Longitudinal research has demonstrated that completing the Free Application for Federal Student Aid (FAFSA) continues to be a problem that postsecondary students face in the United States (Asher, 2007; Boatman & Evans, 2017; Castleman & Page, 2017; Feeney & Heroff, 2013; Goldrick-Rab, 2016; Kantrowitz, 2011; Kofoed, 2017; Novak & McKinney, 2011; Taylor & Bicak, 2019). In fact, recent reports suggest 661,000 members of the 2018 high school graduating class did not complete the FAFSA, resulting in $2.6 billion in unclaimed Pell Grants (Helhoski, 2018).

Failing to complete the FAFSA has been found to be problematic, as not only has the receipt of federal financial aid been associated with greater levels of postsecondary enrollment (Chen & Hossler, 2017; Kofoed, 2017), but continuing students who complete the FAFSA have been found to persist at higher levels than peers who do not complete the FAFSA (Denning, 2018; McKinney & Novak, 2013). Given this issue, researchers have investigated how socioeconomic status (Levine & Nediffer, 1996; Novak & McKinney, 2011; Ziskin, Fischer, Torres, Pellicciotti, & Player-Sanders, 2014), non-traditional student status (Chen & Hossler, 2017; McKinney & Novak, 2015; Osam, Bergman, & Cumberland, 2017), financial aid literacy (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012; Boatman & Evans, 2017; Castleman & Page, 2016), and other personal and social factors influence whether or not a student completes the FAFSA.

For years, many of the same researchers have criticized the FAFSA for being overly complicated, thus deterring students and their support networks (e.g., parents,
siblings, extended family members, friends, teachers) from completing the FAFSA (Asher, 2007; Bettinger et al., 2009; Castleman & Page, 2016; Dynarski & Scott-Clayton, 2008; Kantrowitz, 2011; McKinney & Novak, 2015). Related to the complexity of the federal financial aid process, Burd et al. (2018) analyzed over 11,00 financial aid award letters and found these letters often contained complex jargon, lacked definitions of key terminology, and failed to differentiate between different types of financial aid. Instances of this jargon include “unsubsidized loan,” “SEOG,” “net cost,” “board,” “unmet need,” “COA,” “indirect costs,” and “PLUS” (Burd et al., 2018, pp. 16–19). In a study of adult learners and their knowledge of financial aid jargon, Taylor and Bicak (2019) learned that many adult students—ages 24 and older—were not familiar with jargon terms such as “FAFSA,” “master promissory note,” “entrance counseling,” and “4506-T” (p. 12). From here, research has demonstrated both applying for and receiving federal financial aid may be too complicated for current and prospective students—and their support networks—to understand.

As a result, this study will explore an unexamined element of the federal financial aid process: institutional language used to communicate the federal financial aid process to current and prospective students with a focus on jargon, or, words or phrases that are used by a particular group or profession that are difficult for non-group members and non-professionals to understand. Burd et al. (2018) demonstrated that colleges and universities often communicate federal aid awards in an overly complicated, jargon-heavy manner, leaving the researchers to ask, “Why are financial aid award letters so difficult for students and families to decipher?” (p. 7). To build upon Burd et al.’s (2018)
work, this study will answer two primary research questions related to financial aid jargon:

R1: What financial aid jargon terms do prospective students not understand?

R2: Are there statistically significant differences in financial aid jargon knowledge between groups (race, gender, age, income, religion, spoken languages, first-generation status)?

In a survey of 1,230 prospective postsecondary students looking to apply to an institution of higher education in the United States in fall 2018, this study will articulate which financial aid jargon terms are unfamiliar to these students. Learning what financial aid jargon is unfamiliar to prospective students will provide student financial aid officers, financial literacy professionals, and students and their support networks with the opportunity to specifically target unfamiliar concepts of the financial aid application process. Ideally, this will increase FAFSA completion rates, postsecondary enrollment, and postsecondary persistence.

1. Literature Review

Researchers across a variety of fields have explored the topic of federal student aid application processes, completion rates, and the effect of receiving federal aid as it relates to postsecondary application, enrollment, persistence, and graduation. Reviewing this entire body of literature is unnecessary for the purposes of this study. Alternatively, this literature review will focus on what researchers have found to be complicated about the federal aid application process.

In 2007, Asher suggested the federal financial aid process be simplified, starting with cutting 31 questions from the FAFSA that could have their answers populated by
federal processes and not the applicant during the process. In Asher’s (2007) report, they included several “Terms to Know,” including “FAFSA,” “EFC” or Estimated Family Contribution, and “SAR” or Student Aid Report (pp. 6–7). Many of Asher’s (2007) findings were echoed by Dynarski and Scott-Clayton (2008), who suggested that many questions on the FAFSA were much more complicated than believed to be, resulting in the FAFSA process taking too long for students even with help from their parents or support networks. Similarly, Kantrowitz (2011) explained that the FAFSA was too long and complicated for many students and their families to complete in one sitting, leading students to forgo the financial aid application process and choose to pay for their education in different ways or abandon postsecondary education entirely.

Still, despite repeated simplification efforts by the Obama administration to reduce the number of questions on the FAFSA (The White House, 2015) and incorporate the IRS data retrieval tool into the application to streamline the process (Internal Revenue Service, 2018), the FAFSA remained uncompleted by thousands of postsecondary students in 2018. This stresses that the time-related issues with the FAFSA were not the sole, or even most important, barrier to completion.

Multiple researchers have investigated the role of financial literacy in the financial aid application process, finding that students often benefit from greater levels of financial literacy (Boatman & Evans, 2017) and financial counseling (Bettinger et al., 2012), which results in being more familiar with banks, knowing how to build credit, and understanding different types of investments. Other researchers have investigated the role of nudging, or the act of providing students with financial aid reminders during the spring months in hopes that students remember to complete the FAFSA and reach out for help if
necessary (Castleman & Page, 2015, 2016). However, to date, financial aid nudging and financial literacy programs have not been implemented at a national scale to evaluate their efficiency or effectiveness, although these programs hold promise.

