

Nudging for Success

Using behavioral science to improve the postsecondary student journey

June 2016

Look inside to find:

The behavioral barriers that prevent students from accessing college, completing a degree, and repaying their loans

Cost-effective solutions that can be used to address these barriers

Acknowledgments

We thank the Bill & Melinda Gates Foundation, Lumina Foundation, Citi Foundation, Michael & Susan Dell Foundation, and The Kresge Foundation for their generous support of this work. This work would not be possible without the guidance and encouragement of Rosemary Byrnes, David Croom, Nick Lee, Todd Penner, Chera Reid, and Zakiya Smith.

We are also grateful for the time and support of countless staff members at our partner organizations, including Scott Atkinson (The College at Brockport: State University of New York), Michael Baston (LaGuardia Community College), Kristin Boyles and Beth Erickson (Great Lakes Higher Education Guaranty Corporation), Samuel Hirsch (Community College of Philadelphia), Jesse Noonan and Cesar Perez (Youth Policy Institute), Melissa Pizzo (Arizona State University), Joyce Romano (Valencia College), Janet Schmitt (Sinclair Community College), Nathaniel Slaton and Geelyn Warren (West Kentucky Community & Technical College), and Shawn Whalen (formerly of San Francisco State University).

We are also indebted to our academic affiliates and partners for their enthusiastic engagement and contributions to this project: Ben Castleman (University of Virginia), Geoff Cohen and Omid Fotuhi (Stanford University), Ben Marx (University of Illinois), and Lesley Turner (University of Maryland).

Throughout our work, we received helpful advice from Pauline Abernathy (TICAS), Manuel Adelino (Duke University), Sandy Baum (The Urban Institute), Eric Bettinger (Stanford University), Jay Box (Kentucky Community & Technical College System), Andrew Kelly (American Enterprise Institute), Sue McMillin (Van Ru Credit Corporation), Sendhil Mullainathan (Harvard University), Mike O'Brien (iMentor), Shirley Ort (University of North Carolina), Todd Rogers (Harvard University), Cecilia Rouse (Princeton University), Anuj Shah (University of Chicago), Bob Shireman (The Century Foundation), Dilip Soman (University of Toronto), Rory O'Sullivan (Young Invincibles), Greg Walton (Stanford University), and David Yeager (The University of Texas at Austin).

Finally, thanks to the many dedicated ideas42 team members who worked tirelessly to bring this comprehensive portfolio of work to fruition: Anthony Barrows, Jill Berardini, Nicki Cohen, Dan Connolly, Matt Darling, Katy Davis, Alissa Fishbane, Ethan Fletcher, Dani Grodsky, Dana Guichon, Lori Knapp, Josh Martin, Katie Martin, David Munguia Gomez, DJ Neri, Rebecca Ross, Piyush Tantia, Andrew White, Shannon White, and Josh Wright.

BILL & MELINDA
GATES *foundation*



Lumina[™]
FOUNDATION



Michael & Susan Dell
FOUNDATION

Citi Foundation



THE
KRESGE
FOUNDATION

About ideas42

We're a **leader** in our field with unique expertise and experience at the forefront of behavioral science. We use this to **innovate**, drive social **change**, and improve millions of lives. We create fresh solutions to tough issues based on behavioral insights that can be scaled up for the greatest impact. ideas42 also educates leaders and helps institutions improve existing programs and policies.

Our work spans 26 countries and encompasses consumer finance, criminal justice, economic mobility, education, energy efficiency, health, and international development. As a global nonprofit organization, our partners include governments, foundations, companies, NGOs, and many other institutions.

At its core, behavioral science helps us understand human behavior and why people make the decisions they do. It teaches us that context matters, that asking the right questions is critical, and that simple solutions are often available, but frequently overlooked or dismissed. We work to identify the subtle but important contextual details that can have a disproportionate impact on outcomes.

Visit ideas42.org and follow [@ideas42](https://twitter.com/ideas42) on Twitter for more.

Contact: Alissa Fishbane, Managing Director (alissa@ideas42.org) and Ethan Fletcher, Vice President (ethan@ideas42.org)



Contents

Acknowledgments	1
About ideas42	2
Introduction: Hidden Obstacles in the Student Journey	4
<i>Project Summary Table</i>	8
Pre-Admissions: Making It to Day 1	10
<i>Project Spotlights:</i>	
Choosing a Best-Fit College	12
Making It Through Enrollment	14
Affordability & Financial Aid	16
<i>Project Spotlights:</i>	
Meeting the FAFSA Priority Deadline	19
Increasing FAFSA Awards.....	21
Personalizing Borrowing Decisions.....	23
Influencing Borrowing Through Loan Offers	25
Keeping Students Eligible for Financial Aid When Registering for Classes.....	27
Planning for a Better Financial and Academic Future	29
Connecting on Campus	31
<i>Project Spotlights:</i>	
Fostering a Sense of Belonging	33
Staying Connected to Campus Life with Work Study	35
The Balancing Act: Getting to Graduation Day on Time	37
<i>Project Spotlights:</i>	
Registering Early to Plan for Success.....	40
Planning for a Balanced Academic Life	42
Taking Advantage of On-Campus Tutoring	44
Maintaining Good Academic Standing.....	46
Post-Graduation Day: Get on Track to Pay It Back	48
<i>Project Spotlights:</i>	
Making Informed Choices About Loan Repayment	50
Boosting Timely Loan Repayment.....	52
Conclusion	54
Appendix	56

Introduction

Hidden Obstacles in the Student Journey

From pre-admission to post-graduation

In today's job market, holding a college degree is more vital than ever: it roughly doubles a person's lifetime earnings.¹ American high school students appear to recognize these benefits, as nearly 70% of high school graduates enroll in college. But starting college is not the same as finishing, and only 59% of full-time students at four-year institutions graduate within 6 years. The results are even worse in community college, where just 29% of full-time students graduate within 3 years.² In a time where the average student borrower owes nearly \$30,000 in student loans, successfully graduating with a degree is incredibly important, as borrowers without a degree are often in the worst position of all.³ It's clear that there's a completion crisis in American higher education.

Theories abound for why college graduation rates are so low. Many point to obvious culprits such as high tuition, poor levels of academic preparation in high school, and the stress of competing obligations like work and family. Though the problems they identify are real, to point to them as the sole reasons students fail to complete their degrees is to fundamentally misunderstand what it's like to be a student.

When ideas42 looked at the completion crisis from the perspective of students themselves, we saw evidence of all of the classic well-studied challenges. But we also found something else. By applying the lens of behavioral science to our work with over a dozen state universities and community colleges, we discovered that **the student path through college to graduation day is strewn with subtle, often invisible barriers that, over time, hinder students' progress and cause some of them to drop out entirely.** These behavioral barriers are certainly unintentional and often unrecognized, but their impact on student persistence is significant. Even for students whose tuition is covered by financial aid, whose academic preparation is exemplary, and who are able to commit themselves full-time to their education, the subtle logistical and psychological sticking points we uncovered can have a huge impact on their ability to persist and fully reap the benefits of a higher education.

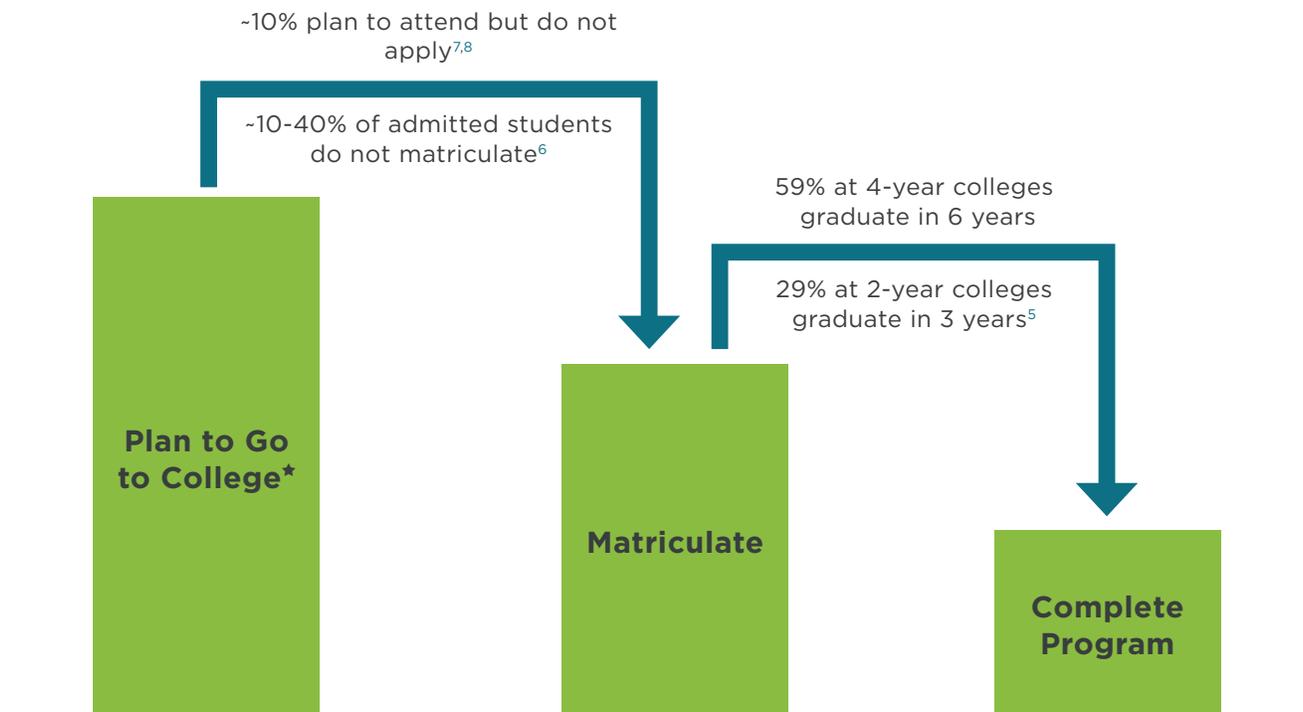
What is behavioral science?

Behavioral science is the study of how people make decisions and act within a complex and textured world where details matter. It draws from decades of research in the social sciences to create a more realistic framework for understanding people. The standard approach to predicting human behavior suggests that we consider all available information, weigh the pros and cons of each option, make the best choice, and then act on it. The behavioral approach shows us something different. We make decisions with imperfect information and do not always choose what's best for us. Seemingly small and inconsequential details undermine our intentions to act. Behavioral science has been used across a variety of fields to realign policies, programs, and products with how we really behave, improving outcomes for millions of people worldwide.

For example, there's the annoying but seemingly innocuous process of having to fill out the Free Application for Federal Student Aid (FAFSA) every year. Students need to do this annually throughout their college careers in order to access any financial aid. Students often have experience filing the FAFSA when they first apply to college, so the need to re-file may confuse students who only associate filling out the FAFSA with their initial application and don't realize it has to be re-done every year. Other students may simply miss the reminder emails they receive from the Financial Aid Department at their school, or continually procrastinate on a task they know they *should* do until it's too late. As a result, many students fail to file by their school's priority deadline, and some forget to file the FAFSA entirely, which often means they can't afford to continue college in the coming academic year. Whatever the specific reason, nearly half of Pell grant recipients who fail to reapply for federal aid don't return to school the following year.⁴ Those students may find it very hard to ever return: two-thirds of students who take time off never end up completing their degree.⁵

Another unexpected and often ignored barrier students encounter is finding a social home and groups of new friends on campus. It can be difficult to quickly build the positive relationships and find the spaces that make school feel like a new home. When students, especially those from low-income or underrepresented minority backgrounds who might be among the first in their families to go to college, fail to find a friend group they click with or campus activity they enjoy within a few weeks, they often see it as a signal that they are not “college material” or that their school isn’t “right for them.” These feelings can be exacerbated for students who are part of social groups that experience negative stereotypes, as these damaging perceptions can reinforce the belief that they do not belong. They are less likely to realize that many students struggle with social belonging when they start college and that their failure to fit in right away is not theirs alone.

These two barriers are easy to comprehend in isolation. But throughout a student’s postsecondary experience, many more behavioral challenges will arise: tackling time management and study habits in a new and unstructured setting; balancing family, work, and academic demands; independently managing finances (including financial aid); and planning ahead for their post-degree career and eventual loan repayment.



* 93% of high school seniors plan to go to college⁸

Further complicating matters, students face all of these barriers in the context of limited “cognitive bandwidth” (the mental capacity required to take care of all their responsibilities). Because students lead busy academic and social lives, they are often unable to dedicate sufficient attention to solve new problems they face. As a result, the many small hassles and everyday stressors can accumulate and trigger long-lasting consequences. When behavioral barriers that are psychological (like struggling to find that new group of friends or campus club) interact with logistical ones (like knowing and remembering to re-file the FAFSA), students who face difficulties may decide that college was never “for them” in the first place and give up altogether or decide that now is not the time to pursue a degree. These are the students who fail to fulfill their ambitions, and the ones that can best be served by well-designed behavioral nudges and interventions.

While it is complex and can seem almost insurmountable, this crisis is not unsolvable. Over the past two years, we have been working with colleges and universities across the country to identify some of the specific hidden behavioral barriers students might encounter on the path to a degree. By identifying these small, subtle, accumulated difficulties and designing targeted, cost-effective solutions to alleviate them, we can ease the burden they put on students across the country. Our postsecondary work includes dozens of diverse projects, all **fundamentally designed to increase college degree completion and support student success at every stage in the college experience – from pre-admission to post-graduation.**

This report, encompassing our first 16 completed projects in this domain, attempts to take a holistic look at the student experience. Each chapter highlights a component of the student experience where drop-off is a risk and then provides a series of case studies that illustrate strategies for combating that risk.

Our work, based on a deep understanding of human behavior, offers a perspective on the college experience that is both sobering and hopeful. It is sobering to realize that low graduation rates are partly the result of seemingly minor issues like an application form or challenges making friends. But we also believe that those frustrations can be reasons for hope. It is clear from this body of work that in using what we know from behavioral science, it is possible to make targeted, cost-effective changes that have a meaningful impact on students’ well-being and success. Our results demonstrate that we have at our disposal a toolset with the potential to strengthen economic futures and transform the lives of millions of Americans.

Project Summary Table

PRE-ADMISSIONS: MAKING IT TO DAY 1		PAGE 10
Partner	Intervention Description	Result
	Created a College Choice Tool and Behavioral Tips and Tricks Guide to increase high school students' college aspirations and improve their college match	N/A: Unable to run randomized controlled trial for this intervention
	Reduced time to register for students through redesigned emails, but had no effect on overall registration rates	+5.6 days earlier registration attendance No significant difference in overall registration rates
AFFORDABILITY & FINANCIAL AID		PAGE 16
Partner	Intervention Description	Result
	Increased FAFSAs filed by priority deadline among continuing students through behavioral emails to students and parents	+72% FAFSA filers by priority deadline +\$236-643 in scholarships or grants per student
	★ Increased financial aid applications and awards among incoming freshmen through helpful reminders	+22% FAFSA applications submitted +81% financial aid awards
	★ Reduced student borrowing among incoming students through text messages about how borrowing works as well as an offer to connect with a CCBC aid counselor	-9% total Stafford loans -12% unsubsidized Stafford loans
Anonymous community college	★ Increased likelihood of borrowing and improved academic success by changing the default loan package to \$3,500 or \$4,500 instead of \$0	+39% likelihood of taking a loan +0.12 GPA for every \$1000 borrowed
	Increased financial aid access by helping students choose aid-eligible courses through redesigned emails sent before and after registration	+\$150 in financial aid access +0.22 in completed credits
	Improved student GPA and financial health through financial goal-setting and plan-making exercises along with text message reminders	+0.09 GPA +11% in self-reported financial satisfaction +9% in self-reported ability to access emergency funds

★ This project was executed by an academic research team – see the project spotlight for more detail.

