. Also [they can] get their user accounts set up if they haven't done that already and see what they need to do or if they need to do anything. (director, advising, retention and engagement)

Furthermore, orientation sessions are not mandatory at every college, and some institutions rely on virtual formats, which may limit in-depth discussions and the personalized guidance necessary to prevent students from dropping courses before the census date.

Conclusion

In this chapter, we discussed three distinct enrollment models among the colleges in our study. We identified several challenges that lead to student attrition before the census date, with financial constraints being a significant factor. Additionally, we examined institutional challenges, which primarily involve limitations in bandwidth and staffing, as well as the complexity and restrictions inherent in the application and enrollment processes.

College Efforts to Reduce Student Loss

In this chapter, we examine the fourth research question: How can colleges work to reduce student loss from application through enrollment and up to the census date? We begin by outlining colleges' communication strategies to reengage students during this period, followed by discussing initiatives aimed at structural changes to mitigate student attrition.

Efforts to Reengage Lost Students

Engagement During Application and Enrollment Processes

Colleges frequently implement a variety of strategies during the application and enrollment processes to prompt students who have not yet completed the necessary steps to enroll. Identifying students who have missed key milestones during these stages is typically straightforward. For instance, at colleges where students are required to meet with an adviser before enrollment, advisers generate reports on students (with varying frequencies across institutions) and may email or text those who have yet to fulfill this requirement. At the same time, colleges that do not mandate pre-enrollment adviser meetings still track students who have not enrolled in courses and send them automated messages. Occasionally, institutions follow up with phone calls, but limited resources often make it impractical to call every student individually.

> And then if, after some days, if they have not scheduled an appointment or enrolled, then our last step is typically to work on a phone call . . . we don't have the staffing resources to do that for every applicant. And then on top of that, we also do regular communication if they have still not followed through both [via] text and email. (director, advising)

Similarly, if students have not completed their financial aid forms, the financial aid office will email them requests for more information, or students will have opportunities to complete financial aid forms at the time of enrollment (if mandated to meet with an adviser) or possibly during orientation sessions.

Engagement After Enrollment and Before the Census Date

A few colleges indicated that they have an automated text system to engage all enrolled students early in the term to reduce dropouts before the census date. These systems typically send check-in messages just before the start of the first term and during the first and second weeks of classes. The purpose of these texts is to ensure that students are ready for class and to proactively identify students who might be facing academic, personal, or logistical challenges so that support staff can intervene promptly. The messages are often tailored to foster a sense of connection and accessibility, encouraging students to reach out if they need assistance.

> So, we have a text system. They go out the first day of class. This is "Good luck. We hope you enjoy your class. This is the first day. Let us know if you have a question," and they can text back. It's a two-way text line. They [can] text us back, and we also send a [check-in] text. So this second week, that Friday, another

> text will go out just asking how it's going. If they are having trouble with their myPath or their Blackboard, if they have any questions, let us know. So we do some outreach post-enrollment. (director, advising, retention, and engagement)

Post-Census Engagement of Early Dropouts

Although colleges, through their institutional research offices (and in some cases, state systems), seem to have the data to produce a list of enrolled students who drop out before the census date, in many cases, these reports are not generated and are not shared with the appropriate staff to reengage this student population. Some colleges expressed concerns that, even if they were provided lists of students who dropped before the census, they lacked sufficient staff to follow up with those students effectively.

> We could probably run reports, but it will be very costly to run reports and have people call them. Because we're already, especially at the beginning of the school year, the students that are wanting to be here, they're here trying to change their schedule, trying to find classes. That's the time [when] we're the most bombarded with our schedule. There's really not time to set aside for somebody . . . to call these students. They drop. So, we're trying to address the students here. I guess having bigger staff or having reports, that could help, but we would need to have the support to make those calls and find out. (counselor, special population programs)

> We don't have an indicator that says the student applied, enrolled, and then was dropped before census day. We don't really have a way to tell that on our end. I'm sure there is a query or something we can run, but we don't have easy access to that information. (director, student success)

In terms of reengagement, one college has developed a structured communication system aimed at reconnecting with students who withdraw before the census date. A specialized team is dedicated to reaching out through consistent email and phone communication. The team focuses on understanding why students decided to leave and offers potential solutions to encourage their return.

> And so we, as a team, my team in particular, we still communicate with those students who drop before the census date and we try to get them reengaged. Now we do that until their application is no longer valid, and they would have to reapply before they could meet with us. So that's usually about a year. (director, advising)

With the support of its state system, another college hired an external vendor to focus on reengagement. Initially, the vendor was tasked with recruiting and contacting prospective students to move them through the application process. However, the college decided that it would be more effective for its staff to communicate with prospective students during the application and enrollment stages. The college now relies on a text-messaging platform provided by the state system that enables personalized and direct engagement with applicants.

As a result of this strategic shift, the vendor's responsibilities were redirected toward contacting students who dropped out, particularly those who left before the census date. This change may have required the vendor to adapt its processes and communication strategies to address this group of students' unique needs and concerns. Unlike prospective applicants, students who have dropped out may require more-nuanced outreach because their decisions to leave could stem from a wide variety of factors (e.g., financial difficulties, personal circumstances, academic challenges, logistical barriers). It is not clear yet how effective this new approach will be.

A third college partnered with an external vendor to reach out to students who withdrew before the census date. The vendor's responsibilities include gathering information on the reasons for their withdrawal,

assessing their interest in returning, and connecting those who wish to return with the virtual College Student Services hotline to access the appropriate staff. In fall 2024, 25 percent of the students who dropped out before the census date reenrolled because of this initiative.

Finally, for students participating in special programs that support students from very low-income backgrounds, such as Extended Opportunities or RTW, designated staff (e.g., counselors, advisers, coaches) take additional steps by continually reaching out to students, including after the start of each term, to ensure that students remain enrolled. They also provide ongoing support throughout the students' educational journeys.

> [W]e have a lot of support built in to prevent that [students from dropping before census date] from happening . . . we're very close with our students [in special programs] so we're seeing them quite often and talking to them quite often . . . [in] our interactions with students we're constantly assessing through conversation what's going on with them. Is there something that we're picking up on that needs to be addressed that could potentially become a barrier and go ahead and put that fire out before it gets bigger. (counselor, special population programs)

Efforts to Address Structural Challenges

In this section, we focus on the initiatives that some colleges undertake to address structural challenges contributing to student dropouts during the application and enrollment processes and up to the census date. Recognizing that early drops can hinder students' academic progress and institutional success, colleges have implemented or are implementing strategies to mitigate these challenges.

