



Possible Ways of Increasing College Access Among Adults from Underserved Backgrounds: A Study of College Transition Text-Based Messaging

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## Possible Ways of Increasing College Access Among Adults from Underserved Backgrounds: A Study of College Transition Text-Based Messaging

### **May 2023**

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Applying to college and securing financial aid are complex processes that can be barriers to college enrollment, particularly for individuals not entering directly after high school. These adults can seek out support from various organizations, including the U.S. Department of Education-funded Educational Opportunity Centers (EOCs), which operate from offices located within select colleges and community-based organizations. The EOCs primarily target their help to adults with low incomes and those who are potential first-generation college-goers. This study examines whether adding low-cost, text-based messaging can help EOCs more effectively work with their clients to increase clients' completion of the Free Application for Federal Student Aid (FAFSA) and college enrollment. About 3,500 EOC college-intending clients from 18 EOCs across the country were randomly divided into two groups: one received regular EOC services, and the other received EOC services plus a set of personalized, pre-programmed text messages focused on how to secure financial aid, complete key college enrollment steps, and navigate other potential barriers to college entry. The study compared the two groups to determine the effectiveness of the college transition text messaging.

#### **Key Findings**

- > Adding personalized text messaging to existing EOC services did not increase clients' rates of college enrollment or FAFSA completion.
- > Although many clients completed important college-going tasks such as applying to college and submitting the FAFSA, 4 out of every 10 clients did not enroll in college. These clients may face complex barriers to enrollment that cannot be addressed by low-touch text outreach alone, suggesting the need for further inquiry into the challenges to college enrollment faced by the EOC client population.

Changes in the labor market over the past several decades have reinforced the importance of a college degree. Trends in technology, automation, and outsourcing have increased wages for workers with a college education and pushed down wages for those with lower education levels. Many adults have responded to these changes by returning to higher education to gain or update labor market skills. In 2019, nearly 40 percent of all individuals enrolled in college were aged 25 or older. <sup>2</sup>

However, not all individuals who aspire to enroll have equal access to college, and differences across groups are thought to be because of a range of factors, including the cost of attendance, the complexity of obtaining financial aid, and limited information.<sup>3</sup> Among students who were in 10th grade in 2002, for example, only about 70 percent of those in households with relatively low socio-economic status enrolled in any post-secondary education over the subsequent 10 years. In contrast, the enrollment rate among their high socio-economic status counterparts was 96 percent.<sup>4</sup> There can be additional barriers to enrolling in college for adults, particularly for those with low incomes and those who are first-generation prospective students, because they do not typically have the same support from counselors available to high school students when applying to college.

In addition, adults may be constrained by the need to support children or work full time, for example or they may have less information about college than their younger counterparts and have fewer available resources on which to draw.<sup>5</sup> Adults who have low incomes or are first-generation students may also lack confidence because

of longer absences from school and may be nervous about fitting in at college.<sup>6</sup> All of these factors can further hinder their ability to manage and complete key college-going tasks.

A central policy question, highlighted in the U.S. Department of Education's Strategic Plan, is how best to support the college aspirations of these adults. The Department's Educational Opportunity Centers (EOCs) are intended to be a major part of that effort. The EOCs are one of the federal TRIO programs, which together provide outreach and services to individuals from disadvantaged backgrounds, from middle schoolers to college attendees, with the goal of supporting their progression to and through education after high school.

The EOCs receive federal grants to support adults (ages 19 and older) with low incomes and those who would be first-generation college-goers intending on entering or continuing in postsecondary education. The centers are located largely in offices hosted by colleges and community-based organizations and are required to serve at least 1,000 individuals per year. In 2020, there were 139 EOCs across the country, supporting almost 200,000 individuals.<sup>8</sup>

EOCs are designed to provide information about financial and academic assistance available to those seeking to enroll in college and assistance in applying to college; this is similar to the types of support typically available to high school students. But EOCs are also designed to provide support and resources to address the unique barriers to college enrollment facing adults. Grantees are permitted to provide services such as assistance in completing college admissions and financial aid applications; academic advice and assistance in course selection; personal, career, and academic counseling; tutorial services; and career workshops. Services are provided as part of an initial meeting and may also be provided through follow-up interactions with clients. Based on the average cost per student served (\$265 in 2018-2019), EOC services are not typically intensive. 10

Personalized text messaging directed at the specific needs of individual clients is a potential enhancement to existing EOC services that is low cost and low burden on EOC staff members. Such messages could help EOC staff members provide more, or more effective, follow-up to the large number of clients served while requiring little extra effort given that many aspects of the messaging can be automated. Text messages that are behaviorally informed, building on the large body of research about how individuals make decisions, have been effective in prompting some high school graduates to complete key college-going tasks and to enroll in college. This type of messaging has also been able to encourage some high school seniors and traditionally aged college freshmen to file or renew their Free Application for Federal Student Aid (FAFSA). Behaviorally informed messaging has also been shown to prompt a variety of behaviors among adults with low incomes, such as renewal of child care subsidies and enrollment in social assistance programs. Several recent studies provide a more mixed view of the effects of messaging suggesting that it is ineffective alone but may be effective when combined with services and supports.

