

# A MATTER OF DEGREE

## Using Behavioral Science to Identify Barriers to Credit Intensity and Satisfactory Academic Progress

**cabs**   
center for applied  
behavioral science at mdrc

CAMIELLE HEADLAM, EMILY MARANO, JUSTINE YU

APRIL 2019

# Overview

Over 31 million Americans have earned college credits without earning their degrees. Higher education leaders, researchers, and policymakers are increasingly addressing this college completion crisis through a new lens: behavioral science. The interdisciplinary field of behavioral science focuses on how people make decisions and take action.

In 2017, MDRC teamed up with three community colleges in Minnesota to identify some of the behavioral reasons for the low rates of college completion among their students. Colleges in the study are part of the Minnesota State Colleges and Universities system, which is the largest college system in the state, and the fourth largest system in the country. The project, titled *Finish Line: Graduation by Design*, used a behavioral science framework developed by MDRC's Center for Applied Behavioral Science (CABS) to explore the following two postsecondary domains that are closely linked to college completion rates, and identified key barriers to their attainment.

## Credit Intensity

The number of credits that students attempt and complete each semester.

### Barriers to Increasing Credit Intensity:

- Institutional and social norms may not support higher credit loads
- Students may continue to take the lighter credit loads proposed for their first semester
- Students might not understand how part-time attendance impacts their time-to-degree
- Lighter credit loads fulfill short-term needs at the cost of long-term goals
- Complex cost and financial aid variables may not factor into credit intensity decisions

## Satisfactory Academic Progress (SAP)

Academic standards that determine enrollment and financial aid eligibility

### Barriers to Satisfactory Academic Progress:

- Students may lack salient and timely information about SAP requirements
- Lack of clarity about how withdrawing from a course could hamper academic progress
- Students may ignore or be unaware of SAP violations
- Cumulative SAP requirements could discourage students from appealing suspension
- Sanctioned students may not receive proactive academic and personal support

MDRC used a problem-solving process developed by MDRC's Center for Applied Behavioral Science called the CABS Approach to uncover these hidden behavioral and institutional barriers to credit intensity and SAP. This report details these findings and offers recommendations to colleges seeking to help their students overcome obstacles to graduation.

# Contents

<b>Overview</b>	ii
<b>Section</b>	
1 Introduction	1
<b>FIGURE 1</b> Minnesota Community Colleges Participating in the Finish Line Project	4
2 The CABS Approach	6
<b>FIGURE 2</b> The CABS Approach	6
<b>FIGURE 3</b> Preliminary vs. Refined Problem Statement	8
3 Behavioral Barriers to Increasing Credit Intensity	11
<b>FIGURE 4</b> Enrollment by Credit Level	11
<b>FIGURE 5</b> Relationship Between Credits Attempted in the First and Second Semesters	13
<b>FIGURE 6</b> GPA by Credit Load	15
<b>FIGURE 7</b> Associate Degree Attainment after Three and Four Years of Enrollment	16
<b>FIGURE 8</b> Maximum Award Amounts for the Federal Pell Grant and Minnesota State Grant for Student with EFC = 0	18
4 Behavioral Barriers to Satisfactory Academic Progress	19
<b>FIGURE 9</b> SAP Progression and Four-Year Graduation Outcomes for Fall 2013 Cohort	21
<b>FIGURE 10</b> SAP Familiarity from a Post-Orientation Survey	22
<b>FIGURE 11</b> Tone of SAP Communications from Colleges	25
<b>FIGURE 12</b> Appeal Rates by College	25
5 How Colleges Can Build on the Finish Line Findings	29
<b>Appendix</b>	
A Data Sources	32
B Detailed SAP Process Map	35
C Selected Behavioral Barriers and Solutions with Examples from the Finish Line Project	37
<b>References</b>	40
<b>Acknowledgments</b>	44

# Section 1

## INTRODUCTION

Nationwide, only 13 percent of community college students graduate within two years, and only 24 percent graduate within three years.<sup>1</sup> Two important indicators that students will graduate on time are the number of credits they attempt each semester (credit intensity) and their academic performance, which is often measured by a college's requirements for satisfactory academic progress (SAP). Many community college students enroll in too few credits to graduate in the standard two years. Many students also have difficulty meeting SAP, which can lead to a loss of financial aid or academic suspension.

In collaboration with three community colleges in Minnesota, MDRC used behavioral science to explore reasons students may attempt lighter course loads and struggle to meet SAP requirements. The goal was to understand whether there are ways to improve student outcomes in these two domains and help more students graduate. This report identifies the hidden behavioral and institutional barriers that students face in terms of both credit intensity and SAP. This introductory section describes the two domains and the project in more detail.

### CREDIT INTENSITY

At most community colleges, students must complete 30 credits each academic year to earn a 60-credit associate degree within the standard two-year timeframe for graduation. However, many students take fewer credits, extending the time it takes them to graduate. Full-time students often take only 12 credits each semester, which constitutes full-time enrollment under federal financial aid guidelines. Many part-time students take even fewer credits.

As a result, some institutions encourage students to take 12 credits per semester, and more recently, others have encouraged students to take 15 — often through mandates, financial incentives, or messaging campaigns.<sup>2</sup> These initiatives have merit: full-time programs combined with student support services have led to dramatic increases in graduation rates, and students who take 15 credits, including first-generation students and those with low levels of academic preparation, are more likely to graduate.<sup>3</sup> Despite this, some higher education stakeholders have argued that

---

<sup>1</sup> Juszkievicz (2017); McFarland et al. (2018).

<sup>2</sup> Klemplin (2014).

<sup>3</sup> Sommo, Manno, and Cullinan (2018); Attewell and Monaghan (2016).

full-time enrollment may be inappropriate for students who are balancing school with other responsibilities, and research confirms that students with significant work commitments may not benefit from 15-credit semesters.<sup>4</sup>

While not all students will be able to manage a 12- or 15- credit load, encouraging students to complete even one additional course (typically 3-4 credits) each semester, could reduce their time to degree and increase overall graduation rates. Furthermore, if students graduate earlier, they may experience economic benefits, such as savings on institutional fees and transportation costs and the ability to use their credential to obtain higher-paying jobs. As a result, the Finish Line project seeks to understand whether some students have the capacity to increase their credit intensity and explores the barriers students face to higher credit loads.

## SATISFACTORY ACADEMIC PROGRESS

In addition to taking enough credits to graduate in a timely manner, students must make satisfactory academic progress. Federal financial aid policy stipulates that colleges must have SAP guidelines that govern eligibility for assistance. Similar guidelines also govern eligibility for enrollment. There is some variation in SAP policies across institutions, but all include requirements related to a student's grade point average (GPA), credit completion rate, and total credit accumulation. Most colleges, including each of the colleges participating in the Finish Line project, require students to meet the following criteria:

- **Achieve a 2.0 cumulative GPA or higher.** This is the equivalent of a C-average, or better, in all classes.
- **Maintain a 67 percent cumulative completion rate.** Completion rate is calculated by dividing the number of cumulative earned credits by cumulative registered credits. For example, a student who registers for 12 credits and earns 9 credits has a 75 percent completion rate.
- **Stay within the maximum timeframe of 150 percent of credits needed to complete a degree or certificate program.** Students may not receive financial aid that exceeds one and a half times the total credits necessary to complete a postsecondary program. For example, if a student is pursuing an associate degree that requires 60 credits for graduation, the student would lose financial aid eligibility after attempting 90 credits.

Students who do not meet the GPA and completion rate guidelines in a given semester are typically provided with a warning and allowed to enroll and receive aid for one additional term. However, if they fail to meet SAP requirements at the end of the warning period, they are suspended and prohibited from enrolling in school or receiving financial aid, subject to appeal. Students who successfully appeal, are placed on probation. Students on probation can reenroll and receive financial aid for one additional semester. Students on probation are required to complete an academic plan to help them improve. Depending on a student's academic performance and compliance with their

---

4 Attewell and Monaghan (2016).

academic plan during the probation semester, the student can achieve good standing, remain on probation for another semester, or revert to suspension status.

There has been mixed success with several interventions to improve students' SAP outcomes. One college found that students on probation who regularly met with an advisor three or four times per semester, were more likely to improve their GPA and return to good academic standing, and less likely to withdraw or face suspension.<sup>5</sup> However, this assessment relied mostly on descriptive data that did not account for external factors, such as student motivation. There have only been a few causal studies that examine the effect of targeted interventions on students who do not meet SAP requirements. The findings are mixed. For example, one study found that an intervention in which sanctioned students received a notification letter that provided them with information about academic support resources and future action the school might take based on the student's subsequent academic performance, did not improve the GPA of students who received the notification, compared with students who did not receive it.<sup>6</sup> Another study found that students had higher odds of being on better academic standing when probation notifications were revised to incorporate psychological principles including testimonials from students who successfully recovered from probation.<sup>7</sup> In another study, the short-, not long-term, prospects for students on probation improved with the introduction of a college success course that covered topics such as time management and campus resources.<sup>8</sup> While these studies provide a starting point, they suggest that more innovation and research is needed on how to help students maintain good academic standing. The Finish Line project adds to the understanding of this challenge by exploring the behavioral barriers to SAP.

## **PARTICIPATING COLLEGES IN THE FINISH LINE STUDY**

In 2017, MDRC's Center for Applied Behavioral Science (CABS) partnered with three public, two-year community colleges in Minnesota that expressed interest in using behavioral science to understand the obstacles their students face when taking full-time credit loads and maintaining SAP. All three colleges are part of the Minnesota State Colleges and Universities system (Minnesota State system), the largest college system in Minnesota and the fourth largest system in the nation. As part of the Minnesota State system, the colleges participating in Finish Line had similar registration and SAP policies but varied in size. See Figure 1 for more information on the participating colleges.

## **A BEHAVIORAL SCIENCE APPROACH**

Prior research has identified issues such as low academic preparation and school, work, life balance as reasons students struggle with both credit intensity and SAP. To delve deeper into these issues and identify additional barriers, the Finish Line project examined credit intensity and SAP using a behavioral science lens. Behavioral science is an interdisciplinary field that incorporates

---

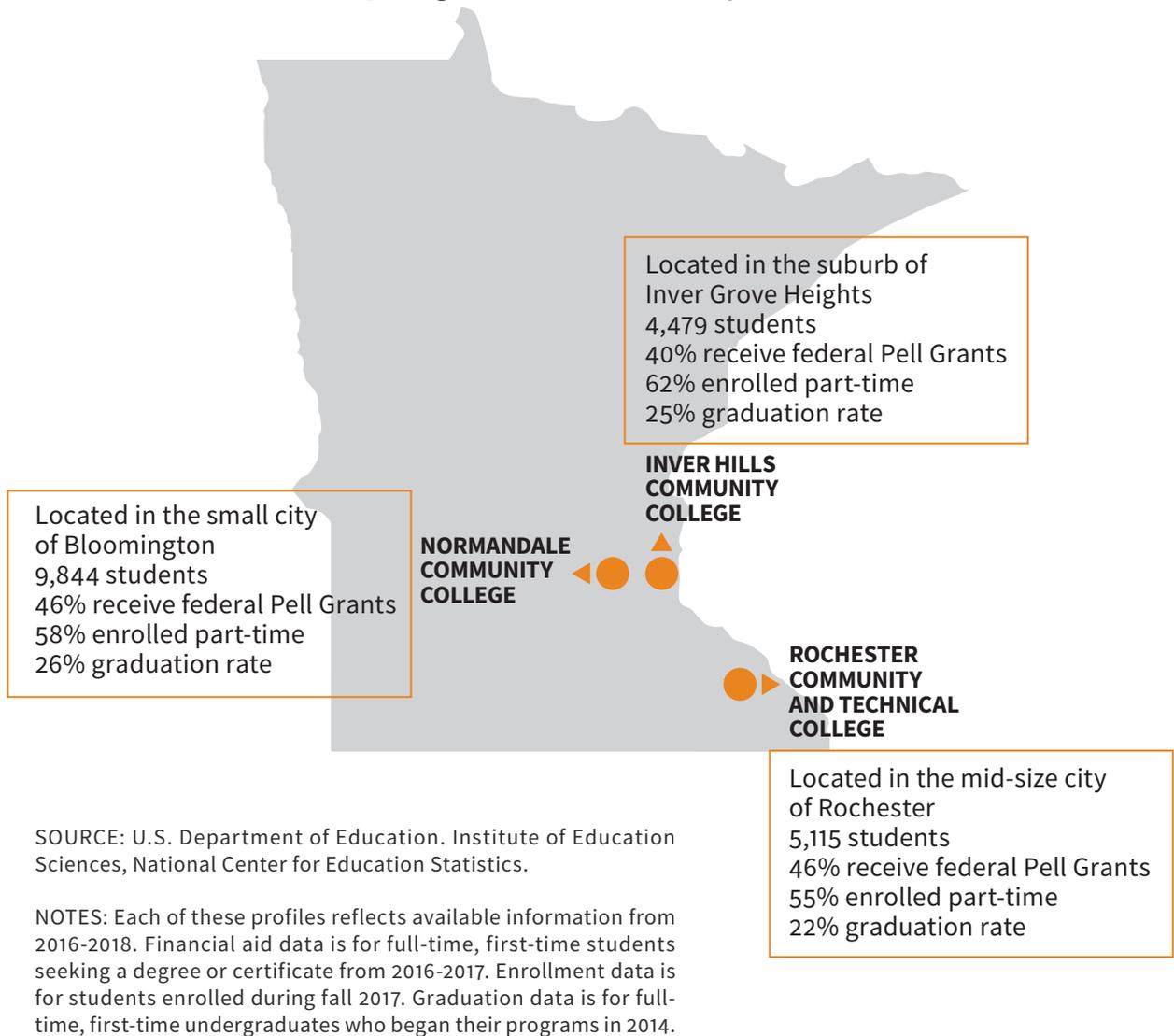
<sup>5</sup> Preuss and Switalski (2008).