Financial Aid

Our interviews revealed that a few colleges and the Kentucky system have implemented diverse strategies to address the issue of students dropping out (or being withdrawn by the college) after enrollment because of challenges with financial aid. These colleges recognize that they can neither compel students to submit their financial aid applications early enough to ensure timely decisions, nor can they assume that all students fully understand the complexities of the financial aid process.

For instance, the Kentucky college system previously used data analytics to identify students who had not paid their tuition by a specific deadline and would drop them from its colleges. However, the system revised this policy to focus on supporting students before they were officially dropped. Colleges are encouraged to engage with students proactively, connecting them to a variety of resources to help cover tuition, housing, and other essential expenses.

Although many students qualify for FAFSA assistance, not all students in need meet its eligibility criteria. To address this, colleges directed students to alternative sources of financial aid, including federal, state, and institutional programs. Additionally, nearly all students are eligible for loans, which can serve as a safety net to prevent them from being dropped but are often seen as less appealing because of concerns about long-term debt. Colleges in this system have the discretion to determine which students to drop and when based on nonpayment of tuition. If they believe that a student is likely to make the payment, they have the option to retain the student on their enrollment roster.

Colleges in the system reported that their special population programs offer students extensive financial coaching. These programs are designed to help students develop strong financial decisionmaking skills, enabling them to access available resources and make informed choices about when to drop classes to avoid unnecessary financial obligations.

> [W]e do so much financial coaching with them [incoming students to special programs] as well financial skills, they know that it is better to do what you can do in the class and get to the end of the class and fail it than it is to drop out before certain dates because then you end up owing money back. So that is something that gets hammered into them a lot with our folks. (counselor, special population programs)

A few colleges in the other two states employ various strategies to minimize student attrition because of financial aid issues. For instance, one college allows students who have applied for financial aid but have not yet received their awards or paid their fees to continue attending classes for the term. This policy enables students to pursue their education without immediate financial barriers. However, if their financial issues remain unresolved by the following term, the college will pause their enrollment until these matters are addressed.

Additionally, this college can waive the enrollment fee for qualifying students, providing an added layer of support for those who might otherwise struggle to afford higher education.

> Yeah, they [colleges] don't really drop the student . . . if a student doesn't take care of their fees, they may put them on a hold for a future registration cycle. So if a student registers, they'll have a balance and sometimes even [when] FAFSA is in there, we will have a fee waiver, which will be the enrollment fee. They still have other fees they're still responsible for, and those charges will be on there until the student takes care of it. Or, if they receive financial aid like a grant, then they would take those fees out of that grant funding. If the student has not received their financial aid, hasn't had issues with applying, there are support services, but they won't drop the student. It'll be more of a hold on [the] registration cycle for the next term. (director, financial aid)

Another college adjusted its payment deadlines. Previously, the college required students to meet monthly payment deadlines and dropped those who failed to pay on time. However, after discovering that 75 percent of dropped students eventually reenrolled, the college revised its policy. They extended the payment deadline to give students more time to address their financial obligations and remain enrolled.

Streamlining Student Transitions Between Advisers

Streamlining student transitions between advisers throughout the application, enrollment, and up to the census date is crucial for reducing dropout rates. This approach ensures continuity in guidance and support, preventing students from feeling lost or disengaged.

One college implemented a strategy to enhance student transitions between staff during the application and enrollment stages, ensuring seamless support. It introduced a centralized *one hub link* to streamline the process. This link connects staff working with students to the calendars of other team members who may assist in the enrollment process. For example, this allows advisers to handle student needs more efficiently by promptly connecting them to appropriate staff. According to the college, this approach has significantly reduced students' frustration with being bounced around and has efficiently responded to their issues and needs. Furthermore, at this college, advisers can access comprehensive program information, including all program requirements and two-year academic plans. These resources were compiled in coordination with faculty, who provided detailed two-year plans for each program. Although advisers are not expected to be experts on every program the college offers, they are equipped to share accurate information about program requirements, help students enroll in the appropriate courses for their first term, and assign them to their designated academic advisers. This process ensures that students receive the guidance they need from the outset and are seamlessly connected to their academic advisers for ongoing support.

Early Alert Systems

Many colleges use early alert systems to identify and support students facing challenges. Faculty flag concerns based on academic performance, attendance, or behavior. Advisers then intervene to connect students with resources, such as tutoring and counseling, to boost success and retention. However, faculty typically begin using these systems in the fourth or fifth week of the term after conducting significant assessments. This timing excludes students who drop early in the term.

A few colleges have begun encouraging faculty to use the alert system earlier in the term to identify enrolled students who are at risk of dropping out before the census date. At one college, the admissions and records office sends reminder emails to faculty about taking attendance and submitting early alert referrals for students who fail to attend. However, the college acknowledged challenges in getting faculty to take attendance and submit reports consistently.

To ease this burden, two other colleges implemented alternative approaches that do not rely heavily on faculty physically tracking attendance. At one institution, staff generate lists of students who have not logged into Canvas or Blackboard early in the term, providing an early indication of disengagement. Another college redesigned its online courses to include an introductory module with a mandatory attendance verification component that students must complete. Advisers at these colleges then use the generated lists to contact students directly via email, text, or phone, providing timely outreach and support to address any issues and encourage continued enrollment.

Basic Needs

Delaying identifying students' basic needs hinders staff support, resource connection, and relationship-building, increasing the risk of disengagement and early dropout.

A few colleges have taken steps to gather information about the basic needs of all incoming students—regardless of whether they are part of hybrid, online, or specialized program models—before their first meeting with an adviser for enrollment. At one institution, for example, students must complete a very short survey about their basic needs and potential challenges related to housing, food, child care, transportation, and mental health. The survey was deliberately designed with neutral, nonnegative phrasing to encourage survey completion and honest answers. The collected information is then used to connect students with relevant resources and provide them with contact details for available support services.

> [B]asically, we asked the students if they have any barriers . . . food insecurity being one of them . . . but it does allow them to identify if they want to be connected with accessibility services, for example. It is just basically a list of things that they might be interested in. Not all of them are negative in the sense that there's a perceived gap . . . you [the student] had to fill them before meeting [an] adviser. (director, advising)

Another college gathered some of this information directly from the application process and then sent emails to students about the nonacademic services available at the institution. Certain state applications permit colleges to include a few institution-specific questions, although it remains unclear whether the college used this approach to obtain students' basic information.