The U.S Department of Education's Institute of Education Sciences sponsored this study, referred to as Text Ed, to collect evidence on the emerging potential of text messaging to improve college-going among adults from underserved backgrounds. The evaluation of Text Ed is authorized under the Higher Education Opportunity Act as part of an effort to improve the TRIO programs. <sup>15</sup> Exhibit 1 presents more information on the study and its design (see also Sections A and B of the Appendix for additional details). <sup>16</sup>

#### **Exhibit 1. Summary of Study Design**

#### Who participated?

- Eighteen Educational Opportunity Centers (EOCs) across the country recruited in 2017. The study EOCs were similar to the set of 126 EOCs at that time in terms of geographic distribution and the type of institution awarded an EOC grant and that hosted the program (two-year college, four-year college or university, or another kind of organization). See Appendix Exhibit B.1.
- About 3,500 clients, identified by the participating EOCs from among those who contacted the programs for services between spring 2018 and late summer 2020. To be eligible, clients had to be at least 18 years old, have already earned a high school credential, be interested in enrolling in a postsecondary institution, and agree to participate in the study.<sup>17</sup> The study sample was generally similar to EOC clients nationwide: 30 percent were Black, 15 percent were Hispanic, 43 percent were White, 64 percent were women, and on average, clients were 28 years old (see Appendix Exhibit B.3).

#### How was the study conducted?

- Within each EOC, clients were randomly assigned by lottery to either a Text Ed group, which received the
  Text Ed messages in addition to typical EOC services, or to a non-message group, which received typical EOC
  services only.
- The study compared outcomes for the two groups through spring 2021 using statistical (regression) analyses that took into account the demographic characteristics of participating clients. The clients in the Text Ed and non-message groups were similar, on average, across most of the characteristics measured before entry into the study. This suggests that random assignment created similar groups and that any differences in clients' outcomes can be interpreted as the impact or effect of access to Text Ed. See Appendix Exhibit B.3.
- Outcomes for the two groups were compared for the full study sample as well as for several subgroups for whom Text Ed's effects might vary, including groups defined by gender, race and ethnicity, and initial college application and Free Application for Federal Student Aid (FAFSA) status.

#### What outcomes were measured?

- College enrollment, within one year of intended enrollment
- FAFSA completion, within one year of intended college enrollment

#### What data were used?

- National Student Clearinghouse (NSC) and Federal Student Aid data, to measure college enrollment and FAFSA completion
- Data from two technical colleges that do not report to NSC, to measure enrollment at these institutions
- Data from the text messaging platform on text messages sent and received
- Interviews of EOC directors to describe typical client services
- A survey clients completed when they agreed to participate in the study, to collect participant characteristics and information on where they were in the college-going process and where they intended to enroll, if known<sup>18</sup>

## THE TEXT ED MESSAGES DID NOT INCREASE COLLEGE ENROLLMENT AMONG EOC CLIENTS

The messaging provided through Text Ed was intended to affect college enrollment by expanding the follow-up ordinarily provided by EOC staff members. Before the study began, the participating EOCs did not follow up with all clients, and when they did, it was infrequent and rarely via text messaging (see Appendix Exhibits D.1 and D.2). As non-traditionally aged college aspirants, clients may plan to work while in school and may have children, and thus may need additional and more frequent outreach after their initial EOC visit, to complete their college applications, for example, or make childcare arrangements so that they can attend college.<sup>19</sup>

Text Ed offered a relatively inexpensive method of communication with clients after their initial visit. Preprogrammed messages were automatically sent via a messaging platform. The platform also allowed for two-way messaging through which EOC staff members could respond to incoming text messages from clients and send replies to individual clients as needed. In this way, Text Ed allowed EOCs to maintain a low-cost, low-burden connection to clients and to offer support with navigating any remaining barriers to enrollment. The core Text Ed outreach messages addressed steps to college enrollment, provided suggestions on how to address logistical and life issues, and included check-ins to address psychological barriers (see Exhibit 2).

