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Title: Personal or Personalized? Investigating the Impact of Counselor Outreach vs. Automated and Personalized Messaging on Mitigating Summer Melt among College-Intending, Low-income High School Graduates

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Abstract Body

Background/Context:
Despite decades of policy intervention to increase college entry among low-income students, considerable gaps by socioeconomic status remain. To date, policymakers have largely overlooked the summer after high school as an important time period in students’ transition to college. However, successful college matriculation is contingent on students completing a number of tasks during the summer. Several of these tasks relate to students’ ability to finance their education; others relate to their ability to digest and respond to a considerable volume of college correspondence. Many of these tasks may be particularly challenging for low-income students who no longer have access to high school counselors, may not be familiar with support resources at their intended college, and whose families may lack college experience. As a result, students who have already surmounted many obstacles to college enrollment may nonetheless fail to matriculate.

Several studies document surprisingly high summer attrition rates, ranging from 10 – 40 percent, among students who had been accepted to and intended to enroll in college as of high school graduation (Castleman & Page, 2013; Daugherty, 2011). Encouragingly, recent experimental interventions indicate that students’ postsecondary plans are responsive to additional outreach during the summer. In experiments conducted in Providence, RI (Summer 2008) and Boston, MA and Fulton County, GA (Summer 2011), high school counselors or community-based financial aid advisors helped students review their financial aid packages, understand and complete paperwork, and negotiate social/emotional barriers to enrollment, at a cost of $100 – $200 per student. Across sites, students to whom counselors offered additional support were 5 – 14 percentage point more likely to enroll in college (Castleman, Arnold & Wartman, 2012; Castleman, Page & Schooley, 2012). In subsequent experiments, less expensive strategies such as peer mentor outreach or automated and personalized text message outreach have yielded similarly positive effects, at a cost of $80 per student for the peer mentor strategy and a mere $7 per student for the text message strategy (inclusive of follow up support from professional counselors).

The findings from these randomized trials are consistent with economic theory, which suggests a central role for additional outreach, support and improved information in assisting low-income students to go to college. Traditional economic models, such as Becker (1964), assume that students are aware of the benefits and costs of higher education and posit that students will pursue college if the present discounted value (PDV) of the benefits exceeds the PDV of the costs. However, the cost-benefit analysis implied by the Becker model is less likely to lead low-income students to enroll in college, given the higher effort costs they face to complete applications and access financial aid. A number of studies document how informational costs in the college and financial aid application processes can lead students to make sub-optimal decisions about whether to enroll (Avery & Kane, 2004; Bettinger et al, 2012; Dynarski & Scott-Clayton, 2006). Informational barriers continue to be problematic during the summer after high school: it may be difficult for students and families that lack college and financial literacy to complete the volume of paperwork they receive from their intended college over the summer (Arnold et al, 2009; Castleman, Page & Schooley, 2012).
Purpose/Objective/Research Question/Focus of Study:
The results of the summer outreach experiments suggest that school districts can increase graduates’ college enrollment with a relatively low-cost investment during the summer months. At the same time, much remains to be learned about how to most effectively enhance students’ awareness of important college-related summer tasks; empower them to complete these tasks independently; and connect students to professional support when they need help. Both direct counselor outreach and text-based outreach have proven effective strategies in several contexts. However, it is an open question whether, in a given context, one approach is more effective than the other. Students and their families may appreciate and be responsive to personal outreach from a counselor over the summer. Yet, such outreach is time-consuming for counselors and may not be the best use of their particular skills and expertise. In contrast, automated and personalized text messaging is a promising approach for reaching out to students in order to both inform them of required college-related tasks and to connect them to professional staff when they need help. Text messaging is the primary means by which college-aged youth and their parents communicate (Lenhardt, 2012), and counselors from prior summer interventions cited text messaging as the most effective means of contacting students (Arnold et al., in progress). Text messaging is also a potentially cost-effective strategy to provide students with information and connect them to professional help. Moreover, a text message campaign may increase the efficiency of school counselors’ time. With a text-message platform, message delivery can be automated and personalized to students and their individual postsecondary plans, eliminating the need for counselors to invest substantial time in initial outreach and instead focus efforts on providing support and information. Given the low-cost and scalability of the text messaging campaign, we are particularly interested to learn whether text-based outreach can generate the same—or even greater-effects as counselor-led outreach.

Building on experiments conducted in 2009, 2011 and 2012, we designed and implemented a randomized trial to investigate the comparative efficacy of direct counselor outreach and automated text messaging outreach as strategies to mitigate summer attrition from the college-going pipeline. In collaboration with a network of five school districts in Austin, TX, we implemented an experiment with two distinct treatment arms. In the first treatment, counselors reached out to randomly selected students directly, via email, phone, text and social media outlets, in order to offer them support and guidance with their college transition. In the second treatment, students received, via an automated text message platform, ten customized text message reminders of key tasks to complete over the summer. These reminders were customized to the institutions at which students intended to enroll and provided recipients with the option of requesting follow up help from a counselor.

