

March 2023

Talk Debt to Me: An Applied Linguistics Approach to Exploring College Student Preferences for Student Loan Debt Letters

Zachary W. Taylor

The University of Southern Mississippi, zt@utexas.edu

Elizabeth A. Rainey

Loyola University New Orleans, earainey@loyno.edu

Chelseaia Charran

Université du Québec à Trois-Rivières, ccharran13@utexas.edu

Gretchen Holthaus

University of Nebraska at Lincoln, gretchen.holthaus@wichita.edu

Linda Eguiluz

Boise State University, linda.eguiluz@austincc.edu

See next page for additional authors

Follow this and additional works at: <https://ir.library.louisville.edu/jsfa>



Part of the [Higher Education Administration Commons](#)

Recommended Citation

Taylor, Zachary W.; Rainey, Elizabeth A.; Charran, Chelseaia; Holthaus, Gretchen; Eguiluz, Linda; Horne, Ada; Francisco, Myra; and Weber-Wandel, Karla (2023) "Talk Debt to Me: An Applied Linguistics Approach to Exploring College Student Preferences for Student Loan Debt Letters," *Journal of Student Financial Aid*. Vol. 52 : Iss. 1 , Article 4.

DOI: <https://doi.org/10.55504/0884-9153.1759>

Available at: <https://ir.library.louisville.edu/jsfa/vol52/iss1/4>

This Research Article is brought to you for free and open access by ThinkIR: The University of Louisville's Institutional Repository. It has been accepted for inclusion in Journal of Student Financial Aid by an authorized administrator of ThinkIR: The University of Louisville's Institutional Repository. For more information, please contact thinkir@louisville.edu.

Talk Debt to Me: An Applied Linguistics Approach to Exploring College Student Preferences for Student Loan Debt Letters

Authors

Zachary W. Taylor, Elizabeth A. Rainey, Chelseaia Charran, Gretchen Holthaus, Linda Eguiluz, Ada Horne, Myra Francisco, and Karla Weber-Wandel

Talk Debt to Me: An Applied Linguistics Approach to Exploring College Student Preferences for Student Loan Debt Letters

By Zachary W. Taylor, The University of Southern Mississippi, Elizabeth A. Rainey, Loyola University New Orleans, Chelseaia Charran, Université du Québec à Trois-Rivières, Gretchen Holthaus, University of Nebraska at Lincoln, Linda Eguiluz, Boise State University, Ada Horne, Harvard University, Myra Francisco, United States Government Accountability Office, and Karla Weber-Wandel, University of Wisconsin-Madison

Although student loan debt has been rigorously studied over the past several decades, scant research has investigated how institutions of higher education communicate debt to current and former student borrowers. As COVID-19 forced the United States Department of Education to cancel the Annual Student Loan Acknowledgement as part of a student's signing of the master promissory note (MPN), there are no other mechanisms for students to be aware of their student loan debt beyond a debt letter from their institution or reviewing their National Student Loan Debt System (NSLDS) portal. This applied linguistics study surveyed 2,030 current student loan borrowers attending U.S. institutions of higher education to explore their preferences for receiving a student loan debt letter. Results suggest students of Color and first-generation in college students strongly prefer shorter, simpler letters, while there were no statistically significant preferences by gender. Implications for research and practice will be addressed.

Keywords: *student loan debt; debt letters; student finance; college students; debt; money; personal finance*

As the costs of a postsecondary education in the United States (U.S.) has risen over the years, postsecondary students have taken to borrowing loans—either federally- or privately-held—to finance their education (Consumer Finance Protection Bureau, 2020; U.S. Department of Education, 2019). As the costs of postsecondary education have outpaced the rate of inflation since the 1980s and student loan debt in the U.S. has exceeded \$1.7 trillion, many have deemed student loan debt a “crisis” (Quinton, 2016b, para. 1; Taylor et al., 2021, p. 29; Woodruff, 2015, para. 1). As a result, educational organizations and institutions of higher education have made concerted efforts to inform students of their borrowing to educate these students on a variety of topics: repayment, adjustment of borrowing habits, alternative sources of funding, and the repercussions of default (Darolia, 2016; Darolia & Harper, 2018; Marx & Turner, 2020; Stoddard et al., 2017).

At the federal level in 2012, the U.S. Department of Education released the Financial Aid Shopping Sheet, which later became the College Financing Plan, a tool for students to use to understand their financial aid packages, institutional costs of attendance, and their overall student loan borrowing plans (U.S. Department of Education, 2019). Similarly, in 2020, the Consumer Finance Protection Bureau released Your Financial Path to Graduation, an online tool meant to “designed to help students clearly understand the total cost of attending college and make informed decisions about paying for their education” (para. 1). Within the student loan borrowing experience itself, in 2019, the U.S. Department of Education's Office of Federal Student Aid announced that an Annual Student Loan Acknowledgement (ASLA) would be added to a student's master promissory note (MPN). The ASLA would alert the student of how much outstanding student loan debt they held while acknowledging their commitment to repay their loan through the signing of their MPN (Federal Student Aid, 2020). However, as a result of the COVID-19 pandemic, Federal Student Aid announced that the ASLA would not be integrated into the MPNs of students who were filing the Free Application for Federal Student Aid (FAFSA) for 2021-2022.