**Exhibit 2. All Text Ed Messaging Modules** 

| Module 0     | Module 1                           | Module 2  | Module 3                            | Module 4                             | Module 5                                   | Module 6              |
|--------------|------------------------------------|---|-------------------------------------|--------------------------------------|--|-----------------------|
| Introduction | College<br>search &<br>application | Free<br>Application<br>for Federal<br>Student Aid | Childcare or<br>general<br>check-in | College and financial aid acceptance | Transportation<br>& work-school<br>balance | College<br>transition |
| Eng          |                                    |   |                                     |                                      |  |                       |

These specific domains were selected because they included key steps in the college-going process (for example, FAFSA completion, college application, and college enrollment) or because they were determined by previous research to be key barriers to college entry for adults (for example, childcare needs and managing work-school balance). The messages attempted to help clients address the specific issue by breaking down the process into simple, action-oriented steps, given earlier research suggesting that text messaging is most effective when focused on the completion of discrete tasks. Exhibit 3 shows text messages encouraging and reminding students to complete their college applications. The messages also provided general support and encouragement, when help with discrete steps was not needed.

#### **Exhibit 3. Text Ed College Enrollment Message Example**

**Part 1:** Hi [PARTICIPANT NAME] - you recently shared with our EOC that you applied to ["school"/INTENDED SCHOOL ABBREVIATION]. We support your decision to go back to school.

**Part 2**: Quick question - have you heard back about acceptance? Please reply YES or NO.

#### **Response to YES**

Terrific! Just to confirm, do you plan to [start classes/start classes at [INTENDED SCHOOL ABBREVIATION]]?

#### Response to NO

Part 1: No problem. Take time now to check the email you used in your application(s). A message may be waiting for you in a spam folder!

Part 2: Sometimes, our [STUDENTS/CLIENTS/PAR TICIPANTS] are unsure about next steps after applying. If you would like to figure it out together, just let me know.

#### No response after 1 day

Part 1: If you haven't heard about your school applications, take time to check the email you used in the application(s). A message may be waiting for you in a spam folder!

Part 2: Sometimes, our [STUDENTS/CLIENTS/PART ICIPANTS] are unsure about next steps after applying. If you would like to figure it out together, just let me know.

NOTE: Text Ed messaging example and automated responses for participants who had applied to their college(s)/program(s), but had not yet heard about acceptance, at the time of study enrollment.

The messages were also customized to clients' needs at the time of study enrollment and throughout the follow-up period. Research from behavioral interventions within and outside of education suggests that messages are more salient to recipients if they are less generic in nature and reflect their individual circumstances. <sup>21</sup> Clients could receive anywhere from 19 to 56 distinct text messages, depending on the number of months before their intended college enrollment and the steps they had already completed at study intake (see Appendix Exhibit D.4). A client who intended to enroll in six months, for example, would receive about six messages each month for six to seven months. See Exhibit 4 for two examples of how messages were customized based on clients' needs.

**Exhibit 4. Examples of Text Ed Messages Customized to Client Needs** 

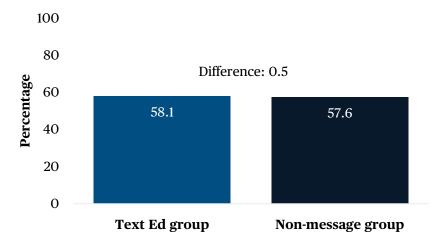
|           | Reason for Educational<br>Opportunity Center (EOC) Visit  | Examples of Text Ed Messages by<br>Module  |
|-----------|---|--|
|           | "I want to go to my local community college within the next year but have absolutely no idea where to start so I came to my local EOC.      | College application: "Here is a checklist of things people do to apply to college. We're here to help. Want to meet? Call the office." |
| Francis   | I don't need childcare, but I plan to<br>work while in school."   | FAFSA: "Pull together the following items to fill out the FAFSA and we can help you fill it out. Call the office for an appointment."  |
| $\Theta$  | "I filled out the FAFSA, completed<br>my college application, and am<br>meeting with a staff member at my<br>local EOC to make sure I'm not | College application: "Great that you applied to college. We'll follow up on next steps with financial aid."                            |
| $\bigcap$ | missing anything.   | FAFSA: "Have you received your student aid report? Do you want to  |
| Winston   | I want to enroll in less than a month and also need to work out childcare during classes. I do not plan to work while in school."           | review it together? Contact the office if you are selected for income verification."   |

NOTE: This figure shows two hypothetical EOC clients and example messages customized based on individual needs and circumstances for two module categories, College search & application and Free Application for Federal Student Aid.

Despite these targeted and personalized messages:

• Text Ed did not increase college enrollment within a year of when clients hoped to matriculate, nor did it have delayed effects. When clients agreed to participate in the study, they indicated their intended date of college enrollment. The main measure of Text Ed's success was whether clients enrolled in college within two semesters of that target date. Within that time frame, about 58 percent of clients in both the Text Ed and non-message group had enrolled in college (Exhibit 5). <sup>22</sup> The study also examined college enrollment over a longer time period but failed to find any potential delayed effects of the messaging. Within four semesters of their target date, about 62 percent of clients in both groups had enrolled in college, indicating little additional enrollment after one year and no effect from Text Ed messaging (see Appendix Exhibit C.5).