Student Orientation

One college redesigned its orientation program to help undecided students explore potential careers. During orientation, students access career exploration and assessment tools provided by the college's career and transfer team. Advisers attending the orientation are trained to interpret these assessments and offer imme-

diate introductory guidance. For students interested in more in-depth exploration, advisers assist in scheduling appointments with career and transfer coordinators or campus advisers to ensure personalized support.

Another college said that it is restructuring its orientation sessions to include career exploration, which can help undeclared students select a field of study. However, orientation sessions are typically arranged for students after enrollment. As a result, improvements to orientation are unlikely to help students who need such information before they enroll in courses.

> We used to require orientation before advising and enrollment. We have since done away with that sometime last year. (director, advising)

> [W]e do a session at our new student orientation. So students who go to orientation, they are already enrolled, but it's before classes start. Throughout the summer, there's a bunch of different dates at all different locations for students who are starting in the fall. (lead navigator, advising)

Conclusion

In this chapter, we examined how colleges address the challenges discussed in Chapter 4 that contribute to student loss. We highlighted effective communication strategies, process improvements, and structural adjustments designed to reengage students and reduce attrition. However, no college reported actively monitoring these efforts to assess their success, evaluate their impact, or identify areas for improvement.

Federal, State, and System Policies

In this chapter, we address the fifth research question. Specifically, we review federal, state, and system policies that may be relevant to the pre-census student population. We divide this review into two parts. First, we discuss policies that are related to tracking pre-census students. Then, we review policies that encourage or assist colleges in meeting the specific needs of pre-census students so that they are more likely to remain enrolled.

Policies Related to Tracking Pre-Census Students

We are not aware of state policies that require colleges to track the pre-census population in these states. However, a few colleges in California pointed out that the required submissions to the state data system include all students who have applied, even if they did not register or reach the census date. Although state data queries are normally limited to students who reach the census date, thus constituting the institution's official headcount, our interviewees indicated that it is feasible to run queries on the pre-census population to gain insight into this group.

As we have discussed, Kentucky operates a more centralized community and technical college system than Texas or California. In Kentucky, the state system manages and provides all data systems to the colleges, including significant technical assistance to colleges in tracking their students. Thus, data are automatically available at both the system level and the college levels in the same system, starting from a student's application and continuing to enrollment and persistence. As in California, system officials in Kentucky have the ability to track pre-census students, although they do not do so at present.

Federal policy focuses heavily on enrollment as of the census date. This is the date at which a student becomes eligible to receive federal financial aid and is counted as part of the institution's enrollment for federal statistical purposes. We are not aware of federal policies that specifically target the pre-census period.

Policies That Respond to the Needs of Pre-Census Students

Our interviews and reviews of policy listings on the internet for the three states did not reveal any specific policies that encourage colleges to retain students before the census date. However, California and Texas indirectly incentivize colleges to retain students in general. Specifically, these states have shifted portions of their community college funding formula to fund colleges based on the students who complete credentials, not just those who enroll in courses.

Colleges may be incentivized to enroll more students to improve retention and ultimately boost credential completion rates. Although it remains uncertain whether these incentives will lead colleges to focus on the pre-census period, financial motivations strongly favor retention efforts overall. However, this shift might also prompt colleges to direct their resources primarily toward students who persist beyond the census date, potentially limiting attention to early-stage enrollment strategies.

As we have discussed, students in the pre-census population have significant basic and financial needs that can be barriers to their attendance. Some forms of these needs can be addressed through federal and state programs.

Food Insecurity

The Supplemental Nutrition Assistance Program supports food purchases. This program is federally funded and administered by each state. Colleges can benefit from these programs by clearly directing students with basic needs to the available support.

Coordinated Support for Basic Needs

Since 2023, with the support of the Lumina Foundation, Kentucky has been developing an integrated state-wide strategy to meet students' basic needs, including assistance with food, child care, and job transitions. The state plan calls for routine screening of students' basic needs and dedicated, trained navigators on college campuses to help connect students with resources that meet their needs. It also encourages smoother handoffs from social service and workforce agencies to colleges. The plan also advocates for expansions of program eligibility and funding rules to broaden students' access to these needed services (Kentucky Student Success Collaborative, 2023).

Financial Aid for Citizens and Permanent Residents

Under Title IV of the Higher Education Act of 1965, as amended, the federal government provides Pell grants to low-income U.S. citizens or permanent residents to cover tuition, required fees, and some living expenses. The federal government also makes student loans available, although our interviews indicate that many students in this population are reluctant to take on debt to finance community college education.

Some states also provide financial aid or tuition waivers targeted specifically at community colleges. For example, California provides Cal Grants to low- and moderate-income students attending community colleges (California Student Aid Commission, undated). Although Texas relies mainly on the federal financial aid system, it offers additional state programs for especially needy students, including Promise programs (Texas Comptroller of Public Accounts, undated).

Kentucky has a specific state scholarship for all Kentucky high school students who attend in-state colleges or universities. Students are not required to apply for these funds, and the program automatically notifies each student every year of the scholarship aid they have earned for college. The awards are between $500 and $2,500 per year of college (for lower-income students, even more) (Kentucky Higher Education Assistance Authority, undated-a). Kentucky also has some programs targeted to assist community college students with high needs (Kentucky Higher Education Assistance Authority, undated-b).

Financial Aid for Undocumented Immigrants

Students who are not eligible to apply for financial aid because of their immigration status may be eligible for California and Texas programs that replicate federal grant and loan aid.

Other initiatives also have the potential to help retain students throughout the application and registration phases.

College and System Policies

College and system policies about dropping students who have not paid or completed their financial aid applications have significant impacts on this population. Colleges face a delicate balancing act. If they allow students to continue their financial aid application process past the census date, there is a risk that these students will not complete the process and will not receive the aid they need. They may have a bill they cannot afford, inhibiting them from completing their studies. At the same time, giving students greater latitude in completing their application could increase enrollment and encourage students to form a greater attachment to the college, promoting the students' long-term success.

As discussed in Chapter 4, the Kentucky system used to automatically drop students for nonpayment or for not completing financial aid applications, but this decision is now left in the hands of individual colleges. Colleges can now make more nuanced decisions about whether to drop a student who is not making enough progress toward financial aid and retain students who are judged to be good prospects to qualify.

