# Using Texting to Nudge Urban Public School Students To and Through College

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**Abstract**

This study investigates how a group of New York City public schools use texting to increase enrollment and persistence in college. Text messages include tips and reminders to fill out the Free Application for Federal Student Aid as well as college tips. Our multiple regression results suggest that although the starting year of the texting did not appear to matter, the texting program increased enrollment and persistence in college. In addition, response rates were positively associated with enrollment and persistence. These results are consistent across various specifications. Finally, we find that the content of the messages themselves as well as individual characteristics affected response rates.

**Introduction**

Anyone who has spent considerable time around young people may notice how focused they are on their cell phones, particularly on texting with their friends. This observation is supported by hard data. A poll by Gallup in 2014, found that 39 percent of all Americans reported sending or receiving a message "a lot." For individuals 18 to 29 years old, the millennial generation, two-thirds reported sending or receiving a message "a lot" (Newport, 2014). Even among the lowest-income families, teenagers have cell phones and use texting (Castleman & Page, 2014). The way younger Americans communicate has changed with the widespread use of texting. To reach and engage young people, educational institutions must embrace this communication method and utilize it in productive ways.

This study investigates how a group of New York City public schools use texting to increase enrollment and persistence in college through a comprehensive dataset provided by New

York City Outward Bound Schools with information on student demographics, outcomes, as well as text messages sent and received by public school students in New York City (NYC). NYC Outward Bound Schools sends text messages to its students and alumni using an enterprise text messaging platform called Signal Vine. They use Signal Vine to send multiple messages on topics ranging from encouraging students to file their Free Application for Federal Student Aid (FAFSA) to tips for college success to wishing students a happy birthday on their birthdays. While the topics were relatively narrow (see Appendix), NYC Outward Bound Schools still managed to send 29,000 initial text messages (not to mention text responses to student messages).

This intervention is not compulsory. Students can withdraw anytime by sending a stop text. NYC Outward Bound Schools' goal is to "nudge" students to make decisions that are likely to result in success in college. A reminder text to fill out the FAFSA, for example, could be the difference between a student having enough money to stay in college or having to drop out because of a lack of funds. NYC Outward Bound Schools' text messaging program is unique because of its personal touch. Messages are sent in the name of a single person and when a student responds, he or she responds to that person. The birthday messages are sent to the participant by name on his or her birthday and serve as a way to make the program more personalized and less automated. This personal touch may encourage students to read and follow the texts and respond more often than similar interventions.

Our dataset allows us to consider several important questions. First, we examine if there is a beneficial effect on college enrollment of texting students on financial aid and other college topics. Second, because one cohort of students received texts only after high school graduation (and in college) and another received texts in both high school and college, we examine whether

the benefits of texting differ from one group to the other. Third, the data also allow us to calculate individual rates of response and analyze whether there is the relationship between response rates and enrollment and college persistence. Finally, we also look at the factors behind response rates, which may shed light on the ways educational institutions can use to improve response rates among students.

## Background

**Program Setting**

Individuals who participated in the texting program were students and alumni at NYC Outward Bound Schools. Founded in 1987, NYC Outward Bound Schools is a nonprofit organization that currently operates a network of 11 public schools in combination with the NYC Department of Education. These schools are built on the EL Education model, which itself is based on the character and skill-building emphases of Outward Bound wilderness courses (EL Education Inc., 2016). For example, each student must participate in a multi-day, overnight Crew Orientation course with fellow "Crew" members who continue to meet until graduation. NYC Outward Bound Schools' outcomes have been impressive. NYC Outward Bound Schools has a four-year graduation rate of 89 percent, exceeding NYC Department of Education's rate of 70 percent (NYC Outward Bound Schools, 2016a, 2016b).

One of the contributing factors to NYC Outward Bound Schools' success is the *To and Through College* program, of which the text messaging program is a component. *To and Through College*'s attention is on college: getting students to college and through college. NYC Outward Bound Schools' uses Signal Vine technology to message high school students and alumni. Signal Vine allows NYC Outward Bound Schools to send mass text messages to its entire database of students and alumni or to select groups and individuals. Students can reply to

these messages and engage in back and forth conversations with NYC Outward Bound Schools. At NYC Outward Bound Schools, text messages are often personalized using the name of the student and sent in the name of a single person, the Alumni Manager (see the Appendix for some examples). If a student replies to a text, the Alumni Manager is the person who responds. Most texts in our study were sent during the school year once or twice a month at various times around the day but usually at noon. Messages were often strategically timed to FAFSA availability and deadlines. For instance, the message: "Last reminder to fill out FAFSA! If you're in NY don't forget to fill out TAP too. FAFSA done? Reply 'yes' or 'no,'" was sent on April 11, 2017, and the deadline for FAFSA filing is usually around the end of June (U.S. Department of Education, 2017).

Message responses from students varied. Birthday messages usually were answered with some form of gratitude. Yes or no messages were almost always replied to with a yes or no from the student. Help texts elicited the most profound exchanges. Take for example the following November 11, 2016 exchange (with pseudonyms and typos included):

> NYC Outward Bound Schools: JOHN, visit your bursar's office to make sure tuition bill is paid before semester ends. Text 'HELP' if you need help.
> John: Help
> NYC Outward Bound Schools: If you still need help, you can call Emily at (347) 555-6737 during her office hours: Mon 12-2 or Thurs 2-4
> John: HELP
> NYC Outward Bound Schools: What do you need help with?
> John: I have financial aid and person that I showed the receipt to told me that it probably hasn't gone through yet
> NYC Outward Bound Schools: When did you fill out your FAFSA? Did you ask the financial aid office why it hasn't gone through?
> John: I recieved my reward on May 19th. There was a guy that I spoke to and he said it will take some time.
> NYC Outward Bound Schools: Yes but it shouldn't take this long. Did you accept the reward on CUNY First?
> NYC Outward Bound Schools: When did you ask at the financial aid office?
> John: Yes as soon as I recieved it a accepted the rewards.

NYC Outward Bound Schools: It's possible that it just hasn't come yet. You can check in again with your financial aid office.
John: Okay
John: I will tomorrow
John: Thank you

All students, unless they opted out or did not have a correct cell phone number, were automatically enrolled in the texting program and received text messages from NYC Outward Bound Schools if they graduated in 2015, 2016, or 2017. The 2015 cohort received their first messages after graduating from high school (though a few of them received their first texts only while in college). The 2016 cohort received messages while they were seniors in high school as well as while they were freshmen in college. While we have very limited information on the 2017 cohort, these youths also received messages in high school and should receive messages while they are in college as well. We did not include the 2017 cohort in our analysis as the data were unavailable.