<sup>6</sup> Moss and Yeaton (2015).

<sup>7</sup> Brady et al. (2019).

<sup>8</sup> Weiss, Brock, Sommo, Rudd, and Turner (2011).

**Figure 1. Minnesota Community Colleges Participating in the Finish Line Project**



psychology, economics, marketing, human-centered design, and other social sciences to provide insight on how and why people make certain choices. Behavioral science operates on the premise that people often act in predictable ways. For example, behavioral research has demonstrated that small hassles, such as having to fill out additional forms, can lead to inaction, and that people often behave according to what they think others are doing. Studying and applying these behavioral concepts can shed light on the reasons a certain program or policy is not working as intended.

Over the past decade, behavioral science has gained acceptance as a framework for program designers and policymakers to develop problem-solving strategies that help people pay attention to relevant information, increase their motivation, and turn motivation into action. It is increasingly being used in higher education circles to improve issues related to enrollment, participation in

student support services, academic planning, and financial aid applications.<sup>9</sup> The success of behaviorally-informed interventions suggest that behavioral science may also be a useful tool for credit intensity and SAP. To apply a behavioral science lens to these domains, the Finish Line team turned to the CABS Approach — a six step framework that can be used to identify behavioral barriers and develop behaviorally-informed solutions. The CABS Approach is described in Section 2.

## ABOUT THIS REPORT

This publication serves a dual purpose: It describes how higher education leaders can use behavioral science to address problems on their campuses and it presents diagnostic findings from Finish Line’s exploration of credit intensity and SAP.

Section 2 details the CABS Approach, a framework developed by MDRC’s Center for Applied Behavioral Science that helps program administrators use behavioral science to understand why students may be struggling and how to help them.

Sections 3 and 4 present the findings from Finish Line’s behavioral diagnosis on credit intensity and SAP, respectively. In addition to presenting the behavioral barriers, each section discusses the data underlying the findings and offers considerations for higher education administrators seeking to address behavioral barriers to graduation at their institutions.

This report concludes in Section 5 with key insights and recommendations for how postsecondary institutions can build on Finish Line’s diagnostic findings to improve college processes and student outcomes that relate to credit intensity and SAP.

---

<sup>9</sup> Headlam, Anzelone, and Weiss (2018); Ratledge (2017); Visher et al. (2016); Bettinger, Long, Oreopoulos, and Sanbonmatsu (2012).

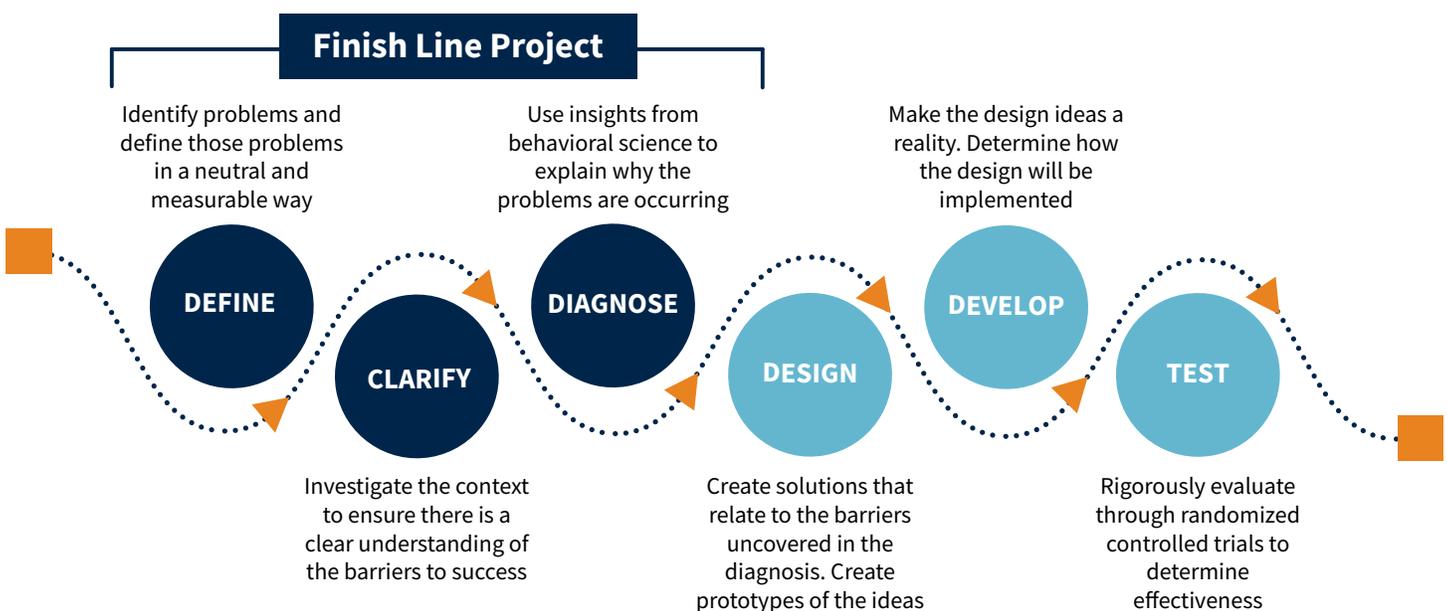
# Section 2

## THE CABS APPROACH

The CABS Approach is a framework developed by MDRC’s Center for Applied Behavioral Science to systematically identify problems and design solutions using behavioral science. (See Figure 2.) The framework details a step-by-step process that provides higher education policymakers and administrators with solutions that are data-driven, informed by behavioral science, and tailored to fit the context and needs of individual institutions.

During the Finish Line project, MDRC collaborated with three Minnesota community colleges to identify behavioral barriers related to credit intensity and SAP using the first three steps of the CABS Approach: Define, Clarify, and Diagnose. These steps are illustrated using examples from the Finish Line project. This section describes the entire CABS Approach, which includes a total of six steps. However, MDRC did not undertake any of the activities that are typically conducted during the Design, Develop, and Test phases of the CABS Approach because they were beyond the scope of the Finish Line project.

**Figure 2. The CABS Approach**



## STEP 1 DEFINE

The first step of the CABS Approach is to understand the problem the end user (i.e., the population of interest) is facing, and its scope. In the higher education field, the end user is often the student, but depending on the problem, it could also be a faculty member, or someone from another group. The problem should be *specific, observable, neutral, and measurable*, meaning that it should clearly state who and what processes are involved, not make any assumptions about the cause of the problem or its solution, and be both observable and measurable. The Define step culminates with the formation of a preliminary problem statement, which summarizes the problem the team wants to solve.

### What Did the Finish Line Team Do?

The Finish Line team explored behavioral barriers to credit intensity and SAP in light of previous research, conducted by MDRC and others, indicating that shortcomings in these two areas contributed to poor graduation rates.<sup>1</sup>

MDRC began the problem-solving process at each institution with a non-specific statement about SAP and credit intensity. As the research team gathered quantitative and qualitative data from the colleges during the Clarify phase, the scope and contours of the problem statement were simplified. The preliminary problem statements were defined as:

- **Credit Intensity:** Few students register for enough credits to graduate in the standard two-year timeframe for an associate degree.
- **Satisfactory Academic Progress (SAP):** A significant proportion of students do not maintain SAP and are placed on SAP warning, suspension, or probation. Many of these students do not return to good academic standing.

## STEP 2 CLARIFY

Once the problem has been defined, the problem's context and scope are clarified using both qualitative and quantitative data, and previous research. Qualitative research activities may include conducting interviews or focus groups with participants and relevant stakeholders and reviewing relevant documents. During quantitative research activities, the team may examine participation, cost, academic records, or other types of data. Literature reviews also provide an understanding of the research landscape related to the problem. If the topic at issue includes a process, insights from qualitative and quantitative data can help to develop a process map, or a visual representation of specific steps within a process. This map is used to identify drop-off points, or places in the process where many participants fail to advance to the next step. Data is also used to substantiate

---

<sup>1</sup> Attewell and Monaghan (2016); Scott-Clayton and Schudde (2017).

misalignments, for example, between policies and practice. Together, the data, literature review, and process map help develop a more nuanced understanding of the problem.

### What Did the Finish Line Team Do?

At all three Finish Line colleges, the team conducted interviews and focus groups with students, staff, and senior administrators and reviewed documents such as registration guidelines, degree guidance forms, and SAP-related communications. The team also administered an informal survey before and after one orientation session, and analyzed historical demographic, academic, SAP, skill test, and transcript data provided by the Minnesota State system. (For more information about the data sources used for the Finish Line project, see Appendix A.) Using both the qualitative and quantitative data collected during the Clarify phase, the team refined the credit intensity and SAP problem statements from the Define phase to provide a more thorough understanding of the problem at each of the three colleges.<sup>2</sup> (See Figure 3.) For the SAP domain, the team also created a process map to document the journey of a student attempting to return to good academic standing after failing to meet the SAP requirements. (See Appendix B.)

**Figure 3. Preliminary vs. Refined Problem Statement**

	<b>CREDIT INTENSITY</b>	<b>SAP</b>
<b>Preliminary Problem Statement</b>	Few students enroll in enough credits to graduate in two years, the expected timeframe to earn an associate degree.	A significant proportion of students do not maintain Satisfactory Academic Progress (SAP) and are placed on SAP warning, suspension, or probation. Many of these students do not return to good academic standing.
	▼	▼
<b>Refined Problem Statement</b>	About 50 percent of students enroll in fewer than 12 credits each fall and spring semester, making it difficult for them to earn an associate degree within two to three years.	Up to 29 percent of students do not maintain Satisfactory Academic Progress (SAP) and are placed on SAP warning, suspension, or probation. About 10 percent of students placed on warning in their first semester return to good academic standing within three semesters.

<sup>2</sup> The refined problem statement for credit intensity is based on enrollment trends from fall 2013 to spring 2016 for academically engaged students who began at the three colleges in fall 2013. See Figure 4 for more information. The refined problem statement for SAP is based on data for students at the three colleges who began in fall 2013. See Figure 9 for more information.

## STEP 3 DIAGNOSE

During the Diagnose phase, the team used the qualitative and quantitative data collected during the Clarify phase to identify factors that may be causing the problem, as defined. The team then drew on behavioral science research to develop hypotheses about the behavioral reasons for the barriers or drop-off points. Understanding key research concepts from behavioral science, and how these concepts influence people's decisions and actions is a key aspect of diagnosis. Appendix C provides a list of selected behavioral barriers and potential solutions to address those barriers.

### What did the Finish Line team do?

Using the qualitative and quantitative data analyzed during the Clarify phase, the team identified potential behavioral barriers related to credit intensity and SAP. For example, during field research, the team discovered that students were often unfamiliar with the SAP requirements, even though they had just heard about the requirements during orientation. The team also observed that students receive a significant amount of information at orientation on several topics. Drawing on behavioral science, the team hypothesized that students might report being unfamiliar with the SAP requirements due to **cognitive overload**,<sup>3</sup> or a process during which people are overwhelmed by the amount of information presented to them, rendering them unable to process all of the information before them, or causing them to make poor decisions. (Sections 3 and 4 of this report summarize detailed findings from the diagnosis on credit intensity and SAP, respectively.)

### TIP

#### BEHAVIORAL TERMINOLOGY

Throughout this brief, **bolded formatting** in the text is used to highlight behavioral science terminology.

## STEP 4 DESIGN

During the Design phase, solutions are developed to address the behavioral barriers uncovered during diagnosis. This process builds on best practices from what is known as a human-centered design problem-solving approach.<sup>4</sup> Human-centered design emphasizes solutions that account for the end user's context-specific needs and promotes collaboration between the designer of an intervention and its end user. The final products from the design phase include several intervention prototypes, or preliminary models of a solution.

