

FIRST-GENERATION COLLEGE STUDENT FINANCIAL AID: RESULTS FROM A NATIONAL FINANCIAL AID JARGON SURVEY

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This study assessed prospective first-generation college students' knowledge of federal student aid. The research team surveyed 752 prospective first-generation college students to assess what financial aid jargon terms were unfamiliar. Students often reported *FAFSA*, *master promissory note*, *entrance counseling*, *data retrieval tool*, and *non-filer's statement* as unfamiliar. Controlling for demographics, non-binary conforming first-generation college students reported financial aid jargon terms at a higher rate than peers ($p=0.05$, $t=2.42$). Implications for student affairs and financial aid praxis are addressed.

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Over the past ten years, a large body of research has asserted that completing the Free Application for Federal Student Aid (FAFSA) continues to be difficult for postsecondary students in the United States (Boatman & Evans, 2017; Castleman & Page, 2015; Goldrick-Rab, 2016; Kantrowitz, 2011; Kofoed, 2017). The most recent data available suggests over 650,000 members of the 2018 high school class did not complete a FAFSA, ultimately resulting in unclaimed Pell Grants totaling over \$2.6 billion (Helhoski, 2018).

Failing to complete the FAFSA has been problematic, as successfully receiving federal financial aid been found to be related with higher levels of postsecondary enrollment (Chen & Hossler, 2017; Kofoed, 2017). Once in college, students who complete the FAFSA from year to year persist at higher levels than peers who do not complete the FAFSA (Denning, 2018). Other educational researchers have also explored how socioeconomic status (Levine & Nediffer, 1996), non-traditional student status (Chen & Hossler, 2017), financial aid literacy and information (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012; Boatman & Evans, 2017), and other factors influence whether a student completes the FAFSA or not. Regardless of student identity, completing the FAFSA has remained an important step in the college careers of countless students, in terms of access, persistence, and graduation.

However, many researchers have criticized the FAFSA for being overly complicated, ultimately deterring students and their support networks (i.e., parents, siblings, extended family, friends, teachers, school counselors, community members) from completing the FAFSA (Dynarski & Scott-Clayton, 2008; Kantrowitz, 2011). Investigating the complexity of financial aid-related communication, Burd et al. (2018) recently analyzed over 11,00 financial aid award letters and found these letters often lacked definitions of key terminology, failed to differentiate between different

types of financial aid, and contained complex jargon. Consequently, research has demonstrated that both applying for and receiving federal financial aid may be too complicated for many people to understand (Dynarski & Scott-Clayton, 2008; Taylor & Bicak, 2019). Furthermore, it may be even more difficult for first-generation college students who may not have someone familiar with the U.S. higher education system to help them access the system (Terenzini et al., 2005). In addition, first-generation students may be more unfamiliar with applying for financial aid than peers with support systems who have experience with the U.S. higher education system and the process of applying for financial aid (Bui, 2002).

Subsequently, this study explores an unexamined facet of the federal financial aid application process: The institutional language used to communicate the federal financial aid application process to current and prospective students. Ardoin's (2013) qualitative analysis of rural students' access and acquisition of "college knowledge and university jargon" (p. 15) reported that many students understood some financial aid jargon terms. However, some rural students indicated that they were unsure of the differences between "subsidized and unsubsidized loans" (p. 128), also reporting such terms as "FAFSA," "work study," and "merit-based" as unfamiliar or confusing (pp. 130-131). Burd et al.'s (2018) recent work articulated that postsecondary institutions often communicate federal aid awards using complex, jargon-heavy language, begging the researchers' question, "Why are financial aid award letters so difficult for students and families to decipher?" (p. 7). Building upon Ardoin's (2013) and Burd et al.'s (2018) work, this study will answer two primary research questions related to financial aid jargon:

R1: What specific financial aid jargon terms do prospective first-generation postsecondary students report as confusing or unfamiliar?

R2: Are there differences between

first-generation student groups (ie., race, gender, age, income, religion, spoken languages) in financial aid jargon knowledge?

In a national survey of 752 prospective first-generation 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 first-generation students may provide student affairs professionals with the opportunity to simplify unfamiliar concepts of the financial aid application process and, ideally, increase FAFSA completion, postsecondary enrollment, and postsecondary persistence among first-generation college students.

Literature Review

A literature review on the broad topic of financial aid will not substantially contribute to the purposes of this study. Alternatively, this review will focus on what researchers have found to be complex about applying for federal student aid, paying particular attention to what first-generation student experiences. In one of the earliest attempts at simplifying the FAFSA, Asher (2007) suggested simplifying the FAFSA by removing questions that could be auto-populated by federal databases and not the applicant. In Asher's (2007) report, several "Terms to Know" were listed including "FAFSA," "EFC or Estimated Family Contribution," and "SAR or Student Aid Report" (pp. 6-7). Dynarski and Scott-Clayton's (2008) study echoed many of Asher's (2007) findings, suggesting that many questions on the FAFSA were too complicated for students to understand, resulting in the process taking too long for a student to complete, even if the student had substantial help from someone else. Several year later, Kantrowitz (2011) made similar findings, urging that the FAFSA was too long and complex for the majority of applicants to complete in one sitting. Kantrowitz (2011) reasoned that not being able to complete the FAFSA in one sitting was push-

ing students away from federal financial aid application and toward alternate sources of funding, such as private student loans and part-time jobs.