**Literature Review**

Economists have traditionally viewed the decision to attend college as a benefit-cost analysis. Individuals, most often young people in their late teens, weigh the large upfront costs of attending college, both financial and mental, versus the long-term benefits which include higher incomes from attending college. The youth will attend college if the benefits outweigh the costs (Becker, 1994). In recent years however, that view has been modified based on empirical research and theoretical research from behavioral science. For example, the classic model assumes students and their parents have access to and use complete information about the colleges they are applying to, as well as their costs and long-term benefits. In reality however, especially for first-generation low-income youths and their families, often the sticker price (the cost of tuition published by the institution) takes precedence over the net price (the price the

student would actually pay after aid is subtracted) (Avery & Kane, 2002; Castleman, Baum, & Schwartz, 2015; Grodsky & Jones, 2007). Insights gleamed from studies of student behavior like this have been used to design interventions to promote college enrollment and persistence.

The text messaging program by NYC Outward Bound Schools is theoretically and empirically grounded in the behavioral science research on nudges. A nudge, according to Thaler and Sunstein (2008, p. 6), "alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives." Nudges do not restrict people's choices, rather they induce people to make a specific choice that is in their best interest, for example, filling out the FAFSA after receiving a text message. As reviewed in Frankfort, O'Hara, and Salim (2015) and Escueta, Quan, Nickow, and Oreopoulos (2017), the use of nudges to boost college success has recently received substantial research attention.

Research from behavioral science suggests that individuals respond to complex information (like financial aid) in interesting ways. A common response to "cognitive overload," is to procrastinate. For an adolescent, this may means putting off filling out the complicated and lengthy FAFSA application and missing the deadline for submission (Castleman et al., 2015). Indeed, the FAFSA is longer than a typical IRS form (Dynarski & Wiederspan, 2012). One nudge that researchers have used to avoid these problems has been offering to low-income individuals and their children, tax preparation and assistance in filling out the FAFSA. Bettinger, Long, Oreopoulos, and Sanbonmatsu (2012) find that members in the treatment group with this type of assistance were more likely to apply for financial aid, attend college, and receive aid than members in the control group. College enrollment rates the following year were eight percentage points higher in the treatment group than the control group.

There is also evidence that the medium to transmit college-related information to students and families matters. For example, an email and letter sent to prospective and enrolled college students on higher education tax credits in Texas had no effect on enrollment (Bergman, Denning, & Manoli, 2017). Likewise, emails and letters sent from a public university to students explaining their individual borrowing situation had at best modest effects on their financial aid decisions (Darolia & Harper, forthcoming). On the other hand, a video shown to disadvantaged youths in Toronto or the use of a financial aid calculator did have positive effects (Escueta et al., 2017; Oreopoulos & Dunn, 2013).

Given that assistance in and support for FAFSA completion have been found to increase college enrollment (Bettinger et al., 2012; Owen & Westlund, 2016) and the importance of texting in the lives of young people (Lenhart, 2015; Newport, 2014), several studies examine how text messages used as nudges towards FAFSA completion may affect college enrollment and persistence. Castleman and Page (2013) find that text messages reminding college-intending, low-income high school graduates of required or important tasks, such as acting on financial aid award letters or orientation registration before college enrollment, increased their probability of enrollment in two-year institutions by three percentage points. In a similar study, Castleman and Page (2015) find that reminding text messages increased enrollment by over four percentage points among low-income students in Dallas, TX and by over seven percentage points among students in Lawrence and Springfield, MA. Castleman and Page (2017) also find similar effects of text messaging on college enrollment: on-time college enrollment increased by approximately three percentage points when students received text messages. There was no benefit to also texting parents. The same authors find in an earlier study that community college students who received texts on financial aid and FAFSA renewal were almost 14 percentage points more likely

to remain enrolled in the spring of their sophomore year. However, they find no effect of text messaging on persistence for freshmen in four-year higher education institutions (Castleman & Page, 2016). A recent paper by Page, Castleman, and Meyer (2017) investigates a texting campaign in Delaware and Texas. The authors find that the texting campaign increased FAFSA completion by five percentage points and college enrollment by four percentage points. One place where texting did not have a significant impact was in Boston. Castleman and Page (2014) did not find significant differences between treatment and control groups in terms of college enrollment in that intervention. This may be because Boston students already had considerable access to college information and support during the school year and in the summer after high school.

Text messaging has also been shown to influence borrowing outcomes. In a study of a community college in Baltimore, Barr, Bird, and Castleman (2017) find while texting did not affect the share of students who received a subsidized loan, it did reduce the share that received an unsubsidized loan (with higher interest rates) by 3.1 percentage points. These results were driven by students with low financial literacy levels and high debt burdens.

Our paper makes several distinct contributions in this growing literature. First, we use the data from NYC, the nation's largest school district, that have never been explored before. Second, we additionally seek to see if the effects of text messaging on college enrollment and persistence depend on 1) when the first text messages were sent, in either high school or after high school, and 2) students' rates of response to received text messages. Third, given a positive effect of response rates on college enrollment and persistence, we also explore factors that can boost the rates of responses to text messages.

**Method**

**Data**

NYC Outward Bound Schools provided us with data without student names, phone numbers, and addresses for our research. Each student is instead identified by a unique number. The college enrollment data were supplemented with counselor records and provided us with information on the high school the student attended, the college (and when) he or she was enrolled in, and his or her length of enrollment in college, which we use to generate the dependent variables of enrollment and persistence. NYC Outward Bound Schools also provided demographic information on students including ethnicity, gender, birthdate, the type of diploma they received, high school grade point average (GPA), graduation year and free and reduced priced lunch and special education status. The data also identified if students were English Language Learners (ELL), however only six percent of all NYC Outward Bound Schools students are ELL (NYC Outward Bound Schools, 2016b) and this variable dropped out of analyses. These demographic data were extracted by NYC Outward Bound Schools from the Department of Education ATS (Automate the Schools) system.

Signal Vine provided the text messaging data, which we received via NYC Outward Bound Schools. The Signal Vine data also identified students via the unique number which we linked to the enrollment and demographic data provided by NYC Outward Bound Schools. The Signal Vine data tell us the direction of the text (i.e. whether it was sent or received), the actual text of the message, and the date the message was sent or received.