Beyond interventions, Feeney and Heroff (2013) investigated the financial aid application experiences of low-income students and learned that students who were higher achieving students in high school (measured by grade-point averages) and had at least one parent who attended college were more likely to complete the FAFSA on time than peers. McKinney and Novak (2015) articulated similar findings, suggesting students of color and low-income students often do not complete the FAFSA on time compared to peers, leading to lower enrollment rates.

Ultimately, Burd et al.’s (2018) study of financial aid award letters was the first of its kind to interrogate the language of financial aid. In an analysis of thousands of financial aid award letters, Burd et al. found the letters contained confusing jargon, as “Of the 455 colleges that offered an unsubsidized student loan, we found 136 unique terms for that loan, including 24 that did not include the word ‘loan’” (2018, para. 5). As a result, these researchers called for federal policymakers to conduct consumer testing to evaluate the clarity of financial aid-related materials. These researchers urged, “State governments should adopt common award letter terms, calculations, and formats across their systems of higher education” and institutions should “develop more student-centered financial aid offers and tools, as well as align their efforts with other key departments serving student financial needs” (Burd et al., 2018, para. 12).

Beyond Burd et al.’s (2018) work which was focused on the language of financial aid, Taylor and Bicak (2019) recently extended this study and explored the financial aid
knowledge held by prospective and current adult learners in U.S. higher education. Their results suggested that most adult learners understood basic financial aid jargon terms such as “aid,” “loan,” and “scholarship.” However, their study also indicated that over 35% of the overall sample in their study (n=813) did not understand other basic financial aid jargon terms, such as “FAFSA,” “master promissory note,” and “entrance counseling.” As a result, this study answers Burd et al.’s (2018) and Taylor and Bicak’s (2019) call to action, evaluating the student-centeredness of institutional financial aid application materials.

Methodology

The following sections will explain how the population and this study’s sample was identified, how the survey was developed and administered, how data were analyzed, and how the research team addressed the limitations of the work.

2.1 Population and Sample

Recent estimates suggest there are nearly 80 million U.S. adults who have earned a high school diploma but have not earned a postsecondary credential (Blumenstyk, 2018) with another 3.9 million graduating from U.S. high schools in 2017-2018 (National Center for Education Statistics, 2018). Given these figures, the research team considered 85 million as a hypothetical population of prospective postsecondary students (aged 18 or over). After a statistical power analysis to calculate sample size (95% confidence level, interval of 5), the research team learned the survey would require nearly 400 respondents for statistical significance and subsequent quantitative analysis. We ultimately collected 1,230 responses to comprise the sample for this study and will elaborate upon this figure in section 2.3.
2.2 Survey Development

As the first survey of its kind to measure prospective postsecondary student familiarity with financial aid jargon, the research team adopted an experimental approach to survey development.

To assess prospective students’ familiarity with financial aid jargon in an efficient manner but to produce a large, nationally representative dataset, the research team experimented with the type of information presented to prospective students prior to survey completion. As part of a pilot study and previous research project, the research team had gathered federal financial aid application instructions published on the institutional .edu websites from a random sample of 340 four-year, bachelor’s degree-granting U.S. institutions of higher education. The research team acknowledged that different institutions may compose federal financial aid application instructions differently, and there is currently no federal mandate to standardize the types of information published on institutional .edu financial aid websites. As a result, the research team decided to employ a random number generator and randomly select one text from each institution type (public, private non-profit, private for-profit), written in different lengths, and written at different grade-level English readability levels. This strategy was employed most recently by Taylor and Bicak (2019) to explore the level of financial aid knowledge held by prospective and current adult learners in U.S. higher education.

To calculate readability levels, the research team triangulated four different English language readability measures and averaged them, akin to prior research of higher education texts (Taylor 2018a, 2018b, 2018c, 2018d; Taylor & Bicak, 2019). Text
one belonged to a large (90,000+ total enrolled students in 2017-2018), private for-profit institution and was written at the 11.5th-grade English reading comprehension (readability) level in 434 words. Text two belonged to a medium-sized (7,000+ total enrolled students in 2017-2018), private non-profit institution and was written at the 13.3rd-grade readability level in 520 words. Text three belonged to a large (50,000+ total enrolled students in 2017-2018), public institution of higher education and was written at the 16.4th-grade readability level in 373 words. Each text had its identifying institution removed and replaced with the generic placeholder “The University” to ensure the anonymity of the information presented to the students.

In the survey, the research team prompted each respondent to read the text of each institution’s federal financial aid application instructions carefully and to identify which words were unfamiliar or confusing to them. The respondents were only allowed to read one text at a time and could provide as few or as many unfamiliar or confusing terms as they wanted. The respondents were told there would be no time limit to complete the survey—summary statistics in Table 1 indicate the average respondent completed the survey in 416 seconds (or 6.9 minutes)—although the team does not have information related to how long each respondent spent on each text individually. After reading all three texts and providing unfamiliar jargon terms (if applicable), the survey prompted respondents to provide demographic data. The team first decided to solicit demographic data from the respondents including age, income, gender, race, religion, first and second spoken languages, and first-generation college status. For this study, first-generation status is defined as neither parent holding a postsecondary credential or degree of any kind and at any level. Demographic data was gathered due to extant research suggesting
FAFSA completion often varies by demographic (Feeney & Heroff, 2013; Kofoed, 2017; McKinney & Novak, 2015; Ziskin et al., 2014).

Upon request, the research team can provide each text used in this survey, as well as the linguistic analysis files generated in the readability and n-gram analyses of this study.