High School–College Partnership Initiatives

The three states have different statewide initiatives that are designed to form a strategic partnership among high schools, community colleges, and industry. Examples of these initiatives include the California Strong Workforce Program, Pathways in Technology Early College High School (which is common in Texas), and Kentucky's Career and Technical Education Pathways. These initiatives are intended to form a strategic partnership among high schools, community colleges, and industry and aim to provide high school students with the opportunity to earn both a high school diploma, an associate degree, or industry-recognized credentials within six years. If implemented well, such frameworks could enable high school students to explore various careers and fields of study early on, gain insights into college programs, and enhance their understanding of the educational value offered by the colleges they are considering.

Data Initiatives

States and systems also support this population through data initiatives, such as statewide college applications, that simplify the path for students to apply and for colleges to obtain the applicant data they need. All three states in this study use some form of common community college application.

Conclusion

In this chapter, we explored state, federal, and system policies that could play a role in reducing student attrition before the census date. Although none of these policies are explicitly designed to address the unique challenges faced by this group of students, these policies exert an indirect influence on students' outcomes. By focusing on broader aspects of student retention, these policies may encourage colleges to adopt practices that better support students early in their academic journey.

Recommendations

Using our comprehensive research, we have developed targeted recommendations for community college leaders, practitioners, and policymakers with the aim of reducing student attrition before the census date—the point at which students are officially recognized as enrolled.

In our recommendations, we summarize existing strategies that are employed by community colleges and explore additional approaches to address student attrition.

Recommendations for Community Colleges

These recommendations primarily focus on retaining students during the critical period between application and enrollment to the census date. However, many of these strategies also strengthen students' overall connection to the college and offer benefits that extend throughout their academic journey. By implementing these approaches, colleges can advance their broader goals of improving student retention and success.

Enhance Data Systems to Enable Routine Tracking and Monitoring

Connect and Streamline Data Systems

Colleges often collect information to track students before census date, but this information is stored across different data systems that are not seamlessly integrated. As a result, manual effort is frequently required to consolidate data and generate the reports needed to effectively monitor and address student loss prior to the census date. Having to use multiple information technology systems poses challenges to customer service and responsiveness and makes it difficult to get actionable information to help retain students during the application and enrollment processes. Colleges should seek ways to consolidate multiple systems and synchronize their information as much as possible so that staff can spend time helping students instead of manually accessing and connecting data.

Adopt Clear Definitions and Metrics to Track Students

Tracking the pre-census student population calls for collecting data on the key stages and milestones in the student pathways (see Figure 2.1 in Chapter 2). The first step in building a data system is to adopt clear definitions for the population and stages and to find metrics that colleges can use to track student progression. This will enable colleges to track various student populations (e.g., first-time college students, transfer students, and returning students) early in the process because different groups may have distinct experiences or exemptions during application and enrollment. In the appendix, we make detailed recommendations for definitions, metrics, cohort approaches, and data elements.

Conduct Analysis and Present Findings to Decisionmakers and Advising Staff

Once data are assembled, colleges can employ various methods to track students and learn about their progress, using both descriptive and analytic techniques. Presenting analysis in simple, visually appealing ways

helps decisionmakers connect with the analysis and understand its implications. Advising staff could also use this information to better target their support efforts. In Chapter 2, we provided samples of presentations from our work with Dallas College as models for both analytical approaches and presentation formats.

Improve Communication and Student Reengagement

Rethink Welcome Emails, Key Communications, and Handoffs

Colleges often send students extensive and detailed information during the application process. However, this amount of information can overwhelm some students, making it difficult for them to process and navigate the content effectively. Furthermore, application and enrollment systems often are not streamlined: Some require students to transition between staff at various milestones, while others are predominantly online and do not require direct staff interaction. This creates challenges for many students, particularly those facing barriers or lacking the cultural capital needed to navigate the system independently. We outline several strategies to improve these communications:

- **Simplify information.** Colleges could benefit from simplifying and personalizing the information provided to applicants during the initial stages of the application process. Instead of overwhelming students with generic and extensive details, institutions might tailor communications to address factors relevant to each applicant, such as their intended majors, their academic interests, and other information collected through the application. Colleges can also deliver information in smaller, more digestible portions throughout the application-to-enrollment journey. Such approaches can create a more engaging and accessible experience, reducing the risk of students feeling overwhelmed and increasing their ability to process and act on the information effectively.
- **Use a text messaging system.** Although some colleges use text messaging for reminders that students have not completed certain steps, these colleges do not seem to have systematic text messaging systems that uniformly send such reminder messages. Customized text messaging communication and updates for registration, financial aid, and student support information for onboarding students can be built into a larger communication system that could be administered by a designated office. Text messages can draw students' attention to brief updates and provide links to further information. These links could point to resource webpages or simply to the college email system where students can log in to access additional details. The few studies that have looked at customized text messaging within the context of community colleges suggest that such enhanced communication has promise for increasing student engagement with college resources and services, such as the completion of the FAFSA (Bird, Castleman, and Lohner, 2020) and motivation (Paige, Williams, and Brown, 2020).
- **Improve handoffs.** Incoming students are often unaware of the various types of counselors and advisers available to support them throughout their journey. Colleges should ensure that these handoffs are communicated more clearly. To enable smoother handoffs, colleges could provide students with the names of the specific staff members they will interact with at each stage of the process.

Implement Strategies to Enhance Student Completion of Financial Aid Applications

Some students face challenges completing their financial aid applications on time or understanding the required procedures and documents, such as declaring a program of study. These delays often leave students at the enrollment stage without finalized financial aid or clarity on why it was not awarded. Community colleges should send financial aid prompts to students through email or texts that remind them to complete their applications, select a program of study, and fulfill eligibility requirements.

Implement Strategies to Help Undecided Students Choose a Field of Study

At some colleges, students' eligibility for financial aid is directly tied to having a declared major, leaving incoming students who have yet to choose one excluded from financial support and potentially jeopardizing their enrollment. Moreover, some of these colleges provide limited opportunities for students to declare a major during the application and enrollment periods. In addition, students report challenges in accessing support staff (counselors, advisers, coaches, and navigators) for guidance on career paths and fields of study.

To address this issue, we have outlined several key recommendations.