**Exhibit 5. Impacts of Text Ed on College Enrollment** 



Enrollment at any college within two semesters of intended college start date

SOURCE: National Student Clearinghouse (NSC) data and enrollment data from two colleges that do not report to NSC.

NOTES: This bar chart shows cross-site averages of the percentage of participants assigned to the Text Ed and non-message groups who enrolled in college within two semesters of intended college enrollment. The difference in enrollment rate between the Text Ed and non-message groups is not statistically significant. Data includes 1,768 clients in the Text Ed Group and 1,767 clients in the non-message group.

In addition to assessing the effects of Text Ed overall, the study explored effects for key subgroups of clients. Prior research suggests, for example, that certain groups, such as men or people of color, may face additional barriers to college attendance. Therefore, these same groups may benefit differentially from text messaging. <sup>23</sup> In addition, clients who had already completed key college-going steps at the time of study enrollment, such as filing their FAFSA or applying to college, may benefit less from the study's text messaging than those who have completed fewer steps. Examining these subgroups is important because, as discussed later, a large number of clients had completed these key steps at study entry, which may have limited Text Ed's potential effects across the total sample. However, the findings indicate that Text Ed did not increase enrollment for any of the studied subgroups of clients (see Appendix Exhibit C.3 for details).

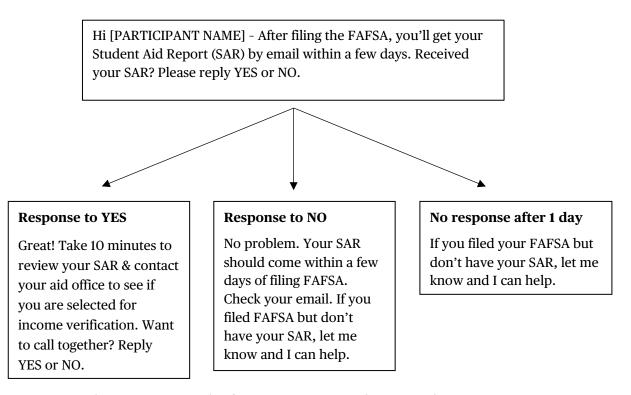
• Text Ed did not have any effect on enrollment at either two- or four-year institutions. The study also examined separately whether Text Ed affected enrollment at two-year and four-year colleges. Students who visit the EOCs with the goal of attending a two-year college, rather than a four-year college, may need more support to enroll, given that they are more likely to work while in school and face other hurdles to enrollment, such as needing childcare. On the other hand, two-year institutions are more likely than four-year institutions to be open access and typically have less intensive application processes, such as shorter applications with no requirements for essays or letters of recommendation. For these reasons, clients seeking to attend four-year colleges may benefit relatively more from Text Ed. Over 90 percent of clients who enrolled in college did so at a two-year institution. However, Text Ed had no effect on that enrollment, or enrollment at four-year colleges (see Appendix Exhibit C.1).

## THE TEXT ED MESSAGES DID NOT INCREASE FAFSA COMPLETION AMONG EOC CLIENTS

Given the importance of financial aid to college attendance among individuals with low incomes, FAFSA completion is a key step in the enrollment process and a major focus of EOC services. <sup>26</sup> Many EOCs help their clients fill out and submit the FAFSA on their initial visit to the center. Even after a client submits a FAFSA, however, substantial follow-up may be necessary before it is considered complete by Federal Student Aid, the office of the U.S. Department of Education responsible for administering the federal financial aid system. For example, some FAFSA filers fail to electronically sign their application. Further, some FAFSA applications that are deemed complete are flagged for "verification," requiring additional follow-up and documentation. <sup>27</sup> Students from low-income backgrounds and those who would qualify for a Pell grant are particularly likely to be selected for verification. <sup>28</sup> Federal Student Aid will not disburse financial aid until a student's FAFSA is complete and verification, if required, is finalized.

Text Ed messaging was designed specifically to increase FAFSA completion and to increase clients' awareness of the potential need to navigate post-submission requirements to ensure completion. For example, Exhibit 6 presents text messages reminding students to look out for their Student Aid Report and offering assistance if they are selected for income verification.

#### Exhibit 6. Text Ed Free Application for Federal Student Aid (FAFSA) Message Example

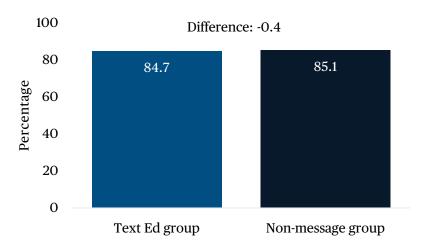


NOTE: Text Ed messaging example of a FAFSA message and automated responses sent to participants who filled out a FAFSA but were waiting on their Student Aid Report (SAR), at the time of study intake.

