Abstract Title Page

Title: Customized nudging to improve FAFSA completion and income verification

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Abstract

Background / Context:

For most students from low- or moderate-income families, successfully completing the FAFSA is a crucial gateway on the path to college access. Experimental research indicates that providing families with help completing the FAFSA leads to substantial increases in rates of FAFSA submission, college matriculation and persistence (Bettinger et al, 2012). Yet, many students and families lack access to this type of professional assistance with the FAFSA, and as a result, do not apply for financial aid (King, 2004; Kofoed, 2013). Of those who do submit a FAFSA, a substantial portion may not complete their applications due to missing simple steps like providing an electronic signature. Even among those who complete the FAFSA, many low-income students are required by the United States Department of Education to verify the income and asset information they provided on their application. This additional step in the financial aid process may delay or even prevent FAFSA filers from receiving award packages from the colleges and universities to which they are accepted. Students need to complete separate verification processes with each institution to which they have applied, and each institution has unique verification forms to complete. Given this complexity, FAFSA filing and income verification tasks pose substantial barriers to college access for low-income students (Castleman & Page, 2014). If students are hindered in completing these tasks, they may miss out on aid entirely; not receive aid until just weeks before the start of the fall semester; or face tuition bills that, without timely financial aid, exceed their families' ability to shoulder college costs.

Purpose / Objective / Research Question / Focus of Study:

We report on a pair of interventions that utilize automated, text-based outreach to (1) provide students and families with customized information about the importance of and their status on completing the FAFSA; (2) simplify information for students and families about how to complete the FAFSA; and (3) connect students and families to personalized counseling assistance to complete the FAFSA as well as the subsequent verification process, if selected. Messages were customized based on students' individual FAFSA filing status as reported to partnering agencies by the US Department of Education. We report on experimental impacts of this outreach on FAFSA filing rates in Texas; descriptive evidence on improvements in filing rates from the Delaware; and factors that contribute to successful implementation of these interventions at scale.

Setting:

We implemented similar interventions in two locations. First, we implemented the text-based outreach in the context of a school-level randomized controlled trial in a set of school districts in Texas, including the Houston Independent School District (HISD), the Spring Branch Independent School District and a set of school districts in Central Texas. Second, we implemented a similar text-based strategy state-wide in Delaware. In the Delaware context, all seniors in public high schools were invited as part of a required online survey to receive text-based outreach.

Population / Participants / Subjects:

Across both sites, study participants were those high school seniors for whom the participating agencies were able to obtain student consent and cell phone information. Within Texas, the state common application for college – ApplyTexas – served as the key source of student cell phone information and consent to message. Active messaging reached approximately 8,500 seniors across 43 Texas high schools.

Within Delaware, high school seniors opted into messaging and provided needed contact information via a required senior survey. Approximately 5,200 students or 65 percent of all high school seniors registered for the messaging. Among these students, approximately 500 parents or guardians also registered to receive text-based outreach structured specifically for them.

Intervention / Program / Practice:

Across both sites, automated, customized text messages were sent to high school seniors approximately weekly from early February through the end of April to (1) remind them about steps and timelines in the process of applying for financial aid; (2) provide customized feedback on their progress in the financial aid application process; and (3) facilitate communication with an advisor, via text, to ask questions and obtain additional help and guidance. Customized messages capitalized on regularly updated student-level FAFSA filing status information. In Texas, this information was provided to school districts on a weekly basis from the Texas Higher Education Coordinating Board. In Delaware, these data were received by the state and incorporated into the messaging platform.

In the Texas sites, the ostensible sender of the messages was the school counselors(s) within students' own high schools. School counselors then received and managed student replies via an online platform. In Delaware, the ostensible sender of the messages was the head of the state's office of higher education. Message replies from students and/or parents were staffed by a centrally located team of volunteers.

Research Design:

For the remainder of the proposal, we focus exclusively on the Texas implementation, as we are still in the process of gathering data to assess the Delaware implementation. In the participating Texas districts, we implemented this project in the context of a school-level randomized trial (RCT), where certain schools were selected at random to participate in the intervention. In order to improve statistical power, we first matched eligible schools according to a lagged measure of on-time college enrollment. Within matched sets of schools, we randomly selected a subset to participate in the messaging intervention. In Tables 1, 2 and 3, we present evidence of balance across the treatment and control schools on lagged measures of school size, college enrollment and FAFSA filing.