At the state level, legislators in 13 states across the U.S. (California, Florida, Illinois, Indiana, Maryland, Nebraska, Oregon, Pennsylvania, Texas, Utah, Virginia, Washington, and Wisconsin) have passed laws to require Title IV participating institutions of higher education to send their student borrowers a student loan debt letter (Attigo, 2021). This student loan debt letter is meant to inform borrowers of their

current borrowing level including outstanding loan balance, overview of outstanding loan types, associated interest rates, and estimated monthly repayment plans (Darolia, 2016; Taylor et al., 2021). However, sparse research has explored the effects of sending a student loan debt letter, with few studies finding that student borrowing behavior may change as a result of receiving a letter (Darolia, 2016; Quinton, 2016a), while other studies have found that receiving a debt letter does not change student borrowing behavior (Darolia & Harper, 2018; Stoddard et al., 2017).

These mixed findings possibly speak to the problematic nature of student loan debt letters across three major issues: the purpose of a debt letter, what is required within the letter, and how the debt letter is written. First, no studies have explored specifically why state legislators or institutions send student loan debt letters other than to alert students of their borrowing. From here, it is difficult to measure outcomes if there is not a clear purpose for sending the letter in the first place. Moreover, researchers have argued that sending a single letter once per year without understanding an institution's broader financial literacy efforts on campus may skew the effects of a student reading a debt letter (Taylor et al., 2020; Taylor et al., 2021). Second, each of the 13 states requiring debt letters have different standards for the letter, including the information in the letter itself (loan types, loan amounts, interest rates, resources, etc.) and the mode of sending the letter (frequency, email versus physical mail, etc.) (Attigo, 2021). From here, it is difficult to understand how a student debt letter from an institution in Texas may have a different effect on a student than a debt letter from California, seeing as the states require different criteria and institutions send the letters in different ways (Taylor et al., 2021). Finally, recent research has suggested that student loan debt letters may not be readable for the average borrower, as Taylor et al. (2021) learned that debt letters are often written above the 14th grade English reading level, are rarely translated into other languages, and contain problematic and unfamiliar jargon such as subsidized, Parent PLUS, and accrual. Here, student borrowers may not understand their student loan debt, rendering it difficult to measure the outcomes and effectiveness of such an intervention.

To better inform the literature surrounding student loan debt communication and explore student interactions with debt-related messaging, this study investigates a simple element of student loan borrowing: Student preferences for debt-related communication. We already understand that many debt letters may not be readable (Taylor et al., 2020; Taylor et al., 2021) and that the effects of student loan debt letters are inconclusive (Darolia & Harper, 2018; Stoddard et al., 2019). What the field does not know is how students want to be communicated with. Within this study, we surveyed 2,030 postsecondary students with outstanding student loan debt to articulate their preferences for receiving a student loan debt letter, unearthing how institutions can better speak to their student borrowers and inform their borrowing, possibly leading to greater interaction and communication between a student and their institution(s). This work should influence how institutions craft their student loan debt letters and how policymakers can advocate for the clear, consistent communication of debt-related messaging to postsecondary students, possibly assuaging the student loan debt "crisis" (Quinton, 2016b, para. 1; Taylor et al., 2021, p. 29; Woodruff, 2015, para. 1).

Review Of Literature

This literature review will provide synopses of three studies that were conducted to evaluate the effectiveness of student loan debt letters in the United States. While these research findings are limited in their generalizability when considered individually, together the three studies may provide a more complete understanding of debt letters and their associated outcomes.

Debt and Borrowing Research Focused on Postsecondary Students

Although an exhaustive review of all debt-related research regarding college students is far beyond the scope of this study, it is important to highlight several main trends in how institutions inform their students of

their debt and borrowing habits, in addition to educational interventions to alert students to financial concepts and debt knowledge. Longitudinal studies of college student debt and specific borrowers have found that low-income students are particularly debt averse and avoid college borrowing at many costs (Boatman et al., 2017), while particular students have gaps in knowledge regarding student loans and borrowing, including students of Color (Ahlman & Gonzalez, 2019; Elliot & Lewis, 2015), low-income students (Ahlman & Gonzalez, 2019; Boatman et al., 2017; Huelsman, 2015), and first-generation college students (Lee & Mueller, 2014).

Aside from written communication such as debt letters, many institutions of higher education offer financial literacy classes and financial wellness programming to help students understand debt and borrowing (Beale & Cude, 2017; Britt et al., 2011; Leighty, 2018). Moreover, national efforts have been made to simplify the financial aid and loan borrowing process, including simplifications of the Free Application for Federal Student Aid (FAFSA) (Taylor, 2019, 2020) and Federal Student Aid introducing a simplified College Financing Plan (formerly known as the Financial Aid Shopping Sheet) (U.S. Department of Education, 2020). However, to date, there has been no universal or standardized financial aid award letter system, debt letter system, or any other mechanism to describe and detail a students' debt and pathways toward completing a degree and successfully repaying that debt. As a result, this study fills an important gap in the research to explain how several institutions are directly communicating debt to students and whether these communications could or should be tied to student behaviors, such as reduced borrowing, academic pathway changes, enrollment changes, or other debt-related reactions.

Review of Debt Letter Findings To-Date

Together, the three studies at Indiana University, Montana State University, and the University of Missouri suggest that debt letters by themselves may not be effective in reducing student loan debt, but as part of larger financial education programs, they may be beneficial. When students are provided with information on additional resources they may access, they are more likely to engage in help-seeking behavior (Darolia & Harper, 2017). Experimenting with other methods of communicating student debt information, such as through academic courses, presentations, and the use of social media is also recommended (Darolia & Harper, 2017). Including information on Satisfactory Academic Progress and other incentives to graduate on-time are important to include in student debt letters as well (Stoddard et al., 2017).