Table 1 presents descriptive statistics for the students in the 2015 and 2016 cohorts. These are children who graduated in the traditional graduation month of June or shortly afterward in July, August, or September. We observe 1,193 students all together. Sixty-eight percent of individuals were enrolled in college within six months of graduating high school and

74 percent were enrolled within a year of graduation. Fifty-six percent of all students persisted in college. In higher education administration, persistence has a specific meaning. Students persist "if they return to college at any institution for their second year" (National Student Clearinghouse Research Center, 2014). Roughly 20 percent of individuals began receiving texts after they graduated high school but before they enrolled in college; this figure is comprised of youths from the 2015 cohort. Thirty percent of the sample received texts before they graduated from high school and hence also enrolled in college; this figure is comprised of youths from the class of 2016.

On average, participants in the data responded to 10.4 percent of all initial text messages received within six months of graduation. We call these initial texts because we only counted texts that were sent initially by Outward Bound Schools. In other words, text messages that were responses to individual students are not used to calculate response rates. In percentage terms, this variable is defined as the total number of responses divided by the total number of initial texts sent. Also, separate texts that were sent as parts of a single message were considered a single text message so as to not overcount the number of messages sent. A roughly equal percentage responded to all initial text messages within one year of graduation. There is wide dispersion in this measure though, with some students never responding and some responding to every message. Response rates to messages focused on college-related issues like tips for college success and financial aid were roughly five percent for both the six months and one-year measures. These response rates which do not count "stop" messages as responses are the ones we use for our analyses.

Half of participants were male, and the plurality were African-Americans, followed by Hispanics, Whites, and Asians. Forty-two percent of the sample received free or reduced priced

lunch and 16 percent had special education needs. New York State offers three high school diplomas. The Advanced Regents diploma has the highest standards and requires earning 44 required credits, including six credits in a foreign language, and passing nine exams with a score of 65 or higher. The Regents and local diplomas have increasingly lower standards. In our data, most students received the Regents diploma, which they could earn by taking 44 credits, and passing five exams with grades of 65 and higher (Office of Academic Policy & Systems, 2016). Adults who left high school before graduation can also earn a High School Equivalency credential by passing an exam (ETS HiSET, 2017). The average age at graduation was approximately 18 in our dataset, though some students graduated as early as 13 or as old as 21. The average high school grade point average was in the high seventies, with a standard deviation of 8.3.

**Data Analysis**

We began our analysis by investigating how texting affected enrollment in college. For this purpose, we focus on text messages that were sent to students before they enroll in college. In the dataset, we observe three groups: participants who graduated in 2015, who received texts after graduation from high school and before college enrollment (211 and 234 students for columns I and II, respectively, of Table 3); participants who graduated in 2016, who received texts beginning in their senior year of high school until enrollment (328 and 350 for columns I and II, respectively of Table 3); and a third group comprised of individuals in both cohorts who either did not receive texts or opted out of the texting program before college enrollment. In the third group, 11 and 30 students in the 2015 and 2016 cohorts, respectively, received texts but opted out before college enrollment within one year of graduation. Also, 26 students in this group received texts but after college enrollment. The remaining students of the group did not

participate in the program, i.e., they either opted out, did not have a cell phone, or NYC Outward Bound Schools did not have the correct phone number.

We use multiple regression analysis using the third group as a comparison group to determine if texting helps the first and second groups in terms of enrollment and if the timing of text messaging (beginning in high school versus only after high school) makes a difference. The coefficients on the dichotomous variables for the first two groups capture the effect of participating in the texting program before enrolling in college versus not participating in the program. As the dependent variable is a dummy variable with 1 representing enrollment within a certain time period of high school graduation, and 0 representing non-enrollment, these regressions are linear probability models. We estimate all regressions using Huber-White robust standard errors adjusted for clustering by school for hypothesis testing.

We also control for demographic heterogeneity between students with a set of variables capturing the student characteristics described in the data section, the month of graduation of the student, and a set of school fixed effects. The school fixed effects control for observed and unobserved characteristics associated with a school that are common to all students who attend the school.

Selection bias is another concern for our regression model. Students who receive and respond to texts may be systematically different from those who drop out of the texting program, and do not receive or respond to texts. For example, students who enrolled within six months or one year and who persisted are motivated and persevere; therefore they would be more likely to respond to college-related texts. To address this selection bias concern, we estimate an additional set of regressions using matched data. Matching creates sets of treated and untreated observations that are similar based on observable characteristics (Dehejia & Wahba, 2002). The

literature (e.g. Bifulco, 2012; Dehejia & Wahba, 2002; Ho, Imai, King, & Stuart, 2007) suggests that estimates using matching methods can come quite close to experimental estimates of program effects. The matching method we use is called coarsened exact matching (CEM). Research by Iacus, King, and Porro (2011), Iacus, King, and Porro (2017), King, Nielsen, Coberley, and Pope (2011), among others suggests that CEM has several desirable properties including no need for a balancing test, and produces less biased estimates of effects than other matching methods.

We also examine how each student's rate of response (excluding "stop" replies) affected enrollment as an additional measure of the effect of the texting program. Response rates are interesting in that they indicate responses but also indicate that the student has read the texts. The more the students read texts we believe, the more they would benefit from them in terms of going to office hours or filling out their FAFSAs or any other suggestion. In addition, when a student responds to a text, and the alumni manager responds back, the response from the alumni manager is tailored to the specific needs of the student, which may also affect enrollment and persistence. We examine differential effects between the response rate to all messages and to messages with tips for college and financial aid. As the latter messages are clearly intended to get students to and through college, we expect them to exert a stronger effect on enrollment.

It is not sufficient for young people to enroll in college; they must also stay in college. Hence, we also look at how texting affects persistence. In these regressions, we model how differences in individual response rates affect persistence. We focus on four variables, the response rates to all texts for individuals who received texts after high school and in college and for individuals who received texts in college and high school, as well as the response rates to college-specific messages for these two groups. All students in this regression received at least

one initial text from NYC Outward Bound Schools. These response rates are calculated based on all the texts students received and replied before their second year in college.

Last but not least, assuming response rates do positively affect enrollment and persistence, we use the data to predict the likelihood a message gets a response. The dependent variable for these regressions is a binary variable which is coded one if the initial message sent by NYC Outward Bound Schools received a response and 0 if it did not. We coded each message according to its content (see Appendix) and these variables along with individual characteristics as well as the day of week the message was sent are used as control variables in these regressions. In some specifications, we control for student fixed effects, which means using within-student variation in the control variables to estimate the within-student variation in response probability.