2.3 Data Collection

To capture nationally-representative data, the research team employed Amazon Mechanical Turk (AMT). AMT is a human intelligence crowdsourcing platform allowing researchers to solicit survey responses from an artificially delimited population, such as prospective postsecondary students seeking four-year, bachelor’s-degree granting U.S. institutions of higher education. Before soliciting responses, the research team set AMT population parameters to the following variables: respondent must be 18 years of age or older, respondent must not hold a postsecondary degree or credential, respondent must be planning on applying to a four-year, bachelor’s degree-granting U.S. institution of higher education in fall 2018, respondent must be living in the United States or Puerto Rico, and respondent must complete their survey using a United States or Puerto Rican internet service provider (ISP) number. All fifty states were represented in the survey, while zero respondents reported living in Puerto Rico. The highest number of survey respondents came from California and Florida. A geospatial map of survey respondents (n=1,230) can be found in Figure 1 below.
Figure 1. Geospatial map of survey respondents (n=1,230)
Upon opening the survey on AMT and incenting each completed survey ($0.10), the research team collected 1,000 total responses and 1,230 completed responses after three days during the fall of 2018. The lead research team member solely provided the funding for the survey collection. The total of 1,230 completed responses represents a sample size strong enough for 95% confidence and an interval of approximately 3, assuming a hypothetical population of 85 million prospective postsecondary students in the United States.

2.4 Data Analysis

The research team employed two computational and statistical data tools to perform n-gram and statistical analyses: Readability Studio and STATA. Then, the research team employed STATA for statistical analysis, using the total number of reported unfamiliar or confusing terms (total terms) as the dependent variable. All demographic variables served as independent variables. As the survey results produced a large variation in reported income, the research team logged the income variable to reduce error in the multiple regression model. The results of the regression analysis can be found in Table 2.

To analyze text responses and produce n-gram findings, the team used Readability Studio (Oleander Software, 2019) and its term frequency function to calculate the most frequent n-grams from each set of financial aid application instructions. N-grams were organized and analyzed by unigram (one term), bigrams (two terms), and trigrams (three terms) to better understand the complexity of each unfamiliar financial aid jargon term reported by prospective students taking the survey. Results of the n-gram analysis is displayed in Table 3.
2.5 Delimitations

As with any survey methodology, this study is delimited by the reliability of the survey and the honesty of its respondents. Moreover, this study incented each respondent with $0.10 to complete the study, as well as delimited survey respondents to Amazon users with Amazon Mechanical Turk accounts. However, as the first study of its kind to assess financial aid jargon knowledge of prospective postsecondary students in the United States, many of this study’s delimitations are mitigated by the study’s large sample size and its inventive approach to assessing financial aid knowledge.

Of the survey respondents in this study, White respondents (63.7%) and Hispanic respondents (11.9%) were underrepresented, while Black respondents (15.7%), Asian respondents (6.4%), and Native American respondents (2.3%) were slightly overrepresented according to the most recent U.S. Census data available at the time of the survey administration. Similarly, students identifying as women were overrepresented (54.9%), as men (40.2%) were underrepresented in this study, with the remaining percentage identifying as gender non-binary conforming. Future research could investigate how people from different racial/ethnic groups and genders understand the process of applying for financial aid, as well as how different types of students gain financial aid knowledge.

In addition, future research could conduct case studies or focus groups to learn—in depth—why prospective postsecondary student of all ages may be familiar or unfamiliar with financial aid jargon. Furthermore, Burd et al.’s (2018) study of financial aid award letters and Taylor and Bicak’s (2019) analysis of adult learners’ financial aid jargon knowledge were important contributions to the field and the practice of
administering student aid. Future research could address other forms of financial aid-related communication, such as emails and print media, to learn whether this communication also contains jargon and how to minimize the use of jargon. In addition, future researchers could examine the role of parents and their financial aid knowledge during the FAFSA completion process, as well as how secondary schools educate their students on financial aid jargon and the FAFSA completion process.

2. Findings

Summary statistics of the sample and the survey results can be found in Table 1 below.
Table 1. Summary statistics of survey respondents (n=1,230) by total reported unfamiliar financial aid jargon terms (n=1,900)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Terms</td>
<td>1.54</td>
<td>4.32</td>
<td>0</td>
<td>75</td>
<td>1230</td>
</tr>
<tr>
<td>Age</td>
<td>29.29</td>
<td>8.765</td>
<td>18</td>
<td>67</td>
<td>1230</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>.549</td>
<td>.498</td>
<td></td>
<td></td>
<td>675</td>
</tr>
<tr>
<td>Man</td>
<td>.402</td>
<td>.490</td>
<td></td>
<td></td>
<td>494</td>
</tr>
<tr>
<td>Non-binary</td>
<td>.050</td>
<td>.217</td>
<td></td>
<td></td>
<td>61</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>.637</td>
<td>.481</td>
<td></td>
<td></td>
<td>784</td>
</tr>
<tr>
<td>Hispanic</td>
<td>.119</td>
<td>.324</td>
<td></td>
<td></td>
<td>146</td>
</tr>
<tr>
<td>Black</td>
<td>.157</td>
<td>.364</td>
<td></td>
<td></td>
<td>193</td>
</tr>
<tr>
<td>Asian</td>
<td>.064</td>
<td>.245</td>
<td></td>
<td></td>
<td>79</td>
</tr>
<tr>
<td>Native American</td>
<td>.023</td>
<td>.149</td>
<td></td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Religious</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Religious</td>
<td>.317</td>
<td>.466</td>
<td></td>
<td></td>
<td>390</td>
</tr>
<tr>
<td>Christian</td>
<td>.499</td>
<td>.500</td>
<td></td>
<td></td>
<td>614</td>
</tr>
<tr>
<td>Other Religious</td>
<td>.086</td>
<td>.281</td>
<td></td>
<td></td>
<td>106</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>.098</td>
<td>.297</td>
<td></td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>First Generation</td>
<td>.611</td>
<td>.488</td>
<td></td>
<td></td>
<td>752</td>
</tr>
<tr>
<td>Bilingual</td>
<td>.273</td>
<td>.446</td>
<td></td>
<td></td>
<td>336</td>
</tr>
<tr>
<td>English as 1st Lang.</td>
<td>.919</td>
<td>.273</td>
<td></td>
<td></td>
<td>1130</td>
</tr>
<tr>
<td>Income (in $1,000s)</td>
<td>$48.27</td>
<td>$352.07</td>
<td>$0</td>
<td>$12,000</td>
<td>1230</td>
</tr>
<tr>
<td>Completion in seconds</td>
<td>416.756</td>
<td>482.27</td>
<td>65</td>
<td>7045</td>
<td>1230</td>
</tr>
</tbody>
</table>