#### However,

• Text Ed did not increase FAFSA completion within a year of when clients hoped to matriculate, or even a year later. The other key measure of Text Ed's success is clients' completion of the FAFSA within two semesters of intended college enrollment. About 85 percent of the Text Ed and non-message groups completed the FAFSA within this time frame, with no difference between the two groups (Exhibit 7). Historical annual performance reporting data for the participating EOCs had suggested that the completion rate for both groups would be fairly high, though not as high as what occurred in the study. Data for 2015-2016, for example, indicate that just over 70 percent of EOC clients completed a FAFSA within one year of their initial visit. The study also examined FAFSA completion within four semesters of intended college enrollment. About 86 percent of clients in both research groups completed the FAFSA, with no difference between the Text Ed and non-message group (see Appendix Exhibit C.9). Text Ed also did not increase FAFSA completion rates for any studied subgroup of clients (see Appendix Exhibit C.7).

Exhibit 7. Impacts of Text Ed on Free Application for Federal Student Aid (FAFSA) Completion



Completed FAFSA within two semesters of intended college enrollment date

SOURCE: Federal Student Aid data.

NOTES: This bar chart shows cross-site averages of the percentage of participants assigned to the Text Ed group and non-message groups who completed the FAFSA within two semesters of intended college enrollment. The difference in enrollment rate between the Text Ed and non-message groups is not statistically significant. Data includes 1,768 clients in the Text Ed group and 1,767 clients in the non-message group.

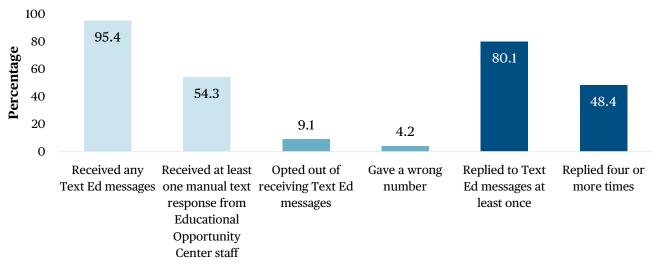
• Text Ed did not affect other FAFSA-related outcomes. The study also examined effects on other FAFSA outcomes—including FAFSA submission, rejection, verification request, and the receipt of aid—to assess whether Text Ed messaging helped clients with potential post-submission steps in the financial aid process. Text Ed did not affect any of these outcomes (see Appendix Exhibits C.6 and C.10).

## TEXT ED WAS IMPLEMENTED AS PLANNED, PROVIDING AN ADDITIONAL WAY FOR EOCS TO COMMUNICATE WITH CLIENTS

Despite showing no effects in this study, previous research suggests that text messaging can be a potentially effective strategy to address barriers to college entry and can increase enrollment for certain groups.<sup>29</sup> Examining whether Text Ed was implemented as intended and the context in which it operated may help to understand the lack of effects and suggest areas for improvement.

• Text Ed's messages were sent as intended, and most clients responded at least once. Participants received, on average, the expected number of messages. The number of messages a client should have received depended on the length of time between study entry and intended college enrollment. For example, over 60 percent of clients intended to enroll in college between one and nine months after study entry. This group should have received between 33 and 56 messages, depending on their unique personal circumstances (for example, what steps they had completed in the FAFSA process or whether they needed childcare). Clients in this group received 39 distinct text messages, on average over the course of the program, ranging from a low of 0 to a high of 57 (see Appendix Exhibit D.4). Just over 95 percent of clients were sent at least one text message (Exhibit 8). Few participants (9 percent) opted out of receiving messages from Text Ed immediately after receiving their first message. Text messages from the clients themselves are one indication that they are reading, reacting to, and potentially acting upon the pre-programmed messages. Four out of five clients texted back at least once, and nearly half replied four or more times (Exhibit 8). On average, clients responded six times. Text messages from staff members provide additional insight into the extent to which the program opened a new channel of communication between EOC staff members and clients. More than half of Text Ed participants received a manual (not pre-programmed) text message from their EOC staff member (see Exhibit 8).