- **Increase program of study advising.** Colleges often face challenges because of multiple student hand-offs. Staff responsible for preparing students for registration (e.g., college coaches, enrollment and admissions counselors) typically focus on administrative tasks and are often not trained to engage in conversations about selecting majors. As a result, this critical responsibility is left to advisers during the last-minute rush at the enrollment stage, making it difficult to provide adequate guidance. To address this, colleges could redefine the roles of early-stage staff by including conversations about majors. This shift would require deepening staff's knowledge of academic programs and allocating sufficient time to support students needing career or field-of-study guidance. Colleges could also incentivize incoming students to meet with staff earlier in the registration period or consider hiring additional trained enrollment advisers. Colleges using an online enrollment model that does not require adviser consultations could require undeclared students to meet with an adviser or give them the option to delay declaring a major for a term or year. This would allow students to explore their interests through first-year college experience courses, fostering a thoughtful approach to selecting their academic path.
- **Redesign the "field of study" question on the college application.** If the application supports it, colleges could eliminate "undecided" as a category under field of study, forcing students to select at least an initial major. Alternatively, the application could list broad fields of study that give students flexibility without committing to a specific major (e.g., health sciences instead of nursing).
- **Delay the field of study decision.** Colleges may allow incoming students to choose a major during their first term or year, as some of the institutions in our study do, without withholding financial support. Research suggests that allowing students to explore and decide on their study major during their first year, rather than requiring them to declare a major when entering college, can have several benefits, including persisting in college (Pascarella and Terenzini, 2005).
- **Mandate early orientation sessions.** Colleges should consider mandatory orientation sessions for incoming students before enrolling in courses, or at least for those with undeclared majors. Such sessions could be designed for students to explore different programs and career choices and could require students to decide on a (possibly broad) program of study by the end of the orientation.
- **Establish a hub.** One college established a centralized hub through which staff assist students with completing necessary application and registration-ready paperwork and address their immediate needs. Beyond this, the hub connects students to other advisers, such as those specializing in financial aid or enrollment, as well as additional resources. With access to all advisers' calendars, staff can swiftly schedule appointments, ensuring seamless support. Such a hub could also prioritize students with undeclared majors by facilitating prompt connections with enrollment advisers to discuss fields of study and academic programs.
- **Hold early discussions with high school students regarding fields of study and careers.** Colleges have partnerships with high schools that implement dual-enrollment courses and serve as feeders to the college. However, much of the work in these relationships focuses on the administration of dual-credit enrollment courses or high school students' completion of financial aid applications. Colleges should expand these relationships to include activities in which high school students explore their interests in

different careers and associated programs (or possibly select a major) so that students have a firmer idea of their intended major when they apply to college.

Identify Student Basic Needs Early in the Process

Many students who apply to community colleges have multiple unmet basic needs. As discussed previously, most of our study colleges do not collect basic needs information on all incoming students systematically or early enough in the process for advisers to engage them in meaningful conversations about meeting these needs. Research addressing basic needs emphasizes the importance of systematically collecting this information in a manner that is both ethical and accessible for students and ensuring that the process is straightforward and minimizes barriers to participation (Goldrick-Rab et al., 2019). A promising approach to collecting this information without overwhelming students is having a short (five- to ten-question) online survey that is integrated into the application and enrollment systems. To avoid overwhelming students, survey questions could be divided up and asked at different times during the application and enrollment processes. We recommend that colleges attend to the following:

- **Word questions in terms of resources rather than needs.** We recommend that the basic needs questions be phrased positively (in our study, only a few of the colleges do). Instead of asking students directly about the issues they are experiencing, the questions could be phrased in terms of resources they would like to learn more about and could be accompanied by a list of both academic and nonacademic choices so that incoming students have balanced options. We also recommend an option indicating that no resources are needed at this time. The list of resources should not be long, so we suggest grouping some of the services. For example, there could be many types of counseling services. Instead of listing them individually, the response category at this stage could be "counseling." More-detailed information about different types of counseling is better obtained during one-on-one meetings between the college or student success coaches and students.
- **Select the optimal time to administer questions.** Colleges should investigate the best timing to administer these questions so that all relevant staff have the information early enough. In this way, staff can contact students who need assistance in a timely manner (preferably through targeted text messaging) and refer them to the appropriate services. This information should be made available to advisers when they meet with incoming students for enrollment.
- **Require students to respond to basic needs questions.** We recommend that colleges make this survey mandatory to ensure that data are collected systemically. For example, colleges could require students to complete the survey before registering for classes or meeting with the enrollment adviser.
- **Provide easy links to resources.** In conjunction with the previous ideas on improving data collection about students' basic needs early in the process, colleges could provide easy links, such as QR codes (quick response codes), to different basic needs and academic resources.

Invest in an Early Alert System That Encompasses Pre-Census Students

Some of the colleges in the study reported having an early alert system, typically initiated by faculty, that is implemented during the fourth or fifth week of the semester. The system tracks mostly student absenteeism or low academic performance. However, the alert systems are applied too late to capture students at risk of dropping out before the census date. We recommend expanding such systems in two ways.

- **Generate strategic alerts and triage early in the term.** College systems could generate alerts for students with basic needs or undeclared majors before enrollment. These alerts could be used to push information to the students and engage them in conversations with advisers to meet their needs or help

choose a major. As part of this strategy, a triage approach can help determine when providing resources may be sufficient and when an adviser conversation is a higher priority.

- **Incentivize faculty to identify students at risk early in the term.** Colleges should consider more systematically involving faculty during the first few weeks of the term before the census date to identify students who are not attending classes, completing assignments, or displaying other needs that may prevent them from continuing their enrollment. Achieving faculty buy-in is essential and can be fostered through incentivization, simplifying system usability, and providing faculty with updates on the support provided to flagged students and the resulting successful outcomes (Ositelu, Ogundana, and Palmer, 2022).

Colleges should also consider restructuring their online courses or learning management systems to capture students' lack of engagement early. This would minimize the need for faculty to take attendance or manually alert counselors and advisers. We recommend that colleges implement and scale up these promising approaches.

Adopt a More Personalized Case Management Approach

Research on academic advising primarily examines its impact on students who remain enrolled beyond the census date, emphasizing its vital role in fostering a sense of connection to the institution and reducing dropout rates (Center for Community College Student Engagement, 2018). To maximize these benefits, colleges should expand advising services to encompass the entire student journey—from application and enrollment through the census date. Effective advising is characterized by proactive strategies, holistic support addressing both academic and nonacademic needs, and ensuring accessibility for all students (Bailey, Jaggars, and Jenkins, 2015; Center for Community College Student Engagement, 2018).