## Results

### Performance Indicators

We begin by presenting performance indicators for the text messaging program to gauge how popular and effective the program was. Table 2 presents these data, which are from the entire universe of text messages. The data, generated by Signal Vine, reveal NYC Outward Bound Schools sent 28,840 initial text messages to a total of 1,844 students and alumni who attended or graduated from eight NYC Outward Bound Schools high schools. Over half of recipients responded to any text, including stops this percentage grows to 63.4 percent. This figure, which is considerably higher than the 20.3 percent rate calculated by Castleman and Page (2016), may owe to the more individualized and personalized nature of NYC Outward Bound Schools' text messages. Including "stop" texts, which automatically unsubscribed individuals from receiving future texts, the response rate was 11.7 percent; excluding stop texts, the response

rate was 10.7 percent. Less than one percent of initial text messages resulted in a back and forth conversation between the alumni manager and the individual receiving the text. The low percentage may be because many responses became phone conversations or in-person meetings.

There was also variation in the content of the messages sent by NYC Outward Bound Schools. More than half of messages sent to students and alumni were related to financial aid, especially information and reminders about filling out the FAFSA. The appendix presents additional examples of the messages and the way we coded them. Of all the messages sent, 13.4 percent consisted of introducing the alumni manager and program to text recipients. One of the means NYC Outward Bound Schools used to individualize their messages was a birthday greeting sent to students and alumni on their birthdays. These birthday messages represented 5.3 percent of all messages. Also, 14.9 percent of messages were holiday greetings, 11.7 percent high school matters, and 20.5 percent tips for college like reminders to register. We also coded whether a text sent by NYC Outward Bound Schools requested a yes or no response from the recipient; 44.4 percent of texts fell into this category.

**Enrollment**

In Table 3, we present results for regressions examining the effect of texting on enrollment in college. Columns I and II present results using our full dataset while columns III and IV present results using the matched dataset. As discussed in the Method section, there are three groups in this regression model. We find no significant differences in enrollment at six months or a year between youths who began receiving texts in high school and those who began receiving texts after high school graduation in any column. The coefficients on the two key dummy variables are virtually identical. However, we find that both groups had higher enrollment than the third comparison group of individuals who received no texts or dropped out

of the texting program before college enrollment. Receiving texts in either high school and college or just college increased the probability of enrollment within six months of graduation by 50-53 percentage points or by 43-47 percentage points within one year of graduation. Each of these results is significant at the 0.01 level. Results using the matched data are similar but slightly smaller. Students participating in the text program were 48 percentage points more likely to be enrolled in college within six months and 40 percentage points more likely to be enrolled in college within one year.

We find little evidence that the race variables significantly increased the probability of enrollment, nor did special education or free or reduced priced lunch status. Students receiving the local diploma or high school equivalency, the two completion paths with the least rigorous requirements, were less likely to be enrolled in college within six months or within one year. High school grade point average also had a small but significant effect on college enrollment. Each point increase in GPA was associated with an approximately one percentage point increase in college enrollment in each specification.

R-squared measures are generally impressive. The regressions explain from 31 to 47 percent of the variation in college enrollment.

**Response Rates**

In Table 4, we look at how individual rates of response affected college enrollment within six months or a year. The results are quite consistent. In every specification, higher response rates are associated with higher enrollment. In column I, a one percentage point increase in the response rate to all initial messages was associated with a 0.7 percentage point increase in the probability of enrollment in college within six months. A similar effect is seen in

column II using the matched data. Each percentage point increase in the response rate to all messages was associated with a 0.5 percentage point increase in enrollment within one year.

As discussed earlier, we expect the effect of the response rate to college-specific messages to be stronger than that to all initial messages. This response rate does indeed appear to have a greater effect on enrollment than the total response rate. A one percentage point increase in the response rate to college tips and financial aid messages increased the probability of enrollment within six months by approximately one percentage point and the probability of enrollment within one year by 0.8 percentage points.

**Persistence**

Table 5 reports results for regressions that model college persistence. As we require two years of college data per student to measure persistence, the number of observations is roughly half the amount used for enrollment regressions at 591 students. Nevertheless, we do find some significant results. As in Table 4, response rates were positively associated with persistence. In column I, we find that a one percentage point increase in the response rate to all texts was associated with a 0.8 percentage point increase in the probability of persisting for individuals who only received texts in college. This coefficient is significant at the 0.05 level and appears to be larger than the coefficient for the response rate for individuals who received texts in high school and college. However, a post-regression statistical test shows that the two coefficients are not significantly different. As with Table 4, the response rate to texts relating to college tips and financial aid also had stronger effects on persistence than the response rate to all messages. Like column I, the coefficient is larger for individuals who only receive texts in college than in high school and college, but the two coefficients are not statistically different, either. Using matched data, the coefficients are virtually identical in size and the key paired coefficients for each

regression are not significantly different from each other. As in every other regression model, high school GPA was positively associated with persistence, with a one-point increase in high school GPA associated with an over two percentage point increase in persistence.

**Determinants of the Probability of Responses**

The results in Tables 4 and 5 suggest benefits from higher rates of response. If such is the case, what can schools do to encourage students to respond to text messages more? We use the content of messages and student characteristics to predict the probability of responses in Table 6. For this purpose, we estimate a message-level regression in which the dependent variable is coded 1 if the message elicited a response (excluding a stop) and 0 otherwise. These regressions are based on the entire universe of messages. The results suggest that the message content indeed matters. Without student fixed effects, column I shows that texts wishing students a happy birthday and that are related to high school had a higher probability of response than every other message type. The high school messages were the mostly likely to be responded to of all. Introduction messages to the Alumni Manager and text message program together with holiday messages were the messages with the lowest probability of response. The college-related texts on financial aid (*Finaid*) and college tips (*Tips*) appear to be among the messages least likely to be responded to. We will discuss the implications of these results on college-related texts later.