## STEP 5 DEVELOP

Once prototypes have been created, the focus shifts to ensuring that solutions are feasible and used as intended. The Develop phase of the CABS Approach consists of refining the prototypes, finalizing the design of the interventions, and setting up the operational infrastructure to support the intervention. When refining the prototypes, the team conducts focus groups and interviews

<sup>3</sup> Paas, Renkl, and Sweller (2003).

<sup>4</sup> See Design Kit.

with the end users (e.g. students) and stakeholders (e.g. staff) to gather feedback on the usability of the prototypes and identify opportunities for improvement. Using this feedback, the team develops an iterative solution through prototypes until the design is finalized, and the intervention is built. Once the intervention is finalized, MDRC works with its partners to prepare for the launch of the intervention. This may include, but is not limited to, updating policies and gaining stakeholder approval.

## **STEP 6**

### **TEST**

In the final phase of the CABS Approach, interventions are deployed and rigorously evaluated to determine their effectiveness. Effectiveness is defined in terms of whether the outcomes for the group receiving the behaviorally-informed intervention differ in a practically and statistically significant way from outcomes for the group partaking in a program or process already in place (i.e. the “control” group).<sup>5</sup> MDRC works with its partners to monitor the intervention’s progress and gather data throughout the test period. MDRC typically uses randomized controlled trials, which provide the strongest level of evidence, to evaluate interventions, but adapts its evaluation plans based on the intervention. Once the test period concludes, MDRC analyzes the data and conducts implementation research, or research on how a study produced the observed effects to add additional context to results.<sup>6</sup> The results are then shared with partners to 1) determine whether the intervention helped solve the problem, and 2) make evidence-based decisions about next steps and the possibility of scaling or refining the intervention.

## **SUMMARY**

The CABS Approach is a behavioral science framework that higher education administrators and other stakeholders can use to identify behavioral barriers and design behaviorally-informed solutions to the problems they face. Using this framework, the Finish Line team identified behavioral barriers that may prevent students from taking higher credit loads and maintaining SAP. The following section provides detailed findings on the behavioral barriers related to higher credit intensity.

---

<sup>5</sup> Balu and Dechausay (2018).

<sup>6</sup> MDRC (n.d.).

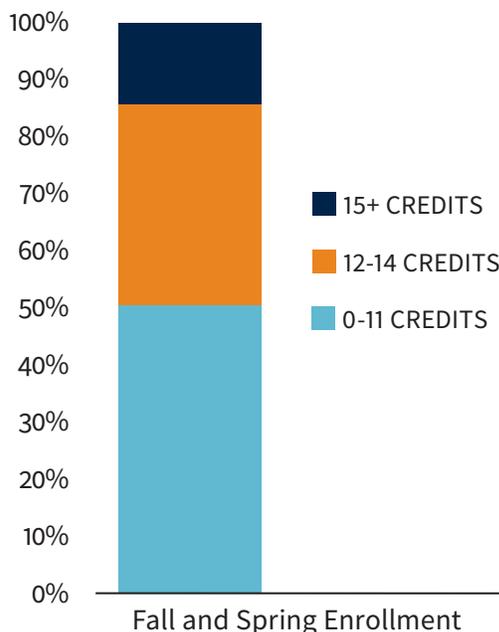
# Section 3

## BEHAVIORAL BARRIERS TO INCREASING CREDIT INTENSITY

This section summarizes findings from the Finish Line project’s diagnosis on credit intensity. The diagnosis was framed by the problem statement developed during the Define phase of the CABS Approach: Few students enroll in enough credits to graduate in two years, the expected timeframe to earn an associate degree.

During the Clarify phase, the team analyzed enrollment data for a cohort of students and found that almost 85 percent of students enrolled in fewer than 15 credits.<sup>1</sup> (See Figure 4.) Notably, around 46 percent of these students excelled academically; they earned a GPA of 3.0 or higher and completed 100 percent of their attempted credits (which indicates that they did not fail or withdraw from any courses). In turn, the research team hypothesized that some students who enroll in fewer than 15 credits could successfully attempt one additional three- or four-credit course.

**Figure 4. Enrollment by Credit Level**



SOURCE: MDRC calculations using data provided by the Minnesota State system for students at each of the three colleges in the study.

NOTES: This chart shows the average enrollment for students who began in fall 2013 across six semesters. It includes enrollment levels for fall 2013, spring 2014, fall 2014, spring 2015, fall 2015, and spring 2016.

This chart only includes students that remained academically engaged for that semester. A student is defined as being academically engaged if they have not missed three consecutive semesters of school. If a student misses three or more semesters of school in a row, then they are flagged as “not engaged” for those semesters and all subsequent semesters.

<sup>1</sup> About 15 percent of students enrolled in 15 or more credits each semester, approximately 37 percent of students enrolled in 12-14 credits, and about 50 percent of students enrolled in fewer than 12 credits.

In the diagnosis phase of the Finish Line study, the team identified five behavioral barriers to increasing credit intensity. Each of these behavioral barriers is discussed in greater detail below. There is also a discussion of related quantitative and qualitative findings that were uncovered during the Clarify phase. Each barrier also provides tips for higher education administrators seeking to overcome these barriers at their schools.

## **BARRIER 1**

### **Institutional and social norms may not support higher credit loads**

Some students may enroll part-time due to **social influence** — the tendency of people to follow what they think others are doing.<sup>2</sup> During interactions with other students and staff, and in written communications from the college, students learn that many of their peers attend part time. This can normalize part-time enrollment status. In addition, institutional processes can also imply that higher credit loads are riskier. For example, colleges typically require the approval of an advisor for credit overload (taking 18, or more, credits) but not taking too few classes, or credit underload. As a result, many students — even those who can increase their credit loads — may not perceive 12 to 15 credits to be the standard number of credits. In fact, during interviews and focus groups, students often made full-time attendance seem exceptional, stating that it was for those who want to focus on school, or have flexible schedules.

#### **Tips for Colleges**

To address the lack of support for higher credit loads, college administrators can review enrollment protocols and related communications to students. To begin this process, they might consider the following questions:

- What do campus norms convey to students about part-time versus full-time enrollment? Is full-time enrollment portrayed as difficult, or the expected standard?
- Are students encouraged to take as many courses as they think they can manage?
- What information is presented to students about credit load expectations in written communications and forms, in verbal presentations, and during processes such as registration?

## **BARRIER 2**

### **New students may become anchored to first-semester guidance to take lower credit loads**

In interviews and focus groups, students and staff said that students were advised to enroll in lower credit loads in their first semester to help them adjust to the added rigors of college-level coursework. An unintended consequence of this guidance is that it may influence how many credits students take in subsequent semesters. Behavioral science research finds that people often

---

2 Allcott (2011).

use an initially presented value to make future decisions — a concept known as **anchoring**.<sup>3</sup> Over one-third of new students who were surveyed after orientation said they planned to enroll in the same number of courses in future semesters. Approximately one-half of students were unsure of their future credit loads, making it likely that some may revert to the initial guidance to take fewer classes. Decision making often provokes what behavioral research identifies as a **status quo bias**, which is the tendency to stick with a previous decision and do nothing different.<sup>4</sup> Quantitative data from colleges corroborates the presence of this bias in terms of decision making about credit intensity by indicating a direct correlation between credits attempted in the first and second semesters. Figure 5 shows that a large percentage of students at the colleges under study attempt the same number of credits for both their first and second semesters.

**Figure 5. Relationship Between Credits Attempted in the First and Second Semesters**

	Semester 2 Credits Attempted						Total
	0	1-5	6-8	9-11	12-14	15+	
Semester 1 Credits Attempted 1-5	14%	48%	23%	10%	4%	1%	100%
6-8	5%	14%	44%	22%	11%	3%	100%
9-11	4%	6%	21%	34%	28%	7%	100%
12-14	2%	2%	8%	16%	55%	18%	100%
15+	2%	1%	4%	9%	40%	43%	100%

SOURCE: MDRC calculations using data provided by the Minnesota State system for students at each of the three colleges in the study.

NOTE: Data analyzed for students who began in fall 2014-2017 across the three colleges.

One reason students may continue to follow guidance for their first semester credit load is that students at the three colleges in the study are only required to meet with an academic advisor to register for their first semester courses, and many students do not proactively meet advisors during subsequent semesters. As a result, academic counselors may not have the opportunity to advise strong students to take on higher credit loads. In quantitative analyses, the research team found that successful academic performance in the first semester leads most students to take a similar number of credits in their second semester.

### Tips for Colleges

To help determine whether students are taking as many credits as they can successfully manage, colleges can consider the following:

- Does institutional data suggest that some part-time students are doing well enough to manage at least one additional course?

<sup>3</sup> Furnham and Boo (2011).

<sup>4</sup> Samuelson and Zeckhauser (1988).

- What guidance do incoming students receive regarding credit intensity during orientation?
- What guidance is provided to continuing students about credit loads? Are there practical ways the college can target part-time students with guidance about credit intensity?

### **BARRIER 3**

## **Students may not fully understand the implications of part-time attendance on their time-to-degree**

Interviews and surveys with students during the Finish Line study revealed that many lack realistic estimates of how much time it takes to graduate based on credit loads. Over one-third of the students who were surveyed after orientation had unrealistic estimates of the time it would take them to graduate based on their reported credits for fall 2018. This may be driven by **limited information**, since students are not required to create, and often do not have, personalized academic maps that outline what courses they will take each semester and how long it will take them to graduate. Additionally, many students focused on the number of courses they wanted to take instead of the number of credits they should take given that the number of credits per course varies.

### **Tips for Colleges**

To help students understand how long it will take them to graduate by accounting for different credit loads, consider the following:

- Do new students understand how long it will take them to graduate at various credit loads?
- Do continuing students understand how many credits or courses they have remaining to earn their degrees? Do they take this into consideration when registering for the following semester?
- What type of support do students receive for creating academic plans and updating them each semester?

### **BARRIER 4**

## **Students may prioritize short-term needs over long-term goals**

Students may enroll in lower credit loads for short-term financial reasons. Many staff noted that Minnesota has a low unemployment rate and students can obtain relatively well-paying jobs. As a result, some students identify as workers, more than as students. Following orientation, the Finish Line team asked students who were registering for classes whether they prioritized their work, or school, schedules. Approximately one-fifth of students said they prioritized work schedules over class schedules.<sup>5</sup> In contrast, a higher proportion of students said they prioritized school over work when registering, but that may not account for the greater number of students who instead emphasize work. During focus groups and interviews, incoming and continuing students were most likely to cite the need to balance work and school as a primary reason for part-time attend-

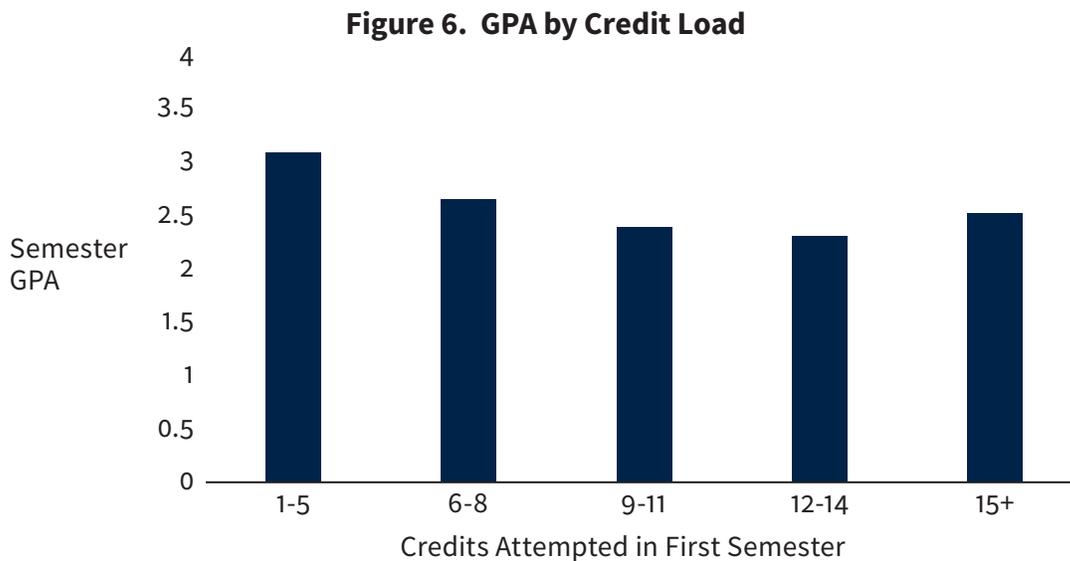
---

<sup>5</sup> Most students reported prioritizing their class schedules, and a small proportion of students did not plan to work.

ance. Most students also noted that their primary motivation for attending college was to obtain a better-paying job. From a behavioral perspective, this may reflect **present bias**<sup>6</sup> — the tendency of people to give stronger weight to an immediate payoff (earnings in the short-term) over a longer-term benefit (earnings in the long-term). While some students must prioritize work to support themselves or their families, other students may have the ability (financial and otherwise) to take higher course loads. This may be especially true of students who report having flexible schedules or minimal responsibilities, but still opt to take lower course loads.