Adopting a case management approach in which incoming students are assigned to a specific counselor, adviser, or team throughout their application-to-enrollment journey can significantly personalize advising, ensure accessibility, and reduce inconsistencies in the information and advice provided. This approach allows counselors and advisers to better understand students and address their unique needs more effectively.

There are various models available, each with different resource requirements. We recommend implementing a team-based approach in which each student is assigned to a dedicated team. Each team member specializes in a specific area, such as career advising, enrollment advising, professional advising, or health counseling. For colleges that have implemented meta-majors, integrating specialized teams within each pathway can enhance the relevance and personalization of student services.

Although this model may incur costs that depend on an institution's size, the number of staff involved, and the necessary staff training, the model can be cost-effective in the long run if it is designed and implemented well.

Build Staff Capacity

In implementing any of the above strategies, staff capabilities will be key to engaging students and building strong relationships with them. Staff capacity can be enhanced through several strategies.

- **Promote buy-in.** College leadership should prioritize retaining students before the census date and integrate this goal into the institution's strategic planning. Doing so emphasizes the significance of this student population and fosters greater buy-in across the college community.
- **Invest in professional development to promote student retention past the census date.** Professional development should provide staff with the tools to cultivate meaningful and supportive relationships with students during the application process, during the enrollment period, and up to the census date. Training should focus on active listening, building trust, setting goals, and incorporating student feed-

back. Additionally, staff interacting with students at early stages should be equipped with knowledge about academic programs, fields of study, and available nonacademic resources—or, at minimum, staff should know how to promptly connect students to the appropriate support services.

- **Review staff allocation to functions.** Colleges should evaluate staffing allocations across key functions, from application to enrollment and major selection. For example, some staff may be better suited to interacting with students and developing strong relationships, and others may be better suited to processing information behind the scenes. Allocating staff based on their specialties and developing such specializations might improve student service and efficiency.

Implement a Monitoring System to Track New Student Engagement Strategies and Initiatives

None of the study colleges has established a system for monitoring student engagement or evaluating the new initiatives to minimize student loss. Developing such a system is crucial for assessing the effectiveness of their strategies and identifying necessary corrective actions. In what follows, we outline the key components of an effective monitoring system and important considerations that colleges should address (from unpublished RAND research by Melanie A. Zaber, Marwa AlFakhri, and Rita T. Karam on building intervention evaluation frameworks).

- **Identify and define all components of the initiatives.** Initiatives for reducing student loss may seem straightforward, but they often consist of numerous components that must be clearly defined, along with their interrelationships. For instance, when expanding an early alert system to include students during the early pre-census weeks of the term, it is crucial to capture not only the usage and referrals but also details, such as student interaction with the system, the types of services or advising received, and the outcomes of these interactions and services.
- **Define the outcome.** Colleges should determine the potential impacts of interventions to reduce student loss and establish benchmarks for assessing improvements. It is also important to identify any indirect or unintended effects. For example, initiatives to reduce student loss may create significant ripple effects on faculty, advisers, and counselors. These initiatives could overburden staff, making it crucial to capture this information to assess resource needs and implement corrective measures effectively.
- **Investigate whether the college collects the data needed for monitoring.** Data on students dropping out before the census date are crucial for colleges. At minimum, institutions must ensure that this information, along with student demographics, is collected, validated, and easily accessible. Furthermore, colleges should identify additional data points that support analyses related to registration, financial aid, and other key milestones, as well as data specific to the interventions or initiatives being implemented.
- **Determine a comparison group.** Colleges should identify an appropriate group that does not participate in or have access to the initiative aimed at minimizing student loss. There are several ways to create a comparison group. Colleges should consider comparison strategies, such as staggering the rollout of the initiative or identifying comparable groups of students (or previous cohorts) who do not receive the intervention.
- **Collect both quantitative and qualitative data.** Although college systems typically collect outcome data related to student loss, it is equally important to gather implementation data for the initiatives. This data collection is best achieved through surveys and interviews with students, college staff, and faculty. Such qualitative data can capture details about the implementation process, as well as the successes and challenges encountered. This information is critical for informing corrective actions and facilitating the scaling up of successful initiatives.

- **Apply the appropriate analytic techniques.** The statistical method should align with the design of the comparison group or defined benchmark. Colleges should consider triangulating these results with qualitative data.
- **Establish an advisory team.** When time and resources permit, engage all relevant departments in the evaluation process to obtain diverse perspectives on the initiatives' effectiveness. Include leadership in the process to authorize corrective measures and oversee scaling efforts when the initiative is ready for broader implementation.

Recommendations for State Actors

Adopt State Policies to Support Pre-Census Students

Coordinate Access to Supports for Basic Needs

Kentucky's initiative to expand basic needs support for college students shows how states can develop a coordinated strategy as students start their college journey to assess their needs, help them connect to programs, and maximize program participation. States could produce example questions for new students and materials on navigating state and community programs for food, child care, and other services. States could sponsor training for college staff (e.g., advisers, counselors) on campus to build their capacity in supporting students. States could also consider expanding eligibility for key programs, such as child care support, that are critical to enabling students with families to attend community college.

Encourage Colleges to Track Students from Application Through Enrollment

California and Kentucky already collect data from community colleges, tracking student applications through registration and enrollment past the census date. However, they have not analyzed students' experiences before the census date. These states and others could leverage the data they already collect to encourage colleges to monitor this population by providing reports or tools to help colleges generate their own analyses. Additionally, states can offer training and technical assistance to college analytical staff. For states without such data collection, expanding their data systems to capture student records from the point of application could be beneficial.

States could also provide resources and tools to help colleges personalize their outreach to students at risk of dropping out.

Connect Data to Improve Analysis

Connecting data sources is a powerful enabler for analytics. If states can link community college application and enrollment records to such sources as the National Student Clearinghouse, analysts can track students not only within a college or state system but also across other colleges they may enroll in. This connection would allow for a much richer analysis of student success, enabling states and colleges to identify significant differences in student experiences. For instance, this data connection would enable analysts to distinguish between students who withdraw from a college and then (1) reenroll at the same college, (2) enroll and perhaps complete their studies elsewhere, or (3) do not enroll at any institution within the system. Such analysis can help colleges determine whether their programs and practices are effectively benefiting their student populations.

Provide Targeted Funding to Reengage Lost Students

Our research suggests that students who drop out before the census date represent a promising population to reengage. Although they may have faced some challenges that led them to leave, their circumstances can change over time. States should consider offering targeted funding to encourage colleges to reach out to this

population. States could also provide targeted financial aid that would help students who have dropped out to reenroll. For example, Tennessee has started a supplemental grant program called the Tennessee Reconnect Grant that is open to adult learners (typically over age 23) without a college degree to encourage them to enter or reenter college to complete a degree or certificate (Tennessee Reconnect, undated).