The most recent study to date, McKinney's (2020) dissertation, focused on the effect of a debt letter on community college student decision making, including decisions on enrollment, academic programs, and borrowing. McKinney (2020) ultimately found that community college students who received a debt letter were more likely to borrow less of a total percentage of their available loan amount than students who did not receive the letter. McKinney (2020) employed t-testing without regressing individual student characteristics, leaving room for future research to explore how student identity (age, race/ethnicity, gender, etc.) may impact student debt letter interpretation and subsequent action. Moreover, McKinney's (2020) findings suggest that student loan debt letters may influence student borrowing, but that student loan debt letters may be one source of information that a student uses to decide how to manage their educational debt.

Indiana University Debt Letters

As one of the first universities to initiate debt letters in 2012, Indiana University is often looked to as a success story associated with this initiative (Darolia, 2016). Within two years of instituting debt letters,

student loan borrowing at the institution had been reduced by about \$44 million, or 16% overall (IU Newsroom, 2015b). By 2018, federal and private loan borrowing at IU had decreased by 19%, or more than \$126 million total (McRobbie, 2018). These results garnered a great deal of media attention at the time, with articles published in national news sources such as *The Wall Street Journal* (Korn, 2017), *CNN Money* (Quinton, 2016b), and *Yahoo Finance* (Woodruff, 2015), among others. Some of these articles asked, “Could this simple solution solve the student loan crisis?” (Quinton, 2016b). While the debt letter solution may have seemed simple to outsiders, a much more complex financial literacy initiative was in place at Indiana University.

During this timeframe, the university developed a “multi-faceted financial literacy program and started adopting policies to increase student financial assistance and promote on-time graduation” (IU Newsroom, 2016a). In addition to debt letters, IU also offered peer-to-peer financial counseling, a podcast on personal finance, a website with quizzes and loan calculators, a full-time enrollment campaign, and changed the financial aid loan acceptance process to make it easier to decline loans (Quinton, 2016a). Because the debt letters were part of larger efforts to reduce loan borrowing, it is difficult to determine the effects from the letter alone, as other initiatives were also implemented during this timeframe.

Administrative focus on financial education efforts was also exceptionally high at Indiana University during this time. Indiana University’s president mentioned the university’s work on financial literacy as a priority in every state of the union address from 2011 to 2018 (McRobbie, 2018). The president also chose to award the senior vice president and chief financial officer at Indiana University, Mary Frances McCourt, with the President’s Medal for Excellence for her work on student affordability and her oversight of the IU Office of Student Financial Literacy in 2016 (IU Newsroom, 2016b). In addition to a high level of institutional focus on financial education, the university also led a national initiative on financial literacy by co-founding the Higher Education Financial Wellness Association, formerly known as the National Summit on Collegiate Financial Wellness (IU Newsroom, 2015a).

Due to the comprehensive financial literacy efforts in place at Indiana University, as well as the administration’s extraordinary focus on the subject, the loan debt reduction experienced at IU may not be causally linked to student loan debt letter initiatives alone. To determine the effects of loan debt letters, it is beneficial to turn to other institutions that have implemented similar stand-alone initiatives for further examination.

Montana State University Debt Letters

Debt letters similar to Indiana University’s were implemented by Montana State University in 2012 and reviewed by Stoddard, Urban, and Schmeiser in 2017. Montana State’s letter differed in that it included debt thresholds at which point letters would be sent to some, but not all, students. Freshmen who had more than \$6,250 in student loans, sophomores with more than \$12,000, juniors with more than \$18,750, and any student with more than \$25,000 in debt received a letter at Montana State. Students were provided with incentives to meet with financial planners and career coaches. Montana State’s debt letters also included strategies to reduce borrowing and work towards a timely graduation. In particular, federal Satisfactory Academic Progress regulations were outlined, informing students of the need to pass 67% of courses each semester to continue to receive federal funding. Information was also shared on the university’s banded tuition program, in which students do not incur any additional tuition charges after enrolling in 12 credit hours a semester. By charging the same amount for 12 and 15 credit hours, for example, the university sought to increase credit hours completed, leading to higher on-time graduation rates. Additionally, benefits to earning a college degree were outlined by Montana State, including lower average unemployment rates and better long-term health outcomes.

To study the outcomes of Montana State’s debt letter, Stoddard, Urban, and Schmeiser (2017) used a difference-in-differences approach, using the University of Montana as a comparison site, where no student debt letters were sent. In this study, the researchers did not find a significant reduction in the

amount of student loans borrowed due to the debt letters. However, the researchers did find positive academic effects associated with the debt letters.

Receiving a letter increased average grade point averages for the semester, as well as the number of credit hours completed. These effects continued into the following semester and year. Students receiving debt letters also experienced higher retention rates by semester and year compared to their peers who did not receive the letters at the University of Montana. The authors of the report argue that the academic successes students experienced may be attributable to the information provided about Satisfactory Academic Progress. While student loan debt did not significantly decrease, there were other, unintended positive outcomes associated with the letters. Montana State's outcomes suggest that outlining Satisfactory Academic Progress and other benefits to completing coursework towards a timely graduation are important to include in student loan debt letters.