Data Collection and Analysis:

Our investigation will be informed by data from four sources. First, we have student-level administrative records on all seniors in the participating school districts. These records will

include measures of student demographics and academic achievement. Second, to these data, we will link information on which high school seniors had provided active cell phone numbers as well as information on whether and when students filed the FAFSA. These data elements are available through the ApplyTexas portal. Third, from our technology provider, we have de-identified transcripts of the text-message interactions between students and advisors from their schools. This data will allow us to understand the types of support students sought via the text-based interaction with school staff. Finally, we will obtain college enrollment data from the National Student Clearinghouse. These data will allow us to understand whether improved rates of FAFSA filing translate into improved rates of direct-to-college enrollment.

Given the school-level RCT design, we will utilize multi-level regression analysis to assess the impact of the effort on FAFSA filing and ultimate college enrollment outcomes.

Findings / Results:

Figures 1 – 4 below provide preliminary impact estimates of the outreach on FAFSA submission and completion overall (Figures 1 and 2) and for HISD, specifically, (Figures 3 and 4). Only HISD is large enough to stably estimate separate, district-specific impacts.

These figures show trends in week-by-week FAFSA submission and completion. Because each of the participating districts includes students who apply for financial aid with the TASFA (Texas Application for State Financial Aid) rather than the FAFSA, these trends are likely to underestimate the full extent of appropriate financial aid application filing in the participating districts.

The figures present average trends in FAFSA submission and completion rates for schools that did (treatment) and did not (control) participate in the messaging intervention. Because of our RCT design, the differences illustrated represent the *causal impact* of the outreach on FAFSA submission and completion. In all figures, we observe a sizeable and significant impact of the text-based outreach on FAFSA submission / completion. Across the weeks observed, FAFSA submission and completion rates were 6 to 8 percentage points higher in treatment schools compared to their control group counterparts. These same impacts were particularly large, on the order of 12 to 16 percentage points, within HISD, where systematic text-based outreach was being used for the first time.

This effort reached approximately 8,500 high school seniors (76 percent of all treatment school seniors) across 43 Texas high schools. Our service provider contract was for $60,000, leading to a direct cost per student served of just over $5.00, not including the time and effort of district- and school-based staff to participate in the intervention.

Conclusions:

While we await data on subsequent college enrollment outcomes, our data to date points to the benefit of text-based outreach as a low-cost and readily scalable strategy for improving student completion of important college-going milestones, such as timely FAFSA filing.

Appendices

Appendix A. References

Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R block FAFSA experiment. *The Quarterly Journal of Economics*, *127*(3), 1205-1242.

Castleman, B. L., & Page, L. C. (2014). *Summer melt: Supporting low-income students through the transition to college*. Cambridge, MA: Harvard Education Press.

King, J. E. (2004). Missed opportunities: Students who do not apply for financial aid. *Washington, DC: American Council on Education*.

Kofoed, M. S. (2013). To Apply or Not to Apply: FAFSA Completion and Financial Aid Gaps. *Available at SSRN 2353846*.

Appendix B. Tables and Figures

Table 1. Assessing balance of baseline covariates: size of senior and graduating class

	N seniors 2014	N grads 2014
Treatment	19.524	8.897
	(35.798)	(41.000)
Intercept	247.427***	290.544***
	(27.361)	(31.015)
R2	0.528	0.379