Use High School–College Partnership Initiatives to Enhance Students' Understanding of the Educational Value of College

Our research indicates that many students lack a clear understanding of the value offered by the colleges they are considering. Colleges can explore how their initiatives, which are designed to foster collaborations with high schools and industry, could provide students—beginning in 9th grade—with opportunities to explore diverse careers, academic fields, and college offerings. This exposure can deepen students' insights into how prospective colleges align with their interests and goals.

Conclusion

There is a growing need to focus on students who drop out before the census date—a critical issue for both students and colleges. The urgency to address this need is twofold: Colleges must find effective ways to support students while increasing their enrollment. For students, personal challenges combined with the complexities and barriers within the application and enrollment processes often result in disengagement before their academic journey begins. For colleges, these early departures represent missed opportunities to strengthen enrollment and foster long-term retention. Although colleges have systems in place, gaps in streamlining these processes remain.

Our report highlights these gaps and provides comprehensive recommendations to address these challenges. It builds on promising practices that institutions are implementing to improve student enrollment and retention beyond the census date.

Recognizing that some recommendations may be more challenging to implement than others, we suggest that community colleges begin with the relatively easier recommendations. For example, to enhance student retention up to the census date, colleges could start by improving the clarity and timing of communications sent to students after they submit their applications, ensuring that they are not overwhelmed with information. Additionally, colleges should clearly outline financial aid steps and requirements, including the need to declare a major, to streamline the process for students. Collecting basic needs information early in enrollment can help identify and address barriers that may impact student success. Expanding early alert systems to include pre-census students, particularly those enrolled in online programs and courses, can further support students during this critical period. Implementing more-comprehensive strategies, such as transitioning to a case management approach or connecting different data systems, requires significant resources and a longer timeline. Finally, colleges implementing new strategies should establish a monitoring system to track progress and take corrective actions as needed.

Recommended Data Practices for Tracking Students

Building on the high-level points in the first recommendation in Chapter 7, in this appendix we recommend detailed practices and strategies for tracking students who drop out before the census date. We based these practices on our experiences developing a data system with Dallas College and our review of reports provided by some of the other study colleges.

Definitions and Metrics

Tracking this population calls for collecting data on the key stages and milestones in the student pathways (depicted in Figure 2.1 in Chapter 2). The first step in building a data system is to adopt clear definitions for the population and stages and to develop metrics that colleges can use to track student progression. We recommend the following model definitions based on our detailed work with Dallas College:

- *Target semester*: This is the semester that the student intends to register for.
- *Application*: A student completes the minimum required data entry for an application and submits it for the target semester. Tracking can typically begin from this point, although, at some colleges, it may be feasible to track prospects who have engaged with the college before applying.
- *Registration-ready*: A student has applied and has completed mandatory registration requirements, such as placement tests and vaccinations.
- *Registration* (sometimes called *enrollment*): A student has signed up for at least one credit-bearing class in the target semester.
- *Enrolled after census date*: A student has registered (enrolled) for at least one class after the census date of the target semester and remained enrolled.
- *Dropped all classes*: A student has previously registered for at least one credit-bearing class and then reaches a point before or during the target semester when they are no longer registered for any credit-bearing classes.
- *Scope*: This is whether a system is designed to measure loss to an individual college or to a whole system of colleges. In the latter case, a student exiting the process at one college would not be considered lost if they enrolled at another college within the same system.

Colleges may have local variations in practices that call for minor adjustments to these model definitions.

Criteria for Cohort Membership

We recommend that colleges analyze student experiences in cohorts, following the principles explained by Voorhees and Lee (2009). We recommend defining each cohort as the students who have applied for enrollment for credit in a given target semester. This definition allows the college to examine the student journey from application to registration to enrollment past the census date and eventually to persistence and graduation.

Colleges must make several decisions about membership in the cohort. Many community colleges offer dual enrollment to high school students. If the primary focus is on the experiences of students coming to the college from the general market, we recommend excluding dual-enrollment students while they are in high school but including them if they apply to continue their studies at the college after they graduate from high school. We also recommend excluding transient students who are taking individual courses in support of a degree plan at another college. Colleges may also want to distinguish among students who have never attended college, students who have attended other colleges, and students who have previously attended the college but dropped out.

It is important to analyze cohorts for both fall and spring semesters because students' characteristics and experiences with the college may vary depending on when they start their studies. For example, counselors may be able to devote more attention to students who start in spring because fewer students tend to start then.

Data Elements

Data elements are required to measure various constructs that may be associated with student retention and loss. We divide our recommended data elements into four groups: application information, student characteristics, milestones, and outcomes (shown in Table 2.1).

Application information is essential to defining the cohort members and applying several of the definitions in the previous section. Student characteristics help colleges disaggregate students and identify patterns with which certain groups of students experience greater loss rates or challenges with their progression. Milestone data capture the critical actions that students must take before the semester starts, such as declaring a program of study, completing testing, vaccination, and financial aid applications. Finally, the outcomes encompass the results of this progression: initially remaining enrolled past the census date and later completing the semester, enrolling in a subsequent semester, and eventually graduating.

Although the typical student may apply only once, register only once, and have one dropout point, others may cycle in and out of the process. Thus, defining which of possibly multiple dates are retained in the data element is essential. As a general rule (shown in Table 2.1), we recommend that the earliest date be retained for application and enrollment and the latest date for dropping classes.

Many colleges offer classes with different lengths within a single semester or term. For example, a 16-week semester may include courses that run the full 16 weeks, just the first eight weeks, or just the second eight weeks. In the data system design, it is important to distinguish students who are applying only to take courses during the second eight-week period so that their milestone dates can be compared accurately with their intended start date.

Although Table A.1 focuses on outcomes at the level of a single college, there may also be opportunities to measure their outcomes more broadly. For example, colleges can use National Student Clearinghouse or state system data to track students across institutions to measure whether they remain enrolled at any college (in the state or nationwide).