University of Missouri Debt Letters

Another study of debt letters was produced by Darolia and Harper in 2017 at the University of Missouri. Debt letters sent by the university differed from other debt letters in that they only provided factual information about loan debt and estimated repayments. Unlike Montana State and Indiana University, other financial education resources were not promoted simultaneously, and students were not outwardly encouraged to reduce their borrowing. Debt letters at the University of Missouri were not written with the intent to increase or decrease loan-borrowing behavior, but rather to provide factual information. Darolia and Harper (2017) found in their 2017 review that sending a debt letter at the University of Missouri did not lead to a change in the amount students borrowed or the likelihood that they would borrow. Although Missouri's debt letter did not alter borrowing behavior, it did induce more information seeking among some students. The researchers found that students receiving debt letters were two percent more likely to seek a meeting with a financial aid officer.

Interviews conducted by Darolia and Harper (2017) with debt letter recipients demonstrated that students did not find the letters particularly distinguishable from others sent by the financial aid office or other offices on campus. Out of 23 students interviewed, just nine remembered receiving the debt letter, and another four reported being unsure. Additionally, two out of four students in a control group stated that they had received the debt letter, when they in fact had not. Overall, the debt letters sent at the University of Missouri did not appear to be particularly memorable for students.

One concern about sending debt letters is that they may potentially discourage students who need loans to complete their education from utilizing them (Quinton, 2016a). Research demonstrates that students who are averse to borrowing and have unmet need of \$2,000 or more during their first year of college are less likely to complete their degree, for example (Institute for Higher Education Policy, 2008). The researchers at the University of Missouri, therefore, looked for any negative completion outcomes associated with sending debt letters to students. They found no negative outcomes associated with sending debt letters to students, however. Students receiving debt letters were no more likely to withdraw from courses, change their major, leave the university, or change the number of hours they worked in work-study positions (Darolia & Harper, 2017).

Although the researchers were unable to determine any harm that had been caused by the letters, they did find that they may not be the most effective approach to addressing student loan debt either. Half of students who received an emailed debt letter reported that they believed that it was the best approach, while the other half that were interviewed did not recommend debt letter emails, believing that students skimmed or overlooked them (Darolia & Harper, 2017). The researchers found that students who receive

frequent communication about their finances may decrease their attention to any one message. Some students even reported purposefully avoiding paying attention to their student debt. In interviews, students suggested that other approaches such as tweets, texts, songs/videos, presentations/budgeting classes, letters sent to parents, or one-on-one financial or academic advising may be more beneficial. It is important to note that, overall, students who were interviewed about debt letters referred to their lack of understanding, not a lack of data as hindering their financial decision-making.

Other Research About Debt-Related Messaging for Postsecondary Students

U.S. institutions should be aware of how their student loan debt letters are written and whether their students are able to read and fully comprehend the letters they send. Letters may be written differently between actors and institutions. The reading level of financial aid award documents, for example, vary greatly in their reading grade level between institutions (Taylor & Bicak, 2019). Many financial aid offices craft financial aid websites at a higher reading level than students are currently at (Taylor & Bicak, 2019). These are problematic findings, as literacy research demonstrates that the average U.S. resident reads at the 7th grade reading level (Clear Language Group, 2020), and just 37% of high school graduates read at the 12th grade level in the United States (National Assessment Governing Board, 2020). Beyond financial aid materials, many other forms of postsecondary communication have also been found to be unreadable by college students and rarely translated into languages beyond English (Taylor, 2019, 2020).

Further compounding the difficulties students may face in reading text above their reading grade level is the fact that students experiencing stress or anxiety read and comprehend material differently than students who are not experiencing these symptoms (Rai et al., 2015). Students experiencing financial stress may, therefore, exhibit different outcomes than students who are not experiencing high levels of financial stress when reading student loan debt letters. Additionally, the origin and duration of stress and/or anxiety a student experiences may impact cognitive function and reading comprehension (Sandi, 2013). Students with prolonged levels of financial stress, therefore, may read and comprehend information differently than students who have experienced shorter periods of stress.

Research demonstrates that reading comprehension also depends on the difficulty and the familiarity of the reading task at hand (Plieger et al., 2017). Some acute stress in a well-rehearsed task may actually improve comprehension, while long-term stress or anxiety may worsen comprehension (Rai et al., 2015). New reading tasks that are unfamiliar to students may reduce comprehension overall, while tasks that are familiar or have been experienced in similar ways before may result in higher levels of reading comprehension. Upon receipt of a debt letter, college students may be reading debt-related or financial-related content for one of the first times in their life, as new financial situations can be stressful to experience and discuss, financial-related information should be written as simply as possible without removing critical information from the material (Taylor, 2018, 2019, 2020; Taylor & Bicak, 2019).

Together, the current literature suggests that reading comprehension may be an important element to consider when evaluating the effectiveness of student loan debt letter interventions. Factors that impact reading comprehension are necessary to consider when crafting debt letters and policies associated with them. Studying the linguistic differences between institutional debt letters may help contribute to our understanding of the differences experienced in outcomes between institutions. It may also help provide guidance for future policy decisions pertaining to debt letters.

Methods

This study employed both quantitative and qualitative measures to understand postsecondary student preferences for receiving a student loan debt letter. The following sections will outline how the research team contrived the study, how data was collected and analyzed, and how the team addressed limitations.