Answering these calls for simplification, the Obama Administration attempted to simplify the FAFSA by reducing the number of questions on the FAFSA (The White House, 2015). Shortly after, the FAFSA was rewritten to incorporate the Internal Revenue Service's data retrieval tool to simplify and accelerate the application process (Internal Revenue Service, 2018). However, thousands of prospective postsecondary students have failed to complete the FAFSA in recent years, resulting in billions of unclaimed Pell Grant funds (Helhoski, 2018), and it has remained unclear as to how many first-generation college students choose not to complete the FAFSA on yearly basis.

Investigations into the role of financial literacy in the financial aid application process have found that students often benefit from financial literacy education (Boatman & Evans, 2017) and other forms of financial counseling (Bettinger et al., 2012). Castleman and Page (2015, 2016) have explored how nudging—providing students with financial aid reminders—during the spring prior to enrollment may affect student enrollment in institutions of higher education. However, these studies have not addressed first-generation college student experiences in these programs. To date, financial literacy education, financial counseling, and financial aid-focused nudging programs have not been widely implemented, although these programs hold promise.

Beyond educational interventions, Lange and Stone (2001) reasoned that first-generation college student status may place students at a greater disadvantage than being from a low-income household, as first-generation college students and their families and support networks may not have in-depth knowledge of the financial aid application process. Bui (2002) found that first-generation college students often felt less prepared to complete finan-

cial aid-related processes than peers. In an exploration of the federal financial aid application experiences of college students, Feeney and Heroff (2013) learned that second- and third-generation college students were more likely to complete the FAFSA on time than first-generation college students. However, these studies did not specifically investigate what elements of the FAFSA, or its language, were particularly problematic or confusing. Moreover, Feeney and Heroff (2013) did not investigate the first spoken languages of the students as a potential hurdle to FAFSA completion.

Ardoin's (2013) dissertation examined rural students' knowledge of university jargon, and although not solely focused on financial aid jargon, Ardoin's (2013) study yielded several significant findings. First, Ardoin (2013) learned that many rural students were unsure of where to find financial aid information, speaking to the difficulty of the financial aid application process. Moreover, Ardoin (2013) interviewed college counselors working in high schools and found that many counselors were the primary sources of financial aid information and university jargon knowledge, yet many counselors' caseloads numbered into the hundreds of students. The two high schools in Ardoin's (2013) study reported "400:1" and "450:1" counselor-to-student ratios (p. 111). Ardoin (2013) also argued that many rural students were also first-generation college students, forcing many of these students to seek financial aid information outside of the home. Ultimately, Ardoin (2013) found that many rural students readily recognized financial aid jargon terms, but these students may face additional hurdles to college access, such as their geographic positioning or socioeconomic status.

In a targeted investigation of financial aid-related language, Burd et al.'s (2018) analysis of financial aid award letters was a highly original contribution to the field. After examining thousands of financial aid award letters, Burd et al. (2018) asserted that these letters contained confusing and

inconsistent jargon: "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). Subsequently, Burd et al. (2018) called for federal researchers and policymakers to evaluate the clarity and language of financial aid-related materials, while arguing that "State governments should adopt common award letter terms, calculations, and formats across their systems of higher education," while institutions of higher education should "develop more student-centered financial aid offers and tools, as well as align their efforts with other key departments serving student financial needs" (para. 12).

However, Burd et al.'s (2018) report did not address specific hurdles that first-generation students may face when attempting to read and comprehend their financial aid award letters. Additionally, Ardoin's (2013) study did not report how a rural students' spoken language, race, socioeconomic status, gender, or age may impact their knowledge of financial aid jargon. However, Ardoin (2013) did call for future studies to analyze how "gender, race, or SES status" may influence a students' "acquisition and command of college knowledge and university jargon" (p. 187). As a result, this study will expand Ardoin's (2013) and Burd et al.'s (2018) work, assessing prospective first-generation student knowledge of federal financial aid application materials published on institutional websites.

Research Methodology

The following sections will explain how the research team identified the population and sample of the study, how the team developed and administered the survey, how the team analyzed data, and how the team addressed the limitations of the work. Future studies may learn from this study's methodology and limitations in hopes that researchers can simplify the process of completing the FAFSA for prospective first-generation college students.

Population and Sample

Recent research suggests there are nearly four million U.S. high school students every spring (National Center for Education Statistics, 2018). In addition, there are an estimated 80 million U.S. adults who do not have a postsecondary credential of any kind (Blumenstyk, 2018). The Postsecondary National Policy Institute (2018) estimated that roughly 35% of all undergraduates attending four-year U.S. institutions of higher education in 2012 were the first in their family to attend college. Given the ambiguity of the true population of prospective first-generation students in the U.S., the research team considered 50 million as a hypothetical population of all (potential) prospective first-generation college students. The research team then performed a power analysis to calculate sample size using a 95% confidence level and a confidence interval of 5. This power analysis indicated that the team would require 400 prospective first-generation college students to respond to the survey for generalizability and subsequent quantitative analysis. The research team ultimately collected 752 responses to comprise the sample for this study. We will elaborate upon this figure in this study's Data Collection section.