Students may also enroll in low credit loads for short-term academic reasons. Both students and staff discussed the notion that taking fewer credits could help students perform better. This may also reflect **present bias** for both students and staff. In this case, the bias is for a lighter course load in the current semester instead of pursuing an earlier graduation date. In fact, students in the two lowest credit levels (1 to 5, and 6 to 8 credits) tend to do better on short-term outcomes, including GPA and course pass rates, than students in the next highest credit levels (9 to 11, and 12 to 14 credits). (See Figure 6.)

In contrast, students with higher credit loads fare better on long-term outcomes, including credit and degree attainment.<sup>7</sup> Figure 7 shows that there is a direct, positive relationship between first semester credit load and degree attainment after three and four years. It is important to note that



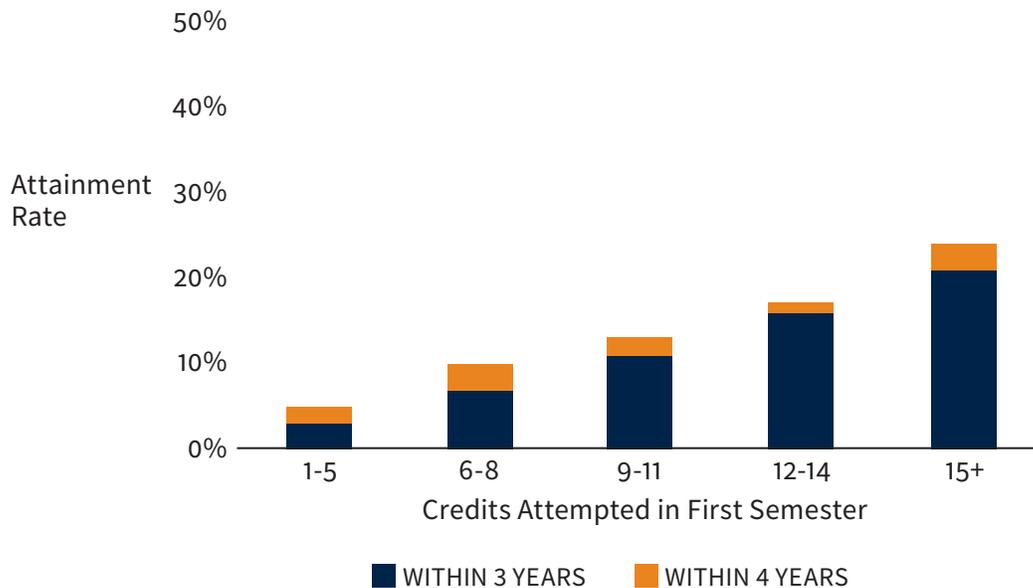
SOURCE: MDRC calculations from data provided by the Minnesota State system for students at each of the three colleges in the study.

NOTE: Data analyzed for each student's first semester if their start date fell between spring 2013 and spring 2017, regardless of which semester they started.

<sup>6</sup> O'Donoghue and Rabin (2015).

<sup>7</sup> Notably, students who take 15 or more credits outperform students taking 6 to 14 credits on both short-term and long-term measures.

**Figure 7. Associate Degree Attainment after Three and Four Years of Enrollment**



SOURCE: MDRC calculations using data provided by the Minnesota State system for students at each of the three colleges in the study.

NOTES: Data analyzed for students who first enrolled between spring 2013 and summer 2014.

Graduation patterns were similar for each cohort. Students who began in the fall had a slightly higher graduation rate.

this finding is correlational and does not imply that higher credit loads result in higher graduation rates. Rather, students who are currently taking higher credit loads may, for example, have higher motivation, more time, or better academic preparation. Regardless, research has demonstrated that part-time enrollment is a risk factor for graduation.<sup>8</sup> The longer students spend in college, the harder it is for them to sustain the academic momentum and focus that is necessary to graduate. While some students may need to take lower credit loads, others may be able to succeed at higher credit loads, especially with academic support services such as tutoring or time-management training.

### Tips for Colleges

To determine how to help students focus on long-term financial, career, and academic goals, consider the following:

- When and how do students set long-term goals such as a graduation date? Are students reminded of these goals?

<sup>8</sup> The Advisory Committee on Student Financial Assistance (2001).

- Do students understand the financial, academic, and career tradeoffs between lower credit loads and long-term success?
- Are there ways to proactively help students plan their class and work schedules?

## **BARRIER 5**

### **Students may not factor complex cost and financial aid variables into their credit intensity decisions**

According to behavioral science, complexity can prevent people from making decisions that are in their best interests. For example, many students may not understand or consider how their credit load decisions will affect their total college expenses (including tuition and other costs) and financial aid (including Pell Grant and Minnesota State Grant funding). As is often discussed in higher education literature, the federal Pell Grant structure does not incentivize students to enroll in 15 credits — the grant is awarded based on four pre-specified enrollment levels and students who enroll in 12 credits receive the maximum award. Unlike the federal Pell Grant, the Minnesota State Grant structure could encourage additional credit enrollment since the grant amount rises as credits increase within each Pell band, and the award is maximized at 15 credits. However, many students are likely unaware of this fact and may face difficulty with the calculation. Figure 8 shows a Minnesota State Grant award chart from one of the participating colleges. A student may have difficulty determining how much state grant funding they will receive given the complicated nature of the award calculation.

Furthermore, many incoming students may be unaware of whether they will receive financial aid. Based on the pre-orientation survey, three-fifths of students did not know whether they would receive a Pell Grant, and two-thirds of students did not know whether they would receive a Minnesota State Grant. Interviews and surveys revealed that many orientation attendees had yet to complete their financial aid applications, suggesting that some students are making their credit load decisions without considering financial aid implications.

### **Tips for Colleges**

To help students incorporate all available information into their credit load decisions, including cost and financial aid, colleges might consider the following:

- When and how do students receive information about available financial aid including the Pell Grant and any state grant funding?
- Are students taking financial aid into consideration when making their enrollment decisions?
- Does the state's financial aid structure inherently incentivize certain credit loads? If so, are students aware of these incentives?
- How clear are the financial consequences of different enrollment levels in communications to students?

**Figure 8. Maximum Award Amounts for the Federal Pell Grant and Minnesota State Grant for Student with EFC=0**

Pell Band (credits)	Semester Enrollment (credits)	Pell Award	MN State Grant Award
1-5	3	\$740	\$0
	4		\$256
	5		\$503
6-8	6	\$1,480	\$0
	7		\$263
	8		\$509
9-11	9	\$2,220	\$0
	10		\$269
	11		\$515
12+	12	\$2,960	\$0
	13		\$275
	14		\$521
	15+		\$771

SOURCE: Chart with federal Pell and Minnesota State grant award amounts provided by Normandale Community College. Tuition cost and net cost calculated by MDRC using Normandale Community College's website section, "Paying for College," which states that each credit costs \$192.99.

NOTES: This chart depicts a sample award chart for a student at Normandale Community College whose Expected Family Contribution (EFC), or index number used by colleges to determine how much financial aid a student is eligible to receive, is \$0. The award amount for other students at other colleges may vary.

## SUMMARY

Students rely on implicit and explicit guidance to determine their credit load, but many students do not understand how credit load impacts their time-to-degree, long-term goals, or financial aid. The final section of this report provides insights on how colleges may begin to alleviate these barriers.

Credit intensity is connected to a students' ability to not only attempt more credits, but to earn the attempted credits. When students are unable to complete their courses, they may violate the school's Satisfactory Academic Progress (SAP) policy and face academic suspension and the loss of financial aid.

The next section discusses the SAP findings in the Finish Line study. The section outlines the behavioral challenges students face when maintaining and, in other instances, returning to good academic and financial aid standing.

# Section 4

## BEHAVIORAL BARRIERS TO SATISFACTORY ACADEMIC PROGRESS

This section summarizes findings from the Finish Line project's diagnosis on behavioral barriers to satisfactory academic progress (SAP). The problem statement developed during the Define phase of the CABS Approach provides a framework for the diagnosis: A significant proportion of students at the colleges in the study do not maintain SAP and are placed on SAP warning, suspension, or probation. Many of these students do not regain good academic standing.

During the Clarify phase of the CABS Approach, the MDRC research team refined the scope of the problem using several different measures. For example, the team determined how many students across all the colleges were on SAP warning, suspension, or probation status at the end of each semester. In the fall and spring semesters, the team found that over a quarter of all students at the colleges under study were not in good standing.<sup>1</sup>

The team also determined that most students receive their first warning at the end of their first semester. Once students receive a SAP warning, it is challenging for them to return to good academic standing, as shown in Figure 9. The Finish Line team examined the SAP progression of a cohort of students who started college during fall 2013 and found that 34 percent of students received a warning at the end of their first semester. Of these students, roughly half returned to college for the spring semester, and most of the students who did reenroll did not meet the SAP requirements again and were suspended at the end of the spring semester. By the following fall, most of the suspended students did not appeal their suspension or enroll in school, and approximately one percent regained good academic standing. The team also analyzed SAP data for students who started in the fall semester anytime between the 2013 and 2015 academic years and found that about six percent of the students who received warnings in their first semester returned to good academic standing by the end of their fourth semester. For students who started in fall 2013, fewer than one percent of students who were warned during their first semester received a degree after four years, while 28 percent of students who were not warned during their first semester received a degree in the same time period.

### REMINDER

#### SAP POLICY

To maintain SAP, students must:

- Achieve a 2.0 cumulative GPA or higher
- Maintain a 67 percent cumulative completion rate
- Not exceed a maximum time frame of 150 percent of credits needed to complete their degree or certificate program

<sup>1</sup> At the end of the summer semesters, about 17 percent of students were not in good academic standing.

In the diagnosis phase, the team identified five behavioral barriers students face when maintaining SAP or returning to good standing after a SAP sanction. Each barrier is discussed in more detail below along with the quantitative and qualitative findings that were uncovered during the Clarify phase and the behavioral science research that informed each barrier. Each barrier also offers considerations for higher education administrators to determine whether similar challenges may be present at their institutions and to begin thinking about potential action steps for mitigating these barriers.

## **BARRIER 1**

### **Students in good standing may be unaware of SAP requirements because they receive limited information about the policy or have difficulty internalizing the requirements**

Many students are not aware of their school's SAP requirements, or the consequences for violating them. About half of the students interviewed for this study did not know about SAP requirements until they were told they had violated them.