CONNECTING ON CAMPUS

PAGE 31

Partner	Intervention Description	Result
	Increased retention and GPA among freshmen at risk of dropping out through a norm-setting video, self-affirmation exercises, and monthly messages	+10% retention among Metro Academies [®] students +0.18 GPA among Metro Academies [®] students
	Increased work-study applicants and applications among eligible freshmen through redesigned emails encouraging them to apply and providing useful information for getting the application done	+28% number of applicants +56% number of applications

THE BALANCING ACT: GETTING TO GRADUATION ON TIME

PAGE 37

Partner	Intervention Description	Result
	Increased early course registration and overall registration rates through default advising appointments	+9% early registration +4.2% overall registration rates
	Attempted to improve student time management through a study plan-making activity during orientation and text messages on study and class attendance behaviors during the semester	+0.17 GPA among full-time students (nonsignificant) -16% SAP violations among full-time students (nonsignificant)
	Increased tutoring usage and faculty referrals for tutoring through behavioral emails to students and faculty	+34% in use of tutoring +53% in sessions attended 3x number of faculty sending tutoring referrals
	Reduced academic (SAP) violations among minority students and class withdrawals among all students at risk for a SAP violation through three workshops and weekly emails and text messages	-30% SAP violations among minority students in program -10% class withdrawals among all students in program

POST-GRADUATION DAY: GET ON TRACK TO PAY IT BACK

PAGE 48

Partner	Intervention Description	Result
	Improved recall and comprehension of repayment options through lab study that presents the information more neutrally and clearly	+24% remembered repayment terms +21% considered total interest to be paid
	Increased student borrower uptake of income-based debt relief program through behavioral emails, reminders, and a document jacket for mail applications	+13% return of IBR form overall +48% return of IBR forms by mail (with document jacket)

[®] For an explanation of the Metro Academies program, please see the SFSU project spotlight on page 33

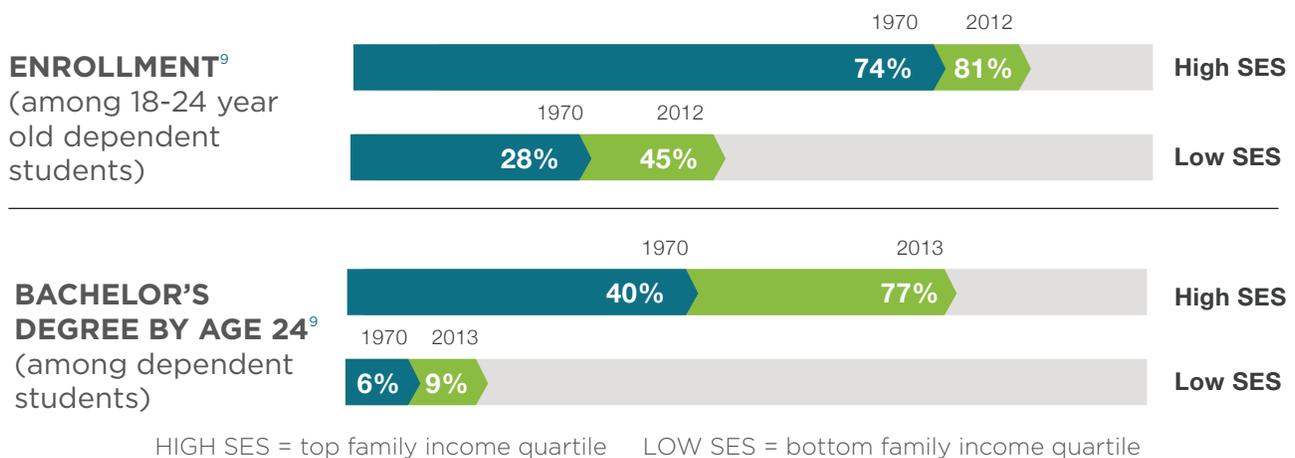
Pre-Admissions: Making It to Day 1

Before the first class starts

Research shows that students at more selective schools with ample resources earn degrees faster, are more likely to graduate, and earn more money after graduation. In a perfect world, students would apply to and attend the most selective, best-resourced school they could get into that offered an adequate financial aid package, all else equal. In fact, half of all low-income students undermatch, choosing a college below their academic abilities and forgoing these advantages. Once students apply to a college (no matter the match), a troubling number of them fail to actually attend their first semester.

In addition to promoting inequality, these are problems that are perplexing on their face. If going to a better college is so beneficial, why would anyone settle for going to one below her academic level? And once someone's chosen a college, why wouldn't she actually go?

The answer partly lies in the nature of the choice. The college search and decision process, including deciding whether to seek a degree at all, is highly complex and not at all transparent. It is even more so for low-income students in high schools with low resources. Behavioral science has demonstrated repeatedly that when faced with complex (or too many) choices we often fail to choose altogether, and if we do choose we tend to rely on mental shortcuts. Systematically evaluating colleges means assessing them on important dimensions like academic quality, academic fit (grades, test scores, etc.), net price, and graduation rate. This also includes less crucial but nevertheless salient dimensions like school size, location, campus feel, brand name, types of students, and choices of major, among others. Given the difficulty in narrowing choices down from thousands of colleges along these many dimensions, students often fall back on shortcuts like proximity to home, perceptions of cost, and peer decisions or anecdotes. As a result, half of all low-income students attend a college well below their academic level of achievement.



The difficulties don't end once someone has decided where to attend. The process of actually enrolling in school involves a series of deadlines, forms to be filled out and returned, and in-person events. Failing to complete even a single task on the long list of enrollment activities can knock a student off-track for college, sometimes permanently. For low-income students balancing college enrollment with high school completion, summer employment, and a lack of familiarity with the process, the risk of falling off track is all too high.

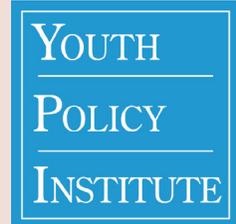
Behaviorally-informed approaches can help students apply to and enroll in high-quality schools that fit their preferences and academic level. Working with two institutions, we created tools designed to help students choose a best-fit college and actively enroll in their school of choice.

To help high school students change their perceptions of school choice and get started on the pathway to higher education, we created a "College Choice Tool" that helps students create a personalized list of schools that matches their academic abilities and preferences, as well as a "Behavioral Tips and Tricks Guide" for staff at the **Youth Policy Institute** to use in shaping students' aspirations around higher education. ([See project spotlight p.12](#))

Additionally, we explored the use of behavioral communications interventions. A series of emails crafted using behaviorally-informed language shortened the amount of time it took students to complete registration at **LaGuardia Community College** in New York. These emails were designed to encourage greater enrollment and interaction with the institution. ([See project spotlight p.14](#))

Choosing a Best-Fit College

Youth Policy Institute



ideas42 worked with the **Youth Policy Institute**, a nonprofit organization in Los Angeles, California that targets poverty-related issues, to strengthen their capacity to help low-income students through key steps in the college search, application, and matriculation process. The Youth Policy Institute works on many education issues, including those surrounding college enrollment and completion.

We found that high-achieving low-income students formed their lists of potential colleges based on those that come to mind easily, such as those their family and peers have attended or talked about. Unfortunately, such availability-based lists rarely generate best-fit schools, as few of these students know a substantial number of college graduates. Additionally, students lack a moment of choice in the application process. Instead of choosing a school based on traditional indicators of success, they often fail to choose and end up at the local community college (or no college at all) due to its default or high visibility status in their minds.

To widen high-achieving students' lists of options and help them land at a better-fit college, we created the College Choice Tool, which provides a user-friendly interface powered by actual college admissions data. Students enter details like GPA, SAT scores, and preferred distance from home and receive a personalized list of 'safety', 'target', and 'reach' schools that match their credentials.

Within the College Choice Tool, schools are graded on an A through F letter grade system, on the basis of critical dimensions like net price, graduation rates, and academic quality. Students often find that schools with a higher sticker price may actually be more accessible to low-income students when available need-based financial assistance and aid are taken into account. These scores then prompt students to make a clear decision about which schools may in fact be the best fit for them.

We also developed a "Behavioral Tips and Tricks Guide" to assist the team at YPI in incorporating a broad set of behavioral techniques to further enhance their programming and ultimately encourage students to increase their postsecondary aspirations.

Some of these suggestions included:

- **Make going to college the new norm:** When communicating with students, emphasize at every opportunity that a majority of their peers intend to go to college and have taken steps toward this goal.
- **Make it personal:** Personalize all communication to students and frame it so it feels like it is coming from a YPI ambassador or other surrogate that is familiar to the student, rather than an academic institution or other vague entity.
- **Make it simple:** Provide checklists and outlines in which first steps are easy to accomplish.

Project Spotlight: Youth Policy Institute

By looking at the challenges of the college selection process through a behavioral lens and from the perspective of the student, we were able to create a low-cost tool to help students choose the best school for their personal preferences and academic abilities and improve their prospects for college completion.

Step A: Students enter their ACT/SAT scores, high school GPA, preferred distance from home, and zip code.

YPI College Comparison Spreadsheet

Data for factors #1 - #6 are from collegereults.org, a website of The Education Trust.

Reset Sheet

Step (A): Enter Your Test Scores, GPA and location preference.

Standardized Test (Select ACT or SAT): Enter Your Test Score:
 Enter Your GPA (on 4.0 scale): How far do you want to be from home? Enter Your Zip Code:
 I want to include the following types of colleges:
 Schools of art, music, and design
 Theological seminaries, Bible Colleges, and other specialized faith-related institutions

Step B: Students select three factors that are most important to them. These factors receive extra weight in the overall scores in step C. The tool also populates a list of suggested matches for students to use in step C.

Step (B): Select the three factors that are most important to you in choosing a college. Then take a look at your suggested college matches.

Choose Your Three Most Important Factors

1.
2.
3.

Suggested Matches

<p>Reach</p> <p>College 1 College 3 College 4 College 2</p>	<p>Target</p> <p>College 7 College 6 College 8 College 5</p>	<p>Safety</p> <p>College 9 College 10</p>
--	---	--

Step C: Students select colleges from the dropdown menus in each of the reach, target, and safety buckets. Ratings for categories #1-#5 populate automatically, whereas students are directed to online resources to provide ratings for #6-#8. Overall scores take all of these ratings into account, giving students one simple number to estimate how well they match with each college or university.

Step (C): Now select schools from the drop down list (either from your suggested matches or other schools you're interested in) below and work through your college choice guide.

		#1	#2	#3	#4	#5	#6	#7	#8	SCORE
		Resources for Students	Academics	Success Rate	Cost	Distance from Home	Campus Feel	Technology	Diversity	Overall Fit
Reach	School Name									
	College 1	A-	A-	A	A	A	A	B+	C-	86
	College 2	B+	A-	A	B	D+	B	B	A-	71
	College 3	A+	A+	B+	A+	B-	A	A+	A+	100
	College 4	A	A+	A	A-	D+	B	A-	B+	84
Target	College 5	B+	B	B+	B-	A	C-	B-	B	64
	College 6	B-	B+	B	B+	A+	B	B+	A	78
	College 7	B-	A	B+	B+	A-	A	A-	A+	87
	College 8	C+	B	B+	A-	A+	D	A-	A-	73
Safety	College 9	B	C	B-	C-	B+	C	B	B+	48
	College 10	C	C	D+	B	D+	D+	C-	B	35

Example: College Choice Tool

Making It Through Enrollment

LaGuardia Community College

Each year, thousands of prospective students apply and are admitted to college but fail to take the required steps to actually enroll and become a student that fall. “Summer melt,” as the problem is often called, affects many students but is particularly likely to occur among low-income and underrepresented minority students, who may lack the resources to effectively navigate the enrollment process once they’ve received their admissions letter.⁶



At LaGuardia Community College in Long Island City, New York, the first post-admissions step is an intensive, in-person placement exam. Despite completing this hurdle, more than half (59%) of students never make it to the next step, at LaGuardia or any other college. Similar drop-off occurs in subsequent steps required to enroll, matriculate, and register for classes.

The many steps required to attend college, combined with the long wait time and limited feedback between each of these steps, can result in prospective students falling off the path to enrollment and the first day of classes. Further complicating this process is the fact that incoming freshmen may not yet feel like college students. This identity mismatch makes it even more difficult to break away from their current life and shift their mindset to successfully navigate the demands of college registration and life.

To combat these barriers, ideas42 revised more than 20 emails written by the school and sent to recently admitted students between the time of admission and the first day of class. These messages were intended to correspond with various checkpoints in the period between enrollment and admission, like when students provide their immunization records or register for classes.

Our messages addressed potential students as incoming freshmen and “LaGuardians” to instill a sense of college identity and frame their attendance as a foregone conclusion. We encouraged them to publicly share their plans

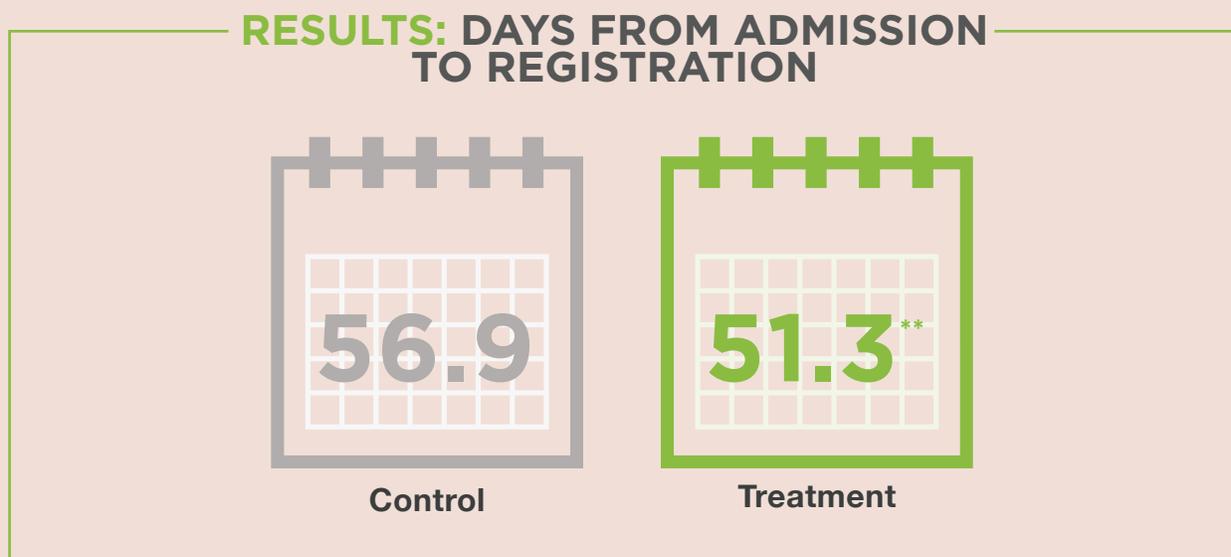
An example of a behavioral email from LaGuardia Community College. The email header includes the LaGuardia logo and the slogan "DARE TO DO MORE". The body of the email is personalized for a student named Dan, with a subject line that says "Takes 5 min - Sign up now for your LaGuardia Advising Appointment!". The main text encourages Dan to enroll in classes and sign up for an advising appointment, highlighting that time slots are limited. It provides contact information for Jane Doe, Director of Advising, and a link to a VIP page for registration holds. The email is enclosed in a green border with the caption "Example: Behavioral Email" below it.

Project Spotlight: LaGuardia Community College

to attend LaGuardia in the fall on social media channels, knowing that public commitments can be a powerful way to help people follow through on their goals. To reduce the many hassles involved in the process, we filled our intervention messages with actionable next steps and wrote them in a positive and welcoming tone.

