A text-messaging pilot project at a Southern California community college provided strategic nudges and an interactive financial aid platform via mobile phone to more than 1000 students who opted in to the program. Students who participated in the study during the 2017-18 academic year had higher financial aid awards ($4,148 compared to an average award of $3,455). Short-term findings from the study and prior research suggest that text messaging is a user-friendly and cost-effective way to provide timely information to students who need more resources for navigating complex financial aid processes.

TOPLINES

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Administrative hurdles during the application process, as well as incomplete or unsubmitted FAFSAs, are students’ primary obstacles to aid (Campbell, Deil-Amen & Rios-Aguilar, 2015). A key step in this complex process is known as verification, in which the U.S. Department of Education randomly selects students from every college to ensure their FAFSA information is accurate. The information in question can include household size, number of family members in college, food stamp receipt, child support paid, adjusted gross income, taxes paid and several untaxed income items.

At Streamline Community College, among those financial aid applicants identified for additional verification in 2017-18, only 27% successfully completed the verification process (see Figure 1).

Beyond verification, students must also navigate state and college websites to accept the terms and conditions of their awards and to sign up for direct deposit. Currently, there are no standardized procedures for financial aid verification, award request and receipt; each college creates its own forms and processes. In summary, although the FAFSA is often the first in a series of steps faced by community college students navigating the financial aid system, a host of challenges and obstacles exist for students seeking support for their studies. Reported challenges in this study, and in other research, include submission of multiple forms (e.g., Cal Grant, California College Promise Grant (CCPG), Pell Grants, etc.), student record verification, and knowledge of eligibility requirements. Effective communication about processes and deadlines from college aid offices to their diverse student populations can help to promote enrollment, persistence, and eventual success in four-year transfer and degree or certificate completion.

Researchers and campus administrators have identified text messaging as a means of transmitting critical and timely financial aid information directly to students. Students at two-year colleges are disproportionately burdened by complexities in the financial aid application process because too often students in this sector get asked to fill out many extra forms to “prove” their unique circumstances and/or to demonstrate their need for financial aid, and existing evidence suggests that similar texting initiatives could help tens of thousands of community college students in California with financial aid information and access. This study uses a common method of reaching students by

**WHAT IS “STRATEGIC NUDGING”?**

As described by Thaler and Sunstein (2008) in their book *Nudge*, a nudge delivers a message or presents options in a way that encourages people to improve their behaviors yet provides them freedom to act. The smartest nudges go beyond reminders, using knowledge from human behavior to persuade the recipient to make better choices. In our case, to help community college students follow through on their academic goals and intentions to obtain financial aid, we prompted them to form plans that included specific details and timelines of when and where they could complete a desired behavior.

Castleman and Page (2015) conducted a study using a text messaging platform that enabled institutions to contact students about submitting and renewing their FAFSA using frequent reminders or ‘nudges’. Their study measured the effect of sending text reminders regarding annual FAFSA renewal to first-year community college students who were already receiving financial aid. The text messages provided information about deadlines and available help, as well as access to in-person assistance. Participants showed increased persistence into the second year of college by 11 percentage points over the 64% persistence rate for non-texting students.

Similar initiatives suggest that well-designed nudges are effective in complex decision making environments. Borrowing from these principles of behavioral economics, community colleges can improve how they present financial aid information and related processes to students and families.
providing strategic nudges paired with an interactive financial aid “chat bot” accessible by mobile phone for students at Streamline College.

Our Approach
Our study explores the potential of a text messaging platform to improve the financial aid process among the most vulnerable groups of community college students. This project extends prior research on nudges in higher education in important ways. First, it represents a collaboration among researchers, Streamline College and its students, and JetSense.ai—the company that developed the text messaging platform and that funded the study. Typically, colleges buy technology but have little opportunity to inform and work with companies on important product improvements. Here, the research team had multiple opportunities to modify the content of nudges and the information provided through an interactive text function. We also sought student feedback on message content and relevance throughout the study. Finally, we made extra efforts to reach under-represented groups, including first-generation and minority students.

Study Details
We designed a mixed-methods study to explore whether and how a text messaging platform could help community college students navigate the financial aid process more effectively. In the spring and summer of 2017, we worked with Streamline College’s office of financial aid to identify challenges in supporting students, 64% of whom were not completing the FAFSA. Of the FAFSA completers, 73% were not completing verification. (Figure 1)

We invited all potential and currently enrolled students at the college to participate in the study and receive the interactive financial aid tool and related nudges through a text messaging platform. 1,131 out of 16,168 enrolled students agreed to participate in the study for the 2017-18 academic year. Of those participating, 27% were first-year students. The demographic characteristics of participants closely resemble those of the college overall, with the majority from low-income backgrounds and the first in their families to attend college.

Figure 1
Financial aid process at Streamline Community College.

2017–2018 FINANCIAL AID DATA

| Applications Submitted | N=19,551 |
| Complete Applications – No Verification | (54%) |
| Complete Applications – Flagged for Verification | (41%) |
| Rejected Applications | (5%) |
| Completed Verification | (27%) |
| Incomplete Verification | (73%) |

STUDENT EXPERIENCES WITH NUDGES

“This is why the text messaging thing is so good because everyone is on their phone now and like it’s a text message and you are eventually going to check. What is the first thing you do when you wake up? Grab your phone and check out what you have been missing.”

JASMINE

“It is a lot easier to see a text message rather than an email.”

MAURICIO

“Yeah it actually reminded me. I forget about these [tax] papers, so it did help.”

WILLIAM
Borrowing from the principles of behavioral economics, community colleges can improve how they present financial aid information and related processes to students and families.