Survey Development

As an original study meant to assess prospective first-generation college student familiarity with financial aid jargon, the research team adopted an experimental approach when developing the survey. To assess prospective first-generation college students' knowledge of financial aid jargon in an efficient manner from a large, nationally-representative dataset, the research team experimented with the type of information presented to prospective first-generation college students prior to the survey's completion. As part of previous research and pilot studies, the research team had gathered federal financial aid application instructions on institutional .edu websites from a random sample of over 300

four-year U.S. institutions of higher education. This figure represents a sample size large enough for generalizability and quantitative analysis, as there are over 6,600 Title IV-participating (federal loan programs) institutions in the U.S. The choice was made to analyze four-year institutions out of an understanding that many community college students do not apply for federal aid (Chen & Hossler, 2017), and the greatest number of federal loan borrowers have enrolled in four-year institutions in the past, given the higher cost of four-year institutions versus two-year institutions and/or community colleges (Helhoski, 2018).

The research team acknowledges that institutions may compose all forms of student-focused communication in different ways, and there is currently no mandate or guidelines from the U.S. Department of Education to inform how institutions should communicate financial aid processes. Ultimately, the research team decided to employ a random number generator to select one text from different institutional sectors (private for-profit, private non-profit, and public), written in different lengths, and written at different English readability levels. This strategy was employed by Taylor and Bick (2019) in their analysis of adult learners' knowledge of financial aid jargon, as their study asked adult learners to read separate texts and identify unfamiliar or confusing financial aid jargon terms.

Text one came from a private for-profit institution (90,000+ total enrolled students in 2017-2018) and was written in 434 words at the 11.5th-grade level. Text two came from a private non-profit institution (7,000+ total enrolled students in 2017-2018) and was written in 520 words at the 13.3rd-grade level. Text three came from a public institution (50,000+ total enrolled students in 2017-2018) and was written in 373 words at the 16.3rd-grade level. The team determined readability levels by using four commonly-used measures and averaging their results akin to Taylor's (2018a, 2018b, 2018c) studies analyzing the read-

ability of higher education materials. Prior to the survey, each text had all identifying information removed, and the institution's name was replaced with the generic placeholder "The University." These texts can be provided upon request from the authors.

The survey prompted each respondent to read each text carefully and to identify which words were unfamiliar or confusing. The respondents were allowed to read one text at a time and could move backward and forward in the survey as they pleased. The respondents could provide as many terms as they wanted with no time limit. Summary statistics in Table 1 indicate the average respondent completed the survey in 426 seconds or 7.1 minutes. After reading the texts and providing unfamiliar terms (if applicable), the survey prompted respondents to provide demographic information.

Data Collection

In an attempt to gather nationally-representative data, the research team used Amazon Mechanical Turk (AMT) to administer the survey. AMT is human intelligence crowdsourcing software which allows researchers to solicit survey labor from an artificially delimited population, such as prospective first-generation college students seeking four-year U.S. institutions of higher

education. AMT also allows for researchers to provide incentives to participants to encourage survey completion, and AMT draws from millions of Amazon.com user accounts to provide researchers with a large, international database of survey respondents. Before soliciting responses, the research team set the AMT collection protocol to the following variables: respondent must be 18 or older, respondent must report they and their parents do not hold a degree, respondent must be planning on applying to a four-year U.S. institution in fall 2018, respondent must report living in the U.S. or Puerto Rico, and respondent must complete their survey using a U.S. or Puerto Rican internet service provider (ISP) number. In all, prospective first-generation college students from 49 states responded to the survey, while North Dakota and Puerto Rico had zero respondents. The highest number of survey respondents came from California, Florida, and New York. A geospatial map of survey respondents ($n=752$) can be found in Figure 1.

The research team gathered demographic data (gender, race, religion, first and second [if necessary] spoken languages, income, and age) from the respondents as well. First-generation college student status was defined in this study as neither par-

Figure 1. Geospatial map of survey respondents ($n=752$)



ent holding a postsecondary degree of any kind, including a certificate or degree. The research team gathered this demographic data due to extant research suggesting FAFSA completion can vary depending on one's demographics (Feeney & Heroff, 2013; Kofoed, 2017).

The research team opened the AMT survey in fall 2018 and incented each survey (\$0.10 per completed survey; respondents could only complete the survey once). In three days, the research team collected 752 respondents reporting they were prospective first-generation college students seeking enrollment in four-year U.S. institutions in fall 2018. A total of 752 completed responses represents a sample size strong enough for 95% confidence and an interval of approximately 3 assuming a hypothetical population of 50 million prospective first-generation postsecondary students in the U.S. and Puerto Rico.

Data Analysis

To answer this study's second research question and analyze the demographic data and number of reported unfamiliar jargon terms, the research team used two dependent variables for analysis. In the first logistic regression, the research team used a binary variable of having reported at least one financial aid jargon term as the dependent variable. This strategy allowed the research team to explore which first-generation college student identities were associated with some unfamiliarity of financial aid jargon. The second OLS regression model used the total number of unfamiliar or confusing financial aid jargon terms as the dependent variable. All demographic information served as independent variables. As the results included a large variation in the respondents' reported yearly income, the research team logged the income variable to minimize error in the logistic and OLS regression models. These analyses can be found in Table 2 and 3.