Across all 1,230 survey respondents, the average respondent was 29.3 years old, with women comprising 54.9% of the sample. White respondents comprised 63.7% of the sample, with 49.9% of the sample reporting being Christian, 61.1% first-generation college students, 27.3% bilingual, and 91.9% native English speakers. The average respondent reported an annual income of $48,270 and reported an average of 1.54 jargon terms across all three texts in the survey.
A regression analysis predicting identification of financial aid jargon terms can be found in Table 2 below:

Table 2. Regression analysis predicting identification of financial aid jargon terms

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>t-test</th>
<th>p-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (reference=Woman)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>-0.42</td>
<td>-1.73</td>
<td>0.08</td>
<td>[-0.913, 0.057]</td>
</tr>
<tr>
<td>Non-binary</td>
<td>1.19</td>
<td>2.06</td>
<td>0.03*</td>
<td>[0.062, 2.322]</td>
</tr>
<tr>
<td>Race (reference=White)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-0.30</td>
<td>-0.89</td>
<td>0.37</td>
<td>[-0.961, 0.358]</td>
</tr>
<tr>
<td>Asian</td>
<td>-0.54</td>
<td>-1.08</td>
<td>0.27</td>
<td>[-1.542, 0.444]</td>
</tr>
<tr>
<td>Native American</td>
<td>0.17</td>
<td>0.21</td>
<td>0.83</td>
<td>[-1.411, 1.752]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.30</td>
<td>0.74</td>
<td>0.45</td>
<td>[-0.504, 1.116]</td>
</tr>
<tr>
<td>Religious</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>-0.35</td>
<td>-1.28</td>
<td>0.19</td>
<td>[-0.882, 0.183]</td>
</tr>
<tr>
<td>Other religion</td>
<td>-0.44</td>
<td>-0.96</td>
<td>0.33</td>
<td>[-1.354, 0.458]</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>-1.58</td>
<td>-3.64</td>
<td>0.00***</td>
<td>[-2.442, -0.733]</td>
</tr>
<tr>
<td>First Generation</td>
<td>0.11</td>
<td>0.44</td>
<td>0.65</td>
<td>[-0.374, 0.596]</td>
</tr>
<tr>
<td>Bilingual</td>
<td>0.68</td>
<td>2.15</td>
<td>0.03*</td>
<td>[0.060, 1.299]</td>
</tr>
<tr>
<td>English as 1st language</td>
<td>0.08</td>
<td>0.16</td>
<td>0.86</td>
<td>[-0.952, 1.131]</td>
</tr>
<tr>
<td>Income (logged)</td>
<td>-0.07</td>
<td>-1.59</td>
<td>0.11</td>
<td>[-0.172, 0.018]</td>
</tr>
<tr>
<td>Seconds</td>
<td>0.00</td>
<td>9.29</td>
<td>0.00***</td>
<td>[0.002, 0.003]</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>-0.86</td>
<td>0.38</td>
<td>[-0.040, 0.015]</td>
</tr>
<tr>
<td>Constant</td>
<td>1.85</td>
<td>2.27</td>
<td>0.02</td>
<td>[0.258, 3.459]</td>
</tr>
<tr>
<td>Observations</td>
<td>1230</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses; *** p<0.001, * p<0.01, + p<0.1

Regression results indicate survey respondents who took longer to complete the survey also identified more jargon terms in the text: time (seconds) was the strongest predictor of reported jargon terms in this study by a wide margin (t=9.29, p= 0.00).

Regression results also indicate, after controlling for demographic data and the time (seconds) necessary to complete the survey, respondents self-identifying as gender non-
binary conforming ($t=2.06, p=0.03$) and bilingual ($t=2.15, p=0.03$) reported the most jargon terms with statistical significance. Inversely, survey respondents preferring not to disclose their religion ($t=-3.64, p=0.00$) reported the fewest jargon terms with statistical significance.

An n-gram analysis of reported jargon terms can be found in Table 3 below:
Table 3. N-gram analysis of reported unfamiliar financial aid jargon by prospective undergraduates (n=1,230)

<table>
<thead>
<tr>
<th>Most Frequent Unigrams</th>
<th>Most Frequent Unigrams</th>
<th>Most Frequent Unigrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) promissory (211)</td>
<td>1.) holistic (190)</td>
<td>1.) ITINS (216)</td>
</tr>
<tr>
<td>2.) MPN (119)</td>
<td>2.) 4506-T (79)</td>
<td>2.) eTASFA (163)</td>
</tr>
<tr>
<td>3.) FAFSA (114)</td>
<td>3.) IRS (33)</td>
<td>3.) TASFA (68)</td>
</tr>
<tr>
<td>4.) portal (25)</td>
<td>4.) FAFSA (30)</td>
<td>4.) ISSS (61)</td>
</tr>
<tr>
<td>5.) lender (19)</td>
<td>5.) DRT, 1099 (25)</td>
<td>5.) CPS (28)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most Frequent Bigrams</th>
<th>Most Frequent Bigrams</th>
<th>Most Frequent Bigrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) FSA ID (51)</td>
<td>1.) CSS profile (158)</td>
<td>1.) SB 1528 (18)</td>
</tr>
<tr>
<td>2.) entrance counseling (33)</td>
<td>2.) non-filer’s statement (92)</td>
<td>2.) institutional aid (15)</td>
</tr>
<tr>
<td>3.) student portal (31)</td>
<td>3.) merit-based scholarships (74)</td>
<td>3.) non-rejected status (14)</td>
</tr>
<tr>
<td>4.) borrower rights (20)</td>
<td>4.) IRS DRT (71)</td>
<td>4.) coordinating board (12)</td>
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<td>5.) financial aid (17)</td>
<td>5.) holistic evaluation (25)</td>
<td>5.) HB 1403 (10)</td>
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<tr>
<th>Most Frequent Trigrams</th>
<th>Most Frequent Trigrams</th>
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<tbody>
<tr>
<td>1.) master promissory note (67)</td>
<td>1.) CollegeBoard CSS profile (56)</td>
<td>1.) central processing system (26)</td>
</tr>
<tr>
<td>2.) student aid eligibility (12)</td>
<td>2.) populate the application (37)</td>
<td>2.) federal central processing (14)</td>
</tr>
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<td>3.) delay of funding (11)</td>
<td>3.) tax return transcript (35)</td>
<td>3.) international state resident (6)</td>
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<td>4.) financial aid plan (6)</td>
<td>4.) need-based institutional funds (13)</td>
<td>4.) Apply State application (5)</td>
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<tr>
<td>5.) FAFSA school code (4)</td>
<td>5.) Financial aid package (11)</td>
<td>5.) continuing/transfer scholarship application (4)</td>
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Notes:
Text 1 was written in 434 words at the 11.5th-grade English reading comprehension level.
Text 2 was written in 520 words at the 13.3rd-grade English reading comprehension level.
Text 3 was written in 373 words at the 16.4th-grade English reading comprehension level.
3.1 Text 1