In this case, however, implementation was logistically challenging. We intended to deliver text messages to students in addition to the 20 emails we designed, but a constrained timeline and limited administrative staff capacity at LaGuardia made this impossible. In some cases, an email referenced enrollment processes that only applied to a small subset of the population, and in others, the message was sent too late to impact key steps on the path to enrollment. Due to these challenges, our analysis was based on seven emails sent to students rather than our intended set of twenty.

When examining enrollment outcomes, we found that students who received the redesigned emails attended their registration session an average of 5.6 days earlier than students who did not receive the messages (51.3 days vs 56.9 days from application).** However, we did not observe any other significant differences for students who received the intervention, including any observable change in enrollment outcomes. The lack of impact of this intervention points to the fact that even with clear communication, registration can be a difficult process to navigate. This suggests a need for further iteration and testing. Improving enrollment outcomes may require an intervention that combines clear, effective, non-threatening communication with substantive changes to the enrollment process itself.



** = significant at 99% level

Affordability & Financial Aid

The elephant in the room

In addition to academic options and potential career paths, one of the biggest considerations for many students making the complex decision whether (and where) to attend college is affordability. With tuition and other direct school-related costs (books, fees) to consider, not to mention general living expenses like room, board, and transit, deciding how to pay for college is one of the most significant financial decisions a student can make.

To make college more affordable, American students can access federal financial aid and need-based grants. Yet national statistics show that around the country, students leave more than \$2.7 billion in free federal grants unused each year, simply because they do not apply for them.¹⁰

Behavioral science tells us that future deadlines can be easy to forget and hard to accurately plan for. In addition, students can find it daunting to collect all of the detailed financial information they need to apply (or to fill out the long application). Unfortunately, research has shown that students who don't tap into financial aid opportunities are more likely to falter before college completion, or fail to begin college at all.¹¹

For those who successfully apply for student loans, it can be difficult to know how much to borrow. Many students are making decisions about personal finances for the first time, without any experience predicting how much they will need to live on or how much they need for books and other college costs. As a result, some students may borrow more than they need, making repayment more onerous later on. Other students may under-borrow, instead turning to more costly methods of paying for education.¹²

Once students have navigated the hassles involved in securing the funds needed to cover tuition and expenses, they must continue to make smart decisions about how to manage their money throughout the year. Many struggle to stretch their funds throughout the semester, let alone the entirety of college. These financial challenges consume mental bandwidth, and when students are stressed out about money it becomes very difficult to succeed academically. Another complicating factor is that affordability is often driven by course choices—students can finish school faster or, in some colleges, access all available financial aid only when signing up for classes within their major.

Simple, sensible approaches based on insights from behavioral science can help students meet deadlines and determine their ideal loan amount based on their individual needs. These approaches can also help them better manage their aid and loan disbursements semester to semester, enabling them to focus less on money and more on academics. Our work applying a behavioral lens to matters of money on the college journey yielded key insights that can help students at multiple points in the process.

We found that messaging matters for timely borrowing. Early FAFSA application submissions increased by 72%, and scholarship and grant awards rose by up to \$643 on average at **Arizona State University**, where a series of emails to both students and their parents reminded them of the priority deadline and outlined manageable steps for collecting financial information. (See [project spotlight p.19](#)) Additionally, FAFSA submissions rose by 22% and aid awarded nearly doubled for high school seniors in the **San Jose Unified School District** who received a smartphone app that flagged FAFSA deadlines. (See [project spotlight p.21](#))

Another area of focus was helping students choose the right amount to borrow. Some students may borrow too much, while others may not borrow enough. In personalizing communication and understanding the influence of loan offers, we come closer to learning how to best support students



I'm very proud of myself [for] being able [to] pay for my classes and being able to also save money."

-Student, Valencia College

in this decision. Students borrowed fewer dollars—up to 20% less for minority students – when receiving a month-long text messaging campaign at the **Community College of Baltimore County**. These text messages helped students personalize the borrowing process by providing access to a financial aid counselor and information to help determine loan amounts. *(See project spotlight p.23)*

Changing the manner in which students are presented with loan offers can both increase borrowing and improve academic outcomes. At an anonymous **community college**, students who received college loan offers of either \$3,500 or \$4,500 in their financial aid award letters were 40% more likely to borrow than students who received a loan offer of \$0, even though student eligibility for loan aid was unaffected. Students prompted to borrow due to a positive loan offer earned significantly more credits and higher GPAs. *(See project spotlight p.25)*

Finally, we designed interventions to help students make the most of college funds and financial aid once they've secured the right amount. We found that students could access an additional \$150 of their eligible aid for the semester (\$1.5 million across all students) after receiving two redesigned administrative emails during the registration process at **Valencia College**. The emails focused on using clear, action-oriented language to make sure students didn't lose out on financial aid dollars by inadvertently registering for courses outside their majors. *(See project spotlight p.27)*

Additionally, financial management and budgeting played a key role in helping students at **Valencia College** avoid academic struggles. We created an online financial management activity to help students—particularly those who receive lump-sum financial aid refunds—set financial goals and create plans to stick to them. The activity, together with a series of encouraging SMS reminders, improved students' satisfaction with their financial situation by more than 11%, and their ability to come up with \$400 at short notice by around 9%. It also increased GPA by 0.09 points. *(See project spotlight p.29)*



The text messages actually helped me with not spending money.”

-Student, Valencia College

Meeting the FAFSA Priority Deadline

Arizona State University

As college costs skyrocket, money remains a major reason that many students don't earn a degree. Yet even with free federal aid available, many low-income students still fail to apply for grants that could help them pay for their college expenses.



Arizona State University (ASU) wanted to support students and ease their financial burden by encouraging them to apply by their priority deadline. Although doing so ensures students get their maximum financial aid package, over four in five students file after the priority deadline and risk missing out on funds (based on the 2013-2014 school year). ideas42 found that students often simply forget about the deadline, don't think they qualify for financial aid, or are deterred by the multiple steps involved (e.g. gathering the financial data needed for submission).

To remove these barriers and help students get every dollar they can, we developed a series of eight emails sent over eight weeks to encourage students to apply for aid before the March 1st priority deadline. We then tested the impact of this email program through a randomized controlled trial with 63,000 ASU students. These emails emphasized the priority filing deadline, encouraged students to talk with their parents about required financial information, and included charts and graphs to make it easier to determine what information was needed. They corrected the common misperception that most students don't use financial aid (when in fact most students do) and broke the process down into easily accomplishable tasks rather than one large, difficult undertaking.

Hi Alissa,

The FAFSA is now available. With FAFSA Mythbusters, we debunk three common myths and help you stay on track for the **March 1st priority deadline**. It could mean thousands more dollars in your financial aid package.

FAFSA Myths Debunked

Myth #1: Most students don't qualify for financial aid.	Fact #1: Over 80% of students at ASU receive financial aid.
Myth #2: You only have to file the FAFSA once for college.	Fact #2: You must re-file the FAFSA every year if you wish to continue receiving aid.
Myth #3: Your financial aid is always available to you, regardless of when you apply for it.	Fact #3: Apply by March 1st to get all of the money you're eligible for. On average, students who apply before then get twice the amount of aid!

Submit your application by the Sunday March 1st priority deadline. Here's what you need to do now:

Get ASU's college code — it's 001081.

[Retrieve Your PIN.](#)

[See this graphic](#) to figure out if you need your parents' financial information.

Sincerely,

Melissa Pizo
Executive Director
Financial Aid and Scholarship Service

P.S. Please feel free to reach us at 480-965-3355, via online [chat](#) or at our [office locations](#) (open Monday from 9 A.M. — 5 P.M., and Tuesday — Friday from 8 A.M. — 5 P.M.).

Example: Redesigned Email

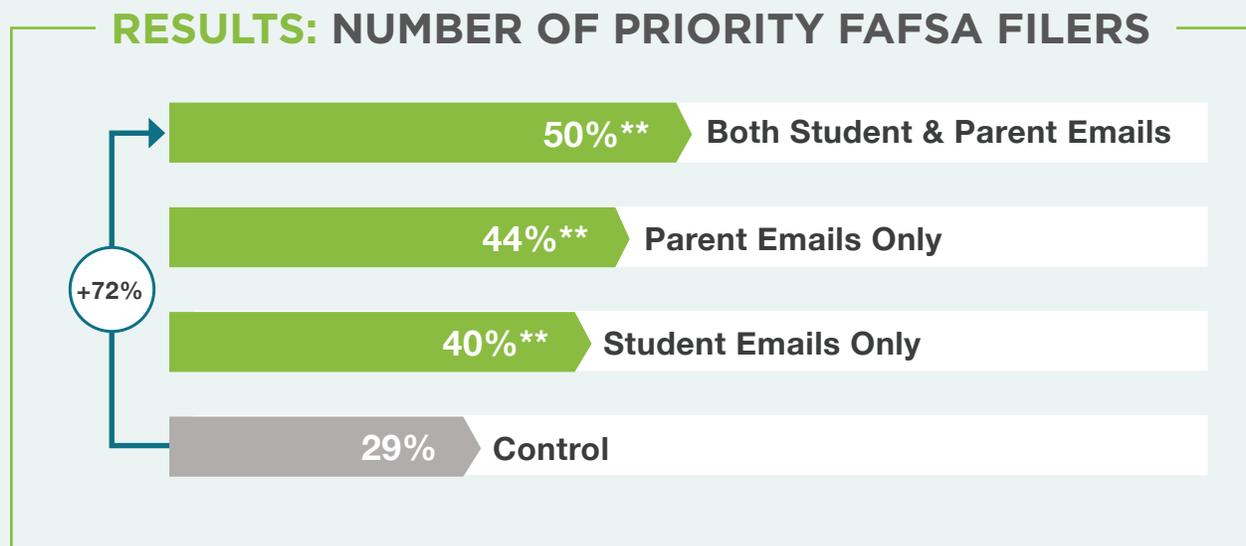
Project Spotlight: Arizona State University (FAFSA)

Using similar strategies, we also created two emails specifically for parents of ASU students. Some families received both parent and student emails, some received only student emails, and some received only parent emails. The control group received the standard ASU communication protocol for renewing aid, which was one email to students four weeks before the priority deadline.

The results were striking. The jump in early FAFSA submissions was large for all groups receiving our emails, and we saw the largest boost—a 72% increase (from 29% to 50%)**—when both parents and students received emails. When students and/or parents received emails, students were awarded, on average, between \$236 and \$643 more in scholarships or grants that replaced loans. Over multiple semesters, this translates into thousands of dollars that each student doesn't have to pay back later with interest.

The impact of this strategy continued even after the priority deadline. ASU sent their standard emails to the control group throughout the spring and summer, and ideas42 sent redesigned emails to students at the same frequency. By September of the next school year, we found a 3% increase (from 88% to 91%) in FAFSA submissions overall among students who had received ideas42's behaviorally-informed emails.** If all students had received those messages, we estimate that 1,124 more students at ASU would file the FAFSA, receiving a whopping \$27 million more in financial aid. Scaled to all continuing ASU students, sending these emails would cost less than \$0.15 for each additional student who files before the priority deadline.

This work highlights the overwhelming importance of communicating effectively at key points in time, not just with students, but also with parents of dependent students.



** = significant at 99% level

Increasing FAFSA Awards

San Jose Unified School District

Low-income high school students who don't apply for financial aid are less likely to make the leap to higher education. To encourage high school students to apply and meet financial aid application deadlines, Stanford researchers Omid Fotuhi and Geoffrey Cohen worked with a group of high school students from the San Jose Unified School District in California to use behavioral strategies to improve FAFSA application rates.

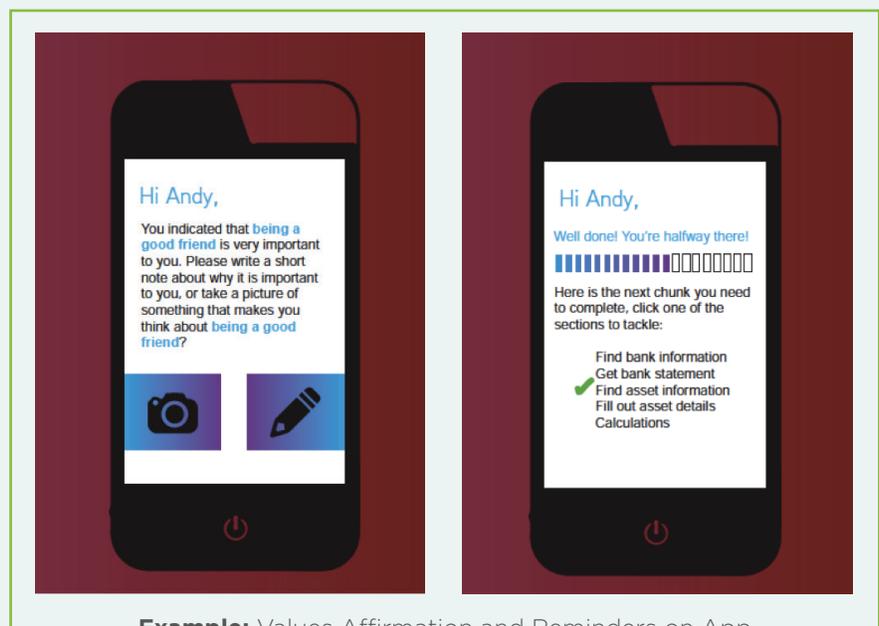


Research suggests that some students, including low-income, underrepresented minority, or first-generation students, avoid applying for financial aid for a combination of behavioral reasons. Some are overwhelmed by the complexity of the process, while others worry they'll feel out of place in college or be stigmatized for their socio-economic background. These behavioral factors can cause students to avoid applying for aid, or fail to complete their financial aid applications in a timely fashion.

The researchers designed an intervention program to target these behavioral barriers. In a randomized controlled trial, they tested the efficacy of two strategies on a group of 149 high school seniors at San Jose High School. Many of these students came from low-income, underrepresented minority families and would be the first generation to attend college.

In September 2015, students completed a 10- to 15-minute in-class values-affirmation intervention—a writing exercise that asks students to reflect on values important to their identity, like relationships with friends and family or religious affiliation. Short values-affirmation exercises have been shown to improve self-perceptions and provide a buffer against negative thoughts, both of which can help students overcome reluctance in applying for financial aid.

Students then downloaded a smartphone app that, over a period of weeks, delivered reminders and instructions about important deadlines and upcoming tasks related to applying for financial aid. The reminders simplified the application process into manageable tasks they could complete over a series of weeks. Students



Example: Values Affirmation and Reminders on App

Project Spotlight: San Jose Unified School District

in the control group received reminders about study skills instead of financial aid, while students in the treatment group received either the affirmation exercise, the financial aid reminders via the app, or both.

These strategies had a dramatic and powerful impact. Specifically, receiving the reminders about the financial aid application through the app had the greatest effect on students' likelihood of applying. Students receiving the financial aid reminders through their phones completed their financial aid applications at a rate of 82%, compared to 67% of students who received the control condition of study skills reminders through the app.*

Students who both completed the affirmation exercise and received reminders through the app trended toward an even larger, although statistically nonsignificant, increase in completing their financial aid applications at a rate of 94%, compared with 75% of students who received neither values affirmation nor financial aid reminders.

These interventions also translated into more financial aid awards among those students who applied. Once again, students who received the financial aid reminders through the app were more likely to be awarded financial aid at a rate of 65%, compared to 36% of students who received the control reminders.** Students who received both the reminders and affirmation interventions again trended toward an even higher financial aid award rate of 78%, compared with 39% for the students who received neither intervention, however this increase is statistically insignificant.