It is easy to overlook the SAP policy that each of the colleges in the study posts on its website. During interviews, students and staff said SAP is proactively discussed during new student orientations. However, when MDRC researchers observed orientation sessions and surveyed participants, there was wide variation in the degree to which students absorbed information about SAP. (See Figure 10.) College "A" provided detailed SAP information to explain the requirements in depth along with the consequences of violating them. College "B" mentioned SAP, and framed the policy as a way to help students stay on track to graduate. College "C" did not provide any information on SAP during orientation.<sup>2</sup>

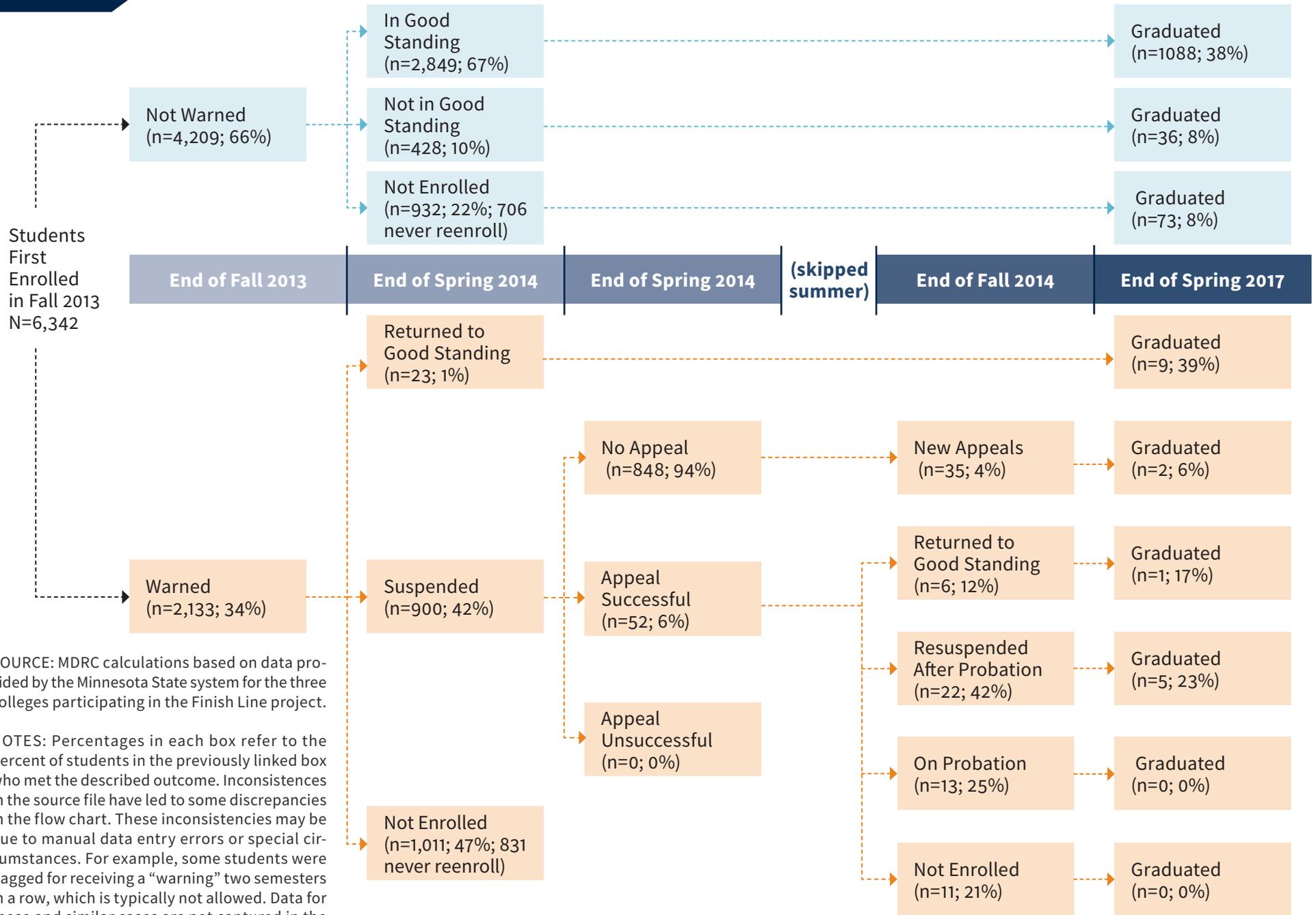
Nearly half of all students who were surveyed immediately after orientation reported that they were still unfamiliar with SAP requirements. One explanation for this may be that the overwhelming amount of information that students receive during orientation can lead to **cognitive overload** — the phenomenon of overloading someone with more information than they can process in one sitting. Another reason students may lack awareness of SAP requirements is that some might be optimistic about their future academic performance and may fail to see the relevance of SAP requirements to their situation. This is due to low **identity salience**,<sup>3</sup> or the degree to which a certain role or identity (such as being someone who violates SAP) aligns with a person's self-image. As shown in Figure 10, every student who was familiar with SAP policy did not necessarily feel it was relevant to them.

---

2 Each of the three colleges that participated in this study was assigned a label — either College A, College B, or College C — at random. The labels are used to compare the three colleges throughout this section of the report and each label consistently refers to the same institution in the text and figures.

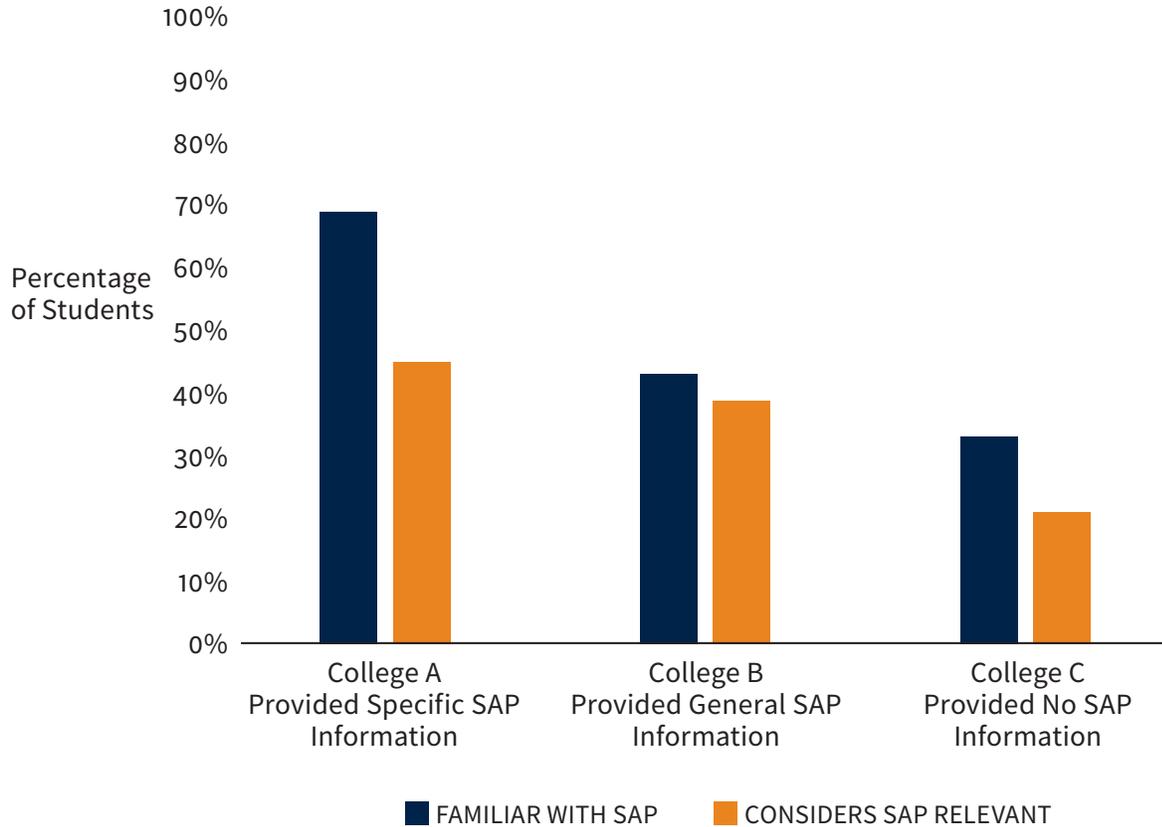
3 Stryker and Serpe (1982).

**Figure 9. SAP Progression and Four-Year Graduation Outcomes for Fall 2013 Cohort**



SOURCE: MDRC calculations based on data provided by the Minnesota State system for the three colleges participating in the Finish Line project.

NOTES: Percentages in each box refer to the percent of students in the previously linked box who met the described outcome. Inconsistencies in the source file have led to some discrepancies in the flow chart. These inconsistencies may be due to manual data entry errors or special circumstances. For example, some students were flagged for receiving a “warning” two semesters in a row, which is typically not allowed. Data for these and similar cases are not captured in the figure. “Graduated” indicates a student received any degree by the end of spring 2017.

**Figure 10. SAP Familiarity from a Post-Orientation Survey**

SOURCE: MDRC calculations from July 2018 based on data from a survey distributed to 76 students after they attended orientation sessions at each of the three colleges in the study.

### Tips for Colleges

To help students fully understand the SAP requirements at their school, college administrators should examine how they communicate SAP information to their students. The following questions can guide this review:

- When and how is SAP information communicated to students? How much information is being communicated to students when they first learn about the policy?
- When and how is information about SAP requirements reinforced? Do students have to actively search for the information, or do students receive direct reminders about SAP requirements and the resources available to help them meet the requirements?

## BARRIER 2

### Students may withdraw from a course without adequately considering the impact to their SAP status

During the first five days of the semester, a student may drop a registered course without penalty. After this point, a student has until 80 percent of the course is complete to withdraw and receive a “W” on their transcript. About 20 percent of students withdraw from at least one course each semester. Although a “W” will negatively affect the completion rate component of SAP, it has no other negative repercussions. In turn, withdrawing from a course is often the best choice for some students, particularly those who can no longer attend or are in danger of failing. A grade of “F” negatively impacts both the GPA and completion rate components of SAP. Staff and faculty indicated that some students who withdraw from a course can pass it. Some students withdraw but do not fully understand the consequences of their actions. Interviews with students confirmed that some students lack information about the SAP completion rate requirement and erroneously think that withdrawing will not impact their academic standing.

If students stop attending class without formally withdrawing, instructors may assign a Failure for Non-Attendance (“FN”) grade to registered students who fail to show up for class. They may also assign a Failure to Withdraw (“FW”) grade to students who start, but then stop, attending class before the end of the semester.<sup>4</sup> Both failing grades negatively affect the GPA and completion rate components of SAP, the same way a traditional “F” does. It is therefore more challenging for a student to recover from an “FN” or “FW” than a “W” grade. Despite this, some students fail to officially withdraw. The Finish Line team found that in the fall 2016 semester, about nine percent of students received at least one “FW” and about two percent of students received at least one “FN” grade. Students may not follow official withdrawal procedures and jeopardize SAP more than necessary due to **limited information** about the consequences of not withdrawing, and what the options for withdrawing are, or because withdrawing is a **hassle factor**<sup>5</sup> — a seemingly small barrier that impedes a person from acting; in this case, the hassle is that a student has to log in to their student portal to withdraw.

“My grades have always been great, like mostly As and Bs, couple Cs and Ds, but if I just would have kept on that path and not withdrew, I would have never been on financial [aid] suspension.”

—Student suspended for low completion rate

### Tips for Colleges

Colleges can help students make well-informed decisions about withdrawing from a class. This can serve to reassure struggling students that there are institutional policies to support them. Here are some key considerations for colleges seeking to improve policies regarding student course withdrawals:

- Do students understand how an official or unofficial withdrawal will impact their SAP status?

<sup>4</sup> Not all three colleges in the study assign FW grades.

<sup>5</sup> Bertrand, Mullainathan, and Shafir (2004).

- What information about potential academic or financial aid consequences is available to students during the withdrawal process?
- Are students warned if they are in danger of failing a course due to non-attendance?
- Are there policies the college can employ to lessen negative consequences for students who never attend or stop attending class, but fail to officially withdraw?

## BARRIER 3

### Students may ignore or be unaware of SAP violations

Students who are not meeting the SAP requirements are notified of their status via e-mail and with a banner that appears when they log into their Minnesota student portal, a website for students enrolled at a Minnesota State System college. For suspension, one school also sends a mailed letter. Despite the multimodal communication, some students said they were still unaware of their SAP status. At College “C,” about one-sixth of students in poor standing said they did not receive a notification. At College “A,” about half of the students who were interviewed reported not receiving a notification. Some students may miss the communications, but others may avoid the news in an effort to tune out bad news — a tendency known as the **ostrich effect**, or burying one’s head in the sand.<sup>6</sup> SAP communications may also lead to **negative identity priming**,<sup>7</sup> or the triggering of a negative self-image. Some students described the SAP notification letters as “discouraging,” “punitive,” or “alarming,” leading some students to believe that they do not belong in college. This may dissuade some students from following up on the notices or encourage them to disengage from college, instead of seeking support.

There is some evidence that the tone of SAP communications may determine whether a student takes action, specifically in terms of whether they appeal a SAP violation. For students who are suspended, appealing is a necessary step toward reenrollment. Yet, only 12 percent of suspended students appeal their suspension.<sup>8</sup> This may be because an appeal requires a student to prove extenuating circumstances. In reality, approximately 93 percent of first-time appeals are approved across the three schools.<sup>9</sup>

Though appeal rates are low at all colleges, they varied significantly by college. This may be due to the variation in language and tone between the colleges’ SAP suspension notifications. College “B” emphasized the severity of a student’s status in their outreach. Students at this school said letters reporting SAP status were clear and easy to understand, but they were the least likely to appeal of the three colleges in the study. Communications to students about SAP status at College “C,” stressed a commitment to help with detailed action steps for students to follow. This school has the highest appeal rate, and student feedback on the letters they received was largely positive.