**Exhibit 8. Receipt of and Response to Text Ed Messages Among Participants** in Text Ed Group



**Text Ed Group Participants** 

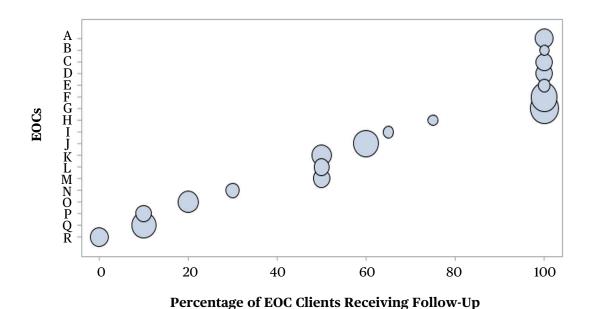
SOURCE: Text Ed messaging data from SignalVine.

NOTES: This bar chart shows the percentage of participants within the Text Ed group who received and replied to messages, as well as the percentage who gave a wrong number and the percentage who opted out of the program immediately after receiving their first message. The sample size is 1,768 clients in the Text Ed group.

• The participating EOCs routinely conducted either general or strategic follow-up with their clients during the study period, suggesting that many clients in the non-message group may have received some follow-up that was similar to the Text Ed communication, although less frequently and through a different mode. Text messaging implemented through Text Ed represented a new mode of communication for the participating EOCs. Only 5 of the 18 sites had previously used text messaging to communicate with their clients, and none had used a messaging platform. Instead, EOCs reported relying on more traditional modes of communication (including email, phone calls, and paper letters) to conduct proactive follow-up with clients after the initial meeting. Thus, it was anticipated at the outset that Text Ed's addition of a new low-cost, low-burden mode of communication could increase the amount and customization of communication between EOC staff members and clients, such that those in the text message group received advising support that was significantly different from what EOCs typically provide and that the non-message group received.

However, there was more variation than expected in the typical follow-up reported by sites. Exhibit 9 plots directors' estimates of the percentage of clients typically receiving some follow-up, with each circle representing one EOC. The size of each circle is proportional to the number of study clients each EOC serves, indicating the approximate fraction of the total study sample estimated to have received some type of follow-up after the initial visit, per the EOC's typical practices. The exhibit illustrates that 10 of the 18 participating EOCs reported conducting follow-up with at least 60 percent of their clients. This includes seven sites that reported typically following up with 100 percent of clients; cumulatively, these seven sites serve a large fraction of the clients in the study (44 percent, not shown in Exhibit 9).

Exhibit 9. Share of Clients that Receive Follow-Up After Initial Meeting, as Part of Typical Educational Opportunity Center (EOC) Services, by Study Site



SOURCE: Interviews with EOC directors.

NOTES: This figure shows directors' estimates of the percentage of clients per EOC site who receive proactive follow-up from EOC staff members after their first interaction. Each dot represents one participating EOC, and the size of the dots corresponds to the number of study participants at that EOC. There are 18 EOCs in the sample.

In addition, data collected from interviews with EOC directors indicated that they followed up with clients with varying degrees of customization. For example, one site reported that "every client will get an email and follow-up letter," although not tailored to their individual status, whereas another site reported more personalization in follow-up, in that all clients receive some follow-up "to see if they achieved what they set out to achieve." For the 11 sites that did not report proactively reaching out to all clients, they reported that their follow-up is more strategic, targeted, and customized. For example, seven EOCs reported conducting follow-up targeted to an incomplete task, such as completing the FAFSA and/or college applications. Finally, although not measurable with the study data, it is possible that clients received support and guidance from other sources, such as their intended colleges. This outreach from EOC staff members and potential colleges, if it occurred, may have meant that the Text Ed messaging did not add much above and beyond the support clients were already receiving and, in turn, may explain the lack of impacts observed.

# MANY CLIENTS HAD ALREADY COMPLETED KEY COLLEGE-GOING TASKS TARGETED BY TEXT ED YET DID NOT ENROLL IN COLLEGE, SUGGESTING THAT TEXT MESSAGING DID NOT ADDRESS THEIR BARRIERS TO ENROLLMENT