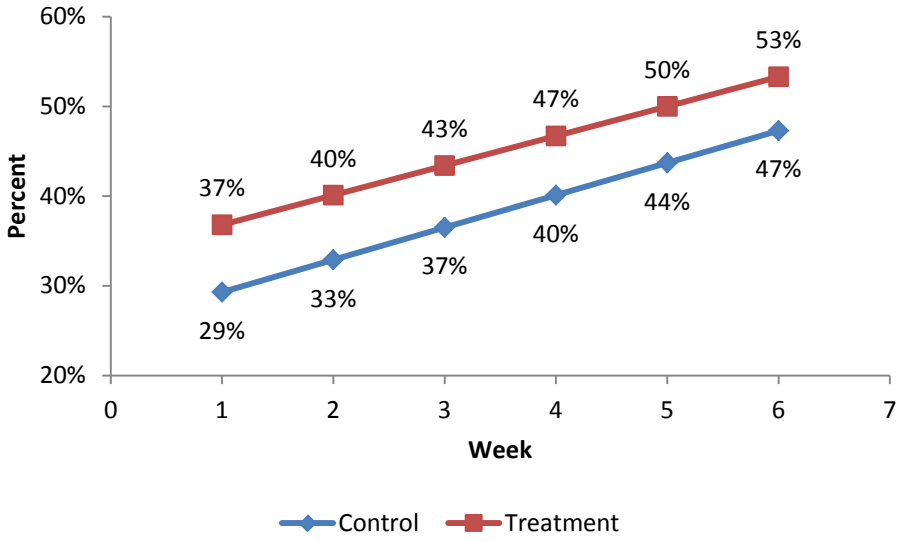
Table 2. Assessing balance of baseline covariates: number and share of graduates who enroll in college

	N enroll two-year 2013	N enroll four-year 2013	N enroll 2013	P enroll two-year 2013	P enroll four-year 2013	P enroll 2013
Treatment	-3.136	10.744	7.608	-0.016	0.008	-0.008
	(9.874)	(13.904)	(22.151)	(0.016)	(0.023)	(0.016)
Intercept	56.328***	79.820***	136.148***	0.176***	0.292***	0.469***
	(7.469)	(10.518)	(16.756)	(0.012)	(0.017)	(0.012)
R2	0.424	0.523	0.504	0.3	0.706	0.855

Table 3. Assessing balance of baseline covariates: number and share of graduates who submit / complete the FAFSA

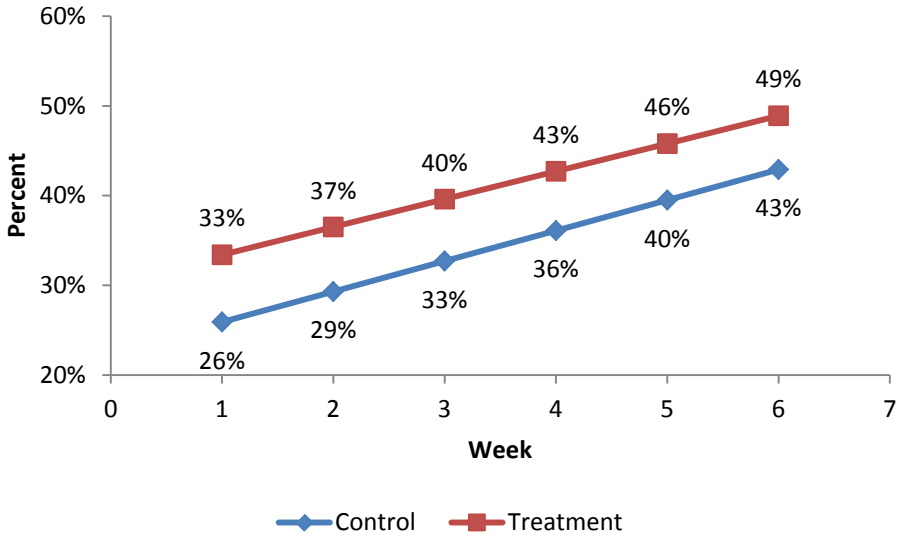
	N submit FAFSA 2014	N complete FAFSA 2014	P complete FAFSA 2014	P submit FAFSA 2014
Treatment	7.224	6.015	0	0.01
	(22.726)	(21.036)	(0.032)	(0.037)
Intercept	145.018***	135.536***	0.476***	0.508***
	(17.049)	(15.781)	(0.024)	(0.028)
R2	0.487	0.508	0.528	0.465

Figure 1. Impact of text-based outreach on school-level FAFSA submission, overall