To analyze the text responses, the research team used Readability Studio—a

quantitative linguistics software program—and its term frequency function to analyze the most frequent n-grams from each set of financial aid application instructions. An n-gram is any sequence of lexical items (words) that can constitute a concept or entity, including single letters forming acronyms (e.g., FAFSA), single words (e.g., grant), or multi-word n-grams (e.g., subsidized loan) (Jurafsky & Martin, 2018). N-grams were sorted and analyzed by complexity: unigram (one term), bigrams (two terms), and trigrams (three terms). This approach allowed the research team to better understand the complexity of each unfamiliar financial aid jargon term. Such corpus linguistics processes for data analysis are common in linguistics fields (Jurafsky & Martin, 2018). Results of the n-gram analysis is displayed in Table 4.

Findings

Summary statistics of the sample and survey results can be found in Table 1.

Across all 752 survey respondents, the average respondent was 30.35 years old, with people identifying as women comprising 56% of the sample. White respondents comprised 61% of the sample, with 49% of the sample reporting being Christian, 27% bilingual, and 91% native English speakers. The average respondent reported an average of 1.61 jargon terms across all three texts in the survey. Four-hundred and eighty-eight respondents reported zero terms, while 264 respondents reported 1,213 terms. Of respondents who reported at least one term, respondents averaged 4.58 terms.

A logistic regression analysis predicting identification of unfamiliar financial aid jargon terms can be found in Table 2.

Table 1

Summary statistics of first-generation college student respondents (n=752) by total reported unfamiliar financial aid jargon terms (n=1,213)

	Mean	SD	% of Sample	Min.	Max.	N
Total reported terms (all)	1.61	4.47		0	68	752
Total reported terms (1+)*	4.58	6.58		0	68	264
Gender						
Woman	0.56	0.50	56%			418
Man	0.39	0.49	39%			291
Non-binary	0.06	0.23	6%			43
Race						
White	0.61	0.49	61%			461
Hispanic	0.13	0.34	13%			101
Black	0.16	0.37	16%			123
Asian	0.06	0.23	6%			44
Native American	0.03	0.17	3%			23
Religion						
Non-religious	0.30	0.46	30%			227
Christian	0.49	0.50	49%			372
Other religion	0.10	0.30	10%			74
Prefer not to answer	0.11	0.31	11%			79
Bilingual	0.27	0.44	27%			204
English as first language	0.91	0.28	91%			687
Income (in \$1,000s)	\$55.72	\$447.68		\$0	\$12000	752
Survey completion (in seconds)	426.04	466.64		65	5,826	752
Age	30.35	9.36		18	67	752

*Note: 488 respondents reported zero terms; 264 respondents reported 1,213 terms.

Table 2

Logistic regression analysis predicting first-generation students reporting of unfamiliar total terms in federal financial aid application instructions (n=673)^a

	β	SE	Odds-Ratio
Gender (reference=Woman)			
Man	-0.299	(0.180)	
Non-Binary	-0.339	(0.370)	
Race (reference=White)			
Asian	0.096	(0.388)	
Black	0.138	(0.234)	
Hispanic	0.293	(0.268)	
Native American	-0.287	(0.520)	
Religious (reference=Christian)			
Non-Religious	0.699***	(0.182)	2.01
Other Religious	-0.799*	(0.330)	0.45
Income (logged)	-0.014	(0.031)	
Bilingual	0.304	(0.228)	
English as 1 st language	-0.055	(0.360)	
Age	0.032***	(0.009)	1.03
Survey completion in seconds	0.001***	(0.000)	1.00
Constant	-1.827*	(0.564)	0.16
Observations	673		

Note^a: 79 respondents were removed from the model due to collinearity (respondents reported zero terms and selected "Prefer not to answer" the religion demographic question).

Note^b: Odds ratio is only reported for statistically significant coefficients.

Note: Standard errors in parentheses; *** p<0.001, * p<0.01, * p<0.05

Statistically significant odds ratios indicate students who reported being non-religious (OR=2.01) were more likely to report at least one unfamiliar financial aid jargon term than Christians (reference group), while students who reported practicing non-Christian religions were less likely to report at least one unfamiliar financial aid jargon term (OR=0.45). In addition, first generation students who were older were more likely to report at least one unfamiliar financial aid jargon term (OR=1.03) than younger first-generation peers. Unsurprisingly, survey completion in seconds strongly predicted reporting at least one unfamiliar financial aid jargon term, meaning the longer the respondent took to complete the survey, the more likely they were to report at least one unfamiliar financial aid jargon term.

An ordinary least squares (OLS) regression analysis predicting identification of financial aid jargon terms can be found in Table 3.

The OLS model capturing the entire sample (n=752) indicates respondents who identified as gender non-binary conforming ($p=0.05$) and respondents taking longer to complete the survey ($p=0.00$) reported greater numbers of unfamiliar financial aid jargon terms when compared to peers and controlling for other demographics. In addition, respondents who chose "prefer not to answer" the religion demographic question reported fewer terms than peers ($p=0.05$).