RESULTS: COMPLETED FINANCIAL AID APPLICATION FOR REMINDERS INTERVENTION



RESULTS: RECEIVED FINANCIAL AID AWARD FOR REMINDERS INTERVENTION



* = significant at 95% level ** = significant at 99% level

Personalizing Borrowing Decisions

Community College of Baltimore County

There's a lot of concern in the policy world around student loan borrowing and the financial burden this places on low-income students after leaving school. While much of the work around this issue is aimed at ensuring student repayment to avoid loan defaults, University of Virginia researchers Andrew Barr, Kelli Bird, and Ben Castleman took a different approach. They started at the beginning of the process to help students make more informed loan choices.



Students often lack clear information about borrowing and have limited access to individual loan counseling. At the Community College of Baltimore County in Maryland, the research team created a month-long texting campaign designed to facilitate personalized decisions around financial aid.

At CCBC, and at community colleges across the country, some students borrow too much and others too little, in part based on whether loans are automatically included in financial aid packages or not. When borrowing, many students aren't sure how much their monthly payments will be after college and don't have easy access to guidance around loan questions.

In a randomized controlled trial from November 2014 to September 2015, 2,800 CCBC student loan applicants were sent a series of eight text messages related to borrowing. The messages emphasized student choice around how much to borrow and the fact that monthly repayment costs can vary based on the borrowed amount. Each message also invited students to write back with questions for a CCBC financial aid counselor.

Students were hungry for this type of assistance. About 70% of students who received the texts responded to at least one.

Notably, the texting campaign led to declines in student borrowing. CCBC students who received the texts borrowed 9% less in total Stafford Loans (from \$2,401 to \$2,218)* and 12% less in unsubsidized Stafford loans (from \$1,301 to \$1,156).* Declines in borrowing were most significant—ranging from 10-27%—among the lowest income students, African-American students, new students, and those with low GPAs. African-American students who received the texts, for example, borrowed \$439 less than those who did not receive the texts (from \$2,928 down to \$2,489).*

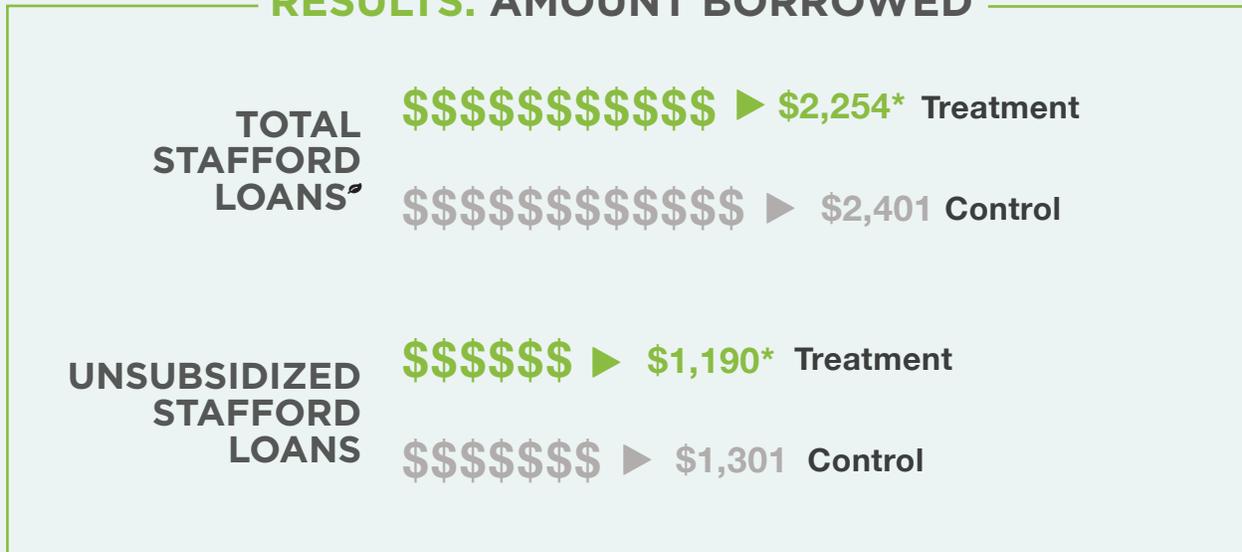
Kelli, your loan payments can be \$100s higher or lower each month depending on how much you borrow and which repayment plan you choose. Text me back to discuss how your borrowing choices will affect the payments you owe.

The text is contained within a green speech bubble with a tail pointing towards the bottom left. The bubble is set against a white background with a thin green border.

Example: Text Message to Borrower

It remains unknown whether this reduction in borrowing among a student population that is at higher risk of dropping out has a positive impact on school performance or on students' overall financial well-being. The researchers are continuing to track these outcomes through student surveys and CCBC administrative data.

RESULTS: AMOUNT BORROWED



* = significant at 95% level

• Total Stafford loans includes both subsidized and unsubsidized Stafford loans

Influencing Borrowing Through Loan Offers

A U.S. Community College

Community colleges across the country struggle to get their students to graduation. Less than 30% of these students receive a credential within 150% of the expected time to graduation (e.g. within three years for a two year degree). Financial aid is a crucial part of this journey and could play a key role in tipping a student toward earning a degree and away from dropping out.

However, many low-income students avoid loans, even those that do not accrue interest while the student is in school. Though this avoidance of debt may seem prudent, community college students with unmet financial need who don't borrow may be more likely to use credit cards to pay for college, which ends up being more expensive. Thus, initiatives designed to reduce borrowing may actually encourage more costly borrowing, push students towards working more and taking a lower course load (thereby extending their time in school and increasing the costs), or discourage students from continuing with college altogether.

To determine how federal loan aid affects community college students' success, researchers Lesley Turner from the University of Maryland and Ben Marx from the University of Illinois worked with a large, urban community college on how to present loan offers to students.

Although a federal formula dictates how much federal loan aid a college student is eligible for, community colleges themselves decide how much to offer in students' financial aid award letters. About half offer students their maximum loan award, while half offer no loan aid. Loan offers do not affect eligibility, but may have a sizeable impact on students' borrowing decisions if students see the amount listed as a recommendation.

So how does the framing of loan offers influence student borrowing? In the fall of 2015, 19,352 students were randomly assigned to receive a loan offer of either no loan (\$0), or \$3,500 for freshmen and \$4,500 for sophomores.

LOAN OFFERED

Financial Aid Award By Term For The 2015-2016 Processing Year

Fund	Fall 2015		Spring 2016		Total
	Status	Amount	Status	Amount	
Federal Pell Grant	Accepted	\$2,063.00	Accepted	\$2,062.00	\$4,125.00
→ Direct Subsidized Loan	Offered	\$1,750.00	Offered	\$1,750.00	\$3,500.00
Creative Arts Scholarship Fund	Offered	\$5.00	Offered	\$5.00	\$10.00
Totals		\$3,818.00		\$3,817.00	\$7,635.00 ←

Example: Financial Aid Offers in Award Letters

LOAN NOT OFFERED

Financial Aid Award By Term For The 2015-2016 Processing Year

Fund	Fall 2015		Spring 2016		Total
	Status	Amount	Status	Amount	
Federal Pell Grant	Accepted	\$2,063.00	Accepted	\$2,062.00	\$4,125.00
→ Direct Subsidized Loan	Offered	\$0.00	Offered	\$0.00	\$0.00
Creative Arts Scholarship Fund	Offered	\$5.00	Offered	\$5.00	\$10.00
Totals		\$2,068.00		\$2,067.00	\$4,135.00 ←

Example: Financial Aid Offers in Award Letters

Students who received a loan offer were 39% more likely to borrow than those who received a \$0 loan offer (32% of treatment students borrowed, compared to 23% in control).** And these students were even more likely to borrow exactly the amount offered rather than any other amount. This translated to an additional \$3.6 million in borrowing.

These borrowing decisions produced immediate effects on educational attainment. Turner and Marx estimate that a \$1,000 increase in loans leads to an increase of 0.46 credits completed in a semester (compared to a baseline average of about 7.5 credits)* and a 0.12 increase in GPA (compared to a baseline average 2.3 GPA).* The researchers found an even larger impact among low-income students and older students.

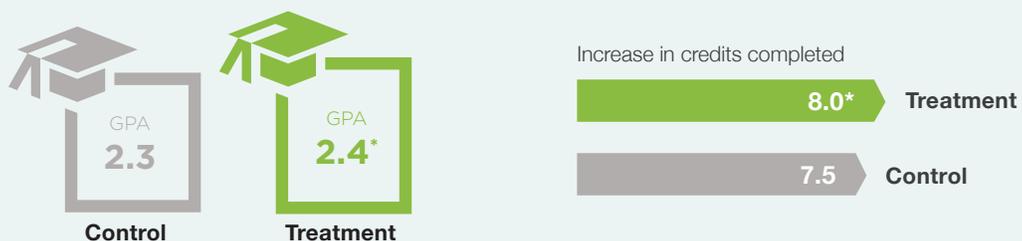
In the long run, it's possible that these methods of offering loans could impact degree completion, and the researchers will continue to track students over time to test for these effects. By thinking critically and carefully about how to present loan offers, community colleges can potentially positively influence the academic future of their students, while also limiting unnecessary student loan debt.

RESULTS: PERCENTAGE OF STUDENTS BORROWING



RESULTS: IMPROVED ACADEMIC OUTCOMES

(for every \$1,000 increase in loans)



* = significant at 95% level ** = significant at 99% level

Keeping Students Eligible for Financial Aid When Registering for Classes

Valencia College

Financial concerns have long been a reason that hundreds of thousands of community college students drop out each year. Officials at Valencia College in Orlando, Florida, believed that the hurdles of registration were costing their students significant dollars in federal financial aid.

VALENCIA COLLEGE

Colleges are permitted under federal regulations to reduce student financial aid if students select courses outside their declared course of study to keep students progressing toward a degree in a timely manner. About one in seven Valencia students is at risk of losing some aid for this reason in any given semester.

In order to understand why this was happening, ideas42 looked at Valencia's registration process. To choose classes, students must first flip through a paper course guide listing roughly 1,000 courses, each with an average of 17 sections. To avoid being overwhelmed, Valencia students report sometimes taking shortcuts. Some may go with the catchiest course titles or those that are memorable for simply appearing close to the top of the page. Once students know which classes they want, they must enter their selection into an online registration portal, which they find difficult to navigate. For example, if a course number is entered incorrectly, students have to start again. As frustration builds with each failed attempt—students attempt to register more than five times per class on average—they lose focus on their plan, making it even less likely they will go back and find alternatives.

To combat this problem, our first choice would have been redesigning the registration system to help students better navigate the process and provide real-time feedback. Since overhauling the online registration system was not feasible within the scope of the project, we instead opted to redesign the two warning messages that the school sends to students during registration: one that provides general information on choosing courses and another that alerts students when they've selected a course that doesn't qualify for aid. These retooled emails only highlighted courses that fit within a student's major and combined a personalized touch with a clear mention of the possibility of losing "hundreds of dollars" in financial aid eligibility. Numbered action steps—with embedded links—framed the most important information. Both emails contained clear information on how to find advisors and make an appointment, and subject lines conveyed urgency using action-oriented language ("You need to fix your registration") rather than that of a frantic ("URGENT!!!") emergency.

To test the effectiveness of the new emails, 10,102 students were randomly split into four groups. During Spring 2015 registration, two groups received only one of the redesigned emails, and one group received both. A control group received neither.

The payout was big: students who received both of the retooled emails had access to an additional \$150 (from base average of \$6,217) in aid for the Spring 2015 semester, or the cost of 1.5 credits.* This increase equates to an additional \$1.5 million in total aid eligibility for all students in Valencia's Associate

Project Spotlight: Valencia College—Registration

in Arts program. Minority students saw an increase of \$187 (from base average of \$6,352).** Only the two emails working together showed meaningful impact, demonstrating the value of reaching students in multiple ways.

Subject: You need to fix your registration

Hi Josh,

This is Christen from the Financial Aid office. While reviewing your course schedule, we found that you're registered for at least one class that won't be paid for by your federal financial aid:

PHY 2048C | GEN PHYSICS WITH CALCULUS 1 | CRN: 15415

Students last year lost hundreds of dollars for this reason. But don't worry, it's easy to keep your full financial aid.

Please follow these steps ASAP to make sure that you don't lose any of your aid:

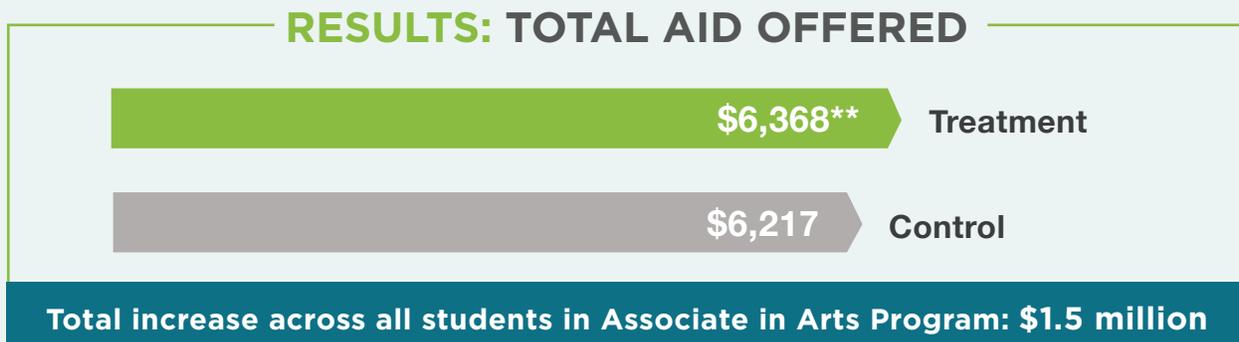
1. Your current program of study is: AA GENERAL STUDIES. If you think you need the above courses to transfer to a different program of study, make an appointment with an advisor or contacting advising directly by clicking [here](#).
2. Otherwise, log into [Atlas](#) to drop: GEN PHYSICS WITH CALCULUS 1 using the CRN(s) 15415
3. Register for a new course or courses that meet your degree requirements:
 - In [Atlas](#), click on "LifeMap" and then "My Education Plan" to see your degree requirements. Choose a course from an area that is still needed.
 - Add the new course or courses.
4. The last day to add or drop classes is Tuesday, January 20th. If you have questions, email us at enroll@valenciacollege.edu or call (407) 582-1507. We are here to help!

Sincerely,
Christen

Example: Redesigned Email

There was also an unexpected bonus: students exposed to both redesigned emails passed an additional 0.22 credit hours each (on top of base average of 8.07 credit hours), moving them further along the track to college completion.†

It's hard to imagine a more cost-effective way of improving students' access to approved financial aid dollars: at scale, it costs only \$0.03 for each additional dollar of aid eligibility. Using behavioral insights to improve communications—or even better, the actual systems with which students interface—is a good investment for any institution that prioritizes student outcomes.



†= significant at 90% level * = significant at 95% level ** = significant at 99% level

Planning for a Better Financial and Academic Future

Valencia College

Financial health is critical to getting a college degree. This isn't simply because of the financial tradeoffs students have to make when they decide to go back to school, or the hidden costs of college. It's also because having scarce resources imposes a cognitive "bandwidth tax," making it difficult to succeed academically while worrying about finances. This problem is especially acute for low-income students with little financial breathing room.

VALENCIA COLLEGE

One in three college students says financial problems have negatively impacted their academic performance, and economic issues are the most frequent reason students give for dropping out. With this in mind, Valencia College wanted to help support students' financial management.

Working with Valencia College, ideas42 found several reasons why students struggle with financial management. First and foremost, students are busy working multiple jobs, supporting family members, and trying to repay debt. In addition, students who receive financial aid refunds get lump payments expected to last the entire semester. Students have difficulty budgeting this money and may spend the following semester's payment even before it is received.

To help students overcome these obstacles, we designed a behaviorally-informed online goal-setting and plan-making activity to help students set financial goals and walk them through the key steps needed to

This is your reminder to save \$200 by setting aside money weekly. Running into tough times?