In text 1, the most frequently reported unigrams included both acronyms (“MPN,” 119 mentions; “FAFSA,” 114 mentions) and terms unique to financial transactions, such as “promissory” (211 mentions) and “lender” (19 mentions). However, the term “portal” was also frequently mentioned, as this term referred to the electronic student portal necessary for students to access during the financial aid application process (Taylor & Bicak, 2019). In this regard, there seemed to be a blending of different types of terms reported by students as being unfamiliar. The acronyms “MPN” (short for master promissory note) and “FAFSA” are commonly found during the financial aid application process, whereas a term such as “portal” can take alternative meanings, such as a doorway or an anatomical reference to a pathway for blood vessels in the human body. This blending of financial terminology with terminology from other contexts will be addressed in section 4 of this study.

Bigrams reported in text one also included an acronym (“FSA ID,” 51 mentions; short for federal student aid identification), as well as financial aid-related terms such as “borrower rights” and “financial aid.” Similar to the unigrams reported in text 1, terms such as “entrance counseling” and “student portal” could be found in other contexts outside of applying for financial aid. Here, students who reported “entrance counseling” and “student portal” as unfamiliar may have reported these terms because they did not understand the terms broadly, or they were not able to connect these terms to a student financial aid context. However, trigrams reported in text one included terms relevant to financial aid, such as “master promissory note,” “student aid eligibility,” “delay of funding,” “financial aid plan,” and “FAFSA school code.” It is critical to note that
students reported the concept of a “master promissory note” as unfamiliar as a unigram and trigram: “promissory” (211 mentions), “MPN” (119 mentions), and “master promissory note” (67 mentions) was easily the most unfamiliar concept to prospective students sampled in this survey.

Inversely, unfamiliar trigrams such as “student aid eligibility,” “delay of funding,” and “financial aid plan” may seem intuitive to people with knowledge of the U.S. higher education system (e.g., “student aid eligibility” connotes a status as to whether a student is eligible for aid or not). Therefore, it is unclear what specifically was unfamiliar about a seemingly intuitive term such as “delay of funding.” Perhaps prospective students in the sample reported “delay of funding” as unfamiliar because these prospective students were unsure of the duration of the “delay,” what was meant by the broad term “funding,” or what entity is responsible for the “delay.” Subsequently, this finding suggests prospective students may be unfamiliar with financial aid jargon that may be—seemingly—intuitive to financial aid professionals or those with experience in the U.S. higher education system.

3.2 Text 2

Similar to text 1, jargon terms in text 2 included both acronyms and words. The term “holistic” (190 mentions) was clearly the most unfamiliar term in text 2, a term that was not included in text one. Moreover, the term “holistic” in text 2 referred to the way the institution evaluated admissions applications, not financial aid applications. Here, prospective students may have reported the term “holistic” as unfamiliar if they were not familiar with “holistic” admissions processes. As a result, the most frequently reported financial aid jargon term in text 2 was not a financial aid jargon term at all: It was an
admissions jargon term—“holistic.” This finding will be elaborated upon in section 4 of this study.

The acronyms reported in text 2 were overwhelmingly related to federal tax entities and forms. The terms “4506-T” (79 mentions), IRS (33 mentions), FAFSA (30 mentions), and both “DRT” and “1099” (25 mentions each) were frequently reported as unfamiliar. From this data, several critical findings emerge. First, many people living in the U.S. may be unfamiliar with the “4506-T” form, as this form is necessary to request a transcript of one’s tax return. For prospective students living with their parents or family members, it is possible these students have never filed their own tax return and would be unfamiliar with a form (4506-T) necessary to request a transcript of one’s tax return. However, every person legally employed in the United States is issued a 1099 form by their employer as a record of the employee’s payment and/or salary. Therefore, prospective students may have reported the “4506-T” and “1099” forms as unfamiliar because they either have never filed their own tax returns or have never held a job whose employer issued a 1099.

Second, the term “FAFSA” (30 mentions) appeared again in text 2, as FAFSA also appeared in text 1 (114 mentions). This finding implies that two different institutions used the term “FAFSA” to articulate the financial aid application process, but that 30 prospective students in this sample were unable to discern the meaning of “FAFSA” from text 1 and text 2. If the same term was reported as unfamiliar in two different texts, as was the case with “FAFSA,” either the students were unable to find context clues in text one necessary to decode the meaning of “FAFSA,” or that students were unable to build prior knowledge of “FAFSA” from text 1 and apply that knowledge in text 2.
Alternatively, students may have simply scanned for unfamiliar terms in both texts without taking the time to search for context clues and decode the term. Ultimately, the term “FAFSA” may be a confusing acronym for prospective students given the data present in this study. Lastly, the terms “IRS” and “DRT” (standing for Internal Revenue Service and data retrieval tool) were reported as unfamiliar, even though these terms may be familiar to those working in U.S. higher education or who have recent experience with U.S. higher education.