Formulating the Study

To explore postsecondary students' debt letter preferences, the research gathered debt letters from over forty institutions of higher education across the U.S. through word-of-mouth and snowball sampling. As members of the research team work professionally in student financial aid, the team engaged with their professional networks across the 13 states who mandate student loan debt letters. After collecting the letters, the team employed Readability Studio (Oleander Software, 2021) to analyze the length and readability of each debt letter, in addition to a qualitative analysis of content in both text (loan types, interest rates, etc.) and other elements (presence of hyperlinks, images, tables, etc.). This analysis allowed the team to understand how difficult the debt letters were in terms of readability (a measure of word and sentence complexity resulting in a grade-level equivalent of readability difficulty) and depth of content. The readability measures included those used in prior studies of postsecondary communication readability (Taylor, 2019, 2020; Taylor & Bicak, 2019; Taylor et al., 2021), including the Automated Readability Index (Kincaid & Delionbach, 1973), the Gunning-Fog Index (Gunning, 1952), the Flesch-Kincaid Grade Level Test (Kincaid et al., 1975), and the Simple Measure of Gobbledygook (SMOG; McLaughlin, 1969).

However, the team knew that asking current student loan borrowers to read over forty debt letters and provide qualitative feedback was unfeasible and time consuming. As a result, the team reviewed the letters and selected three letters—one simple, one more complex, and one very complex—from three different states to include in the study. The debt letters were displayed to each survey respondent in the following order: more complex letter, simple letter, very complex letter (see Appendices A-C). In addition, the team desired a large sample size to increase the generalizability of the work, understanding that prior studies had already found that single institution studies and strictly qualitative studies did not produce generalizable results or investigate student preferences for receiving a student loan debt letter. Consequently, the team agreed upon a survey design which asked survey respondents to select one of the three letters as their preferred letter and then provide qualitative feedback (1-2 sentences) as to why they preferred the letter. Although a limitation of the study, the team felt the survey design would best support mixed methods analysis and allow for a large sample size for generalizability.

Finally, to render each debt letter as realistic as possible, the team blinded each letter and replaced institutional references with a pseudonym: Southmost State University. Then, the team replaced empty financial information with average student loan statistics. If the debt letter included it, we used an average 6.8% rate across a ten-year repayment period, an outstanding balance of \$30,000, and estimated monthly payments of \$345 to reflect national student loan debt averages (Korn, 2017; Woodruff, 2015). These three letters can be found at the end of this study in the Appendices section (Appendices A-C).

Data Collection

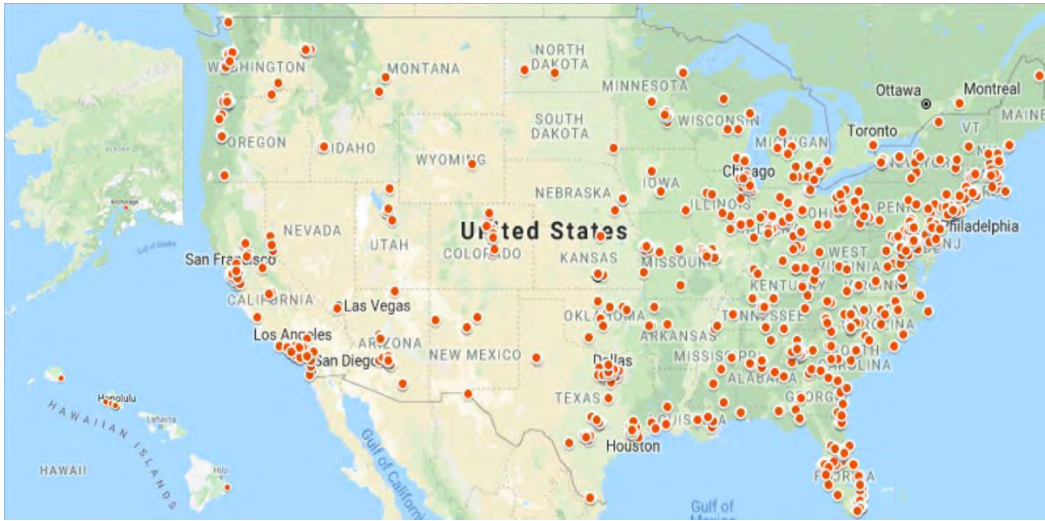
The team composed a survey which included asking students for their preferred debt letter, why they preferred the letter, and a basic solicitation of demographic information (gender, race/ethnicity, age, bilingual status, English as a second language status, first-generation in college student status, yearly income, and religion). The team created the survey on Qualtrics and conducted the survey on Amazon Mechanical Turk (MTurk), “is a crowdsourcing marketplace that makes it easier for individuals and businesses to outsource their processes and jobs to a distributed workforce who can perform these tasks virtually” (Amazon Mechanical Turk, 2018).

Studies focused on the use of MTurk for educational research has found that MTurk can often help produce diverse survey samples and MTurk's built-in survey filters can remove many bad actors and

incomplete survey responses from a data pool (Follmer et al., 2017). As a result, the team viewed MTurk as a reliable method of data collection across the United States, as the survey was created using skip logic to filter all non-postsecondary students and non-student borrowers from the sample. In addition, the team used MTurk’s respondent filters to ensure all respondents were completing the survey from a U.S. Internet service provider (ISP) and all had 95% approval rates on their prior survey completion on the MTurk platform. A geospatial map of survey respondents in this study can be found in Figure 1 below:

Figure 1

Geospatial Map of Survey Respondents



Note. ($n=2,030$)