Pop quiz: What are the top three things your classmates want to spend less on? Answer: food, entertainment, and personal care.

Here's the message you wrote for yourself at the beginning of the semester: "You can do it!"

Remember, you said you'd spend less on food by "make lunch at home"

Example: Text Message to Students

Project Spotlight: Valencia College—Financial Planning

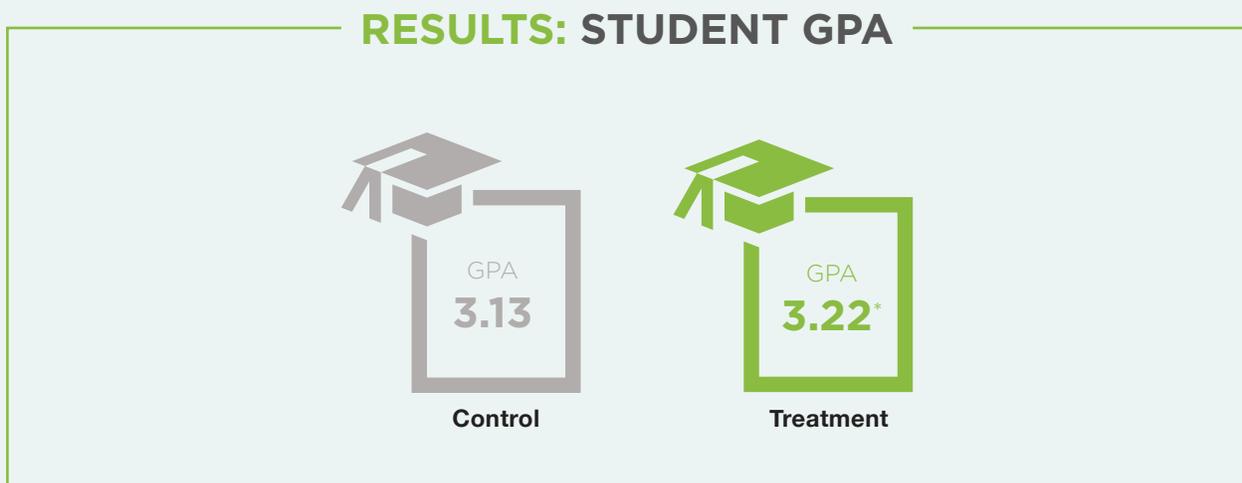
reach those goals, rather than focusing simply on financial knowledge-building. We also created a series of 10-15 encouraging text messages reminding students of the goals and plans they set at the beginning of the semester.

A total of 2,120 current Valencia students were randomly assigned to either a treatment group, which received this intervention, or the control group, which completed a simple financial education exercise offered by the college.

Students who received our package of goal-setting exercises, plan-making exercises, and reminders reported significant improvements in their financial well-being—and critically, their academic performance. The largest improvements were an 11% gain (from 1.79 to 1.98 on a four-point scale)* on average in “satisfaction with present financial condition,” and a 9% gain (from 1.94 to 2.12 on a four-point scale)* on average in the ability to “come up with \$400 when needed.”

Most importantly, the treatment group’s end-of-semester GPA was 0.09 points higher than that of the control group, an improvement of 3% overall (from 3.13 to 3.22), showing how a better financial situation can impact student success.* Moreover, each additional 0.1 GPA point gained would cost only \$1.53 per student if the package were rolled out to all students at Valencia, making it a cost-effective way for community colleges to help students improve not just their financial health but also their academic achievement in the short term.

This intervention is an important first step in understanding just how intertwined students’ financial lives are with their academic lives. The evidence suggests that a powerful strategy for tackling the completion crisis in higher education is to more fully address the financial health of students as they work towards their degrees.



* = significant at 95% level

Connecting on Campus

Keeping students engaged throughout their journey

 f those students who do successfully pass admissions, enrollment, and financial hurdles, a significant number do not return for their sophomore year. At four-year institutions, one in five students drops out at the end of freshman year, and at two-year institutions, that number rises to an alarming one in three. Adjusting to college life is inarguably a challenge for all students, and the reasons for this high dropout rate are varied. Looking at the potential causes from the student perspective, however, sheds light on two under-appreciated contributors to low retention rates: mindset and self-perception.

For many first-time college students, the combination of academic rigor and administrative hassles, fears of not fitting in, and a lack of positive feedback in a new and unstructured social environment can trigger feelings of self-doubt and negative self-identities.

These challenges can also be as simple as not physically looking or acting like they believe someone who belongs in college should look or act. In sum, the everyday stress of college life can send the wrong message to students, leading them to question whether they truly belong in college in the first place. For some, this creates a critical dropout point.

For all students, a connection to campus life and sense of belonging in their new academic communities are paramount for college persistence. Finding effective ways to increase student involvement on campus, such as work-study programs or campus clubs, and intentionally reinforcing messages at key points in the semester can help students both develop positive relationships and also recognize that college is challenging for everyone and not just them. Flipping the narrative from personal failure and lack of belonging to a common sense of struggle shared by everyone on campus can help students see their struggles as normal in their environment, and keep them in school.

“
**Remember when this was
the only thing you ever
wanted. Remember when you
opened that acceptance letter
and cried tears of joy. Be grateful
for the opportunity you have to
do something you love and
live the actual dream.”**

-Student, SF State

Through our work tackling this often ignored area, ideas42 developed low-cost solutions that can change behaviors and improve the likelihood that students, especially those typically at risk of dropping out, stay in college. In some cases, these strategies appear to increase the efficacy of existing support programs and to have particular influence among first-generation, underrepresented minority students from low-income backgrounds. These interventions are elegant – they don’t require intensive counseling or institutional staff time. Instead, a few intentional tweaks to the student experience can have outsized impact on students’ connections to their campuses.

In one of our studies, retention among a group of students at highest risk of dropping out rose by 10%, and their GPAs by 7%, following a digital campaign implemented at **San Francisco State University**. We found that many of the students who didn’t make it to sophomore year left due to negative perceptions about themselves and their place on campus. To combat their misperceptions, we created a video of students discussing early struggles as a normal feature of college and followed it with a brief survey. Using language from their own survey responses, we sent students monthly emails and text messages reinforcing the video’s message or reminding them of important deadlines. [\(See project spotlight p.33\)](#)

Furthermore, we found that 28% more students applied for work-study jobs and submitted 56% more applications at **Arizona State University** when we redesigned a series of 12 emails the university was sending to encourage eligible students to apply for work-study jobs. Being employed in a work-study job centers students on campus and provides an additional income stream. The new emails emphasized the dollars available, access to mentorship, and the link between on-campus jobs and improved academics. [\(See project spotlight p.35\)](#)

Fostering a Sense of Belonging

San Francisco State University

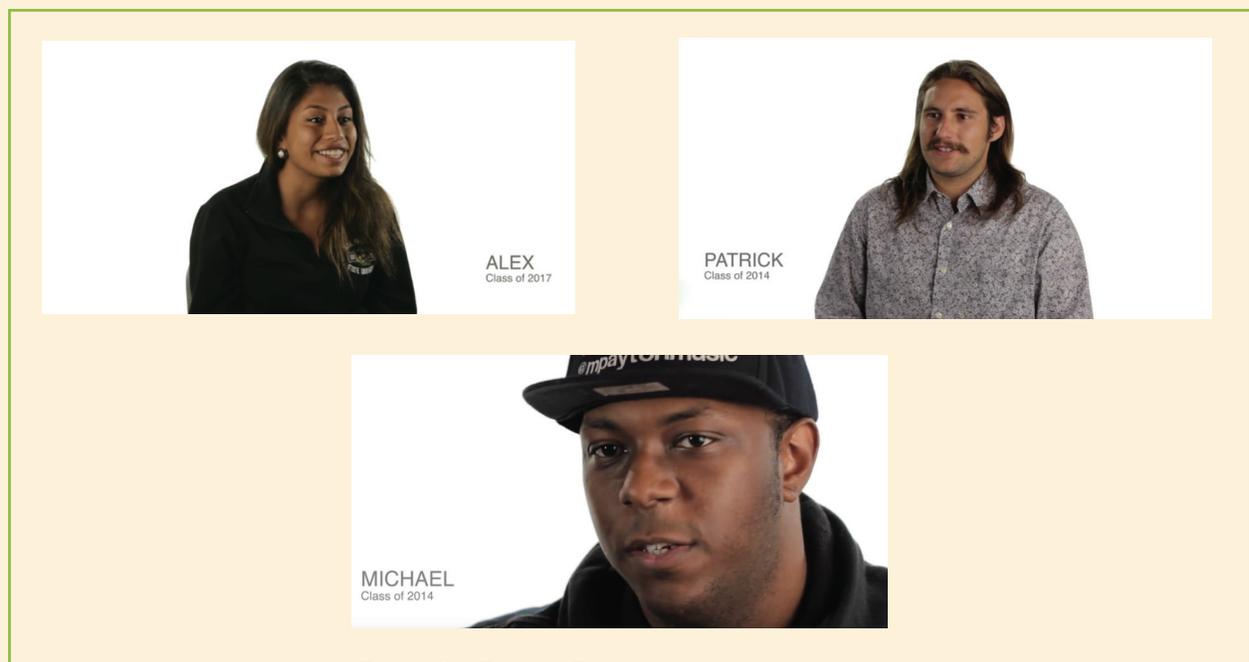
Enrolling in college is the first step to a degree, but many students struggle to stay in school and complete their course of study. This problem is particularly acute at the start of a student's college journey.



At San Francisco State University (SFSU), 18% of freshman did not return for sophomore year, and while some dropped out because they failed to complete remediation, the majority left for non-academic reasons.¹³

Applying a behavioral lens to the problem, we discovered that very early in the school experience students create disempowering narratives about themselves and their abilities. They begin to doubt whether they are “college material” and, feeling disconnected from campus life, fear they don't belong.

Solving this meant reframing students' view of college life and helping them find their place in the university community. Working with the university cinema department, ideas42 created a three-minute video of older students describing their own struggles and routes to success. The video, delivered to incoming freshman through the university's intranet, was followed by a brief survey that reinforced the video's message and prompted students to connect it to their own goals and values in their own words. The intervention was designed to help students see that the challenges they faced were not unique to them, nor were they a sign of personal failure. By arming students with that knowledge, we hoped to bolster their resilience against threats to their confidence.



Example: Frames From the Video Intervention

Project Spotlight: San Francisco State University

These survey responses were then used in 11 text and email messages sent once a month throughout the academic year. These messages reminded students of important deadlines such as registration or financial aid, repeated their own encouraging words to themselves, and highlighted their personal goals and aspirations at high-pressure moments such as midterms.

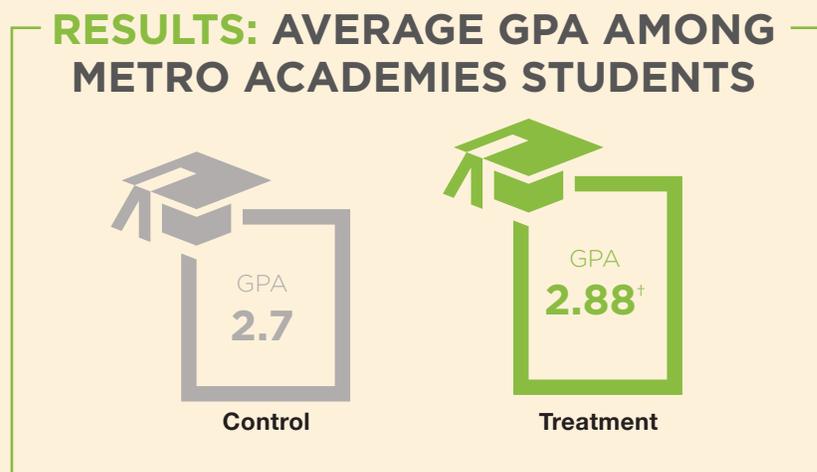
We delivered the intervention via a randomized controlled trial to half of the 6,402 incoming students just before classes began, while the other half only received SFSU's standard welcome video. We were particularly interested in outcomes among the 304 students in the Metro Academies College Success program, which identifies students at highest risk of dropping out and provides more intensive support during their first two years.

It was among the Metro students that we saw the strongest results. 91% of Metro students in the treatment group returned for their sophomore year. This is a 10% increase over the 82.5% return rate for the control group.*



GPA among Metro students receiving the intervention jumped 7%, from 2.7 average GPA for the control to 2.88 for the treatment group.† We also saw a trend toward more credits completed, but this 8% increase to 21.4 credits was nonsignificant. Finally, we saw a 2.2% increase in GPA, from 2.73 to 2.79,† on average for all minority students (regardless of their Metro status).*

These results suggest that relatively low-cost interventions (in this case, \$470 per additional student who persists across the Metro program) can ratchet up the efficacy of programs supporting students at high risk of dropping out. If we can increase college persistence by 10% with one video, one survey, and 11 messages, the potential impact of an intervention like this across multiple colleges is huge.



† = significant at 90% level * = significant at 95% level

Staying Connected to Campus Life with Work Study

Arizona State University

On-campus, part-time jobs can play an important part in keeping students in school, helping them feel more connected to campus life, and improving their financial status. Yet students often don't take advantage of federal work-study opportunities. At Arizona State University (ASU), just 11% of more than 2,000 freshmen eligible for work-study through the school's Student Engagement and Employment Development Plan (SEED) applied for these positions in the fall of 2014. Because so few students applied, only 20% of the jobs were filled, leaving \$684,000 for eligible students untapped.



We found students didn't apply for these jobs because of skewed perceptions about the financial and academic benefits of work-study programs, such as the belief that they are low-wage or menial jobs. Some thought that to succeed academically in their first year they should not work. Our research also found that the application steps were complicated and that students often missed application deadlines.

In a series of emails redesigned by ideas42, we emphasized the money available through work-study jobs, the access to mentors, and the potential for improved academics. The emails sought to reduce hassles in the application process by providing a sample ASU resume and a simple guide to listing references. The application deadline was clearly stated and students were offered a link to a scheduling tool that helped them plan a time to complete their application.

In a randomized controlled trial, we assigned 2,335 freshmen eligible for SEED jobs in Spring 2015 to two groups. One received the ideas42 redesigned emails and the other received standard ASU communication about the program. Each group received 12 emails in total.

Subject: Grow your career, starting now

Hi Andrew,

Congratulations! You are among the select 4% of students invited to participate in ASU's new SEED program. The SEED program will help you grow your skills now so that you can be better prepared for your career when you graduate. **Earn an additional \$1,200 - \$1,900 this year** through an on-campus SEED job.

SEED gives you:

- one-on-one mentorship with a dedicated mentor
- enhanced access to professional development training
- cutting-edge support services, such as Gallup's StrengthQuest skills assessment

Don't lose out on the opportunity you've already been awarded! Apply soon—**many jobs are closing February 5!** It only takes 10-20 minutes to apply.

Is a SEED job right for you? Select one.

Yes I want a SEED job now.

Maybe, let me think about it and decide later.

No, I already have a job or don't think I qualify.

Example: Redesigned Email

Project Spotlight: Arizona State University

Students opened 23% more of the redesigned emails and clicked through the content 60% more compared to the standard communications. As a result, 28% more students applied for SEED jobs (from 9% to 12%)* and 56% more applications were submitted (from 304 to 475 applications).**

Because of logistical problems related to the hiring process, the increase in the number of students hired for jobs in the intervention group compared to the control group was not significant (55 vs. 50). While the full impact of the communication has not yet been observed, even that modest growth in work-study employment helped the additional students earn an average of \$1,600 more over one year providing a steady stream of income for needs such as books, food, or supplies that students may not adequately anticipate when calculating the cost of college. At the scale of eligible freshmen at ASU, we estimate it would cost \$11 for each additional student who would apply to SEED or \$2 for each additional application, increasing the cost-effectiveness of current practice by using the redesigned emails.