- When clients began participating in the study, many had already completed their FAFSA and applied to college, leaving less room for Text Ed to improve upon these outcomes. Eighty-five percent of all clients reported at the start of the study that they had applied to college, and 73 percent of clients reported that they had completed the FAFSA (Exhibit B.3). These high rates of FAFSA completion and college application may reflect that the clients who voluntarily chose to participate in the study and receive Text Ed messages were already highly motivated to attend college. Or it may signal that the application support clients received at their first meeting with EOC staff was successful at achieving these core program milestones.
  - Although Text Ed messages were tailored to reflect clients' progress, those who had already completed key college-going tasks may have had fewer areas in which Text Ed could be helpful. Messages about college application, for example, asked if the client had heard back from the college and offered help with next steps to enrollment. Messages about FAFSA asked whether the client received their Student Aid Report and offered help if they receive an income verification request. Nevertheless, the high rates of completion offered less room for Text Ed to increase these outcomes, which are key tasks in the college enrollment process. In addition, the messaging for those who had completed these tasks was supportive in nature, offering congratulations on completion, but did not prompt the completion of any other discrete tasks.
- However, many clients, including those who had completed these key college-going steps, did not enroll in college within a year, suggesting that their challenges to enrollment were not addressed by Text Ed or by regular EOC support. Among clients who had already applied to college at the start of the study, for example, only about 60 percent went on to matriculate within a year of intended enrollment (see Appendix Exhibit C.3). For this group that had already applied to college, the remaining tasks potentially addressed by Text Ed included childcare and help with finding a work-school balance. Many clients reported planning to work while in school and some reported needing childcare to attend (75 percent and 16 percent, respectively; see Appendix Exhibit B.3). Those who reported childcare needs were sent messages that included an offer to answer questions and provide information on local resources to help find and pay for childcare arrangements. Those who planned to work while in school were sent messages encouraging them to plan ahead to manage their schedules. However, text messages have been shown to be most effective when they focus on the completion of discrete tasks. For clients needing childcare, for example, messages that focused on scheduling appointments to meet with providers or submitting paperwork documenting eligibility for childcare subsidies, may have been more helpful.

## POTENTIAL LESSONS FOR ADDRESSING BARRIERS TO COLLEGE ENROLLMENT AMONG UNDERSERVED ADULTS

The findings add to the evidence that text messaging and nudges by themselves are not effective at increasing college enrollment. Despite the early promise of text messaging to support college-going behavior among adults, the lack of effects presented here align with those from a recent set of studies focusing on students of traditional college-going age.<sup>34</sup>

Structural barriers to college enrollment, which are less likely to be addressed via text messaging, may also exist. Nudges to complete tasks rest on the assumption that informational, procedural, or attention barriers exist to college enrollment and that low-touch interventions, such as information provision or reminders, will be sufficient to help individuals overcome these barriers. While these assumptions may hold in some contexts and for some groups of potential students, they may be less applicable in the context of EOCs. EOCs serve adults motivated to enroll in college, many of whom do not achieve this goal. This is true even among those who have taken key steps on the path to enrollment. Those who do not enroll likely face structural barriers that nudging alone cannot address, such as an inability to cover the cost of enrollment, unstable childcare arrangements, or lack of transportation.

Text messaging may need to be combined with additional services and supports in order to be effective. Although text-based nudging alone may be insufficient for supporting EOC clients to overcome the structural barriers that they face, nudging combined with structural supports may hold promise. Two recent studies support this idea. In one study of a program to support reenrollment among community college students, text-based outreach to provide information about the reenrollment process had no effect on enrollment, but this outreach combined with the offer of a one-course tuition waiver did increase enrollment.35 Although not formally tested, it is possible that the text-based outreach increased the impact of the tuition waiver. In another study, outreach to Unemployment Insurance recipients on their likely eligibility for financial aid was found to increase post-secondary training enrollment, and the authors posit that the effects were due to additional information plus assistance from workforce center staff members in accessing training and financial aid. <sup>36</sup> This research suggests that there may still be a role for text-based communication in combination with other supports. Text messaging remains a low-cost way for EOCs to keep in touch with their clients and to provide guidance on accessing additional supports. If additional financial aid were available, for example, text messaging may be helpful to support the completion of the steps required to obtain it. More generally, text messaging may be an effective strategy to remind clients of meetings with service providers, to encourage them to fill out needed paperwork for benefits, or to confirm their plans to attend important events.

More research is needed on the specific barriers facing underserved adults who aspire to attend college. A critical precursor to the design of effective communication and supports is to more fully understand the barriers that EOC clients face to timely enrollment, even once they have accomplished key college-going tasks such as completing their FAFSA and college applications. Only in understanding these barriers can appropriate programmatic responses be designed and implemented.