Regarding bigrams, all reported bigrams in text 2 were different from text 1, speaking to the potential linguistic diversity of financial aid application instructions. For instance, “CSS profile” was the most commonly reported bigram in text 2 (158 mentions), yet “CSS profile” did not appear in text 1 or text 3 in this study. Moreover, text 2 seemingly utilized a greater level of federal financial aid jargon, evidenced by students reporting “non-filer’s statement” (92 mentions) and “IRS DRT” (71 mentions) as unfamiliar. As previously mentioned, this blending of institutional-focused jargon (i.e., “merit-based scholarships” and “holistic evaluation”) with federal jargon (i.e., “non-filer’s statement” and “IRS DRT”) may be confusing for prospective students unfamiliar with U.S. higher education and the languages of institutional aid and federal aid.

Finally, trigrams reported in text 3 included “CollegeBoard CSS profile” (56 mentions), similar to the unfamiliar bigram “CSS profile.” Given these results, it is clear that many prospective students did not understand what the “CollegeBoard CSS profile” was. Also similar to the bigrams reported in text 2, blending of jargon types was present in reported trigrams. Federally focused trigrams such as “tax return transcript” (35 mentions) and “financial aid package” (11 mentions) were reported alongside the
institutionally-focused trigram “need-based institutional funds” (13 mentions). An outlier in the study in terms of word category, the trigram “populate the application” (37 mentions) was commonly reported as unfamiliar—this was the only unfamiliar term in the study that contained a verb: populate. In this case, prospective students may have been unfamiliar with the verb “populate,” as it used to describe how online forms can be filled in and/or completed. As a result, prospective students may be unaware of uncommon verb forms, which could lead to a student failing to complete the financial aid application process.

3.3 Text 3

A critical finding of this study is that the reported terms in text 3 were all unique from both text 1 and text 2. However, similar to text 1 and text 2, prospective students commonly reported acronyms as being unfamiliar, as all unigrams in text three were acronyms, along with two bigrams.

Of unigrams, prospective students reported two terms much more frequently than others: “ITINS” (Individual Tax Identification Number System) with 216 mentions and “eTASFA” (electronic Texas Application for Student Financial Aid) with 163 mentions. Other unfamiliar unigrams included the acronyms “TASFA” (Texas Application for Student Financial Aid) with 68 mentions, “ISSS” (International Student and Scholar Services) with 61 mentions, and “CPS” (Central Processing System) with 28 mentions. Upon further review of text three, it was learned that text three came from an institution in Texas: the “eTASFA” and the “TASFA” serve as the electronic and paper versions of the Texas-focused FAFSA, the forms required by institutions to apply for state federal aid. As a result, it was unsurprising to learn that so many prospective students reported
“eTASFA” and “TASFA” as unfamiliar, as these prospective students may not live in Texas and therefore be unfamiliar with these state-level processes. However, prospective students applying to this Texas institution from out-of-state may be disadvantaged by the inclusion of these Texas-focused acronyms for two reasons. First, “eTASFA” and “TASFA” were not defined in the text, leading to the possible confusion on behalf of the prospective students in this study. Second, prospective students may have identified these words as unfamiliar as their home state does not employ Texas-focused financial aid processes. As a result, prospective students applying from out-of-state may be disadvantaged when reading financial aid application instructions, as these instructions may include state-specific jargon and/or acronyms that are unfamiliar to the student.

Moreover, there was a blending of institutional and federal acronyms in text 3, evidenced by the reporting of “ITINS” and “CPS” and “ISSS”. Given these findings, it became clear that financial aid application instructions may blend institutional, state, and federal jargon, along with jargon terms that address domestic and international students. As a result, prospective students may be confused by financial aid application instructions if they include information relevant to international students, as domestic student may read about the “ISSS” or international student services and assume the information is not for domestic students.

The bigrams in text 3 also contained acronyms, including “SB 1528” (18 mentions) and “HB 1403” (10 mentions). Again, upon further research, it was learned that these acronyms stand for Texas-specific legislation that explained why student fees and tuition are set at certain rates. State Bill 1528 and House Bill 1403 both address residency and in-state tuition policies for Texas citizens and individuals who are not
permanent U.S. residents (Texas Higher Education Coordinating Board, 2008).

Unsurprisingly, prospective students in this study reported these Texas-specific legislative bills to be unfamiliar, as the students may not have been living in Texas or familiar with Texas higher education legislature. Similar to the previous finding, students applying from out-of-state may be disadvantaged when reading financial aid application instructions, as these students may not be familiar with legal jargon or state-specific jargon and legislation.

Finally, the trigrams reported in text 3 included both federal and institutional jargon, including the federal terms “central processing system” (26 mentions) and “federal central processing” (14 mentions) and the institutional terms “international state resident” (6 mentions), “Apply State application” (5 mentions), and “continuing/transfer scholarship application” (6 mentions). Similar to the blending of bigrams related to domestic students and international students, the reported trigrams in text 3 suggests there was jargon blending of first-year student information and “continuing/transfer” student information. As a result, prospective students—applying as first-year students—may be confused by the inclusion of “continuing/transfer” student information, as seeing this information may lead a first-year student to believe that the information is not relevant to them, when in fact, it is. Overall, text 3 included a blending of federal-, institutional-, and state-specific jargon, along with domestic and international student information that may prove confusing for prospective students unfamiliar with the institution, state, or the U.S. higher education system in general.

As the first study of its kind to analyze financial aid jargon terms, there is no extant research to address why survey respondents who chose not to disclose their
religion would identify the fewest jargon terms. However, respondents who reported
being bilingual or gender non-binary conforming may have reported more jargon terms
than their peers given extant research suggesting bilingual individuals and gender non-
binary conforming individuals are often marginalized from U.S. institutions of higher
education, including experiencing difficulty applying for financial aid (Diaz-Strong et al.,
2011; Olivas, 2009; Rankin et al., 2010). These results will be discussed further in the
following section of this study.

3. Implications and Discussion

Recently, Burd et al. (2018) examined thousands of financial aid award letters and
determined that these letters are often filled with jargon, which may be confusing for
students and their support networks who read these letters. Building upon that work, the
study at hand also finds institutional financial aid application instructions may be
confusing for prospective students. From this study’s results emerge several implications
for researchers and practitioners alike.