Data Analysis

To adequately answer this study’s research questions, the research team employed a mixed methods approach to data collection and analysis. Regarding quantitative methods, the team first calculated summary statistics to present student preferences for debt letters across all demographics gathered in the survey. The team felt this approach first allows the reader to understand the demographics of the survey respondents, as well as clearly see how preferences differed across different demographics. Then, the team performed a series of logistic regression with each debt letter serving as the dependent variable coded in a binary fashion (0=does not prefer the letter, 1=does prefer the letter). Within the logistic regression model, we included all demographics, in addition to the seconds required for survey completion to control for a survey respondent’s technology proficiency, Internet connection speed, reading ability, and other time-based factors that may have influenced survey completion and accuracy. The logistic regression model was calculated thus:

$$\begin{aligned}
 p(\text{debt letter preference} = 1) & \\
 &= F[\beta_0 + \beta_{\text{gender}} + \beta_{\text{race}} + \beta_{\text{religious}} + \beta_{\text{first-generation}} + \beta_{\text{bilingual}} \\
 &+ \beta_{\text{ESL status}} + \beta_{\text{income}} + \beta_{\text{seconds}} + \beta_{\text{age}} + e]
 \end{aligned}$$

The results of the quantitative analysis can be found in Table 3 in the Results section of this study.

Regarding qualitative analysis, the research team engaged with a grounded theory coding strategy (Charmaz, 2006) to review the qualitative feedback from 1,386 survey respondents to generate themes related to why these college students preferred certain debt letters over others. In the survey, the research team made it optional for respondents to provide qualitative feedback, resulting in a smaller amount of qualitative data. Across seven research team members, each team member was assigned a random selection of between 200 and 300 student responses and coded each response based on that student's debt letter preferences. After the first round of coding, the reviewed files were blinded and then randomly assigned to a different research team member for another round of coding. Finally, both sets of codes were randomly assigned to a different research team member who cross checked the codes for accuracy and consistency. These blinded rounds of coding resulted in a robust and reliable set codes for college student preferences for debt letters:

- 1.) The debt letter was easy to read and not overwhelming in length.
- 2.) The debt letter was friendly in tone and was student-focused.
- 3.) The debt letter was detailed, informative, and provided helpful financial information.
- 4.) The debt letter's layout was helpful, including visual elements to help comprehension.

Additionally, there were a small number of respondents who provided unintelligible qualitative feedback, and the research team coded this data as "Unclear"—these responses only represented 39 responses out of 1,386 total responses or 2.8% of the data. The results of the qualitative analysis can be found in Table 4 in the Results section of this study.

Limitations

As with any survey study, there are inherent limitations regarding the honesty of the survey respondents and the accuracy to which they respond to the survey questions. However, the research team attempted to mitigate data quality issues through the prioritization of highly rated survey respondents on the MTurk platform and limitation of respondents to the United States. Regarding MTurk, research scientists have investigated this survey platform and found that MTurk may not always yield a survey pool representative of the United States and some respondents may be too motivated by financial incentives to provide reliable responses (Huff & Tingley, 2015). Moreover, because of ties to financial incentives, MTurk respondents may be more likely to misrepresent themselves and falsify responses (Wessling et al., 2017). However, related studies have found that MTurk respondents may be more attentive than subject pool respondents (Hauser & Schwarz, 2016), and MTurk respondents may be more racially and socioeconomically diverse than typical pools of survey respondents (Follmer et al., 2017), ultimately supporting the use of MTurk in this study.

Additionally, the survey only asked respondents to read three letters and provide brief qualitative feedback. There are over a dozen states that require institutions to send debt letters to their students (Attigo, 2021), and there are likely hundreds of different debt letters currently being used by these institutions. Pertinent to survey and research design, it was difficult—if not, impossible—to locate three different debt letters that were identical in terms of word count or sentence structure. As a result, survey respondents in this study read three different debt letters that were used by three institutions of higher education as of 2020, but the survey did not and could not control for debt letter semantics (word choice), syntax (sentence structure), or other elements (tables, images, etc.). Ultimately, instead of compiling three synthetic debt letters or editing the three real letters to resemble each other more closely, the research team decided to use the real debt letters, representing a limitation of the study. Here, the survey's sample of debt letters may not be representative of other debt letters sent by various institutions of higher education.

Finally, the COVID-19 pandemic represented a challenge for survey researchers across the world, and although this study's data collection occurred just before the World Health Organization declared COVID-19 a pandemic in March 2020, this study's results may not be reproducible in COVID-19 circumstances. As is well known, COVID-19 forced countless postsecondary students, faculty, and staff members to their homes for remote learning, and because this survey was web-based, future studies may have larger or different sample sizes, given so many individuals spent more time in their homes and on the Internet.

Results

A linguistic description of debt letters in this study's survey ($n=3$) can be found in Table 1 below:

Table 1

Linguistic Description of Debt Letters in Survey

Variables	Letter 1	Letter 2	Letter 3
Readability Level (all by grade reading level)			
Automated Readability Index (ARI)	14.2	12	14.5
Flesch-Kincaid (FK)	14.2	12.6	14.9
Gunning-Fog Index (GFI)	11.7	12.9	14.4
Simple Measure of Gobbledygook (SMOG)	15.5	13.8	16.1
Average	13.9	12.8	15
Paragraph-Level			
Number of Paragraphs	27	7	6
Sentences per Paragraph	1.4	2.1	2
Sentence-Level			
Number of Sentences	38	15	12
Longest Sentence (in words)	63	33	38
Average Sentence Length (in words)	19.1	18.9	20.9
Word-Level			
Number of Words	724	283	251
Number of Unique Words	267	136	137
Token-Type Ratio	0.23	0.48	0.55
Number of Complex Words (3+ syllables)	165	47	59
Number of Long Words (6+ characters)	272	101	107
Numerals (numbers, dates, currency)	14	5	3

Note. ($n=3$)