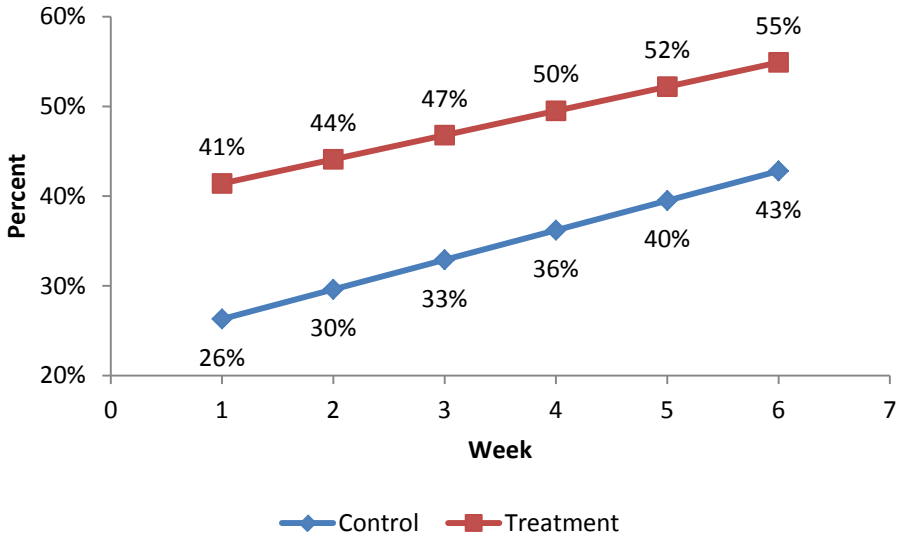
Note: results based on a multi-level regression modeling, with schools weighted according to the size of the senior class. Weeks correspond to timeframe between February 27 and April 17. Main effect of treatment significant at p = .066.

Figure 2. Impact of text-based outreach on school-level FAFSA completion, overall



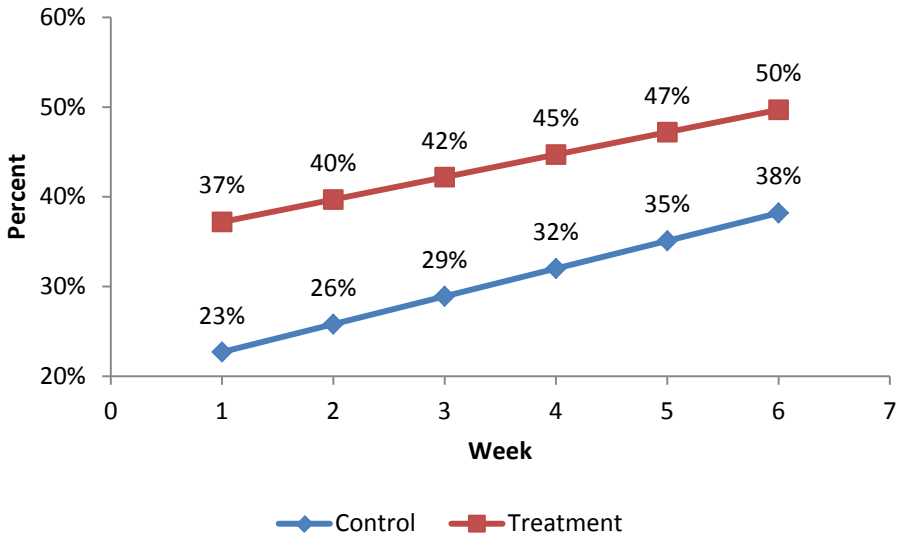
Note: results based on a multi-level regression modeling, with schools weighted according to the size of the senior class. Weeks correspond to timeframe between February 27 and April 17. Main effect of treatment significant at p = .069.

Figure 3. Impact of text-based outreach on school-level FAFSA submission, HISD only



Note: results based on a multi-level regression modeling, with schools weighted according to the size of the senior class. Weeks correspond to timeframe between February 27 and April 17. Main effect of treatment significant at p = .004.

Figure 4. Impact of text-based outreach on school-level FAFSA completion, HISD only



Note: results based on a multi-level regression modeling, with schools weighted according to the size of the senior class. Weeks correspond to timeframe between February 27 and April 17. Main effect of treatment significant at p = .007.