Our paper is organized around the following core research question: While personal counselor outreach and personalized text message outreach have both proven to be effective strategies for mitigating summer melt, is one more effective or cost efficient than the other for improving the rates with which college-intending high school graduates transition to and succeed in college? If, for example, both strategies are equally effective at improving timely enrollment but differ dramatically in their cost, then we will generate strong evidence and support for text message outreach with counselor follow-up as a cost-efficient technological solution to the issue of summer melt.
Setting:
We partnered with a set of five school districts in the Austin, TX area, including the Austin Independent School District, Pflugerville Independent School District, Round Rock Independent School District, Hayes Independent School District, and Del Valle Independent School District. All five districts serve large shares of students from low income backgrounds. In each of these districts, counseling directors recruited and hired several high school counselors to staff the intervention.

Population / Participants / Subjects:
Across sites, the experimental sample included students identified as college-intending as of high school graduation. In partnership with the Ray Marshall Center at the University of Texas at Austin, a high school exit survey is administered in each of these school districts. Based on information from this survey, students were eligible to be included in our analytic sample if they indicated intentions to enroll in college in the fall after high school graduation and reported the college in which they expected to enroll. Across participating districts, our total experimental sample included 6100 students. Of these, 2700 students were assigned to receive personalized outreach via text messaging, 700 were assigned to receive personal outreach from a school-based counselor, and 2700 were assigned to a control condition. All students, including those in the control group, received a mailing at the beginning of the summer to provide reminders of steps students should take in order to matriculate on time in the fall after high school graduation.

Intervention/ Program / Practice:
The core of the text messaging campaign was a series of ten text messages that reminded students and their parents of tasks they needed to complete at their intended college and offered to connect recipients to a school counselor from their district. The messages included web links that brought recipients directly to the relevant page at their intended college. For instance, the message regarding college orientation provided a link to the orientation registration website at each student’s intended college. For the purpose of delivering the text messages, the districts partnered with OneLogos Education Solutions. OneLogos created and manages the student data dashboard used by counselors, and through the project, OneLogos added automated and free-form text message capability to the dashboard.

Through the counselor outreach arm of the study, counselors provided direct outreach to students to inquire about progress with their college plans, challenges faced, and to offer the opportunity to meet. Therefore, the key distinction between the two treatment arms is the mode of outreach to students. An integral component of both treatment arms was the counselor support that was provided to recipients when they indicated the need for assistance (either by responding to a text or taking up a counselor’s offer).

1 In cases where a student was planning to attend a less common institution, the student received a generic set of text reminders.
2 We relied on existing district data indicating the colleges where graduates were most likely to enroll in order to customize the text messages that students received to the students’ intended college.
Research Design:  
We will evaluate the impact of the outreach interventions on a range of college outcomes using a randomized control trial design. Given this design, we are able to employ straightforward regression analyses to isolate the causal effect of the messaging campaign on students’ college attainment.

Data Collection and Analysis:  
We will capitalize on data from several sources. First, each site will provide student-level demographic and prior academic achievement information. This data will include students’ gender, race/ethnicity, free/reduced price lunch status, FAFSA completion status, high school GPA, and scaled score on state achievement tests. The sites will also provide interaction-level records from the counselor interaction logs. Second, we will obtain student-level college enrollment records from the National Student Clearinghouse (NSC). The NSC will be the key source of our college-enrollment outcomes of interest. Finally, OneLogos will provide recipient-level data on text message response. The primary explanatory variables in our analyses will be whether the student was randomly assigned to one of the treatment groups. To increase the precision of our analyses, we will include the academic and demographic covariates referenced above. We will also include fixed effects for the level at which randomization was conducted at each site: at the school level or at the level of a cluster of schools in the case where a single counselor served students across several schools.

Findings / Results:  
We are currently gathering data from the partner sites for the purpose of describing implementation, and we will obtain the NSC outcome data by November 2013 in order to evaluate the impact of the intervention on initial college enrollment. Based on focus groups conducted at the end of the summer, counselors were overwhelming positive about the intervention and were enthusiastic about their ability to interact so easily with students by text (via the OneLogos platform).

Conclusions:  
The summer after high school is an important though largely overlooked time period in students’ transition to college. Both direct counselor outreach and outreach via text messaging have proven to be promising approaches to inform students of required tasks they are expected to complete during the summer and to connect them to professional assistance when they need help. The study on which we will report not only replicates interventions from previous summers but also yields new evidence on the comparative benefit of these two strategies. The findings will be relevant both to ongoing policy efforts to increase college-going among low-income students, and more generally to efforts to harness technology to improve students’ educational outcomes.
Appendices

Appendix A. References