With minor modifications, these emails can be used at colleges across the country to help students connect with work-study programs and potentially earn millions of dollars more towards their education.

RESULTS: NUMBER OF UNIQUE APPLICANTS

 140* Treatment

 109 Control

 =10 applicants

RESULTS: NUMBER OF APPLICATIONS

 475** Treatment

 304 Control

 =25 applications

* = significant at 95% level ** = significant at 99% level

The Balancing Act: Getting to Graduation Day on Time

Promoting academic success with better use of existing services and structures

It's not all financial and social: campus life brings a mix of new academic challenges for students that can threaten on-time college completion, driving down the likelihood of graduation at worst and driving up the cost of a degree at best. Academic difficulties can be particularly damaging because students who don't meet minimum GPA or credit completion requirements risk losing federal financial aid, and negative academic feedback can reinforce harmful self-perceptions and incorrectly send students the message that they don't belong. Low-income students experiencing these struggles may leave college before earning a degree—in debt with no return on their investment—or turn to more costly ways to borrow the funds needed to continue.

The reasons for academic struggles are varied. Students may underestimate the amount of study time needed to pass classes and have difficulty balancing their schoolwork with everyday outside obligations like work, family, and friendships. While many higher education institutions offer formal support systems like on-campus tutoring, these services are often plagued by low uptake and visibility. Some students erroneously view help-seeking behavior as an admission that they are not “cut out” for college, and still others seek it out too late in the semester to turn their grades around.

To increase the number of students taking advantage of useful college services and support systems, ideas42 designed solutions encouraging students to seek out tutoring, study more, and register earlier for classes to ensure they have the optimal course load and schedule. We designed these interventions not just to help students successfully follow through on these actions, but to help them feel like these behaviors were the norm among their peers. In one project, we expanded our efforts to target college faculty as well, acknowledging the important role they can play in supporting students and encouraging positive action. By targeting specific behaviors like accessing tutoring, budgeting study time, and registering for classes, we were able to improve individual elements of the student experience and increase academic success.

For example, the number of students registering early for classes went up 8.5%, and overall registrations 4.2%, when we created an online tool that automatically scheduled appointments with academic advisers at **Sinclair Community College**. As a result, students were able to access classes before they were filled, allowing them to pick courses they wanted and persist, and the school was able to improve planning for course demand. (*See project spotlight p.40*)

Additionally, at the **Community College of Philadelphia**, we strove to help students balance commitments outside of school with needed study time. Because information alone doesn’t lead to action, we prompted students to fill out a tangible time-block calendar of obligations to help them pick the courses and study times that worked for their overall schedules and sent out a series of motivational texts and study tips throughout the semester. Although not statistically significant, GPAs increased by 0.17 points and academic violations dropped 16% among full-time students. (*See project spotlight p.42*)

Students receiving a series of emails that included motivational messaging and peer testimonials were 34% more likely to attend a tutoring session and attended 53% more sessions at **West Kentucky Community & Technical College**. A series of emails to faculty tripled the number of students referred for tutoring. (*See project spotlight p.44*)



**Your encouragement
was extremely valuable
in motivating me to take
action.”**

*—Student, West Kentucky
Community and
Technical College*

““

Thanks for the advice and guidance. I just want to let you know it doesn't fall on deaf ears. It keeps me always thinking how to improve and stay motivated.”

—Student, *The College at Brockport, SUNY*

Finally, students at risk of academic progress violations withdrew from 10% fewer classes and used the tutoring center 27% more at **The College at Brockport, State University of New York**, where ideas42 aimed to reduce academic progress violations through increased class attendance, study time, and use of the tutoring center. We widened the pool of students alerted to their risk of violation, sent weekly emails and texts with administrative reminders and academic guidance, and designed and delivered three in-person workshops. The impact was even stronger among minority students, who were 35% more likely to seek tutoring and had 30% fewer academic violations. (*See project spotlight p.46*)

“Don't give up, hard work pays out in the end. Strive for success.” —Vanessa, earlier this year

—CC of Philadelphia Text Message, Fall 2015

“I will carry that with me forever.”

—Student at CC of Philadelphia Text Message Response, Fall 2015

“Tough week? Remember, difficulty means your mind is growing and making new connections. One key to success is to keep pushing when it gets hard.”

—CC of Philadelphia Text Message, Fall 2015

“Thank you I need this this morning.”

—Student at CC of Philadelphia Text Message Response, Fall 2015

Example: Text Message Exchange

Registering Early to Plan for Success

Sinclair Community College

Registering early for classes is an important element of academic success and progress toward a degree. Doing so helps students get the courses they need and aids colleges in planning for demand. At Sinclair Community College in Dayton, Ohio, one-third of students registered for class during the final month of the registration period—just before the Fall 2014 semester began.



Upon further study, we found that Sinclair's communication with students emphasized the beginning of the upcoming semester, a week after course registration closed, rather than the registration deadline itself. In addition, the registration process was cumbersome, and many students did not understand the repercussions of registering late.

To encourage students to register earlier, we worked with Sinclair to pilot an online system that automatically scheduled appointments with academic advisers either in person or by phone to discuss registration. Students could cancel or reschedule appointments as needed and were also sent post-appointment reminders to register.

As part of a separate intervention, students received 22 pairs of emails and text messages over a 12-week period with information related to registration. The language in these messages was chosen based on behavioral principles shown to encourage action. For example, some messages made registration seem urgent, while others provided clear steps.

In a randomized controlled trial with 17,900 students, both of these interventions led to a 7-9% increase in early registration over their respective control groups (advising appointments: 33.2% vs. 30.6%;** messaging: 35.4% vs. 33.1%).**

Subject: You have an advising appointment

Hi Lori,

My name is Sarah and I work in Sinclair's Academic Advising Center. I've scheduled you to meet with an advisor specializing in [CAREER COMMUNITY]. Come to the Advising Center (Room 11346) **next [DAY OF WEEK] at [TIME OF DAY]** and we'll help you select your Fall semester classes. All you have to do is show up with a picture ID and give your name at the sign-in desk.

As a reminder, here's the link to the [Course Scheduler](#) where you can sign in to view your MAP* and pick your classes. If you register before then, let me know and I'll cancel the appointment.

See you soon!

Sarah

**Don't have a MAP? Don't worry, your advisor will help you set one up.*

Example: Behavioral Email for Pre-Scheduled Appointment

Project Spotlight: Sinclair Community College

Students receiving both the advising appointments and the messages registered at about the same rate as students who received just one.

The advising intervention also led to a 4.2% increase in overall registration rates (51.3% vs. 49.2%).* This increase in enrollment is higher for students who received just the advising intervention than both advising and messages, perhaps because the additional messages changed students' interpretation of the advising emails as less personal. The advising intervention also increased the use of these services: 33% more students who received just the advising emails spent time with advisers (37.6% vs. 28.2%),** making it more likely they'd have success navigating the college system.

These easily-scalable behavioral interventions can help students overcome obstacles on the path to timely degree completion. The advising intervention, which increased both early registration and student persistence, would cost only \$13 for each additional student to register early or \$16 to retain them when implemented across all continuing students at Sinclair.

RESULTS: TOTAL REGISTRATIONS FOR ADVISING INTERVENTION



RESULTS: EARLY REGISTRATIONS FOR ADVISING INTERVENTION



* = significant at 95% level ** = significant at 99% level

Planning for a Balanced Academic Life

Community College of Philadelphia



Students transitioning to college often grapple with challenging coursework. They may vastly underestimate the time needed to study and sufficiently grasp their new material and as a result find it difficult to balance work, family, and school.

At the Community College of Philadelphia (CCP), educators officially recommend two hours of independent work for every one hour a student spends in class. However, ideas42 found that students had trouble meeting this goal for a variety of reasons. As students chose classes during CCP’s live orientation and registration sessions, they often failed to account for the extra homework time their classes required. When they did account for it, they were overconfident in their ability to manage their academic workload. Students frequently registered for classes and activities that resulted in schedules that were too packed, especially when family and work obligations were taken into account.

We set out to help students plan for the actual time needed to do well academically and stay on top of everything they would be responsible for as college students. To do this, we targeted 152 of CCP’s registration sessions, which included about 2,800 students. We then split them randomly into two groups. One group received the normal orientation and registration session programming from CCP, and the treatment group received our new intervention at the end of the orientation session.

Students in our treatment group took part in an interactive planning activity during their registration session, creating a written calendar of commitments and identifying study periods while choosing class times. At the end of the session, students turned in a copy of their self-created calendar and their mobile phone numbers to orientation leaders.

NAME: Colonial Phil J #: 123456 E-MAIL: cphil@ccp.edu Community College of Philadelphia **WEEKLY SCHEDULE**

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7:00 AM	Drop off Ben at School		Drop off Ben at School		Drop off Ben at School		
8:00 AM	Travel		Travel		Travel		
9:00 AM	Anatomy	Travel	Anatomy	Travel	Anatomy	School Work Campus Library	
10:00 AM		School Work Campus Library		School Work Campus Library			
11:00 AM	General Biology		General Biology		General Biology		
12:00 PM							

Example: Scheduling Activity

Throughout the semester, we reinforced treatment group students’ plans for balancing life and academics by sending them a copy of their original calendar, as well as text messages with study reminders and behaviorally-designed motivational messages.

The text message platform in our design could both send and receive messages, and while our team anticipated interactions with students as a result of our outgoing text messages, we were surprised by the many students using the text line as a resource for general questions about school. This proactive outreach from students suggests the need for an easily-accessible and familiar platform, such as a text line, to provide help and support throughout the college process.

Our intervention resulted in differences between the treatment and control groups among full-time students at CCP, but these differences were not statistically significant. Among the treatment group who received our plan-making design and text messages, GPA rose by 0.17 points (from 2.1 to 2.27) and Satisfactory Academic Progress (SAP) violations dropped 16% (from 31.3% to 26.4%). Though these differences were not statistically significant, improvements for the treatment group on these and several other indicators of academic success are suggestive of a positive effect. A future experiment with a larger pool of student may be able to provide more rigorous evidence of the effects of this intervention.

STEPS TO BUILDING A SUCCESSFUL SCHEDULE

- ### 1: JOBS AND OTHER COMMITMENTS

(A) How many hours are you planning to work this semester? _____

(B) What other commitments do you have? _____
(ex. caring for a family member, community activities, sports, etc)

(C) Draw in your weekly commitments on the calendar on the next page.
- ### 2: TRANSPORTATION TIME

(A) Including traffic and parking, how long will it take you to get to campus? _____

(B) Based on this, what time can you get to campus in the morning? _____
- ### 3: CLASSES AND HOMEWORK

(A) Will you be part-time or full-time (circle one)? Full Part
12 credits or more 11 credits or less

(B) How many classes are you planning to take this semester? _____

(C) Circle your number of classes (below). On the second row is the number of hours you will need for homework and studying every week. Circle that as well.

Classes	1	2	3	4
Homework Hours	6	12	18	24

(D) Successful students spend this many hours on homework per week. **Will you be able to meet this study guideline for the entire semester?** _____

Example: Instructions for Schedule Planning Activity

RESULTS: SAP VIOLATIONS



Note: results are not statistically significant

RESULTS: INTERVENTION EFFECTS ON STUDENT GPA



Taking Advantage of On-Campus Tutoring

West Kentucky Community & Technical College

Academic stumbles pose a significant impediment to achieving college success, yet many students don't seek out help when they need it. At West Kentucky Community & Technical College (WKCTC), many students were failing or withdrawing from courses, but few used the free tutoring services available on campus.



Through our research, ideas42 discovered that many students were aware of the tutoring center but were not necessarily thinking about tutoring at the times when they needed it most. Feedback on coursework was often not provided until after midterms—at which point visiting a tutoring center could feel overwhelming or “too little, too late.” In addition, the process of scheduling a tutoring session involved multiple steps, causing students to procrastinate around completing the task. Students also faced psychological barriers, such as the misperception that tutoring is only for under-achieving students or that successful students do not use those services.

Finally, faculty were expected to guide struggling students toward tutoring, but few actively tried to bridge the gap between students and the tutoring center. Tutoring referrals that did occur were impersonal, vague, and rarely followed up on.

To connect more students with tutoring, we implemented three randomized controlled trials over the 2014-2015 school year. In the fall of 2014, we ran a quick pilot, dividing 4,624 WKCTC students into three groups. The treatment group received a personalized email with information about tutoring and clear instructions on scheduling an appointment, along with three reminder emails sent at critical academic times during the semester. A second group received a standard email

Subject: A personal story

Dear Dana,

I want to share a personal story with you that helped me realize how valuable the Tutoring Center is for our students.

“I really didn't know what to expect during my first tutoring session. But, everyone was extremely friendly from my very first experience with them. Each tutoring session is structured toward the individual needs of the student. In math I was taught what terms meant, and tips and tricks to remember formulas. In A&P we would go over key topics, break down processes into smaller bits until I understood them. **It was nice to just have a “study buddy” who would quiz me and encourage me.**

The tutors are all students who have been successful in the particular subject. It's not just a random person who had no experience with the subject. They teach from not only knowledge, but also from experience. **My A&P instructor told me that if I went to a tutor, I would raise my grade at least one complete letter grade. He was correct. I went from not passing, to ending the semester with an 80%.**

It's free, it's only an hour of your time, try it! It would sure beat having to repeat the class because you didn't pass!!”

-Testimonial from a current WKCTC student who is applying to the nursing program, hoping to be accepted for the fall

Join your fellow students at the Tutoring Center. Reserve your spot now! There are three ways to sign up:

1. Sign up through [Blackboard](#). [Click here for instructions.](#)
2. Call the tutoring center at 270-534-3179
3. Come to the tutoring center (2nd floor of the library) and sign-up in person.

See you soon,

Mason Tudor
Tutoring Center Coordinator

Example: Behavioral Email

Project Spotlight: West Kentucky Community & Technical College

about tutoring automatically generated from the Starfish student success platform, and a control group received no additional communication about tutoring as part of the experiment.

Among those students who had not attended tutoring prior to the intervention, students in the treatment group attended more total tutoring sessions (80 sessions) compared to either the standard email group (56 sessions) and the no-email control group (33 sessions).*

A second experiment took place in the spring of 2015. This time, 3,004 students receiving financial aid were divided into two groups. A treatment group received a series of nine behaviorally-designed emails over the course of the semester. A control group did not receive any messages about tutoring.

The emails highlighted use of tutoring by many students, including many who were academically successful, as well as peer testimonials and success stories. They also emphasized that good academic standing was required for financial aid eligibility.

We found statistically significant differences in tutoring attendance: students in the treatment group were 34% more likely to attend a tutoring session (6.71% vs 4.99%)[†] and attended 53% more sessions (263 vs. 171).[†] In an online survey, students in this group reported more positive perceptions of the tutoring center and were more likely to know how to access its services.

We also focused on the role of faculty. In Spring 2015, 261 WKCTC faculty were assigned to two groups. A treatment group received a campaign of eight emails designed to spur tutoring referrals, and a control group received no additional emails about tutoring.

Faculty receiving the email series, which included explicit referral steps and student and faculty success stories, were three times more likely to refer a student (18.98% vs. 6.45%).** In an online survey, faculty in the treatment group reported increased awareness of campus tutoring services.

If scaled to all students on financial aid at WKCTC, we estimate that it would cost \$12 for each additional student using tutoring or \$2 for each additional session. At the scale of the entire faculty, we estimate that it would cost \$30 for each additional faculty member who would send at least one tutoring referral.

Together, these findings demonstrate that with the right outreach strategies, community colleges can encourage more students to use academic supports (and more faculty to send referrals). Though overall tutoring uptake remained relatively low, these light-touch interventions are an important first step, and should serve as motivation for more intensive efforts to help students make use of tutoring.