Table 1 provides a detailed description of the formats of all three debt letters, reporting readability levels and paragraph-, sentence-, and word-level characteristics. Overall, Letter 2 was the simplest to read (12.8th average English reading comprehension level), while Letter 3 was the most difficult to read (15th average English reading comprehension level). Regarding length by paragraph, sentence, and word count, Letter 1 was the longest debt letter spanning three full pages, while both Letters 2 and 3 were shorter and limited to a single page. Letter 1 also included the greatest number of unique words (words only used once, 267 total unique words) and also the greatest number of numerals, suggesting a greater level of numeracy detail (14). However, Letters 2 and 3 had higher token-type ratios (the rate of unique words over the number of overall

words in a text as a measure of word/lexical complexity), suggesting that these letters, although shorter, were more semantically (word choice) diverse and possibly more difficult to read because of varied diction.

Summary statistics of student preferences (n=2,030) for debt letters in this study (n=3) can be found in Table 2 below:

Table 2

Summary Statistics Of College Students' Debt Letter Preference

Variables	Letter 1		Letter 2		Letter 3	
	Mean	SD	Mean	SD	Mean	SD
Gender						
Woman	44.7%	-	49.8%	-	45.9%	-
Man	47.3%	-	44.4%	-	48.2%	-
Non-Binary	7.9%	-	5.8%	-	5.9%	-
Race/Ethnicity						
African American/Black	10.7%	-	22.5%	-	22.4%	-
Asian American	19.1%	-	20.9%	-	22.9%	-
Caucasian/White	58.9%	-	34.3%	-	41.6%	-
Hispanic/Latinx	10.2%	-	21.7%	-	12.7%	-
Mixed	1.1%	-	0.5%	-	<0.1%	-
Religious	70.1%	-	60.6%	-	62.0%	-
First-Generation	16.3%	-	20.5%	-	25.8%	-
Bilingual	25.3%	-	27.9%	-	21.1%	-
English as 2 nd Language	13.4%	-	15.8%	-	14.2%	-
Annual Income (in dollars)	44,904	30,257	44,805	40,923	44,779	29,168
Seconds	289.1	181.2	295.7	161.6	319.2	177.1
Age	33.9	8.1	30.8	6.9	34.1	8.5
n (total=2,030)	619		1,058		353	

Note. (n=2,030)

Letter 1

Across the 619 survey respondents who preferred Letter 1, 44.7% were women, 47.3% were male, and 7.9% of respondents identified as non-binary. For Letter 1, 10.7% were African American/Black respondents, 19.1% Asian American, 58.9% Caucasian/White, 10.2% Hispanic/Latinx, and 1.1% of the respondents identified as Mixed race/ethnicity. For those who preferred Letter 1, 70.1% reported religiousness. Another variable that was highlighted was whether the respondents were first-generation college students, of which 16.3% reported that they were. 25.3% of respondents who chose Letter 1 identified as bilingual, whereas 13.4% indicated that they spoke English as a Second Language. Of the 619 respondents who preferred Letter 1, they had an average annual income of \$44,904 with a standard deviation (SD) of \$30,257, and an average age of 33.9 with a SD of 8.1. The average respondent spent 289.1 seconds completing the survey, with a SD of 181.1.

Letter 2

Across the 1,058 survey respondents who preferred Letter 2, 49.8% of the respondents were women, 44.4% were men, and 5.8% were identified as non-binary. For Letter 2, 22.5% were African American/Black respondents, 20.9% Asian American, 34.3% Caucasian/White, 21.7% Hispanic/Latinx, and 0.5% Mixed race/ethnicity. Of those who preferred debt letter 2, 60.6% stated that they practiced a religion. 20.5% of these respondents shared that they were first-generation college students. Of those who chose debt Letter 2, 27.9% identified as bilingual, and 15.8% spoke English as their second language. Of the 1058 respondents who preferred Letter 2, they had an average annual income of \$44,805, with an SD of \$40,923, and an average age of 30.8, with a SD of 6.9. The average respondent spent 295.7 seconds completing the survey with a SD of 161.6.

Letter 3

Across the 353 survey respondents who preferred Letter 3, 45.9% were women, 48.2% were men, and 5.9% identified as non-binary. For Letter 3, 22.4% were African American/Black participants, 22.9% Asian American, 41.6% Caucasian/White, 12.7% Hispanic/Latinx, and <0.1% Mixed race/ethnicity. Of those who preferred debt Letter 3, 62.0% considered themselves religious. 25.8% of these respondents shared that they were first-generation college students. Regarding language proficiency, 21.1% identified as bilingual, and 14.2% spoke English as their second language. Of the 1058 respondents who preferred Letter 3, they had an average annual income of \$44,779, with an SD of \$29,168, and an average age of 34.1 with an SD. The average respondent spent 319.2 seconds completing the survey with a SD of 177.1. Results from logistic regression analyses to predict student preferences for debt letters can be found in Table 3.

Logistic regression analyses were used to predict student loan debt holders' preferences, controlling for the time it took for respondents to complete the survey (seconds). In Table 3, we examined whether student loan debt holders' preferences differ after controlling for different demographic variables. In the Letter 1 model, the results show that African American students (OR=-1.201, $p < 0.001$), Asian American students (OR=-.6004, $p < 0.001$), Hispanic/Latinx (OR=-1.335, $p < 0.001$) were less likely to prefer Letter 1 than White students (control group). Participants in the Letter 1 model who identified as bilingual (OR=.3476, $p < .05$) were more likely to prefer Letter 1 versus Letter 2 and 3. Older students (OR=.03594, $p < 0.001$) in the Letter 1 model and older students (OR=.0336, $p < 0.001$) in the Letter 3 model were more likely to prefer the longer letter formats. In the Letter 2 model, in contrast, we found that younger students (OR=-.0544, $p < .001$) were more likely to prefer Letter 2. Here, these results suggest strong evidence for specific student preferences for receiving debt-related communication from their institution, possibly informing how institutions can better communicate with their student borrowers.