The second OLS model including only respondents who reported at least one unfamiliar jargon term (n=264) yielded similar results. Again, respondents who identified as gender non-binary conforming ($p=0.00$) and respondents taking longer to complete the survey ($p=0.00$) strongly predicted reporting greater numbers of unfamiliar financial aid jargon terms when compared to peers and controlling for other demographic information.

An n-gram analysis of reported jargon terms can be found in Table 4.

Text One

In text one, the most frequently reported unigrams were acronyms: "FAFSA" with 43 mentions and "MPN" with 42 mentions. Other frequently reported unigrams in text one included "lender" and "portal" (12 mentions). Related to "portal," a frequently reported bigram in text one was "student portal" (19 mentions). Here, it became clear that many prospective first-generation college students did not understand what a "student portal" was. Related to the "FAFSA," prospective first-generation students also were unclear about what an "FSA ID" was (16 mentions). From these findings, many respondents were unclear about the FAFSA and the FSA ID, which stands for Federal Student Aid Identification. This finding was logical, as a person without knowledge of the FAFSA would be unlikely to have knowledge of the FSA ID, or, the electronic signature used to sign the FAFSA and retrieve federal student loan data from the National Student Loan Data System (NSLDS).

Other frequently reported bigrams were also similar to the unigrams, including "financial aid" with 15 mentions. However, "entrance counseling" and "award letter" were also reported as unfamiliar (11 and 9 mentions), as survey respondents knew the words "entrance" and "counseling" belonged together, as did "award and letter," yet the respondents were unclear what these terms meant. Overall, the unigrams and bigrams reported in text one blended acronyms (FAFSA, MPN, FSA ID) with other financial terms (lender, aid, entrance counseling, award letter), which were unfamiliar or confusing for prospective first-generation college students.

Trigrams reported in text one were also related to unigrams considering the trigram "master promissory note" (79 mentions) and the unigram "MPN" (42 mentions). Here, prospective first-generation college students may be unfamiliar with what a master promissory note is and how this important financial aid document affects their award status and subsequent

Table 3

OLS regression analysis predicting first-generation students reporting of unfamiliar total terms in federal financial aid application instructions

Total terms (Dependent variable)	OLS Model 1 Total sample (n=752) (SE)	OLS Model 2 One or more terms (n=264) (SE)
Gender (reference=man)		
Non-binary	2.426* (0.738)	7.230*** (1.782)
Woman	0.349 (0.331)	0.128 (0.861)
Race (reference=Asian)		
Black	0.077 (0.787)	0.202 (1.993)
Hispanic	0.913 (0.807)	1.818 (2.016)
Native American	0.596 (1.108)	2.385 (3.083)
White	0.144 (0.710)	0.463 (1.821)
Religious		
Non-Religious	0.450 (0.365)	-0.668 (0.832)
Other	-0.087 (0.560)	2.996 (1.784)
Prefer not to Answer	-1.066* (0.539)	(-)
Income (logged)	-0.074 (0.060)	-0.137 (0.128)
Bilingual	0.083 (0.428)	-0.311 (1.009)
English as first-language	-0.664 (0.702)	-0.683 (1.616)
Age	0.012 (0.017)	-0.012 (0.038)
Survey completion (in seconds)	0.002*** (0.000)	0.002*** (0.001)
Constant	0.963 (1.272)	4.583 (3.046)
Observations	752	264
R-squared	0.106	0.147

Note: Standard errors in parentheses. *** p<0.001, * p<0.01, * p<0.05; (-) represents no observations for this specific category.

Table 4

N-gram analysis of reported unfamiliar financial aid jargon terms (n=1,213) by prospective first-generation college students (n=264) seeking undergraduate institutions in fall 2018

Text 1: (n=397 n-grams)	Text 2: (n=497 n-grams)	Text 3: (n=319 n-grams)
<p>Most Frequent Unigrams</p> <ol style="list-style-type: none"> 1.) FAFSA (43) 2.) MPN (42) 3.) lender, portal (12) 4.) aid, documentation (7) 5.) deadline (6) 	<p>Most Frequent Unigrams</p> <ol style="list-style-type: none"> 1.) holistic (64) 2.) 4506-T (32) 3.) CSS (31) 4.) FAFSA (10) 5.) 1099s (8) 	<p>Most Frequent Unigrams</p> <ol style="list-style-type: none"> 1.) ITINS (75) 2.) eTASFA (50) 3.) TASFA (25) 4.) CPS (11) 5.) CASH (10)
<p>Most Frequent Bigrams</p> <ol style="list-style-type: none"> 1.) student portal (19) 2.) FSA ID (16) 3.) financial aid (15) 4.) entrance counseling (11) 5.) award letter (9) 	<p>Most Frequent Bigrams</p> <ol style="list-style-type: none"> 1.) IRS DRT (40) 2.) CSS Profile (25) 3.) merit-based scholarships (37) 4.) non-filer's statement (34) 5.) holistic evaluation (17) 	<p>Most Frequent Bigrams</p> <ol style="list-style-type: none"> 1.) non-rejected status (9) 2.) SB 1528 (8) 3.) HB 1403 (6) 4.) institutional aid (5) 5.) coordinating board (3)
<p>Most Frequent Trigrams</p> <ol style="list-style-type: none"> 1.) master promissory note (79) 2.) financial aid plan (11) 3.) delay of funding (9) 4.) student aid eligibility (8) 5.) recommended loan amounts (2) 	<p>Most Frequent Trigrams</p> <ol style="list-style-type: none"> 1.) CollegeBoard CSS Profile (33) 2.) populate the application (18) 3.) data retrieval tool (17) 4.) need-based financial aid (11) 5.) tax return transcript (9) 	<p>Most Frequent Trigrams</p> <ol style="list-style-type: none"> 1.) central processing system (20) 2.) Apply State Application (6) 3.) establishing in-state residency (5) 4.) international state resident (4) 5.) transfer scholarship application (2)