RESULTS: FACULTY SENDING TUTORING REFERRALS



RESULTS: NUMBER OF TUTORING SESSIONS ATTENDED BY STUDENTS



[†] = significant at 90% level * = significant at 95% level ** = significant at 99% level

Maintaining Good Academic Standing

The College at Brockport, State University of New York

Financial aid is an important piece of the puzzle for many students working to earn a degree. But academic requirements tied to that financial help can create more difficulties for students who struggle in school.



Falling below minimum GPA or certain credit completion standards can cause students to lose access to federal financial aid, prompting some to drop out and others to seek more costly loans that burden them with greater debt. At The College at Brockport, ideas42 worked to reduce Satisfactory Academic Progress (SAP) violations to ensure students could access federal aid.

SAP violations are issued at the end of spring semester, and Brockport sends one warning to at-risk students at the start of the spring semester. In addition to a large proportion of students warned in early spring, many new transfers and students whose GPAs fell during the semester would ultimately receive SAP violations.

We formulated a two-pronged approach to the problem: expand the pool of those who received warnings and improve those warnings to focus on behavioral bottlenecks that prevented students from doing well academically. These bottlenecks included sporadic class attendance, insufficient study time, and a failure to use available tutoring services.

In the spring of 2015 we widened the reach of the violation warning email to include transfer students and those just above the at-risk GPA threshold. In a randomized controlled trial, we split 1,300 students into two groups. Half the students had access to our interventions, while the other half got the standard school communications.

Students in the intervention group received a redesigned warning email as well as weekly emails with administrative reminders and academic guidance, such as prompts to use the tutoring center before midterms or study tips from other students. About 160 students opted to also receive text messages aimed at overcoming academic challenges.

The students were also invited to three voluntary, in-person work-

D. Getting Gritty

Grit is the ability to sustain interest in and effort toward long-term goals.

Complete the statements below with goals that make sense for you personally

Examples:

- If I miss a class, then I will get notes from a friend in the class.
- If I find that I am always tired during my mid-afternoon class, then I will get coffee or tea before the class begins.

If I do not understand the material in one of my classes, then I will:

If I get any grade below a "C" on a major assignment (paper or exam), then I will:

Example: Workshop Activity

Project Spotlight: The College at Brockport, SUNY

shops. About 20% of the group came to at least one workshop. In the workshops, students identified common academic challenges and generated ideas about how to address them. Students were also encouraged to adopt a “growth mindset” in which academic challenges and even mistakes indicate building of knowledge rather than a lack of intelligence. By contrast, students who view themselves with a “fixed mindset”, believing that they are born with a set intelligence, can be discouraged by failure and reluctant to challenge themselves.

Through these same intervention channels, we also worked to shift students’ perceptions about studying and class attendance norms. For example, we noted that for the average Brockport student, each class session cost \$70. Highlighting the tangible costs for students plays into the behavioral principle of loss aversion, which refers to people’s tendency to strongly prefer avoiding losses over acquiring gains. We made studying the norm for students, pointing out that successful peers study 20 hours per week. Messaging also noted that almost half of students receiving academic awards had used tutoring in the past year, making it clear that many of the best students ask for support.

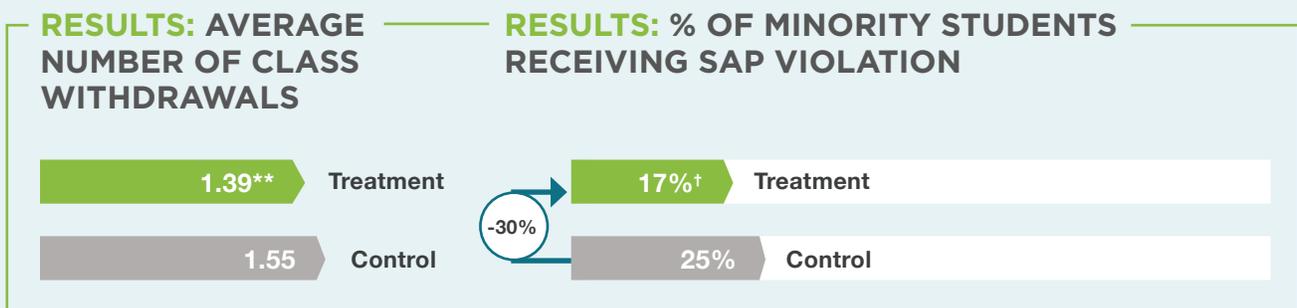
Feedback from participants highlighted positive connections students made with each other during the workshops and indicated a boost in confidence from the weekly positive messaging, suggesting that colleges should seek to enhance social supports from both peer groups and university officials.

Overall, students in the intervention group withdrew from 10% fewer classes (from 1.55 to 1.39 withdrawals per student)** and were 27% more likely to seek out tutoring (from 13% to 17%).†

The impact was more pronounced among minority students, who received 30% fewer SAP violations (from 25% to 17%),† withdrew from 15% fewer classes (from 1.74 to 1.48 withdrawals per student),** and were 35% more likely to seek tutoring (from 17% to 23%).* At the scale of the entire pool of at-risk students at Brockport, we estimate it would cost roughly \$3,250 for each fewer SAP violation or \$500 for each fewer class withdrawal.

The results were strongest for students who attended at least one workshop. These highly engaged students were 9% more likely to register for the following semester (from 82% to 89%),** withdrew from 13% fewer classes (from 1.55 to 1.35 withdrawals per student),* and were roughly 2.5 times more likely to get tutoring (from 13% to 32%).** However, ‘selection effects’ may be at play with this group, as students who chose to engage may be those who were already more academically motivated.

Given the positive results of the study overall, and an even stronger result for students who experienced the full intervention, an adapted version of this initiative is worth exploring as a preventative program for all freshman students.



† = significant at 90% level * = significant at 95% level ** = significant at 99% level

Post-Graduation Day: Get on Track to Pay It Back

Making good on the investment

Without a doubt, financial aid plays a critical role in helping students access higher education. Yet even if they're able to secure it and persist through all of the other hidden challenges on the road to graduation day, they're not off the hook yet. Once students graduate or leave college, they need to begin repaying their loans, and a new set of behavioral barriers emerges. Even with the best of intentions, borrowers can find themselves missing loan payments or even slipping into default. The problem is widespread: in the second half of 2015, almost 3 million student loan borrowers nationwide were at least a month behind on their payments.¹⁴

While there are programs in place to prevent and address these problems, very few borrowers take advantage of them. For student loan borrowers struggling with repayment, debt relief assistance can reduce monthly payments. But feelings of intimidation, a very human tendency to avoid dealing with tough problems as long as possible, and a difficult application process all prevent a significant number of borrowers from tapping into existing financial help early enough—or at all—to avoid financial trouble.

Some of these challenges stem from choices at the beginning of the repayment process. Upon leaving college, borrowers are all defaulted into the same ‘standard’ repayment plan, and some may not switch to better-suited plans until after they experience trouble making their first few loan payments.

Working with institutions that serve college loan borrowers, ideas42 devised behaviorally-informed strategies to help students better consider information about the type of repayment plan they need and boost their efforts to make use of federal programs available for delinquent borrowers. These strategies have significant implications for the financial health and wellbeing of millions of students.

In one of our interventions, students more often considered important features in their choice of repayment plans at **Valencia College** when using our redesigned table of loan repayment options. The results from this lab study also highlight the importance of changing current practice to prompt students to make an active choice in repayment plans at the earliest opportunity rather than waiting until they are in financial trouble. ([See project spotlight p.50](#))

Borrowers returned applications for income-based debt relief programs up to 48% more at **Great Lakes Higher Education Guaranty Corporation** in Madison, Wisconsin. We used a combination of personalized outreach, email reminders, and hassle-reducing step-by-step instructions in an effort to help borrowers enroll in federal distressed debt relief programs. ([See project spotlight p.52](#))



Thank you for giving us an incentive to think about our financial health, even though, of course, it's something that we ought to be thinking about regardless.”

—Student, Valencia College

Making Informed Choices About Loan Repayment

Valencia College

Making informed choices about loan repayment options, even before leaving college, may prevent borrowers from getting behind on payments. Unfortunately, most borrowers typically stay on the default plan, which is the ‘standard repayment plan’ offered by the federal government, regardless of whether it is actually the option that makes the most sense for their personal financial situation.

VALENCIA COLLEGE

The standard plan has the lowest amount of interest paid over time, but the highest initial monthly payment. Other plans, which provide the option to lower monthly payments, establish payments based on income. Though they extend the loan’s repayment term, these plans may actually be a better fit for some borrowers.

Under the current federal student loan system, students are automatically enrolled in the standard plan upon graduation or leaving college and then must wait until the end of their grace period six months later to make a switch. Many students forget to switch their plan, or do so only after they’ve fallen behind on their payments.

At Valencia College, nearly a third of loan delinquencies occur within 60 days of starting the repayment process, which is also when borrowers have the highest rate of using the standard plan. Loans in repayment on this plan were three times more likely to become delinquent.

ideas42 set out to test the premise that clearer information about the different student loan plans could help borrowers better understand the options and make more informed choices, possibly preventing missed payments or loan default.

The authoritative source for information on student loan repayment options is the U.S. Department of Education’s website. But the online table summarizing plans can be hard to interpret, as it contains a significant amount of financial jargon and comparisons across key aspects of the plans are difficult to make.

We redesigned the Department of Education’s online table to simplify the attributes of each plan and to allow for the easy comparison of factors like monthly payment amount, length of repayment, and total interest accrued. We replaced blocks of words with numbers to make that comparison easy. To avoid influencing students’ choices with plan names like ‘standard,’ we renamed the options using colors.

In 2015, we randomly assigned 400 Valencia student volunteers to view either the redesigned table or the Department of Education’s existing table and compared the way the two groups selected plans. More students who saw the redesigned table reported that they considered important plan attributes such as the total interest to be paid (80% vs. 66%)** and remembered key factors such as the repayment term (93% vs. 75%).** Similarly, fewer students reported taking into account the name of the plan (8% vs. 17%),** demonstrating the unintentional salience and influence of plan names in the Department of Education’s table.

Project Spotlight: Valencia College

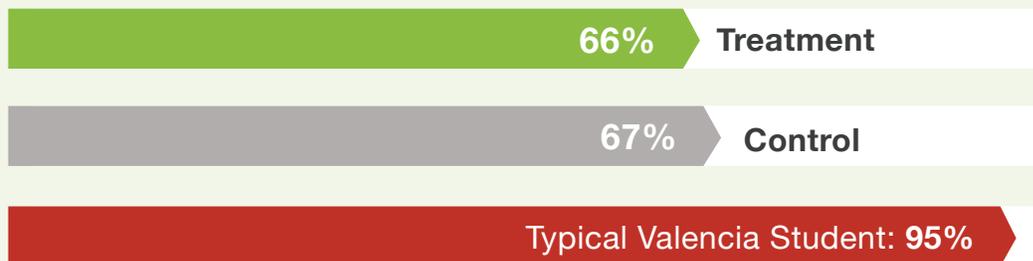
Repayment Plan	How Long You'll Pay For	How Much You'll Pay Every Month (The First & Final Months Amounts)	How Much You'll Pay In Interest (In Addition to the \$30,000 Loan)
Blue	10 years	\$311	\$11,429
Red	14 years	\$263 to \$305 (Increases or decreases depending on your income)	\$16,678
Green	25 years	208	\$32,468
Purple	10 years	\$179 to \$538 (Increases over time)	\$14,580

Example: Redesigned Repayment Plan Table

Interestingly, students in both groups still chose the standard plan at the same rate (66%-67%). This rate is telling because typically students are entered into the standard plan automatically without actively being asked to choose. Initially, this is likely to be nearly 100% of students. The 66%-67% of participants choosing the standard plan in our experiment is actually much closer to the 56% of the actual borrower population that eventually ends up on the standard plan—the majority of whom are already many years into repayment. This finding suggests that prompting students to actively choose a plan at the start gets them closer to their ultimate plan preference as borrowers.

A few behaviorally-informed changes, such as making information concise and easily comparable, can make a real difference in how students consider their loan repayment plan options, facilitating a better match for borrowers. Ultimately, creating a moment where students actively choose their repayment plan could go even further in preventing financial struggles.

RESULTS: STANDARD PLAN CHOICE



Project Spotlight: Great Lakes Higher Education Guaranty Program

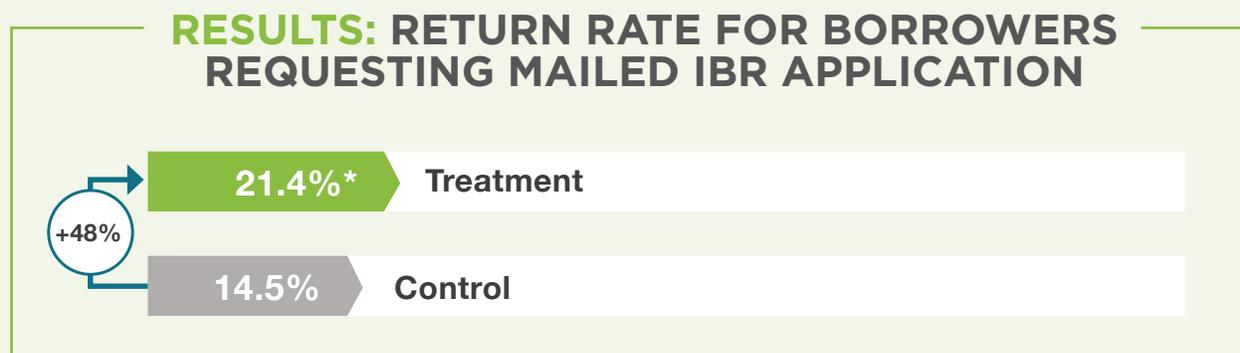
We also redesigned an email sent to borrowers after they spoke with a Great Lakes representative and committed to submitting an application for one of the debt relief programs. The new email included a short, manageable checklist of the additional documents borrowers needed to gather for their application. Within this same email, Great Lakes borrowers also received both the application form and a color-coded checklist to guide them in filling it out.

Those who got the application by mail were sent the form in a “document jacket” to help simplify the process. The document jacket used cut-out windows to expose only the places that needed to be filled in, covering the jargon and extraneous language in the application. Simple instructions and friendlier aesthetics made the process more inviting and reduced the hassle of trying to figure it all out alone. We also added two email reminders, sent by Bo, timed specifically for five days and ten days after the borrower’s call with a Great Lakes representative.

The results highlight how such behaviorally informed changes can have impact. Among borrowers applying for the income-based repayment (IBR) program—the most demanding of all the applications, yet paradoxically the one that borrowers in financial hardship are the most likely to need to fill out—returned applications jumped by 13% overall (from 22.8% to 25.8%),* with the most profound increase, 48% (from 14.5% to 21.4%),* for those who received the mailed document jacket. Across the entire sample, receiving the personalized introductory email before the call led to a 5% increase (from 3,641 to 3,837)[†] in borrowers proactively calling Great Lakes, and commitments to enroll in any of the three debt relief programs went up 4% (from 4,354 to 4,506).[†]

With the help of automation, the retooled communication package was low-cost and took minimal effort. The document jackets, which cost \$0.33 each, highlighted a significant return on investment. Scaling up to the full Great Lakes Guaranty population, each additional IBR application completed would cost around \$12 in total.

The tools used in this intervention can be applied to nearly any complex program enrollment or application process. The more complex or convoluted such a process is, the more critical it is to simplify language, highlight key action steps, and reduce hassles around gathering and sending documents. Engaging with borrowers in ways that address their needs and fears can determine whether they ultimately are able to access critical benefits such as federal student debt relief programs.



[†]= significant at 90% level * = significant at 95% level

Conclusion

The Long Road to Postsecondary Success

Applying behavioral science to age-old problems in education provides a new lens with which to identify and tackle the many barriers students face on their road to college success. Individually and collectively, these seemingly small barriers prevent students from successfully completing college and achieving their academic, professional, and personal goals. By addressing these barriers using targeted solutions informed by the student perspective, we have taken steps towards addressing America's completion crisis.