---

6 Karlsson, Lowenstein, and Seppi (2009).

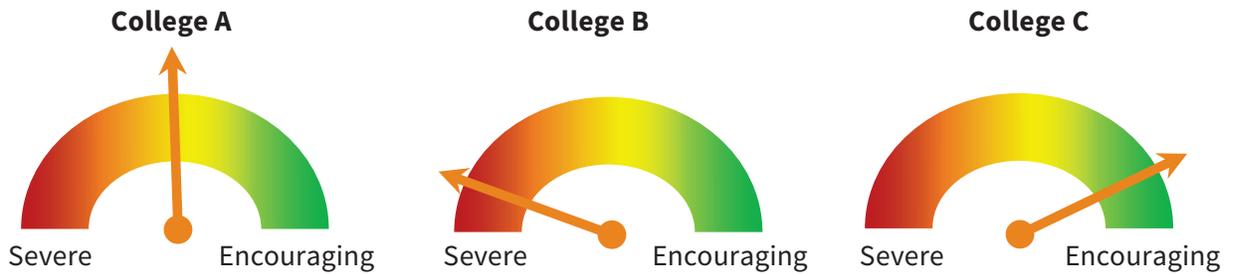
7 Malley and Strayer (1995).

8 Based on analysis of students suspended in the spring semester, fewer than 8 percent of students appeal right away and only about 12 percent of suspended students submit an appeal by the end of the following fall.

9 Some students who appeal their suggestion receive academic, but not financial, aid approval. This means the student can enroll in courses, but they will not receive financial aid.

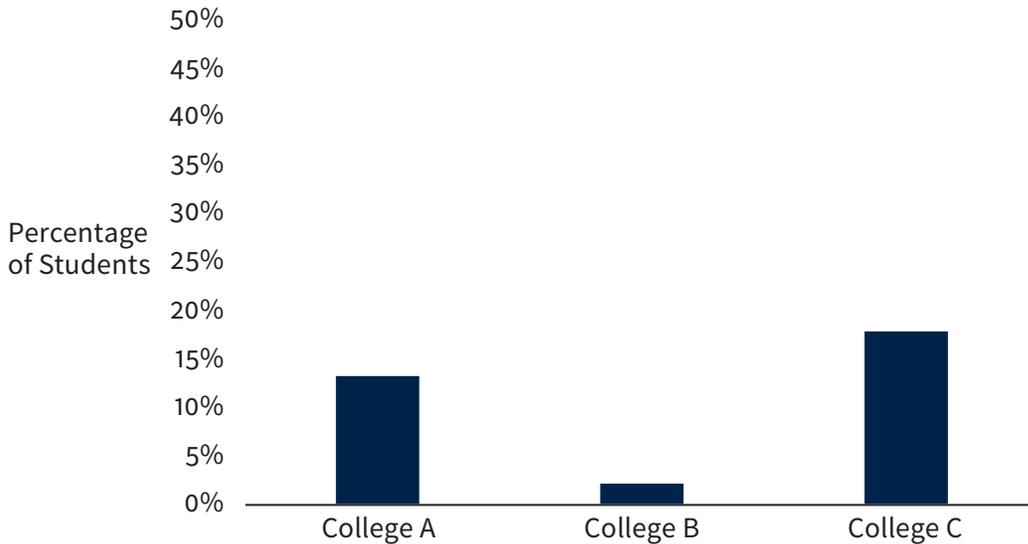
Outreach at College “A” was basic and neutral, providing visual information on how the student’s GPA and completion percentage compared with the requirements. Students at this school reported mixed feedback, with some students reporting that the letters felt confusing or discouraging, while others felt they were clear and useful.

**Figure 11. Tone of SAP Communications from Colleges**



SOURCE: MDRC depiction based on a review of SAP communications provided by the three colleges in the study.

**Figure 12. Appeal Rates by College**



SOURCE: MDRC calculations from data provided by the Minnesota State system for students at each of the three colleges in the study.

NOTE: This analysis shows the number of appeals in the second, third, and fourth semesters for students who started in fall 2013, 2014, and 2015, and were suspended at the end of their second semester.

## Tips for Colleges

Schools can determine how to strengthen SAP notifications as part of a comprehensive strategy to increase the number of students who return to good academic standing. A few questions to guide this process include the following:

- What are the distribution methods of SAP communications? Is there proof that students receive the notifications?
- What is the tone of SAP communications? Is it encouraging or punitive? Do students understand that they can recover from a SAP sanction?
- Do communications from colleges outline clear steps that students should take after receiving the notification?
- Are students clearly told what constitutes a valid reason for appealing a SAP judgment?

## BARRIER 4

### Cumulative SAP requirements mean students who improve academically may still be suspended, and this discourages some students from appealing

Staff and faculty reported, and data confirmed, that students on warning are often suspended the following semester, even if they improve their performance during their warning semester. Approximately 16 percent of students who were warned after their first semester and enrolled in a second semester, earned a GPA above 2.0 and completed 67 percent or more of their credits in their second semester. However, they were still suspended because SAP policy evaluates performance over the duration of enrollment rather than during a specific semester. Of these students, only 17 percent appealed their suspension, and only 9 percent graduated within three years.<sup>10</sup> This policy position could lead some students to feel a sense of hopelessness or a lack of **procedural justice**, or fairness.<sup>11</sup> As a result, these students may not file an appeal despite their improved performance and the likelihood that their appeal may be approved.

“Sure. I know what the next steps are, but I’m not gonna do ‘em because I disagree with the whole process.”

-Student facing SAP issues at multiple institutions due to academic challenges decades ago

The team found that students who return to college following prior academic difficulty may feel a sense of procedural injustice because their previous academic performance still impacts their current SAP status, regardless of how long they have been out of school.

<sup>10</sup> This analysis was conducted using students in the first three cohorts.

<sup>11</sup> Lind and Tyler (1988).

## Tips for Colleges

Colleges can play a key role in helping students understand how different personal or academic factors will affect their SAP status or their right to appeal a suspension. Key considerations for improving SAP outreach include the following:

- How can the college help students who have been penalized despite a good academic performance in their most recent semester, navigate their suspension, regain financial aid, and reenroll?
- Do students understand the amount of time it might take to regain good academic standing? How can they find out?
- What information do students receive about returning to good academic standing following a SAP warning?
- Are students who return to college with a prior SAP sanction, encouraged to address their past status and continue their degrees?

## BARRIER 5

### Students on warning or probation may not seek out the academic and personal support they need to return to good academic standing

There is no formal requirement for students on academic warning or probation to utilize student supports, such as advising or tutoring. Students are encouraged to see an advisor and they often recognize that it would be a good idea to use these services once they are suspended. During interviews, students on SAP warning and probation said they could have used advisory services prior to suspension. They felt optimistic that they could use more services in the future, but many students may fail to do so, an example of the **intention-action gap**,<sup>12</sup> which highlights that there is often a difference between what a person plans to do in the future and what they actually do. Students may also avoid or fail to use advisory or tutorial services for several reasons, including **procrastination** or **hassle factors**, such as having to make an appointment, or set aside time in their schedules.

## Tips for Colleges

Schools can determine how to better provide or encourage the use of campus services for students on warning and probation. To begin this process, consider the following:

- Identify whether some students used campus resources, such as advising, counseling, and tutoring, to return to good academic standing. Do other students on warning and probation status know that their peers have found these services helpful?

---

12 van Hooft et. al (2005).

- Are students on SAP warning and probation using campus resources? Would a formal requirement increase participation and student outcomes?
- How does the institution proactively support students on SAP warning and probation in their quest to return to good academic standing?

## SUMMARY

Students face multiple behavioral barriers to not only maintain good academic standing, but to return to it if they fail to satisfy SAP requirements. Although academic skill is part of a student's ability to maintain good academic standing, communicating effectively with students about SAP requirements is also integral to their success. Many of the behavioral barriers to SAP relate to gaps in students' knowledge about SAP requirements. They also relate to how different academic actions, such as withdrawing from courses, affect students' SAP status and the academic and financial aid implications of not meeting the SAP requirements. Students may lack motivation to move through the SAP process if they harbor negative feelings and self-perceptions following a warning, suspension, or probation. Students who fail to meet SAP requirements but wish to return to good standing may not know how to do so, since the SAP process can be complex.

In the following, final section of this report, there is a discussion of how colleges can build on the study's diagnosis findings to design solutions that address the behavioral barriers uncovered during the Finish Line project.

# Section 5

## HOW COLLEGES CAN BUILD ON THE FINISH LINE FINDINGS

The Finish Line project used the lens of behavioral science to explore barriers to credit intensity and satisfactory academic progress at three community colleges in Minnesota. The project revealed that in both domains, there are behavioral barriers that contribute, in part, to the prevalence of low credit intensity and low rates of satisfactory academic progress (SAP) among community college students. These barriers are often hidden or less obvious than others that are typically identified in higher education research.

This section summarizes six key action points in this report that can help colleges address the hidden behavioral hurdles underlying low rates of credit intensity and satisfactory academic progress that prevent many college students from graduating. Behavioral science can help colleges reframe their student outreach to facilitate higher levels of engagement and participation. Behavioral science can also help colleges design student-friendly practices and policies that may improve graduation rates.

### **SIX STRATEGIES FOR OVERCOMING BARRIERS TO SAP AND INCREASING CREDIT INTENSITY**

Based on the Finish Line diagnosis, colleges interested in increasing credit intensity and SAP can consider the following:

- **Provide students with implicit and explicit guidance on credit intensity**

The team found that many students enter college without knowing how many credits or courses they should take. Student decisions are ultimately shaped by explicit recommendations from staff, such as guidance to start with a lower credit load, and implicit recommendations such as verbal and written messages mainstreaming part-time enrollment. Colleges should carefully review the messaging that students receive about credit intensity throughout their academic careers. Research shows that high credit intensity and academic momentum increase the likelihood of graduation.<sup>1</sup> In turn, part-time students who are performing well academically and have the personal capacity to increase their credit load, should be encouraged to do so. Importantly, students should

---

<sup>1</sup> Attewell and Monaghan (2016).

be carefully monitored to determine if a higher credit load is diminishing their academic performance. If it is, they should be targeted with academic and personal support to overcome barriers and succeed.

- **Create salient opportunities to discuss the time, financial, and academic tradeoffs of various levels of enrollment with students**

The Finish Line study found that students often do not know when they will graduate or how long it will take to graduate based on their enrollment levels. During field research, several students said questions from the research team about their estimated graduation date in relation to levels of credit intensity motivated them to think more deeply about their goals and, moving forward, to seek help from advisers. This suggests that students need relevant and interactive communication and guidance about the time, financial, and academic tradeoffs of various levels of enrollment. Colleges might consider interactive activities in new student orientations to demonstrate how enrolling at various credit levels might affect a student's schedule (including availability for work and family), short-and long-term academic success (including time-to-degree), and finances (including the direct costs of attendance and opportunity costs such as obtaining a higher-paying job).

- **Carefully monitor students throughout their first semester, designating resources for students who are in danger of receiving a warning or dropping out of college**

It is critical to identify first-semester students who are struggling as soon as possible. The Finish Line study found that after just one semester, 34 percent of students receive a warning that their academic progress is not satisfactory. Of these students, 47 percent do not reenroll for the following semester. Proactive advising and monitoring have been shown to help. To reduce the number of students who receive a warning at the end of the first semester, colleges can consider identifying struggling students through an early alert software system, evaluations of midterm grades, or close coordination with faculty members, and target resources for academic support accordingly.

- **Develop a comprehensive communications strategy to ensure that students are aware of academic requirements along with their current SAP status, and promote support services that help maintain good academic standing**

Communication from their college is the primary way students learn whether they are maintaining SAP. It became clear during the Finish Line diagnosis that the amount, content, and tone of SAP messages that students receive from the school are important. The findings suggest that colleges should employ two actions to improve their outreach about SAP. Firstly, colleges can use firm but reassuring and action-oriented language in notices to students on SAP warning and suspension. Students at College "C" received more positive and action-oriented warning and suspension notices and were more likely to appeal their suspension, affording them the opportunity to continue their education. (See Figures 11 and 12.) Furthermore, as discussed in Section 1, a study found that revising probation letters to be more positive and include testimonials from students who returned to good academic standing following a SAP sanction, increased the number of students who came off probation. Secondly, colleges can create a more comprehensive and salient SAP strategy. The strategy could target students at all stages of the SAP process (including students in good standing) with relevant and timely information. For example, instead of limiting SAP outreach to orien-

tation alone, students could receive regular reminders about SAP policies and services such as tutoring during key times throughout the semester, such as before and after exam periods.

- **Redesign communications and institutional policies to reduce the negative consequence of unofficial withdrawals**

The Finish Line diagnosis made clear that not only do a significant proportion of students withdraw from courses, some stop attending classes without properly withdrawing from them. To address this problem, colleges can send reminders about withdrawal procedures to students, and discuss the benefits and consequences of following these procedures. This may reduce the number of students who fail to withdraw. But a more effective approach may be to redesign the withdrawal policy itself so that the grade students receive for an unofficial withdrawal is counted as a “W” instead of an “F.” This change in institutional policy could help improve outcomes for all students facing unofficial withdrawal. Several Minnesota State colleges are implementing a similar reform with great success. These colleges are dropping classes that a student never attends from their transcript without assigning them a punitive “FN” grade for failure. College administrators report that this simple but logical policy-level change has spared these students from receiving a SAP sanction and saved them from paying tuition for classes they never attended. As a result, these students can return to college free from financial and administrative burdens.