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.

postsecondary enrollment. Other trigrams reported as unfamiliar included “financial aid plan” (11 mentions), “delay of funding” (9 mentions), “student aid eligibility” (8 mentions), and “recommended loan amounts” (2 mentions). Here, it is critical to note that these trigrams include somewhat normal, commonplace words such as “plan,” “delay,” “funding,” “recommended,” and “amounts,” yet prospective first-generation students reported a combination of terms as unfamiliar or confusing.

For example, a respondent may have reported “delay of funding” as unfamiliar because the respondent either does not know what a delay of funding is, or the respondent does not know how long the delay is, who is delaying the funding, or what funds are being delayed. The same logic could be applied to the trigram “financial aid plan”—perhaps respondents were unsure about who creates the plan, where they can access the plan, or what kind of financial aid is being planned for. Ultimately, it is unclear what was specifically unfamiliar about seemingly intuitive terms such as “delay of funding” and “financial aid plan.” As a result, this finding suggests prospective first-generation college students may be unfamiliar with financial aid jargon that may seem intuitive to financial aid professionals or those with experience in the U.S. higher education system.

Text Two

Akin to text one, respondents reported several acronyms and words as unfamiliar or confusing. The unigram “holistic” (64 mentions) was frequently mentioned as unfamiliar, closely related to the bigram “holistic evaluation” (17 mentions). Upon review of text two, a “holistic evaluation” was related to how prospective student financial need would be determined when awarding institutional aid. Here, it was interesting to learn that the term “holistic evaluation” was not directly related to applying for federal aid, but institutional aid. Other reported terms specific to the awarding of institution-

al—not federal—aid were “CSS” (31 mentions), “CSS Profile” (25 mentions), “merit-based scholarships” (37 mentions), and “CollegeBoard CSS Profile” (33 mentions). This blending of institutional jargon on a set of instructions meant to explain the federal student aid application process may have been confusing to prospective first-generation college students in this study.

“FAFSA” was also frequently reported in text two (10 mentions), as were financial aid jargon terms not included in text one. These terms included tax-related jargon terms such as “4506-T” (32 mentions), “1099s” (8 mentions), “IRS DRT” (40 mentions), “non-filer’s statement” (34 mentions), “data retrieval tool” (17 mentions), and “tax return transcript” (9 mentions). These terms may have been confusing to first-generation college students—especially younger students unfamiliar with jargon related to the Internal Revenue Service, such as “IRS DRT” and “data retrieval tool”—as students may not have been expecting to encounter specific tax forms and other complex financial concepts. For instance, a 4506-T form needs to be filed with the Internal Revenue Service (IRS) to request a tax return transcript. The concept of a tax return transcript was clearly unfamiliar or confusing to prospective first-generation college students in this study.

Moreover, the blending of IRS jargon (i.e., 1099s) with institutional jargon (i.e., merit-based scholarships) and third-party jargon (i.e., CSS, CSS Profile, and CollegeBoard CSS Profile) may have been confusing or unfamiliar for prospective first-generation college students in this study. These findings were logical, however, as students who are first-generation may not have access to a parent, guardian, or support person with experience in applying for federal student aid or applying to a postsecondary institution. The CollegeBoard CSS Profile (CSS is short for college scholarship service) is used by some U.S. institutions of higher education to help students apply for both federal student aid and institutional grants

and scholarships. It is likely that respondents in this study were unfamiliar with this application system—and the related jargon terms “CSS” and “CSS Profile”—as the respondent.

Finally, trigram “populate the application” (18 mentions) was an outlier in the study in terms of jargon category. “Populate the application” was commonly reported as unfamiliar but is not federal student aid jargon, institutional jargon, or third-party jargon. In addition, it was one of the only jargon terms in this study to include a verb. Akin to the reporting of “student portal” in text one, the trigram “populate the application” is a technological jargon term which describes how text or information can be inputted into fields and “populated” or “filled” into an application or a form. Here, prospective first-generation college students may be unfamiliar with complex technological terms—such as “student portal” and “populate the application”—or may be unfamiliar with relatively obscure words used to describe what amounts to the completing of a form.