**How the Platform Works**

When students receive the initial text nudge on their mobile phone, they see a numbered main menu (see Figure 2). The menu prompts them to text as follows:

- “1” for specific financial aid information and dates
- “2” for FASFA application and eligibility
- “3” for Cal Grant information,
- “4” for information about the college’s nursing program (added because the college sought outreach to this particular group of students.)

**Figure 2**
Platform example screenshots.
At any point a student can text “0” to return to this menu. While not fully artificially intelligent or directly responsive to communications outside defined numerical options, the platform feedback resembles an interactive “chat bot” in the sense that students are directed to common sources of financial aid information through a series of prompts. In addition to offering these options, participants are nudged periodically, in coordination with financial aid administrators, about pending verification requirements and available assistance to meet those requirements. (Table 1)

### Table 1
Strategic nudges in the financial aid process.

<table>
<thead>
<tr>
<th>DATE</th>
<th>NUDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/6/17</td>
<td>“Students, please submit your FASFA or Dream Act application by July 12 to make sure everything is processed before classes start Fall.”</td>
</tr>
<tr>
<td>7/28/17</td>
<td>“This is Streamline College! Check your online profile to review your requirements needed to process your financial aid. Review at <a href="https://streamline/login.edu.%E2%80%9D">https://streamline/login.edu.”</a></td>
</tr>
<tr>
<td>8/31/17</td>
<td>“This is Streamline College! Check your online profile to review your requirements needed to process your financial aid. Review at <a href="https://streamline/login.edu.%E2%80%9D">https://streamline/login.edu.”</a></td>
</tr>
<tr>
<td>10/5/17</td>
<td>“Have you received your financial aid for the current school year? Review at <a href="https://streamline/login.edu">https://streamline/login.edu</a>. It is now time to complete your 2018-2019 FASFA! Fill out at <a href="https://fasfa.gov/.%E2%80%9D">https://fasfa.gov/.”</a></td>
</tr>
<tr>
<td>11/17/17</td>
<td>“You are at risk of losing a portion of your financial aid. Please contact Streamline Staff, (000) 000-0000, ASAP to maintain your financial aid.”</td>
</tr>
<tr>
<td>1/16/18</td>
<td>“Get help applying for Financial Aid for 17-18 school year on February 3, 2017 at 9 am, Streamline Café.”</td>
</tr>
<tr>
<td>1/16/18</td>
<td>“Emergency grant funds available for Dreamer students. Contact Streamline Staff in Financial Aid Office.”</td>
</tr>
</tbody>
</table>

User-friendly approaches such as text messaging leverage the ways that students actually communicate.
Challenges Faced
Implementation of the intervention was subject to a number of administrative barriers. Lack of complete and accurate student cell phone data, for example, meant students received invitations to participate somewhat arbitrarily throughout the summer of 2017 as phone numbers were added to a master list. In addition, obtaining and merging administrative data from four separate databases – financial aid, enrollment applications, Banner (the system that feeds the database of student records and information for colleges) and the text messaging platform -- posed challenges for both researchers and college staff.

Engagement with the Financial Aid Platform
Of 1,131 students who agreed to participate in the study, 46 percent engaged with the financial aid chat bot. Figure 3 shows that more than a quarter of students who engaged (28 percent) were interested in the FASFA application and eligibility requirements, while others sought financial aid information from the College (e.g., key dates, website, forms, and disbursement info) (21 percent), the Cal Grant program (13 percent), and information about financial aid for the school's nursing program (3 percent). Eleven percent of students engaged multiple times and obtained information from several menus.

Figure 3
Financial aid platform interests. (N=520)
For students who selected the “FAFSA Application and Eligibility” option, most were interested in obtaining information on how to access the application, key dates regarding the application, and the Pell Grant. Others selected items for information about the FAFSA ID and dependency status. Students who engaged with the “Cal Grant” option were most concerned about general information and the Cal Grant B, specifically. Overall, student engagement with the interactive platform suggested specific gaps in knowledge of financial aid and the application process.

**Relationship Between Award Amount and Nudges**

Findings indicate that both groups of students, those who only receive nudges and those who received nudges and engaged with the financial aid information platform, had higher financial aid awards than those who did not participate in the study. As nudges and engagement with the platform occurred before, during, and after financial aid disbursement, and students self-selected into these groups, we cannot conclude that there is a causal relationship between texting engagement and amount of financial aid accepted. It is possible that engaging with the platform is simply an indication that participating students are already motivated to make sure they receive their aid on time. Nevertheless, students who engaged in the platform received slightly higher average awards, $4,148 compared to $3,455 for students who did not engage with the text message platform. Thus, even among more motivated students, there is indication that nudges contribute to higher award receipt, likely the result of improved information and understanding of financial aid processes and awards. Figure 4 shows the distribution of financial aid awards during the 2017-2018 academic year for students who engaged with the platform and for those who did not engage.

**Figure 4**
Lastly, results indicated that students who engaged in the platform, on average, received $122 dollars more per semester than those who did not, after controlling for race/ethnicity, gender, student status (first-time and continuing student), family income, units earned, and total GPA. This low-cost technology holds promise for helping students complete their FAFSA application on time, navigate the verification process more effectively, and receive more financial aid.

**Assessing Impact**

This project revealed that many students are eager for more information about how to navigate the financial aid process more effectively. User-friendly approaches such as text messaging leverage the ways that students actually communicate. Simplifying and de-mystifying financial aid processes can improve student access to aid, thus improving academic success and degree completion. Through strategic text nudges, the financial aid process may become more accessible and navigable. Future analysis from this study will examine the relationship between strategic nudges and academic outcomes, including GPA, persistence, and completion.

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1 A pseudonym is used throughout this brief to maintain the anonymity of this community college in Southern California.

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