TABLE A.1
Data Elements

Category	Variables
Application information	- Student identifier - Application date (earliest, if there are multiple applications) - Application source - Student enrollment type (e.g., high school dual credit, readmit, regular enrollment) - Term applied for - First date of term (full semester or partial) - Census date of term (full semester or partial)
Student characteristics	- Age as of first day of term - Gender - Race/ethnicity - First time in any college - First generation to attend college - High school graduate - GED - Location of student's high school - Promise scholarship recipient - Also applied in prior term - Also enrolled for credit in prior term - Was enrolled for noncredit in prior term - Enrolled in dual credit in prior term
Milestones	- Program of study (latest, if multiple times) - Selected a program of study on the application - Date the program of study was selected (latest, if multiple times) - Placement test completed - Placement test waived or exempt - Placement test date - Placement test score - Vaccination requirement completed - Vaccination requirement waived or exempt - Vaccination date - Financial aid application completed - Financial aid application date - Registered - Registered date (earliest, if multiple times) - Met with an adviser (or coach) - Attended orientation session - Attended class during the first two weeks of the term - Student dropped all classes - Dropped all classes date (latest prior-to-census date, if multiple times) - Withdrawal reasons, if available
Outcomes	- Enrolled after census date - Completed at least one class in the first term - Reenrolled in the next spring or fall term - Graduated with degree or certificate

NOTE: GED = General Educational Development credential.

Abbreviations

CalWORKs   California Work Opportunity and Responsibility to Kids

COVID-19   coronavirus disease 2019

FAFSA   Free Application for Federal Student Aid

RI   Dallas College Research Institute

RTW   Ready to Work

References

Bailey, Thomas R., Shanna Smith Jaggars, and Davis Jenkins, *Redesigning America's Community Colleges: A Clearer Path to Student Success*, Harvard University Press, 2015.

Bers, Trudy H., and Gwen Nyden, "The Disappearing Student: Students Who Leave Before the Census Date," *Journal of College Student Retention: Research, Theory & Practice*, Vol. 2, No. 3, 2000.

Bird, Kelli A., Benjamin L. Castleman, and Gabrielle Lohner, "Negative Impacts from the Shift to Online Learning During the COVID-19 Crisis: Evidence from a Statewide Community College System," Annenberg Institute at Brown University, EdWorkingPaper No. 20-299, September 2020.

California Student Aid Commission, "Cal Grant Programs," webpage, undated. As of March 27, 2025: https://www.csac.ca.gov/cal-grants

Center for Community College Student Engagement, *Show Me the Way: The Power of Advising in Community Colleges*, University of Texas at Austin, 2018.

Community College Research Center, "How Many Community Colleges Recovered Their Enrollments Three Years After the Pandemic? Too Few," Teachers College, Columbia University, 2025.

Davidson, J. Cody, and Kristin B. Wilson, "Community College Student Dropouts from Higher Education: Toward a Comprehensive Conceptual Model," *Community College Journal of Research and Practice*, Vol. 40, No. 7, 2016.

Goldrick-Rab, Sara, Christine Baker-Smith, Vanessa Coca, Elizabeth Looker, and Tiffani Williams, *College and University Basic Needs Insecurity: A National #RealCollege Survey Report*, Hope Center, April 2019.

Higher Education Act of 1965, Title IV, Student Assistance.

Jenkins, Davis, "Why Has Community College Enrollment Declined and What Can We Do About It?" Community College Research Center, May 1, 2023.

Jenkins, Davis, and John Fink, "How Will COVID-19 Affect Community College Enrollment? Looking to the Great Recession for Clues," Community College Research Center, April 30, 2020.

Kentucky Higher Education Assistance Authority, "Kentucky Educational Excellence Scholarship," brochure, undated-a. As of March 27, 2025: https://www.kheaa.com/web/resources/pubs/ky/KEES_Brochure.pdf

Kentucky Higher Education Assistance Authority, "Scholarships and Grants," webpage, undated-b. As of March 27, 2025: https://www.kheaa.com/web/scholarships-grants.faces#collegeAccess

Kentucky Student Success Collaborative, *Kentucky's Strategies and Recommendations to Address Students' Basic Needs*, Kentucky Council on Postsecondary Education, 2023.

Mery, Pamela M., "Students Leaving Before Census. Survey Series, Spring 2000," City College of San Francisco, RR-013-01, 2001. As of March 13, 2025: https://eric.ed.gov/?id=ED455867

National Student Clearinghouse, "Postsecondary Enrollment Continues to Grow," May 22, 2024. As of February 20, 2025: https://www.studentclearinghouse.org/news/postsecondary-enrollment-continues-to-grow/

National Student Clearinghouse Research Center, "Persistence and Retention," webpage, June 27, 2024. As of February 20, 2025: https://nscresearchcenter.org /persistence-retention-estimates/

Ositelu, Monique O., Ewaoluwa Ogundana, and Iris Palmer, "Five Recommendations for Community Colleges to Equitably Implement Early Alert Systems," New America, October 2022.

Paige, T., L. Williams, and K. Brown, "Text Messaging as a Tool to Enhance Student Motivation in Community Colleges," *Community College Journal of Research and Practice*, Vol. 44, No. 4, 2020.

Pascarella, Ernest T., and Patrick T. Terenzini, *How College Affects Students: A Third Decade of Research*, Jossey-Bass, 2005.

Renner, Blake J., and Elizabeth Skursha, "Support for Adult Students to Overcome Barriers and Improve Persistence," *Journal of Continuing Higher Education*, Vol. 71, No. 3, 2023.

Sadler, William E., Frederic L. Cohen, and Levent Kockesen, "Factors Affecting Retention Behavior: A Model to Predict At-Risk Students," AIR 1997 Annual Forum Paper, 1997.

Tennessee Reconnect, homepage, undated. As of March 27, 2025:
https://tnreconnect.gov

Texas Comptroller of Public Accounts, "State of Texas Financial Aid," webpage, undated. As of March 27, 2025:
https://comptroller.texas.gov/programs/education/msp/funding/aid/state-programs/

U.S. Chamber of Commerce Foundation, Center for Education and Workforce, *Making Youth Employment Work: Essential Elements for a Successful Strategy*, 2023a.

U.S. Chamber of Commerce Foundation, Center for Education and Workforce, "Skills-Based Hiring and Advancement Brief," 2023b.

Villano, Renato, Scott Harrison, Grace Lynch, and George Chen, "Linking Early Alert Systems and Student Retention: A Survival Analysis Approach," *Higher Education*, Vol. 76, March 2018.

Voorhees, Rick, and John Lee, "Basics of Longitudinal Cohort Analysis. Principles and Practices of Student Success," Lumina Foundation for Education, 2009.