Column I also shows that the day of the week the text messages were sent also affected response rates. Holding all else constant, Saturday texts (when students usually do not have class or have to worry about class the following day) had the highest response probability. Their response probability was 9.3 percentage points higher than that for Sunday texts, a result significant at the 0.05 level. Individual characteristics also appear to affect the probability of responses. Students graduating after 2014 appeared to respond more often to texts than students

graduating before. Males were slightly less likely to respond to text messages than females by approximately 1.5 percentage points. Asian students were more likely to respond to texts than white students by 1.7 percentage points (but the result is significant only at the 0.10 level). Students earning high school equivalency credentials had the lowest probability of responding among the different types of high school diplomas. We also find a small effect on responses of high school GPA, with higher achievers responding more often.

Columns II and III present results with student fixed effects that control for observed and unobserved individual factors. The student fixed effects serve as a robustness test on the results in column I. Column II shows that the effects of message types and weekdays on the response probability were markedly similar to those in column I. In Tables 4 and 5, a key independent variable is the rate of responses to financial aid and college tip messages. Column III combines these two college-related messages into a single variable, *Fintip*. The absolute size of the coefficient in column III is approximately equal to in column II, the sum of *Finaid* and *Tips*, which is consistent with the probability rule of addition for two mutually exclusive events. Columns II and III also show that students were less likely to respond to messages received on Tuesday than on Sunday. The use of fixed effects improves the model fit substantially; the R-squared's in columns II and III are three times larger than that in column I.

Finally, we examine how students responded to messages that requested a "yes" or "no" and "stop" messages—those messages that offered participants the opportunity to unsubscribe from the program by responding "stop". We did not include these variables in our response regressions because of their collinearity with the other message-type variables in the regression. In Table 7, we find that students responded to 17.0 percent of yes or no messages versus only 5.7 percent of all other messages, which may suggest institutions should use yes or no messages

more frequently to increase response rates. This difference is significant at the 0.01 level. We also find that 5.7 percent of "stop" messages had a response of stop by the participant versus 0.2 percent of all other messages. This is also a significant difference at the 0.01 level.

## Summary and Recommendations

In this study, we find that students who received text messages were more likely to enroll in college than those who did not. The results suggest that individuals who received NYC Outward Bound Schools texts were about 40 percentage points more likely to be enrolled in college within one year than individuals who did not receive texts before enrollment. We, however, find little evidence to support the hypothesis that texting individuals beginning in high school improves the probability of enrollment in college versus only texting them in college. This makes a certain degree of sense as many of the texts (e.g., financial aid, visit your professor's office hours) were directly related to individuals' experiences in college. This is when the texts are most relevant and applicable to their lives.

These results do support NYC Outward Bound Schools' continued efforts at outreach to alumni. Many of NYC Outward Bound Schools' students are first generation college students, and three-quarters are low socio-economic status. Our finding on the positive effect of texting on enrollment holds even while controlling for high school GPA and the type of diploma the student received (measures of student performance). If urban public high schools are interested in more than getting students to college, but through college as well, this texting program is a worthwhile investment with no negative consequences aside from cost—A previous intervention cost approximately $7 per student including counselor support (Castleman & Page, 2015). Our results are consistent with previous studies, for example Castleman and Page (2016), who also find positive effects on enrollment from texting to college students. To date our review has found no

negative effects from text messaging campaigns. And to reiterate, nudges, like texting campaigns, do not force people to perform any task, instead, they serve as inducements toward certain desirable behaviors.

Controlling for high school GPA and degree type once again, we find evidence that students with higher response rates were more likely to enroll in college and more likely to persist in college as well. We find that a one percentage point increase in the response rate for college tips and financial aid messages of individuals who only received texts in college increased the probability of persisting in college by a roughly equal amount. The response rate to college specific texts had stronger effects on enrollment and persistence than the overall response rate, which makes sense. These messages have a more direct relationship with college success than other types of messages. Their power may also have to do with timing. The texts sent by New York City Outward Bound Schools were often timed to important deadlines like FAFSA expiration.

While the effects are stronger for college related texts on enrollment and persistence, we do not in any way recommend eliminating other forms of text messages. Over half of NYC Outward Bound Schools students and alumni responded to any text. This is markedly higher than the 20 percent rate calculated by Castleman and Page (2016). The personalized and individualized nature of NYC Outward Bound Schools' texting program may be partially responsible for this disparity. NYC Outward Bound Schools texts are sent to participants from a single person, the Alumni Manager, who introduces him or herself from the start. Students are often texted using their first name and receive individualized birthday and holiday messages. Birthday messages are in fact the type of message with the second highest response rates, behind

texts about high school related matters. Last but not least, we also find that if schools wanted to maximize responses, they should send messages on Saturdays and not on Tuesdays.

The above results provide some insight into the nature of a text messaging program operated by an education institution and its effects on students. With texting becoming THE mode of communication for millennials, this is valuable information that educational institutions can use to engage with their alumni and student bodies and nudge them toward behavior that is likely to result in college enrollment and persistence.

**Suggestions for Further Research**

We acknowledge that our study was not a randomized experiment and is instead a quasi-experimental design. Although the results are robust using matched data, we cannot completely rule out potential bias from unobserved factors. An ideal scenario would be an experiment where students are randomly assigned to receive or not receive texts and randomly assigned to when they receive texts (high school v. college). This would have been the best method to controlling for unobservables. Perhaps a future study could use such an approach.

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**Table 1** Descriptive statistics

|  | Obs | Mean | Std. dev | Min | Max |
|---|---|---|---|---|---|
| Persistence | 591 | 0.56 | 0.50 | 0.00 | 1.00 |
| College enrollment within six months | 1,193 | 0.68 | 0.47 | 0.00 | 1.00 |
| College enrollment within one year | 1,193 | 0.74 | 0.44 | 0.00 | 1.00 |
| Dummy if the first text was received after high school graduation and before college enrollment (cohort 2015) | 1,193 | 0.19 | 0.39 | 0.00 | 1.00 |
| Dummy if the first text was received before high school graduation (cohort 2016) | 1,193 | 0.30 | 0.46 | 0.00 | 1.00 |
| Response rate to all messages within six months | 1,193 | 10.43 | 19.23 | 0.00 | 100.00 |
| Response rate to college tips and financial aid messages within six months | 1,193 | 4.96 | 11.02 | 0.00 | 66.67 |
| Response rate to all messages within one year | 1,193 | 10.90 | 19.37 | 0.00 | 100.00 |
| Response rate to college tips and financial aid messages within one year | 1,193 | 5.19 | 11.16 | 0.00 | 66.67 |
| Male | 1,193 | 0.50 | 0.50 | 0.00 | 1.00 |
| White, non-Hispanic | 1,193 | 0.20 | 0.40 | 0.00 | 1.00 |
| Black, non-Hispanic | 1,193 | 0.38 | 0.49 | 0.00 | 1.00 |
| Hispanic | 1,193 | 0.34 | 0.47 | 0.00 | 1.00 |
| American Indian, Asian, or Other | 1,193 | 0.08 | 0.27 | 0.00 | 1.00 |
| Free or reduced priced lunch student | 1,193 | 0.42 | 0.49 | 0.00 | 1.00 |
| Special education student | 1,193 | 0.16 | 0.37 | 0.00 | 1.00 |
| Advanced Regents | 1,193 | 0.05 | 0.21 | 0.00 | 1.00 |
| Regents | 1,193 | 0.82 | 0.38 | 0.00 | 1.00 |
| Local diploma | 1,193 | 0.06 | 0.23 | 0.00 | 1.00 |
| High School Equivalency | 1,193 | 0.01 | 0.12 | 0.00 | 1.00 |
| Age at graduation | 1,193 | 18.06 | 1.08 | 13.58 | 21.40 |
| High school GPA | 1,193 | 79.30 | 8.30 | 54.00 | 100.00 |