Behavioral science offers a set of tools to solve postsecondary barriers in ways that are often easier and less expensive to implement than existing alternatives, providing a realistic way for institutions to improve the lives of their students. As efforts to increase access to a college education gain traction, helping students complete college and reap the benefits of a degree will be more important than ever.

This work is just the beginning. There is still massive potential to use behavioral insights to support students in their efforts to earn a degree in many more ways. There are many other significant issues on the long road to college completion, but the solutions described in this report have covered a good distance.

We created this report for a number of reasons: to share these solutions with postsecondary institutions, so they can begin to adopt similar strategies to help their students succeed; to share them with policymakers, who have the leverage to enact system-wide reform; and ultimately, to inspire and encourage everyone who has an interest in helping students complete college to approach postsecondary education with a different lens. Only by identifying and targeting each individual barrier that hinders student success can we solve the college completion crisis.

“

It will be worth it in the end especially to see your parents smile and give you hugs once you get that degree.”

—Student, SF State

Where We Need To Go From Here:

A New Vision For Postsecondary Education

For many of the challenges we tackled, our interventions were designed as simple solutions to complex problems in existing systems or programs. Confusing class registration systems, competing demands on time, and difficulties finding social belonging hinder millions of new students. While light-touch behavioral interventions can begin to address these barriers, many of them should be seen less as long-term answers and more as evidence that these problems are solvable with deeper change. In an ideal world, institutional systems and structures themselves would be designed with the student perspective in mind, with behavioral insights integrated within rather than patching around them. To adopt the behavioral lens means to see the systems of higher education in an entirely new light: why not create smart registration platforms that recommend a course schedule based on major and time constraints? Why aren't classes paired with flexible study blocks so students can better anticipate how to manage across school, work, and family obligations? Why are students automatically placed on a repayment plan that may overburden their monthly budget? These questions and hundreds more will need to be answered if we want to help millions more students finish college.

APPENDIX

In this section, we provide the designs used in a sampling of our projects along with an explanation of the key behavioral elements in each. For brevity, we have selected four projects that run across the spectrum of the types of interventions and behavioral drivers in this report.

Great Lakes Higher Education Guaranty Corporation: Document Jacket Design

A Start here

Here is the form we promised to send you when we spoke on the phone. It's for **Income Based Repayment**, a government program that means you can make more affordable payments on your student loan(s) for a while. This folder will help walk you through the application. If you have any questions don't hesitate to call us at (800) 236-2700.

B

C 1 Talk to us on the phone. completed

Open this folder briefly to make sure the pre-filled contact information is correct. If not, check the box at the top and enter the correct information.

Please enter or correct the following information.

Check this box if any of your information has changed.

SSN [] [] [] - [] [] [] - [] [] []

Name _____

Address _____

City, State, Zip Code _____

Telephone - Primary () _____

Telephone - Alternate () _____

E-mail Address (Optional) _____

D Just so you know, no matter what you choose for any of these questions, you can always change it later. 😊

3 Check the box below to apply for lower student loan payments based on your income.

If no box in the chart is already checked, check the box at the bottom of the chart ("only IBR is available...") to ensure you receive the plan that will reduce your monthly payments the most. Feel free to read up on the different plans by turning this page.

	Direct Loan Program Loans*	FFEL Program Loans*
IBR	<input type="checkbox"/>	<input type="checkbox"/>
Pay As You Earn	<input type="checkbox"/>	Not Available
ICR	<input type="checkbox"/>	Not Available

4 If you checked the first box in step 3, leave these boxes blank! If not, check one of the options below: (A) Updating your **current** repayment plan based on the annual documentation you are submitting (B) Requesting a change in monthly payment because your circumstances have changed

Do you have student loans with more than one company (Nelnet, Navient, etc.)? If so, check the box. If this isn't familiar, leave it blank.

Now, flip the jacket over.
The front, back and signature pages need to be complete before you send in.

Front of document jacket

- A Highlights the explanation and benefits of the repayment program to concretize the intention and motivation to fill it in
- B Phone number reduces hassle to access help if needed
- C Checkmark creates sense of progress towards goal by marking one action as complete, increasing likelihood that borrower will continue through checklist
- D Friendly and relatable language may increase completion of form

You're almost done! Only a few small steps to go. Make sure to open this cover and sign the separate signature page before you send it back. Don't forget to attach any documents you need!

5 If you're not married, skip this section. Fill out the section below and check the box if you're married and want us to look into combining your student loan payment plan with your spouse's.

3. Spouse's SSN - -
 4. Spouse's Name
 5. Spouse's Date of Birth - -
 6. My spouse and I wish to repay our Direct Loans jointly under the ICR Plan.

If the family size is not **pre-filled**, enter that information. This includes you, your spouse, your children (including unborn) and others that live with you for whom you provide at least half of their support.

Check the **top box** if you've filed an income tax return in the last two filing years. If not, check the **bottom box**.

Check the **top box** if you or your spouse's income **has changed a lot** since your last two years of tax returns. If it **hasn't**: check the bottom box, attach your most recent federal income tax return (see Section 10 on the application for more detail) and **skip step 6 below**.

6 Check the **top box** if you have income other than money you receive from government assistance program(s). If you don't have any other income, check the **bottom box**.

If you completed step 5, choose one of the two boxes to the left. Check **top box** if your spouse has income other than that from government assistance program(s). If s/he doesn't have any other income, check the **bottom box**.

NOTE: if you checked the **top box** for either question in step 6, you need to attach a **pay stub** or other document that shows how much you are paid for each source of taxable income.

7 **Just open, read*, sign, and you're ready to send!** ▶ Look for the **green arrow** near the bottom of page 3 for where to sign.
*Be sure to read the application form for more complete detail.

End here

Three options to send:

- ▶ **SCAN & E-MAIL** repaymentsolutions@glhec.org
- ▶ **MAIL** Great Lakes Higher Education Guaranty Corp., PO Box 7860, Madison, WI, 53707-7860
- ▶ **FAX** 888-715-2725 (toll-free)

Please only send back the paper application itself plus supporting documents if needed. No need to send us back this jacket!



GREAT LAKES

Back of document jacket

- ▶ **E** Numbered list breaks down form into simple actionable sequence of steps, which helps encourage follow through
- ▶ **F** Cutouts focus borrowers on the parts of the form they need to fill in, reducing potential of being overwhelmed or intimidated and reducing the likelihood that they will skip key questions
- ▶ **G** Explanations make filling in the form simpler and faster by using clear language and providing extra context; uses “bolding” to draw attention to important aspects of a decision

The College at Brockport, State University of New York: Workshop Activity

A

D. Getting Gritty

Grit is the ability to sustain interest in and effort toward long-term goals.

Complete the statements below with goals that make sense for you personally

Examples:

- If I miss a class, then I will get notes from a friend in the class.
- If I find that I am always tired during my mid-afternoon class, then I will get coffee or tea before the class begins.

B

If I do not understand the material in one of my classes, then I will:

If I get any grade below a "C" on a major assignment (paper or exam), then I will:

If I try the solution written above and I'm still doing poorly in a class, then I will:

C

Did you know...

Over 1,200 Brockport students went to the Student Learning Center last year for one-on-one or group tutoring sessions. There are tutors available for almost every class on campus. Located in Cooper Hall, Room B-10.

Mondays	9 - 5
Tuesdays	9 - 9
Wednesdays	9 - 9
Thursdays	9 - 5
Fridays	9 - 2

D

- **A** Reframes potential academic challenges as situations where students can use grit to succeed, putting locus of control in students' hands
- **B** Activity prompts students to develop plans for how to manage several common academic challenges, making it more likely that students will follow through on good intentions when a stressful situation arises
- **C** Normalizes use of tutoring center, correcting misperceptions that students may be unique in needing help and making it more likely that students will use tutoring services
- **D** Makes it easier to access help by providing location and open hours of tutoring center



Did you know...

If you consider overall college costs for the average Brockport student, **each individual class session costs \$67**. That means for every class you miss you're paying \$67 for nothing.

If I miss a class, then I will:

If I'm considering withdrawing from a course, then I will:



Create your own! Identify an obstacle that might prevent you from getting the grades you want. Write it in the "if" portion of the statement. Then come up with a potential solution and write it in the "then" portion.

If _____

then _____

- E Increases motivation to attend class by quantifying the financial cost of each missed class
- F Option to create a personally relevant example may increase engagement with the content and address challenges that are specific to the student

NAME: Colonial Phil J#: 123456 E-MAIL: cphil@ccp.edu

Community College of Philadelphia

WEEKLY SCHEDULE

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7:00 AM							
8:00 AM	Drop off Ben at School Travel		Drop off Ben at School Travel		Drop off Ben at School Travel		
9:00 AM	Anatomy	Travel	Anatomy	Travel	Anatomy	School Work Campus Library	
10:00 AM		School Work Campus Library		School Work Campus Library			
11:00 AM	General Biology		General Biology		General Biology		
12:00 PM							
1:00 PM	School Work Campus Library		School Work Campus Library		School Work Campus Library		
2:00 PM		Science Club		Science Club			
3:00 PM	Math		Math		Math		
4:00 PM							
5:00 PM	Travel	Philosophy	Travel	Philosophy	Travel		School Work Campus Library
6:00 PM	Work Shift		Work Shift	School Work Campus Library	Work Shift		
7:00 PM		School Work Campus Library					
8:00 PM							
9:00 PM							
10:00 PM							
11:00 PM							
12:00 AM							
	Class hours: 4.5 Homework hours: 2	Class hours: 2.5 Homework hours: 6	Class hours: 4.5 Homework hours: 2	Class hours: 2.5 Homework hours: 6	Class hours: 4.5 Homework hours: 2	Homework hours: 4	Homework hours: 5

Signature: 

Campus Library Hours: M-Th 8am-9pm, Fri 8am-5pm, Sat 8am-3pm (Closed Sunday)

- C Provides a simple (and aspirational) rule of thumb for how many hours students should spend studying each week
- D Instills a sense of commitment, which may make students more likely to follow through on initial intentions to study
- E Helps students register for class times with the rest of their commitments in mind
- F Prompts students to plan for the appropriate homework time they indicated they would need
- G Provides information about how to reach a counselor immediately after the session if needed

Arizona State University: First of eight FAFSA emails

A Dear Nicki,

The FAFSA is now available. With FAFSA Mythbusters, we debunk three common myths and help you stay on track for the **March 1st priority deadline**. It could mean thousands more dollars in your financial aid package.

FAFSA Myths Debunked

C	Myth #1: Most students don't qualify for financial aid.	Fact #1: Over 80% of students at ASU receive financial aid.	D
E	Myth #2: You only have to file the FAFSA once for college.	Fact #2: You must re-file the FAFSA every year if you wish to continue receiving aid.	
	Myth #3: Your financial aid is always available to you, regardless of when you apply for it.	Fact #3: Apply by March 1st to get all of the money you're eligible for. On average, students who apply before then get twice the amount of aid!	

Submit your application by the Sunday March 1st priority deadline. Here's what you need to do now:

Get ASU's college code — it's 001081.

[Retrieve Your PIN.](#)

[See this graphic](#) to figure out if you need your parents' financial information.

Sincerely,

G Mellissa Pizo
Executive Director
Financial Aid and Scholarship Service

H P.S. Please feel free to reach us at 480-965-3355, via online [chat](#) or at our [office locations](#) (open Monday from 9 A.M. — 5 P.M., and Tuesday — Friday from 8 A.M. — 5 P.M.).

- A Personalized greeting may encourage readers to continue reading email
- B Increases salience of deadline through bolding and placement at top of email, making it more likely that students will notice it
- C Corrects commonly held misconceptions about who qualifies for aid in friendly, easily understandable language
- D Shows widespread use of financial aid so that students feel it is acceptable and normal for them to apply for and receive aid
- E Makes clear the potential to lose full aid award, increasing motivation to file before deadline
- F Actionable guidance includes links to necessary information and next steps, while keeping the checklist short and manageable
- G Coming from a real person rather than an unidentified entity (e.g. the Financial Aid Office) makes email feel more personal, increasing engagement with content
- H Postscripts are among the top things people read in letters or emails, and here we included several outreach options to make it easier to access help

Endnotes

- ¹ Heimlich, R. (2012). The Monetary Value of a College Education. Retrieved from: <http://www.pewresearch.org/daily-number/the-monetary-value-of-a-college-education/>
- ² Or within 1.5x of standard program timeframe for program lengths other than 2 years. Retrieved from: http://nces.ed.gov/programs/digest/d14/tables/dt14_326.20.asp
- ³ The Institute for College Access & Success. (n.d.). Project On Student Debt. Retrieved from: <http://ticas.org/posd/home>
- ⁴ Supiano, B. (2014). Applying for Aid May Be a Barrier for Returning Students, Too. The Chronicle of Higher Education. Retrieved from: <http://chronicle.com/blogs/headcount/applying-for-aid-may-be-a-barrier-for-returning-students-too/>
- ⁵ InsideTrack. (n.d.). National Study of Non-First-Time Students Shows Disturbing Completion Rates. Retrieved from: <http://www.insidetrack.com/2014/10/27/national-study-non-first-time-students-shows-disturbing-completion-rates/>
- ⁶ Castleman, B. & Page, L. (2014). Summer Nudging: Can Personalized Text Messages and Peer Mentor Outreach Increase College Going Among Low-Income High School Graduates?, *working paper*. Retrieved from: http://curry.virginia.edu/uploads/resourceLibrary/9_Castleman_SummerTextMessages.pdf
- ⁷ Elliott, W. (2012). We Save, We Go to College. New America Foundation. Retrieved from: <http://csd.wustl.edu/Publications/>
- ⁸ Ross, T., Kena, G., Rathbun, A., Kewal-Ramani, A., Zhang, J., Kristapovich, P., & Manning, E. (2012). Higher education: Gaps in access and persistence study. Washington, D.C.: National Center for Education Statistics & American Institutes for Research.
- ⁹ Indicators of Higher Education Equity in the United States. (2015). The Pell Institute. Retrieved from: http://www.pellinstitute.org/downloads/publications-Indicators_of_Higher_Education_Equity_in_the_US_45_Year_Trend_Report.pdf
- ¹⁰ Simons, V. & Helhoski, A. (2016). How Students Missed Out on \$2.7 Billion in Free FAFSA College Aid. NerdWallet. Retrieved from: <https://www.nerdwallet.com/blog/loans/student-loans/college-students-fafsa-money/>
- ¹¹ Castleman, B. & Long, B. T. (2012). Looking Beyond Enrollment: The Causal Effect of Need-Based Grants on College Access, Persistence, and Graduation. Retrieved from: [https://aefpweb.org/sites/default/files/webform/Castleman%20and%20Long%20-%20Looking%20Beyond%20Enrollment%20\(3-9-12\).pdf](https://aefpweb.org/sites/default/files/webform/Castleman%20and%20Long%20-%20Looking%20Beyond%20Enrollment%20(3-9-12).pdf)
- ¹² Marx, B. & Turner, L. (2016). “Default Bias in Borrowing: Evidence from a Field Experiment on Federal Student Loans,” *working paper*.
- ¹³ These students failed to complete remediation in one year as required by the California State University Board of Trustees policy.
- ¹⁴ Mitchell, J. (2016). More Than 40% of Student Borrowers Aren’t Making Payment. The Wall Street Journal. Retrieved from: <http://www.wsj.com/articles/more-than-40-of-student-borrowers-arent-making-payments-1459971348>



ideas42 uses the power of behavioral science to design scalable solutions to some of society's most difficult problems.

To find out more, visit us at ideas42.org or follow us [@ideas42](https://twitter.com/ideas42)  