#### **ENDNOTES**

- <sup>1</sup> Economic Policy Institute (2021); Autor (2014).
- <sup>2</sup> U.S. Department of Education (2020b).
- <sup>3</sup> See, for example, Black and Huelsman (2012).
- <sup>4</sup> Kena, et al. (2015). The comparison made in the text is between students in the lowest quartile of socio-economic status and those in the highest quartile. Socio-economic status is defined using data on parents' education level, occupation, and income.
- <sup>5</sup> Chov (2002); Ross-Gordon (2011); Johnson, Rochkind, Ott, and DuPont (2009).
- <sup>6</sup> Harackiewicz, Tibbetts, Canning, and Hyde (2014).
- <sup>7</sup> U.S. Department of Education (2022a). Objective 1.4 of the Department's Strategic Plan seeks to "promote greater access and supports for youth and adults to engage in learning, succeed in postsecondary education, and increase their employability in high-demand occupations."
- <sup>8</sup> U.S. Department of Education (2020a).
- <sup>9</sup> See The Higher Education Act (HEA §402F; 20 U.S.C. §1070a-16; 34 C.F.R. 644.4) for a list of permitted services (https://www.ecfr.gov/current/title-34/subtitle-B/chapter-VI/part-644/subpart-A/section-644.4). See U.S. Department of Education (2002) for information on clients served and the services provided by EOCs during the 1999-2000 year. To our knowledge, no other study has examined EOC services nationally since that time.
- <sup>10</sup> U.S. Department of Education (2022b).
- <sup>11</sup> Castleman and Page (2015).
- <sup>12</sup> Castleman and Page (2016); Page, Castleman and Meyer (2020).
- <sup>13</sup> Mayer, Calmeyer, Cullinan, and Patterson. (2015); Dechausay, Anzalone, and Reardon (2015); Bhargava and Manoli (2015).
- <sup>14</sup> Bird et al. (2021); Linkow et al. (2021); Gurantz et al. (2019); Ortagus, Tanner, and McFarlin (2021); and Barr and Turner (2018).
- <sup>15</sup> The Higher Education Opportunity Act of 2008 (Section 402(H)) authorized the Secretary of Education to make grants or enter into contracts to rigorously evaluate the effectiveness of strategies and practices supported under TRIO programs.
- 16 Miller et al. (2023).
- <sup>17</sup> Although individuals must be at least 19 years old to be eligible for EOC services, the EOC is permitted to serve younger individuals if there is no Talent Search program in their local area. Talent Search is a Federal TRIO program providing academic, career, and financial counseling services to youth from disadvantaged backgrounds with the goal of encouraging them to complete high school and enroll in college. Eligible participants must be between the ages of 11 and 27.
- <sup>18</sup> A follow-up survey was not sent to clients, given that they were dispersed throughout the country and had likely lost touch with the EOCs. Tracking clients and encouraging survey responses would have been challenging and costly.
- <sup>19</sup> Cruse et al. (2019) and Taliaferro and Duke-Benfield (2016) document the challenges of work and family faced by non-traditionally aged college students.

- <sup>20</sup> Choy (2002); Ross-Gordon (2011).
- <sup>21</sup> Garner (2005); Avery et al. (2021).
- <sup>22</sup> Exhibit 5 presents enrollment rates using data from the National Student Clearinghouse (NSC) and enrollment data from two technical colleges that two participating EOCs help their clients attend but that do not report to the NSC. Findings are similar when using Federal Student Aid data to capture enrollment at colleges that do not report to the NSC (see Appendix Exhibit C.2).
- <sup>23</sup> See, for example, Page and Scott-Clayton (2016).
- <sup>24</sup> Ma and Baum (2016) document that students enrolled in two-year colleges are more likely to work and have children than students enrolled in four-year colleges, suggesting that EOC clients aiming to attend two-year colleges may face similar hurdles.
- <sup>25</sup> The average community college acceptance rate for 2023 was 80 percent, with many colleges accepting all applicants (see <a href="https://www.communitycollegereview.com/acceptance-rate-stats/national-data">https://www.communitycollegereview.com/acceptance-rate-stats/national-data</a>). See <a href="https://blog.prepscholar.com/how-to-apply-for-community-college">https://blog.prepscholar.com/how-to-apply-for-community-college</a> for information on the typical steps needed to apply to community colleges.
- <sup>26</sup> See, for example, Bettinger, Long, Oreopoulos, and Sanbonmatsu (2012) and Dynarski (2003).
- <sup>27</sup> Guzman-Alvarez and Page (2020).
- <sup>28</sup> Wiederspan (2019).
- <sup>29</sup> Castleman and Page (2015; 2016); Page, Castleman, and Meyer (2020).
- <sup>30</sup> Clients who provided a wrong number did not receive any messages, nor did clients who were affected by a programming error (see Appendix Exhibit D.5 for information on the number of participants in each of these categories, across all clients in the Text Ed group).
- <sup>31</sup> An additional 7 percent to 9 percent of clients, depending on Text Ed version, opted to stop receiving messages at some point after the second message (see Appendix Exhibit D.5).
- <sup>32</sup> To determine childcare needs, clients were asked at the start of the study whether they needed childcare to attend school. It is likely that many more clients had children but did not respond yes to this question if they had childcare at the time. However, they may have needed help with childcare issues at some point and perhaps would have benefited from receiving messages in this module.
- <sup>33</sup> Page, Castleman, and Meyer (2020).
- <sup>34</sup> See Bird et al. (2021); Linkow et al. (2021); and Gurantz et al. (2019).
- <sup>35</sup> Ortagus, Tanner, and McFarlin (2021)
- <sup>36</sup> Barr and Turner (2018).

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#### DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

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