**Table 2** Text messaging indicators

| | |
|---|---|
| Total number of individuals receiving messages | 1,848 |
| Number of individuals receiving messages who graduated in 2015 and 2016 | 1,239 |
| Number of schools participating | 8 |
| Number of initial text messages sent | 28,840 |
| Share of individuals responding to any texts including "stop" texts | 63.4% |
| Share of individuals responding to any texts excluding "stop" texts | 55.5% |
| Response rate including "stop" texts | 11.7% |
| Response rate excluding "stop" texts | 10.7% |
| Share of messages resulting in a back and forth in-depth conversation | 0.81% |
| Share of messages resulting in a "stop" text | 0.97% |
| Share of introduction messages sent | 13.4% |
| Share of birthday messages sent | 5.3% |
| Share of holiday messages sent | 14.9% |
| Share of financial aid messages sent | 50.6% |
| Share of college tips messages sent | 20.5% |
| Share of high school messages sent | 11.7% |
| Share of "yes or no" messages sent | 44.4% |

**Table 3** Effect of high school texting on college enrollment

| | Unmatched | | Matched | |
|---|---|---|---|---|
| | I | II | III | IV |
| | College enrollment within six months | College enrollment within one year | College enrollment within six months | College enrollment within one year |
| Dummy if students received the first text after high school graduation and before college enrollment (cohort 2015) | 0.53*** | 0.47*** | 0.481*** | 0.41*** |
| | (8.12) | (7.14) | (7.47) | (6.68) |
| Dummy if students received the first text before high school graduation (cohort 2016) | 0.50*** | 0.43*** | 0.476*** | 0.39*** |
| | (7.74) | (5.96) | (6.57) | (6.02) |
| Male | 0.015 | 0.013 | 0.0042 | 0.0095 |
| | (0.77) | (0.56) | (0.20) | (0.33) |
| American Indian, Asian, or Other | 0.074 | 0.041 | 0.096* | 0.071 |
| | (1.48) | (1.15) | (2.05) | (1.76) |
| Hispanic | 0.0051 | -0.0071 | -0.017 | -0.048 |
| | (0.16) | (0.34) | (0.26) | (1.07) |
| Black, non-Hispanic | 0.057 | 0.031 | 0.058 | 0.020 |
| | (1.54) | (0.80) | (1.09) | (0.35) |
| Free or reduced priced lunch student | 0.016 | 0.020 | 0.045 | 0.039 |
| | (0.62) | (0.79) | (1.26) | (1.39) |
| Special education student | 0.0089 | 0.011 | 0.012 | 0.045** |
| | (0.30) | (0.37) | (0.49) | (2.60) |
| Diploma type (Regents diploma omitted) | | | | |
|    Advanced Regents | -0.070 | -0.097* | -0.015 | -0.066 |
| | (1.41) | (2.11) | (0.18) | (0.98) |
|    Local diploma | -0.094*** | -0.14*** | -0.00048 | -0.13** |
| | (3.73) | (5.53) | (0.01) | (2.38) |
|    High School Equivalency | -0.22* | -0.29* | -0.19*** | -0.11*** |
| | (2.01) | (2.30) | (5.36) | (4.92) |
| Age at graduation | 0.031* | 0.047*** | 0.0094 | 0.018 |
| | (2.27) | (3.89) | (0.64) | (1.32) |
| High school GPA | 0.010*** | 0.0095*** | 0.0076** | 0.0069** |
| | (4.56) | (4.42) | (2.88) | (2.88) |
| Constant | -0.93*** | -1.09*** | -0.25 | -0.28 |
| | (4.20) | (4.83) | (0.79) | (1.14) |
| Observations | 1,193 | 1,193 | 1,071 | 1,098 |
| R-squared | 0.47 | 0.44 | 0.36 | 0.31 |

Notes: Columns III and IV are estimated with matched data obtained from coarsened exact matching (CEM). Absolute values of $t$ statistics calculated using Huber-White robust standard errors adjusted for clustering by school are in parentheses. Regressions control for school fixed effects and month of graduation. The omitted group consists of students who either received no texts or opted out of the texting program before college enrollment. The numbers of observations in columns III and IV are smaller than that in columns I and II because some observations do not find their matches.
* $p<0.10$ ** $p<0.05$, *** $p<0.01$.

**Table 4** Effect of response rates on enrollment

|  | Unmatched I | Matched II |
|---|---|---|
| *Dependent variable: College enrollment within six months* | | |
| Response rate to all messages | 0.0066*** | 0.0070*** |
|  | (11.71) | (11.49) |
| Response rate to college tips and financial aid messages | 0.0098*** | 0.010*** |
|  | (12.19) | (12.62) |
| *Dependent variable: College enrollment within one year* | | |
| Response rate to all messages | 0.0054*** | 0.0055*** |
|  | (9.36) | (10.55) |
| Response rate to college tips and financial aid messages | 0.0079*** | 0.0079*** |
|  | (11.34) | (11.25) |

Notes: In addition to the key response rate explanatory variables, each of these eight estimates is obtained with the same control variables and observations as in Table 3. Absolute values of t-statistics calculated using Huber-White robust standard errors adjusted for clustering by school are in parentheses. * $p<0.10$ ** $p<0.05$, *** $p<0.01$.