Text Three

A critical finding of this study is that the reported terms in text three were entirely unique from the reported terms in the previous texts. However, similar to first two texts, respondents frequently reported acronyms as being unfamiliar, as all unigrams in text three were acronyms, in addition to two bigrams. Regarding unigrams, prospective first-generation college students reported three acronyms much more frequently than others: “ITINS” (75 mentions), “eTASFA” (50 mentions), and “TASFA” (25 mentions). “ITINS” stands for Individual Taxpayer Identification Number and is a “tax processing number issued by the Internal Revenue Service” (Internal Revenue Service, 2019, para. 6). Similar to text two, prospective first-generation students may be unfamiliar with federal tax and Internal Revenue Service jargon, especially if the student is younger and has not filed their

own taxes in the past.

When revisiting this study’s database and the source of text three, the research team learned text three came from a Texas institution: the “eTASFA” and the “TASFA” serve as the electronic and paper versions of the Texas-specific FAFSA, standing for the Texas Application for Student Financial Aid (National Association of Student Financial Aid Administrators, 2018). Given this finding, it was unsurprising to discover so many prospective first-generation students reported “eTASFA” and “TASFA” as confusing or unfamiliar, as these students may be unfamiliar with Texas-specific financial aid application systems if the students are not from Texas. Potentially adding to the confusion, “eTASFA” and “TASFA” were not defined in text three. 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.

Other unfamiliar unigrams included the acronyms “CPS” (11 mentions), and “CASH” (10 mentions). CPS stands for central processing system which “manages the application and eligibility determination portion of the federal student aid process” by gathering “information from applicants via the Free Application for Federal Student Aid” (U.S. Department of Education, 2019, para. 1). CASH stands for check aid status here, which the research team learned was another institution-specific acronym. Here, it was logical to learn prospective first-generation college students would be unfamiliar with “CPS” and “CASH,” as CPS is related to the process of applying for federal student aid, while CASH is institution-specific to a certain Texas institution. As previously stated, it may have been confusing for prospective first-generation college students to encounter federal-level and institution-level jargon in the same set of federal financial aid application instructions.

The reported bigrams from text three

also contained acronyms, including “SB 1528” (8 mentions) and “HB 1403” (6 mentions). After further research, the research team learned these acronyms stand for Texas-specific legislation regarding student fees and tuition rates. State Bill 1528 and House Bill 1403 address how students gain and maintain residency for in-state tuition rates (Texas Higher Education Coordinating Board, 2008). Unsurprisingly, prospective first-generation college students reported these Texas-specific acronyms to be unfamiliar, as the students may not have been living in Texas or familiar with Texas law.

Other reported bigrams included “non-rejected status” (9 mentions), “institutional aid” (5 mentions), and “coordinating board” (3 mentions). Similar to the findings from text one regarding “delay of funding,” these aforementioned bigrams do not contain overly complex words, which may signal that prospective first-generation students may have been unclear about what specifically constitutes “non-rejected status” or what exactly a “coordinating board” does or is responsible for. In addition, these three bigrams did not appear in text one or two, leading the research team to hypothesize that these terms may not be necessary for students to read when applying for federal student financial aid.

Finally, the reported trigrams in text three included a blending of federal- and state-specific jargon. “Central processing system” (20 mentions) was easily the most frequently reported trigram, while “Apply State Application (6 mentions) was the most frequently reported trigram which was also state-specific. In addition, general financial aid jargon trigrams included “establishing in-state residency” (5 mentions), “international state resident” (4 mentions), and “transfer scholarship application” (2 mentions). Here, the research team found it interesting that text three included information pertinent to both domestic and international applicants, given the presence of “international state resident” in the list of frequently reported terms. As a result, prospective first-genera-

tion college students—applying as domestic students—may be confused by the inclusion of international student information. Overall, text three included a blending of federal- and state-specific jargon, along with domestic and international student information that may be confusing for prospective first-generation college students unfamiliar with the U.S. higher education system.

Delimitations

Any survey study is delimited by the reliability of the survey and the honesty of its respondents. Additionally, this study used a cash incentive to gather surveys, while the survey respondents were also limited to Amazon users with Amazon Mechanical Turk accounts. Yet, as a unique approach to assess financial aid jargon knowledge of prospective first-generation students, many of this study’s delimitations are mitigated by the study’s large sample size and its inventiveness.

Regarding the survey respondents, White respondents (61%) and Hispanic respondents (13%) were underrepresented, while Black respondents (16%), Asian respondents (6%), and Native American respondents (3%) were slightly overrepresented according to the most recent U.S. Census data available. Similarly, women respondents were overrepresented (56%), and men respondents (39%) were underrepresented in this study. Future research could address different prospective and current student populations, including postsecondary students in Puerto Rico, as this study did not gather a Puerto Rican respondent, yet institutions in Puerto Rico do participate in Title IV programs.

Implications for Praxis

Ardoin’s (2013) foundational work with rural students established that there are many financial aid jargon terms that may be unfamiliar or confusing to prospective college students. Recently, Burd et al. (2018) analyzed thousands of financial aid award letters and found these letters are often jar-

gon-heavy, which may be confusing for prospective first-generation college students and their support networks. However, Burd et al.'s (2018) work assumed prospective students were already able to complete the FAFSA and receive their award letter. Taking a step backward in the federal student aid process, this study found institutional financial aid application instructions may be confusing for prospective first-generation college students, echoing Ardoin's (2013) work. As the first study of its kind to specifically assess prospective first-generation college student knowledge of the federal student aid application process, there are important several implications of this study relevant to student affairs practitioners and professionals working in financial literacy, financial aid, and enrollment management.