- **Consider policy level reforms for SAP**

During the Finish Line diagnosis phase, the research team found that because SAP guidelines are directed by federal requirements, it is difficult for college administrators to experiment with SAP policies. This highlights the need to reexamine federal SAP policies. In particular, the cumulative nature of SAP requirements can cause a student who was previously on warning to get suspended and not return to college even though their most recent semester GPA was satisfactory. Although cumulative requirements could be beneficial in some scenarios, it might be helpful to allow sanctioned students whose performance has improved to obtain financial aid for an additional semester without having to formally file an appeal.

## **GETTING MORE STUDENTS TO THE FINISH LINE**

Colleges can address the behavioral barriers to credit intensity and satisfactory academic progress that have been identified in this report. The insights and suggestions discussed in this section provide a starting point. Any interventions should be assessed to confirm that they have led to the desired outcome such as, for example, an increase in credits earned, or a higher percentage of students who meet SAP requirements. The evaluation of an initiative also helps an institution identify unintentional consequences and obtain feedback from students and stakeholders to refine and continuously improve the intervention or reform. Implementing strategies to help students increase their credit intensity, while remaining in good academic and financial standing, are important steps toward helping more students cross the finish line to graduation.

# Appendix A

## Data Sources

The Finish Line project relied on several qualitative and quantitative data sources described below.

## QUALITATIVE DATA

- **FIELD RESEARCH:** During the spring and summer 2018 semesters, MDRC conducted calls, interviews, and focus groups with students and staff at the three participating colleges to explore policies, processes, and perspectives related to credit intensity and SAP.
- **PRE- AND POST-ORIENTATION STUDENT SURVEYS:** At each of the three colleges, students who attended one new student orientation session during the last week of July 2018 were invited to complete a survey before the orientation session began (pre-survey) and after they completed the orientation session (post-survey) to better understand their motivation for attending college, decision making regarding credit load, and awareness of SAP policy. The surveys were informal and not intended to be representative of the entire new student population. Instead, data from both surveys were analyzed to understand general, qualitative trends.
- **DOCUMENT REVIEWS:** Documents related to credit intensity and SAP were collected and reviewed to understand official policies and the information that students received related to the two domains.

The table below provides additional detail on the diagnosis activities and participant samples.

### Diagnosis Activities and Participant Samples

	NORMANDALE	ROCHESTER	INVER HILLS	TOTAL
<b>Calls, interviews, or focus groups</b>				
Advisors, counselors	14	11	8	33
Financial aid staff	2	1	2	5
Senior Administrators (VPs, Provosts)	4	5	2	11
Faculty	4	2	2	8
Full-time, good standing students	3	6	12	21
Part-time, good standing students	3	3	4	10
Students on SAP warning	3	2	5	10
Students on SAP suspension	1	0	6	7
Students on SAP probation	2	0	4	6
New Students (post orientation)	4	5	2	11
<b>Surveys</b>				
Students surveyed both pre- and post-orientation	24	21	24	69
Students surveyed pre-orientation only	10	2	4	16
Students surveyed post-orientation only	5	2	0	7

## QUANTITATIVE DATA

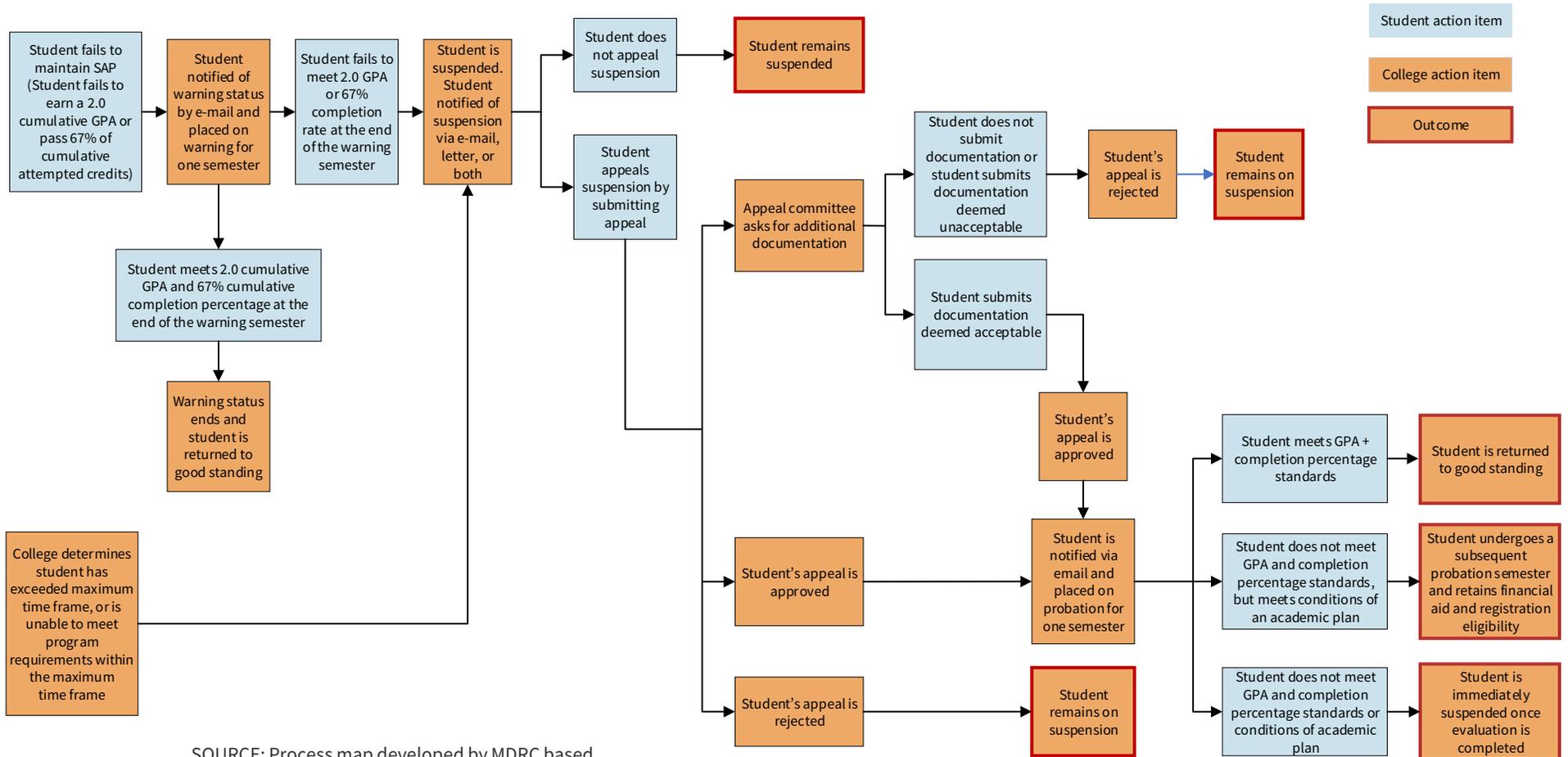
The team obtained 74,265 student records from the Minnesota State system, spanning four years of enrollment from the spring 2013 semester to the spring 2017 semester for students at the three Finish Line colleges. The data were analyzed to understand relationships between credit enrollment and student success and SAP patterns. Specific sources include:

- **DEMOGRAPHIC INFORMATION:** This source included data on all students enrolled in at least one term between spring 2013 and spring 2017, by entry term (which could be prior to spring 2013), excluding high school student and non-credit students.
- **PLACEMENT TEST RESULTS:** This source included students' placement test scores for each test taken between spring 2013 and spring 2017, regardless of whether the student was enrolled in those semesters.
- **STUDENT TRANSCRIPTS AND REGISTRATION:** This source included course registration and transcript data for each student enrolled between spring 2013 and spring 2017. Data did not include non-credit courses, partnered courses, visiting credits (credits earned at other institutions, but considered as local resident credits), or other special residential credits (such as credit for prior learning).
- **SATISFACTORY ACADEMIC PROGRESS (SAP):** This source included the SAP status for each student at the end of each term between spring 2013 and spring 2017 and information about SAP appeals. It was noted that warning, suspension, and probation data may have data integrity issues due to manual data entry errors, or internal processes that do not yield accurate historic data.
- **MAJOR DECLARATIONS:** This source included information about students' declared program major for each term of enrollment between spring 2013 and spring 2017. No data was provided if a student was not enrolled in a given term, or if the major declared was not tied to a program (such as undeclared majors or some "pre-majors").
- **DEGREE ATTAINMENT:** This source included credentials earned by students enrolled between spring 2013 and spring 2017. This dataset did not contain credentials conferred between spring 2013 and spring 2017 to students who were not enrolled in at least one term during that time-frame.
- **FINANCIAL AID:** This source included financial aid eligibility and receipt for students enrolled between spring 2013 and spring 2017.

# Appendix B

## Detailed SAP Process Map

Appendix Figure B. General SAP Process for Students at Minnesota State System Colleges



Student action item  
College action item  
Out come

SOURCE: Process map developed by MDRC based on student and staff interviews, document reviews, and data provided by the Minnesota State system.

# Appendix C

## Selected Behavioral Barriers and Solutions with Examples from the Finish Line Project

**Appendix Table C. Selected Behavioral Barriers and Solutions with Examples from the Finish Line Project**

GENERAL BEHAVIORAL CONCEPT		EXAMPLES FROM THE FINISH LINE PROJECT	
Behavioral Barrier Definition	General Solutions	Identified Credit Intensity or SAP Barrier	Potential Intervention to Address the Barrier
<p><b>Social Norms and Social Proof</b> People often take their behavioral cues from the perceived behavior of others and make choices based on how peers behave in a similar situation.</p>	Shift social norms by emphasizing how the student's desired behavior aligns with the behavior of others.	Students take lower credit loads due to institutional and social norms.	Highlight that many successful students attend college full time and share testimonials of students who increased their credit intensity and the resources they used to help them manage the higher credit loads.
<p><b>Anchoring</b> People often make decisions based on the way information is initially presented.</p>	Prompt students to reconsider initial choices at appropriate times; change the initial guidance.	New students are initially advised to take lower credit loads and may become anchored to their first semester guidance.	Proactively reach out to students who did well academically in their first semester and encourage them to increase their credit intensity.
<p><b>Status Quo Bias</b> People tend to stick with a previous decision or do nothing so that things stay the same.</p>	Change the status quo to something more likely to be in the best interest of the student.	New students are initially advised to take lower credit loads and may become anchored to their first semester guidance.	Rather than requiring students to create their own schedules each semester, recommend schedules for students based on their prior performance. Allow students to opt out of the recommended schedule, if their personal commitments require them to do so.
<p><b>Present Bias</b> People tend to give stronger weight to an immediate payoff (earnings in the short term) over a longer-term benefit (earnings in the long term).</p>	Reframe messaging to make it more salient and emphasize the benefits of shorter-term actions.	Students may not fully understand the implications of part-time attendance on time-to-degree.	Create ways for students to understand how long it will take them to graduate at various credit levels. Highlight the costs — such as institutional fees, transportation costs, and opportunity costs such as potential for higher wages — associated with taking longer to graduate. Emphasize money and time saved by taking a higher load in the current semester.
<p><b>Ostrich Effect</b> People often avoid what they think will be bad news.</p>	Frame messages in more friendly terms and emphasize that the college can offer help.	Students on warning or suspension may be unaware of their SAP status or avoid engaging with it, which leads to inaction.	Make the tone of SAP communications friendlier and highlight action steps that make students feel supported and allow them to take control over the process.