First, the results of this study suggest institutions often blend federal-, state-, and
institutionspecific jargon terms into financial aid application instructions, and these
jargon terms often appear in the form of acronyms. Specifically, many prospective
students in this study reported “MPN,” “FAFSA,” “CSS profile,” and “ITINS” as
unfamiliar. From here, practitioners should ensure that they are defining acronyms in text
and explaining the acronyms in context as to how they are used. For instance, it may be
beneficial for institutions to explain that “MPN” stands for “master promissory note” and
that this document is a promise that a student will repay their federal student loans. The
same approach could be applied to all acronyms in this study, as these acronyms serve as
legal terminology used by the federal government: These acronyms cannot be replaced by simpler synonyms. As a result, practitioners must be cognizant of acronym use and be sure to define these terms for student audiences.

In another critical finding of this study, many of the jargon terms may have been confusing as they seemingly addressed different audiences of students: domestic students, international students, first-year students, and transfer students. Text 1 contained a plethora of federal financial aid jargon terms, implying the information was written for students who are eligible for federal financial aid: U.S. citizens and eligible non-citizens. However, text 3 included jargon terms addressing a different student audience: international students. Text 3 also addressed both first-year students and continuing/transfer students, given the unigrams and trigrams reported as unfamiliar. Here, practitioners must be aware of how this type of jargon blending could be confusing for prospective students from certain groups, as international students may be confused by a lack of international student content in text 1 of this study, while domestic students may have been confused by the international student content in text 3 of this study.

Another potentially confusing aspect of financial aid application instructions in this study was the presence of state-specific application processes and legislation. Although legislative tuition policies are important for educational stakeholders in all states across the country, it may be confusing for prospective students to read about such policies during the financial aid application process. Similarly, prospective students applying from out-of-state may be disadvantaged by the presence of state-specific financial aid application processes included in the application instructions evidenced by the reported terms in text 2 and 3 of this study. Practitioners and researchers should
investigate which state-specific processes should be present in financial aid application instructions, or whether institutions should write specific financial aid application instructions for in-state and out-of-state students, potentially simplifying the process for both groups.

The linguistic diversity of financial aid application instructions was also notable in this study, as every text featured different unigrams, bigrams, and trigrams, except for “FAFSA” appearing as unfamiliar in text 1 and 2. This linguistic diversity may make it difficult for prospective students to explore more than one institution and apply for aid at that specific institution, as such linguistic diversity may be confusing. Moreover, if concepts such as “MPN” or “master promissory note” are so important for prospective students to understand, it is difficult to explain why text 1 included this information and text 2 and 3 did not. Similarly, text 2 included a wealth of federal-specific jargon terms such as “4506-T” and “IRS DRT,” whereas text 1 and text 3 omitted these terms completely. From here, practitioners and researchers should evaluate financial aid application instructions from institutions across the country and learn what jargon terms must be included and what terms could be removed. The linguistic diversity and discontinuity of financial aid application instructions was an alarming finding of this study, as it seems all three institutions employed a very distinct—and possibly confusing—lexicon.

Regarding how financial aid application instructions were written in terms of difficulty, there seemed to be no relationship between the readability difficulty of the text and the number of reported unfamiliar jargon terms. For instance, text 3 was the most difficult by readability level (16.4th-grade), yet participants in this survey reported the
fewest jargon terms in text 3 (n=524). Inversely, text 2 was the longest in this study (520 words), with participants reporting the greatest number of jargon terms in this text (n=763). Although a small sample size in terms of texts, these results suggest the longer the financial aid application instructions are, the more confused students may become. As a result, researchers and practitioners should investigate how financial aid application instructions are written to ensure these instructions are using the smallest lexicon possible, along with simple sentence structures and clear, readable content for diverse audiences.

Finally, the regression analysis of this study suggests non-binary conforming individuals (p=0.03) and bilingual people (p=0.03) were more likely to report higher numbers of unfamiliar jargon terms, while people preferring not to disclose their religion (p=0.00) reported the fewest. Extant research has addressed how non-binary conforming individuals and bilingual individuals are often minoritized from the financial aid process, and thus, the U.S. higher education system (Diaz-Strong et al., 2011; Olivas, 2009; Rankin et al., 2010). The results of this study support this extant research, finding non-binary conforming individuals and bilingual individuals may be more unfamiliar with financial aid jargon than peers, possibly contributing to their minoritization and exclusion from the U.S. higher education system. However, no extant research has explored why individuals who choose not to disclose their religion would be more familiar with financial aid jargon than openly religious peers. As a result, researchers and practitioners should investigate how institutional and federal structures may minoritize certain groups and whether financial aid language could be simplified or taught to minoritized populations to increase access to the U.S. higher education system.
4. Conclusion

Supporting Burd et al.’s (2018) and Taylor and Bicak’s (2019) studies, results of this study suggest prospective students may be unfamiliar with financial aid jargon, possibly contributing to the high numbers of postsecondary students who do not complete the FAFSA and billions of unclaimed Pell Grant dollars (Helhoski, 2018). Researchers and practitioners must work together, alongside federal financial aid administrators, to simplify the language of financial aid and make the U.S. higher education system a more linguistically accessible one. Here, prospective students may feel compelled to “learn to speak financial aid” in order to attain a postsecondary education. Instead, the U.S. higher education system should simplify and consolidate this complex lexicon and learn to speak to their students in a language that everyone can understand.
References


Internal Revenue Service. (2018). IRS offers help to students, families to get tax information for student financial aid applications. Retrieved from


Appendix A

Texts used for survey responses and identification of financial aid jargon terms

Text 1:

The steps to apply for financial aid: Financial aid can make the already affordable tuition at this school even easier on your pocketbook. In fact, if you use financial aid responsibly, you should be able to finish your degree without worrying about large education debts. The financial aid application process is detailed in the steps below.