First, there is no extant research to address why respondents who chose not to disclose which religion they practice would report the fewest terms. However, respondents who reported being gender non-binary conforming may have reported more jargon terms than their peers given extant research suggesting gender non-binary conforming individuals are often minoritized by U.S. institutions of higher education, including experiencing difficulty when applying for financial aid and accessing the higher education system (Nicolazzo, 2016). From here, student affairs professionals should continue to explore how members of the LGBTQIA+ community are minoritized from the U.S. higher education system, including during essential processes such as applying for federal student financial aid.

Second, this study's findings suggest institutional instructions for applying for federal student aid often blend federal-, state-, and institution-specific jargon, and this jargon often appears in the form of acronyms. Specifically, many prospective first-generation college students in this study reported "FAFSA," "MPN," and "IRS DRT" as unfamiliar. From here, student affairs professionals should ensure written communication including acronyms also includes a definition

of those acronyms and additional educational resources to explain these acronyms. For instance, it may be beneficial—and very simple—for institutions to define "MPN" and explain that this document is a promise that a student will repay their loans. This 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 a synonym. As a result, student affairs professionals—especially those working in financial aid—must be cognizant of acronym use, especially considering that first-generation college students inherently have no personal or first-hand experience with the U.S. higher education system, a suggestion forwarded by Ardoin (2013) and Ardoin and Martinez (2019).

In another critical finding of this study, many of the reported jargon terms in this study may have been simple for practitioners to understand but confusing for students. For instance, jargon terms such as "delay of funding," "non-rejected status," and "entrance counseling" may contain simple words and be familiar to financial aid counselors who use these terms on a daily basis. In short, these seemingly simple terms may be part a financial aid professional's everyday lexicon, but prospective first-generation college students in this study were unsure what these terms meant. From here, student affairs professionals should reflect upon their professional language and engage with current and prospective students to learn whether this professional language is appearing in student-focused communications, such as federal student aid application instructions. These reflections could take the shape of focus groups of students who are asked to read institutional communication and identify any problematic, confusing, or unfamiliar language.

Another potentially confusing aspect of institutional financial aid application instructions in this study was state-specific application processes and legislation. Although legislative tuition policies are important for

institutions across the country, it may be confusing for prospective first-generation college students to learn about such policies while trying to apply for federal financial aid. Similarly, prospective first-generation college students exploring out-of-state institutions may be disadvantaged by the presence of state-specific financial aid application processes with whom they may be unfamiliar. At the state and federal level, student affairs professionals and researchers ought to collaborate and decide which state-specific processes—and overall language—should be present in federal financial aid application instructions, as all post-secondary students in the U.S. complete the same application: the FAFSA. Short of standardizing the instructions for applying for federal student aid, institutions should consider collaborating and standardizing some, if not all, of the language used to articulate financial aid application processes.

Illustrating this point, the semantic diversity of financial aid application instructions was notable in this study. Every text featured different unigrams, bigrams, and trigrams, except for “FAFSA” appearing as unfamiliar in text one and two. This linguistic diversity may make it difficult for all prospective students to explore different institutions and choose the best fit. Additionally, if such concepts as “master promissory note,” the “IRS DRT,” and “ITINS” are so important for prospective students to understand, it is hard to rationalize why only text one included “master promissory note,” only text two included “IRS DRT,” and only text three included “ITINS.” The semantic diversity of federal financial aid application instructions was an alarming finding of this study, as it seems all three institutions employed different lexicons to describe the same process. This is not a practice that benefits students, parents, or their support networks seeking U.S. higher education.

Finally, there was no relationship between the readability difficulty and the number of reported unfamiliar jargon terms. For instance, text three was the most difficult

by readability level (16.4th-grade), yet respondents reported the fewest jargon terms in text three (n=319). However, text two was the longest (520 words), and respondents reported the greatest number of jargon terms in this text (n=497). Although a small sample size in terms of number of texts, these results suggest the longer the instructions are, the more confused students may become while reading them. This phenomenon may speak to either reader fatigue or the possible stress induced by reading financial-related content, perhaps resulting in lower levels of reading comprehension. As a result, student affairs professionals should pay careful attention to the length of student-focused communications, and whether professionals can become more economical with their words through proofreading and editing processes.

Conclusion

Results of this study supports Ardoin’s (2013) and Burd et al.’s (2018) work, suggesting prospective first-generation college students may be unfamiliar with financial aid jargon. This phenomenon may be contributing to the many postsecondary students failing to complete the FAFSA, subsequently leaving billions of Pell Grant dollars unclaimed (Helhoski, 2018). Given these findings, student affairs professionals should collaborate with researchers—and themselves perform research—alongside financial aid administrators to consolidate and simplify the language of financial aid.

To render the U.S. higher education system a more accessible one, student affairs professionals could start by explaining the process of applying for federal student aid in simpler, more accessible terms. Prospective first-generation college students should not be made to read and comprehend a language they may not understand. Instead, the U.S. higher education system should consolidate, simplify, and standardized its lexicon, ultimately speaking to their students in a language everyone can understand.

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