(continued)

Appendix Table C (continued)

GENERAL BEHAVIORAL CONCEPT		EXAMPLES FROM THE FINISH LINE PROJECT	
Behavioral Barrier Definition	General Solutions	Identified Credit Intensity or SAP Barrier	Potential Intervention to Address the Barrier
<p><b>Hassle Factors</b> A person’s willingness to act is often impeded by seemingly small barriers.</p>	<p>Make processes easy, simple, and automatic.</p>	<p>Students often make the choice about whether or not to withdraw without fully understanding the implications that either action can have on their SAP status, which can cause negative SAP consequences.</p>	<p>Streamline the withdrawal process and reduce the hassle of having to officially withdraw by automatically giving students who stop attending class a “W” instead of a failing grade, such as “FW” or “FN.”</p>
<p><b>Procedural Justice</b> People tend to place importance on their perceived sense of fairness when making a decision.</p>	<p>Increase the transparency about how decisions are made.</p>	<p>Students who improve academically may still be suspended due to the cumulative nature of SAP requirements, causing them to choose not to appeal because they get discouraged.</p>	<p>Proactively inform students on warning that they may be suspended even if they do well that semester. Provide clear steps on how they can appeal and encourage them to continue their degree.</p> <p>A more effective intervention would be a federal policy change that allows institutions to forgo suspension and automatically administer aid to students on warning who do well or to students who return to college after several years.</p>
<p><b>Intention-Action Gap</b> People often experience a disconnect between what they plan to do and what they actually do.</p>	<p>Provide prompts and planning tools to help students take steps to complete their goal.</p>	<p>Students on warning or probation may not seek out the academic and personal support they need to return to good academic standing.</p>	<p>To increase the use of student services that help students return to good academic standing, require the use of student services or encourage students to commit to using services regularly.</p>

# References

- Advisory Committee on Student Financial Assistance. 2001. *Access Denied: Restoring the Nation's Commitment to Equal Educational Opportunity*. Washington, D.C.: U.S. Department of Education.
- Allcott, Hunt. 2011. "Social Norms and Energy Conservation." *Journal of Public Economics* 95, 9-10: 1,082-1,095.
- Attewell, Paul and David Monaghan. 2016. "How Many Credits Should an Undergraduate Take?" *Research in Higher Education* 57, 6: 682-713.
- Balu, Rekha and Nadine Dechausay. 2018. "An Organizational Approach to Applying Behavioral Insights to Policy." Pages 200-217 in Kai Ruggeri (ed.), *Behavioral Insights for Public Policy: Concepts and Cases*. Abingdon, UK: Routledge.
- Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir. 2004. "A Behavioral Economics View of Poverty." *American Economic Review* 94, 1: 419-423.
- Bettinger, Eric, Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block FAFSA Experiment." *Quarterly Journal of Economics* 127, 3: 1,205-1,242.
- Brady, Shannon T., Gregory M. Walton, Omid Futohi, Eric M. Gomez, Geoffrey L. Cohen, and Robert Urstein. 2019. "A Scarlet Letter? Revising Institutional Messages About Academic Probation Can Mitigate Students' Feelings of Shame and Stigma." Unpublished manuscript.
- Brown, Stuart, Jamie Caruso, and Bette Ellis. 2018. "A Collaborative Approach to Retention Between Academic Affairs and Student Affairs: The Two Consecutive Absence Policy." *Journal of the Australian and New Zealand Student Services Association*, 26, 1: 60-63.
- Castleman, Benjamin L., and Lindsay C. Page. 2013. "Summer Nudging: Can Personalized Text Messages and Peer Mentor Outreach Increase College Going Among Low-Income High School Graduates?" EdPolicyWorks Working Paper 9. Charlottesville, VA. University of Virginia.
- Complete College America. n.d. "Data Dashboard." Accessed January 8, 2019. Website: [www.completecollege.org/data-dashboard](http://www.completecollege.org/data-dashboard).
- Complete College America. 2013. "The Power of 15 Credits: Enrollment Intensity and Postsecondary Student Achievement." Accessed April 10, 2019. Website: <https://calhoun.edu/wp-content/uploads/2018/07/CCA-Intensity-Brief-April3-1.pdf>.
- Damashek, Richard. 2003. "Support Programs for Students on Academic Probation." Accessed April 10, 2019. Website: <https://files.eric.ed.gov/fulltext/ED475734.pdf>

- Davidson, J. Cody and Paul Blankenship. 2017. "Initial Academic Momentum and Student Success: Comparing 4-and 2-Year Students." *Community College Journal of Research and Practice* 41, 8: 467-480.
- Design Kit. "What Is Human-Centered Design?" Accessed April 9, 2019. Website: <http://www.designkit.org/human-centered-design>.
- Furnham, Adrian and Hua Chu Boo. 2011. "A Literature Review of the Anchoring Effect." *The Journal of Socio-Economics* 40, 1: 35-42.
- Goldrick-Rab, Sara. 2016. "The Peril of Pushing Students." *Medium* (blog), January 19. <https://medium.com/@saragoldrickrab>.
- Headlam, Camielle, Caitlin Anzelone, and Michael J. Weiss. 2018. "Making Summer Pay Off: Using Behavioral Science to Encourage Postsecondary Summer Enrollment." New York: MDRC.
- Issak, Matthew I., Kristy M. Graves, and Bethlyn O. Mayers. 2006. "Academic, Motivational, and Emotional Problems Identified by College Students in Academic Jeopardy." *Journal of College Student Retention* 8, 2: 161-183.
- Juszkiewicz, Jolanta. 2017. "Trends in Community College Enrollment and Completion Data, 2017." Washington, DC: American Association of Community Colleges.
- Karlsson, Niklas, George Lowenstein, and Duane Seppi. 2009. "The Ostrich Effect: Selective Attention to Information." *Journal of Risk and Uncertainty*, 38, 2: 95-115.
- Kinsley, Peter and Sara Goldrick-Rab. 2015. "Making the Grade: The Academic Side of College Life Among Financial Aid Recipients." Pages 107-129 in Amy E. Stich and Carrie Freie (eds.), *The Working Classes and Higher Education*. Abingdon, UK: Routledge.
- Klempin, Serena. 2014. "Redefining Full-Time in College: Evidence on 15-Credit Strategies." Community College Research Center. Website: <https://ccrc.tc.columbia.edu/media/k2/attachments/redefining-full-time-in-college.pdf>.
- Lind, E. Allan and Tom R. Tyler. 1988. *The Social Psychology of Procedural Justice*. New York: Plenum Press.
- Malley, Gregory B. and David L. Strayer. 1995. "Effect of Stimulus Repetition on Positive and Negative Identity Priming." *Perception & Psychophysics* 57, 5: 657-667.
- McFarland, Joel, Bill Hussar, Cristobal de Brey, Tom Snyder, Xiaolei Wang, Sidney Wilkinson-Flicker, Semhar Gebrekristos, Jijun Zhang, Amy Rathbun, Amy Barmer, Farrah Bullock Mann, and Serena Hinz. 2018. "The Condition of Education 2018." NCES 2018-144. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

- MDRC. n.d. "What is Implementation Research?" Accessed January 8, 2019. Website: <https://www.mdrc.org/what-implementation-research>.
- Moss, Brian G. and William H. Yeaton. 2015. "Failed Warnings: Evaluating the Impact of Academic Probation Warning Letters on Student Achievement." *Evaluation Review* 39, 5: 501-524.
- O'Donoghue, Ted and Matthew Rabin. 2015. "Present Bias: Lessons Learned and to be Learned." *American Economic Review* 105, 5: 273-279.
- Paas, Fred, Alexander Renkl, and John Sweller. 2003. "Cognitive Load Theory and Instructional Design: Recent Developments." *Educational Psychologist* 38, 1: 1-4.
- Preuss, Michael and Rachael Switalski. 2008. "Academic Probation Intervention Through Academic Assistance Advising." Institute of Education Sciences. Website: <https://eric.ed.gov/?id=ED502891>.
- Ratledge, Alyssa. 2017. *Enhancing Promise Programs to Improve College Access and Success*. New York: MDRC.
- Richburg-Hayes, Lashawn, Caitlin Anzelone, and Nadine Dechausay with Patrick Landers. 2017. *Nudging Change in Human Services: Final Report of the Behavioral Interventions to Advance Self-Sufficiency (BIAS) Project*. OPRE Report 2017-23. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Samuelson, W., & Zeckhauser, R. J. (1988). "Status quo bias in decision making." *Journal of Risk and Uncertainty*, 1, 7-59.
- Scott-Clayton, Judith E. and Lauren Schudde. 2017. "Performance Requirements in Need-Based Aid: What Roles Do They Serve, and Do They Work?" Center for Analysis of Postsecondary Education and Employment, Teachers College, Columbia University. Website: <https://capseecenter.org>.
- Scrivener, Susan, Himani Gupta, Michael J. Weiss, Benjamin Cohen, Maria Scott Cormier, and Jessica Brathwaite. 2018. *Becoming College-Ready: Early Findings From a CUNY Start Evaluation*. MDRC and Community College Research Center: New York.
- Scrivener, Susan, Colleen Sommo, and Herbert Collado. 2009. *Getting Back on Track: Effects of a Community College Program for Probationary Students*. New York: MDRC.
- Shapiro, Doug, Afet Dundar, Xin Yuan, Autumn T. Harrell, Justin C. Wild, and Mary B. Ziskin. 2014. "Some College, No Degree: A National View of Students with Some College Enrollment, but No Completion." *Signature Report No. 7*. Herndon, VA: National Student Clearinghouse Research Center.

- Sommo, Colleen, Michelle Manno, and Dan Cullinan, with Sean Blake and Erick Alonzo. 2018. *Doubling Graduation Rates in a New State: Two-Year Findings from the ASAP Demonstration in Ohio*. New York: MDRC.
- Stryker, Sheldon and Richard T. Serpe. 1982. "Commitment, Identity Salience, and Role Behavior: Theory and Research Example." Pages 199-218 in William Ickes and Eric S. Knowles (eds.), *Personality, Roles, and Social Behavior*. New York: Springer.
- Thaler, Richard H. and Shlomo Benartzi. 2004. "Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving." *Journal of Political Economy* 112, S1: S164-S187.
- U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS). n.d. "Trend Generator: Graduation and Retention Rates." Accessed January 8, 2019. Website: <https://nces.ed.gov/ipeds/trendgenerator/#/answer/7/21>.
- van Hooft, Edwin A.J., Marise Ph. Born, Toon W. Taris, Henk van der Flier, and Roland W.B. Blonk. 2005. "Bridging the Gap Between Intentions and Behavior: Implementation Intentions, Action Control, and Procrastination." *Journal of Vocational Behavior* 66, 2: 238-256.
- Visher, Mary G., Alexander K. Mayer, Michael Johns, Timothy Rudd, Andrew Levine, and Mary Rauner. 2016. *Scaling academic planning in community college: A randomized controlled trial*. Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West.
- Weiss, Michael, Thomas Brock, Colleen Sommo, Timothy Rudd, and Mary Clair Turner. 2011. *Serving Community College Students on Probation: Four-Year Findings from Chaffey College's Opening Doors Program*. New York: MDRC.

# Acknowledgments

MDRC would like to acknowledge and thank Ascendium Education Group for funding the research efforts of the Finish Line: Graduation by Design project. We thank Amy Kerwin and Sue Cui for their continued encouragement and guidance.

We would also like to express tremendous appreciation and admiration for our college partners who participated in the project and facilitated research activities. The project could not have been completed without the dedication and contributions of their staff members, including but not limited to Wendy Robinson and Kari Rusch-Curl at Inver Hills Community College; Matthew Traxler at Normandale Community College; and Lisa Mohr and Michael Anthony at Rochester Community and Technical College. MDRC would like to thank our partners at the Minnesota State Colleges and University System, including Brent Glass and Tabatha Ries-Miller for supporting research activities.

Finally, we would like to thank our current and former MDRC colleagues who worked tirelessly on the many aspects of this project, including Andrew Avitabile, Caitlin Anzelone, Melissa Boynton, Ilana Brody, Himani Gupta, Matthew O'Brien, Austin Slaughter, Max Snyder, Jessica Taketa, Rashida Welbeck, Jonathan Vayness, and Paul Veldman. We would like to give special recognition to Luke Miratrix, Philip Oreopoulos, and Colleen Sommo who provided strategic guidance and advice, and to Clinton Key, Alexander Mayer, and Leigh Parise for their review. Anaga Dalal edited the report, and Carolyn Thomas prepared it for publication.

Dissemination of MDRC publications is supported by the following funders that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Annie E. Casey Foundation, Charles and Lynn Schusterman Family Foundation, The Edna McConnell Clark Foundation, Ford Foundation, The George Gund Foundation, Daniel and Corinne Goldman, The Harry and Jeanette Weinberg Foundation, Inc., The JPB Foundation, The Joyce Foundation, The Kresge Foundation, Arnold Ventures, Sandler Foundation, and The Starr Foundation.

In addition, earnings from the MDRC Endowment help sustain our dissemination efforts. Contributors to the MDRC Endowment include Alcoa Foundation, The Ambrose Monell Foundation, Anheuser-Busch Foundation, Bristol-Myers Squibb Foundation, Charles Stewart Mott Foundation, Ford Foundation, The George Gund Foundation, The Grable Foundation, The Lizabeth and Frank Newman Charitable Foundation, The New York Times Company Foundation, Jan Nicholson, Paul H. O'Neill Charitable Foundation, John S. Reed, Sandler Foundation, and The Stupski Family Fund, as well as other individual contributors.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

For information about MDRC and copies of our publications, see our website: [www.mdrc.org](http://www.mdrc.org).

Copyright © 2019 by MDRC®. All rights reserved.

# About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

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

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

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

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