**Table 5** Effect of texting on persistence

| | Unmatched | | Matched | |
|---|---|---|---|---|
| | I | II | III | IV |
| Response rate for all types of texts of individuals who only received texts in college | 0.0077** | | 0.0080** | |
| | (2.85) | | (3.44) | |
| Response rate for all types of texts of individuals who received texts in college and high school | 0.0042** | | 0.0041** | |
| | (3.25) | | (3.47) | |
| Response rate for college tips and financial aid messages of individuals who only received texts in college | | 0.012** | | 0.013** |
| | | (2.50) | | (2.96) |
| Response rate to college tips and financial aid messages of individuals who received texts in college and high school | | 0.0079*** | | 0.0074*** |
| | | (5.03) | | (5.57) |
| Male | 0.017 | 0.016 | -0.0038 | 0.0020 |
| | (0.47) | (0.44) | (0.08) | (0.04) |
| American Indian, Asian, or Other | 0.095 | 0.092 | 0.063 | 0.028 |
| | (1.10) | (1.13) | (0.63) | (0.25) |
| Hispanic | 0.073* | 0.063 | 0.027 | 0.027 |
| | (2.17) | (1.87) | (0.55) | (0.43) |
| Black, non-Hispanic | 0.12** | 0.11** | 0.084** | 0.080 |
| | (3.25) | (2.75) | (2.79) | (1.90) |
| Free or reduced priced lunch student | 0.057 | 0.054 | 0.071 | 0.075 |
| | (0.89) | (0.86) | (0.99) | (1.00) |
| Special education student | 0.060 | 0.056 | 0.048 | 0.050 |
| | (1.67) | (1.55) | (1.04) | (1.07) |
| Diploma type (Regents diploma omitted) | | | | |
|    Advanced Regents | -0.22*** | -0.21*** | -0.18* | 0.013 |
| | (6.42) | (6.59) | (2.08) | (0.23) |
|    Local diploma | -0.16 | -0.15 | -0.077 | -0.12 |
| | (1.86) | (1.79) | (0.53) | (0.75) |
|    High School Equivalency | -0.37*** | -0.36*** | -0.29*** | 0 |
| | (6.65) | (6.46) | (7.73) | (.) |
| Age at graduation | -0.014 | -0.014 | -0.0050 | -0.0062 |
| | (0.63) | (0.66) | (0.24) | (0.30) |
| High school GPA | 0.022*** | 0.021*** | 0.019*** | 0.019*** |
| | (6.91) | (6.78) | (5.74) | (5.77) |
| Constant | -0.93*** | -0.88*** | -0.88** | -0.84** |
| | (4.54) | (4.41) | (3.21) | (3.01) |
| Observations | 591 | 591 | 525 | 513 |
| R-squared | 0.26 | 0.27 | 0.22 | 0.23 |

Notes: Columns III and IV are estimated with matched data obtained from coarsened exact matching (CEM). Absolute values of *t* statistics calculated using Huber-White robust standard errors adjusted for clustering by school are in parentheses. Regressions control for school fixed effects and month of graduation. The omitted group consists of students who either did not receive texts or opted out of the texting program before college enrollment. * $p<0.10$ ** $p<0.05$, *** $p<0.01$.

**Table 6** Characteristics predicting response rates

| | I | II | III |
|---|---|---|---|
| | OLS | Student fixed effects | Student fixed effects |
| **Types of messages (all other types omitted)** | | | |
| Financial aid message (*Finaid*) | -0.063*** | -0.058*** | |
| | (6.0) | (5.4) | |
| Tips for college message (*Tips*) | -0.059*** | -0.057*** | |
| | (5.2) | (5.5) | |
| *Finaid* or *Tips* (*Fintip*) | | | -0.11** |
| | | | (3.1) |
| Introduction message | -0.11*** | -0.11*** | -0.15*** |
| | (7.9) | (7.3) | (3.9) |
| Birthday message | 0.047*** | 0.047*** | 0.0017 |
| | (3.8) | (4.0) | (0.0) |
| Holiday message | -0.10*** | -0.10*** | -0.10*** |
| | (7.6) | (7.6) | (9.7) |
| High school message | 0.095*** | 0.11*** | 0.059 |
| | (4.7) | (5.1) | (1.4) |
| **Day of the week (Sunday omitted)** | | | |
| Monday | 0.035 | 0.023 | 0.026 |
| | (1.6) | (1.1) | (1.2) |
| Tuesday | -0.036 | -0.050** | -0.049** |
| | (1.7) | (2.7) | (2.7) |
| Wednesday | 0.021 | 0.0065 | 0.0084 |
| | (0.9) | (0.3) | (0.4) |
| Thursday | 0.039 | 0.022 | 0.015 |
| | (1.7) | (1.0) | (0.7) |
| Friday | -0.0076 | -0.022 | -0.021 |
| | (0.4) | (1.2) | (1.1) |
| Saturday | 0.093** | 0.081** | 0.082** |
| | (3.1) | (3.1) | (3.1) |
| **Graduation years (prior to 2015 omitted)** | | | |
| Graduation in 2015 | 0.038** | | |
| | (3.1) | | |
| Graduation in 2016 | 0.093*** | | |
| | (8.1) | | |
| Male | -0.014** | | |
| | (3.3) | | |
| American Indian, Asian, or Other | 0.017* | | |
| | (1.9) | | |
| Hispanic | 0.00061 | | |
| | (0.0) | | |
| Black, non-Hispanic | 0.0021 | | |
| | (0.2) | | |
| Free or reduced priced lunch student | -0.0011 | | |
| | (0.2) | | |
| Special education student | 0.0086 | | |
| | (1.4) | | |
| **Diploma type (Regents diploma omitted)** | | | |

| | | | |
|---|---|---|---|
| Advanced Regents | 0.00050 | | |
| | (0.0) | | |
| Local diploma | 0.0032 | | |
| | (0.3) | | |
| High School Equivalency | -0.027** | | |
| | (3.4) | | |
| Age at graduation | 0.0013 | | |
| | (0.2) | | |
| High school GPA | 0.0026** | | |
| | (3.0) | | |
| Constant | -0.13 | 0.15*** | 0.20*** |
| | (1.0) | (7.2) | (5.0) |
| Observations | 23,167 | 23,167 | 23,167 |
| R-squared | 0.075 | 0.236 | 0.236 |

Notes: Absolute value of $t$ statistics calculated based on Huber-White robust standard errors adjusted for clustering by school in parentheses. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

**Table 7** T-Test Results

| Message requested "yes" or "no" response | Responded to text | N |
|---|---|---|
| 0 = No | 0.057 | 24,975 |
| 1 = Yes | 0.170 | 3,865 |
| Difference | -0.113 | |
| **T-Test** | **-31.157***** | |
| | | |
| *"Stop" Message* | *Responded "stop"* | *N* |
| 0 = No | 0.002 | 22,920 |
| 1 = Yes | 0.057 | 5,920 |
| Difference | *-0.055* | |
| **T-Test** | **-32.883***** | |

Note: * p<0.10, ** p<0.05, *** p<0.01.