1. Complete the FAFSA online. The Free Application for Federal Student Aid (FAFSA) is used to determine your student aid eligibility based on your personal and family situation. If you are a first-time user, you will be required to create an FSA ID. It allows users to access personal information on federal student aid web sites as well as to sign a FAFSA. Once the FAFSA application has been received by (3-5 business days), you can
complete the following financial aid application steps through the Student Portal in the Financial Services section. Code: ***** When you complete the FAFSA, be sure to list the school code. Start your FAFSA today!

2. Complete entrance counseling. If you plan to use federal student loans, access studentloans.gov to complete entrance counseling. This step is required to ensure you understand your borrower rights and responsibilities.

3. Complete the Master Promissory Note (MPN). If you plan to use federal student loans, you will need to electronically complete and sign the MPN—a legal document that creates a contract between you and the lender to repay the loans. You will find the MPN at studentloans.gov.

4. Complete any other financial aid documentation as required. You may be required to complete or supply additional documentation before your financial aid can be awarded. Any required documents will be listed in the Financial Services section of your Student Portal.

5. Complete the financial aid process. After completing the FAFSA, you will receive your personal My Financial Aid Plan on the Financial Aid page in your student portal. After reviewing your Financial Aid Plan, you will be prompted to accept or change the recommended loan amounts. An award letter displaying your requested, or otherwise eligible, loan and grant amounts will be sent to your student email address. At that time, the financial aid process is complete and no further action is necessary. For new students, the deadline for completing the financial aid process is the 22nd of the month prior to your intended program start date. This deadline also includes submission and approval of any additional required documents by the Financial Aid Office. Failure to complete the process or submit the required documents will result in a delay of funding and may affect your start date.

Text 2:

Applying for Aid. Much like our admission process, the Office of Financial Aid uses a holistic evaluation to assess a family’s finances. The Office of Financial Aid reviews every student’s aid application carefully to ensure that we understand each family’s unique circumstances. Because each financial aid package is tailored to the student’s and the family’s particular financial profile, we require specific applications and documents in order to offer you an appropriate package. Although you may apply for financial aid at any time, we have provided specific deadlines in each checklist in order to receive your financial aid package in a timely manner. All incoming freshman applicants are
automatically considered for merit-based scholarships. It is not necessary to apply for need-based financial aid to be considered for merit-based scholarships, and no additional applications are required. The University provides need-based financial aid on a limited basis to International undergraduates. For more information please visit our International Students page.

Financial Aid Applications. FAFSA. The Free Application for Federal Student Aid (FAFSA) determines your eligibility for the Federal Direct Student Loan as well as federal and state grants. The FAFSA is available starting October 1st. Use ****** for the School Code. Populate the application with your tax return information using the IRS Data Retrieval Tool (IRS DRT). To fill out a FAFSA, use IRS DRT to populate your tax information. If you are filling out the 2018-2019 FAFSA, you must use the 2016 tax information (not 2017). You may be required to update your FAFSA using the IRS DRT at a later date, if you did not use the tool. If you are unable to use the IRS DRT, then you must submit a tax return transcript from the IRS.

CollegeBoard CSS Profile: The CollegeBoard CSS Profile, along with your FAFSA information, will help determine your eligibility for our need-based institutional funds. The CSS Profile is available starting October 1st. Use **** for the School Code. View this interactive presentation before you start your PROFILE application. Income Documentation 2016 Tax Returns. Include all W-2s, 1099s and accompanying schedules or Non-Filer's Statement

Submit documents according to deadlines on your respective checklist above. IRS Data Retrieval. All students applying for 2018-2019 are required to use the FAFSA IRS Data Retrieval Tool which should be available beginning October 2018. If you are unable to use the FAFSA IRS Data Retrieval Tool, then you are required to submit a tax return transcript from the IRS. Once you have received your tax return transcript, submit it our office via fax at 713-348-2139 with the student's name and ID number on all documents. If you did not file a tax return, submit the CollegeBoard’s Non-Tax Filer Statement to our office. If your FAFSA is selected for verification by the Department of Education, then you will need to complete a 4506-T requesting a non-tax filer letter. The Office of Financial Aid at The University is committed to assisting students in obtaining the largest financial aid award possible. It is the students' responsibility to comply with all of the requirements of the financial aid process. In addition, our office is not responsible for students' financial obligations to The University.
Applying for Financial Aid. The Free Application for Federal Student Aid (FAFSA) is the only application required when applying for federal, state, and institutional aid at The University. For important information and tips on submitting the FAFSA, visit Filling Out the FAFSA and watch the video How to Fill Out the FAFSA. How and where to apply for financial aid.

Classification Award Period Application Deadline
U.S. Citizen or Eligible Non-Citizen
Summer 2018, Fall 2018, Spring 2019
2018-19 online FAFSA.
March 15*
Summer 2017, Fall 2017, Spring 2018
2017-18 online FAFSA.
March 15*
International State Resident
(See SB 1528/HB 1403)
Summer 2018, Fall 2018, Spring 2019
2018-19 eTASFA (via CASH), 2018-19 paper FAFSA (PDF)
or 2018-19 TASFA
March 15**
Summer 2017, Fall 2017, Spring 2018
2017-18 eTASFA (via CASH), 2017-18 paper FAFSA (PDF)
or 2017-18 TASFA
March 15**

FAFSA must be submitted in time to generate federal Central Processing System (CPS) results in a non-rejected status, by this date to be considered for certain types of financial aid, including the Top 10% Scholarship Program. This date is set by the Higher Education Coordinating Board and is subject to change at their discretion. Paper application must be submitted to the Office of Financial Aid by this date to be considered for certain types of financial aid. This date is set by the Higher Education Coordinating Board and is subject to change at their discretion. Applying for Scholarships Scholarships at The University have a separate application process. Whether you are an entering freshman, continuing, transfer or graduate student, there are scholarship options available related to your student status.

How and where to apply for scholarships:
Note to International Students

If you are an international student inquiring about financial aid and scholarships, International Student and Scholars Services (ISSS) may help. In addition, ISSS provides information on Social Security Numbers, ITINS, and taxes. For information about state residency, read the Admissions requirements regarding establishing in-state residen