**Appendix:** Text message codes

| Introduction Texts |
| --- |
| Hi NAME, it's NAME, NYC Outward Bound Alumni Manager! I'll send you texts w/ important college info. Save the # so you know it's me. Text STOP to opt out. |
| Hope you are having a great start to your semester! Save the # so you know it's me. Text "STOP" to opt out. |
| Hi NAME it's NYC Outward Bound & School. We're sending you college info by text this year.  Save the # in yr phone. Text 'STOP' to opt out. |

| Birthday Texts |
| --- |
| Hey NAME! It's NAME from NYC Outward Bound Schools. I hope you have an AMAZING birthday! |

| Holiday Texts |
| --- |
| Hi NAME, Happy New Year from NYC Outward Bound! Remind your parents to do their taxes early so you can submit your FAFSA this spring! |
| Hi NAME! Happy Holidays from NYC Outward Bound! Don't forget to get your family's taxes so you can submit your FAFSA! It's open NOW for next year! |
| Hi NAME! Happy New Year from NYC Outward Bound! Don't forget to submit your FAFSA if you haven't already! |

| Financial Aid Texts |
| --- |
| Hi NAME! Need financial aid help? Have a block on your account? Visit your fin. aid office or call NAME at (805) 555-0613 (Mon 2-4 or Fri 10-12). |
| Hi NAME. Midterms are coming up! Students can lose financial aid if GPA isn't high enough. Find the tutoring center or reply 'HELP' to this text. |
| Hi NAME!  Have you completed your FAFSA yet?  Text 'Y' for "yes" and 'N' for "no." |
| NAME, visit your bursar's office to make sure tuition bill is paid before semester ends. Text 'HELP' if you need help. |
| Hi NAME, Happy New Year from NYC Outward Bound! Remind your parents to do their taxes early so you can submit your FAFSA this spring! |
| Reply 'Y' if you have checked your account or 'N' if you haven't checked yet. Text 'HELP' if you need help. |
| NAME, time to fill out FAFSA at fafsa.gov (& TAP if ur school is in NY). Free taxes: http://on.nyc.gov/1aoUVut FAFSA done? Reply "yes" or "no". |
| To complete your FAFSA you need an FSA ID. Watch this vid for help: http://bit.ly/1PQccjw. FAFSA done? Reply "yes" or "no". |
| Last reminder to fill out FAFSA! If you're in NY don't forget to fill out TAP too. FAFSA done? Reply "yes" or "no". |
| NAME, it's award letter time! Make sure you get yours from your fin. aid office and ask them for help if you have questions. Or text "help". |
| Hi NAME! Happy Holidays from NYC Outward Bound! Don't forget to get your family's taxes so you can submit your FAFSA! It's open NOW for next year! |
| NAME, have you filled out FAFSA at fafsa.gov (& TAP if ur school is in NY)? Free taxes: http://on.nyc.gov/1aoUVut FAFSA done? Reply yes or no. |

| College Tips Texts |
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| Hi NAME! NAME here from NYC Outward Bound. Have you registered for fall classes at your CUNY? Reply 'y' if you have and 'n' if you haven't. |
| Hi NAME! Are you visiting your professor's office hours? Text 'Y' if you've visited.  Text 'N' if you haven't yet. |
| Hi NAME. Midterms are coming up! Students can lose financial aid if GPA isn't high enough. Find the tutoring center or reply 'HELP' to this text. |
| NAME, register for your winter and spring classes now. Need help? Call NAME at 805-555-0613 Mon 12-2 & Thurs 2-4. Reply 'Y' if you've registered! |
| NAME, almost time for finals! Want to bring up your GPA? Visit professor's office hours or text "tutor" for help finding a tutor on your campus! |
| Reply "HELP" to this text if you would like assistance in either getting back on track OR completing a transfer application. |

| High School Texts |
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| NAME, graduation is just around the corner! What is your favorite SCHOOL memory? |
| Hi NAME! Have you chosen a college yet? Text back yes/no |
| NAME, NYC Outward Bound wishes you a great holiday break.  Will you be taking some time to work on your college applications? Text back Yes/No |

| "Yes or No" Messages |
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| Hi NAME! Have you completed your FAFSA? Reply "y" if you have and "n" if you haven't. Or "help" if you need help. |
| Hi NAME! Have you chosen a college yet? Text back yes/no |
| Hi NAME!  Have you completed your FAFSA yet?  Text 'Y' for "yes" and 'N' for "no." |
| NAME, register for your winter and spring classes now. Need help? Call NAME at 847-555-3199 Mon 12-2 & Thurs 2-4. Reply "Y" if you've registered! |
| To complete your FAFSA you need an FS ID. Watch this vid for help: http://bit.ly/1PQccjw. FAFSA done? Reply yes or no |
| Reply 'Y' if you have checked your account or 'N' if you haven't checked yet. Text 'HELP' if you need help. |
| Hi NAME! Are you visiting your professor's office hours? Text "Y" if you've visited. Text "N" if you haven't yet. |
| Last reminder to fill out FAFSA! If you're in NY don't forget to fill out TAP too. FAFSA done? Reply yes or no. |
| Hi NAME! NAME here from NYC Outward Bound. Have you registered for fall classes at your CUNY? Reply 'y' if you have and 'n' if you haven't. |
| NAME, have you filled out FAFSA at fafsa.gov (& TAP if ur school is in NY)? Free taxes: http://on.nyc.gov/1aoUVut FAFSA done? Reply yes or no. |

| "STOP" Texts |
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| Hi NAME it's NYC Outward Bound & SCHOOL. We're sending you college info by text this year.  Save the # in yr phone. Text 'STOP' to opt out. |
| Hope you are having a great start to your semester! Save the # so you know it's me. Text |

| |
|---|
| "STOP" to opt out. |
| Save the # so you know it's me. Text "STOP" to opt out. |