Among other student demographics, in the Letter 1 model, we found statistical significance with participants' indication of religiosity, whereas in the Letter 2 model, we found statistical significance for those participants who indicated they did not practice religion. In the Letter 2 model, African American students (OR=.8049, $p < 0.001$), Asian American (OR=.4669), Hispanic/Latinx (OR=1.267, $p < 0.01$) were more likely to prefer the format of Letter 2, versus Letters 1 and 3. This finding is noteworthy in that in all of the Letter models as seen in Table 3, students of color were more likely to prefer Letter 2. In the Letter 3 model, an interesting finding was that students who identified as first-generation (OR=.4162, $p < 0.01$), were more likely to prefer Letter 3, with first-generation status not predicting preferences across any other letters in the study.

Finally, across all models, preference of debt letter was not significantly predicted by gender, ESL status, or income, possibly suggesting that other student demographics such as race/ethnicity or age are more predictive of debt letter preference. Table 4 outlines the qualitative analysis of student feedback when indicating student loan debt letter preferences.

Table 3*Logistic Regression Analyses Predicting Student Loan Debt Holders' Preferences For Debt Letters*

Variables	Letter 1	Letter 2	Letter 3
Gender (control=Woman)			
Man	.1598 (.1059)	-.1811 (.0974)	.0917 (.1236)
Non-binary conforming	.3858 (.2054)	-.2301 (.1974)	-.1394 (.2632)
Race/Ethnicity (control=White)			
African American	-1.201*** (.1553)	.8049*** (.1298)	.2751 (.1586)
Asian American	-.6004*** (.1372)	.4669*** (.1272)	.1541 (.1615)
Hispanic/Latinx	-1.335*** (.1836)	1.267*** (.1644)	-.2034 (.2175)
Different Race(s)/Ethnicities	.7272 (.6030)	-.1391 (.5988)	-
Age	.03594*** (.0066)	-.0544*** (.0065)	.0336*** (.0076)
Bilingual	.3476* (.1705)	-.0968 (.1616)	-.4386 (.2361)
English as a Second Language	-.0667 (.2100)	-.1423 (.1942)	.4114 (.2717)
First-Generation in College	-.2440 (.1339)	-.0704 (.1187)	.4162** (.1417)
Income (logged)	0.313 (.0549)	-.0119 (.0502)	-.0129 (.0635)
Religiosity	.4095*** (.1090)	-.2883** (.0985)	-.0954 (.1245)
Seconds to Survey Completion	-.0005 (.0003)	-.0000 (.0003)	.0007 (.0003)
Constant	-2.076 (.6145)	1.864 (.5631)	-2.811 (.7192)
Number of observations	2,030	2,030	2,030
Pseudo R-squared	0.07	0.07	0.02
LR Chi ²	178.83	186.06	46.82
Prob > Chi ²	0.00	0.00	0.00

Note. ($n=2030$); Reported coefficients (log-odds units) with robust standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; control groups defaulted to largest category size.

Results from the qualitative analysis suggest most respondents across all demographic characteristics preferred Letter 2 because of Theme 1: The debt letter was easy to read and not overwhelming in length.

Similarly, many respondents preferred Letter 1 because of Theme 3: The debt letter was detailed, informative, and provided helpful financial information. Inversely, far fewer respondents preferred any debt letter because of Theme 2: The debt letter was friendly in tone and student-focused. This result suggests that few college loan debt holders found any of the debt letters student-friendly, possibly indicating that these letters could be made more student-friendly through the language used or resources included in the letter.

Roughly one-third of respondents indicated that they preferred Letter 3 because of multiple themes: Theme 1, Theme 3, and Theme 4. This result suggests that Letter 3 may have had more universal appeal to respondents of the survey, also possibly explaining why many respondents preferred Letter 3 over Letters 1 and 2. Regarding differences by demographics, the reasons participants preferred certain debt letters over others did not vary significantly. The only remarkable differences were those between Hispanic/Latinx respondents and their preference for Letter 3 because of Theme 1 (easy to read) and bilingual individuals strongly preferring Letter 1 because of Theme 4 (layout and visual elements). Here, these results suggest debt letters could be written in different formats, lengths, and levels of detail to cater the message to different student groups, evidenced by debt letter preferences apparent in Table 3 and the reasons for those preferences in Table 4.

Discussion and Implications for Debt-Related Communication

A wealth of prior research has found that college students from a variety of backgrounds and attending different institutions of higher education view college debt differently (Ahlman & Gonzalez, 2019; Beale & Cude, 2017; Boatman et al., 2017; Elliot & Lewis, 2015; Lee & Mueller, 2014; Stoddard et al., 2017). The results of this study say the same about how college students perceive notifications of college debt: Differences exist. From here, implications emerge for practice, policy, and research that could inform how college students learn about their debt, how they act upon that debt, and the circumstances surrounding how they make debt-related decisions.

First, practitioners working in financial aid offices or in district-level finance positions (as is common among community college districts) should review the results of this study and consider differentiating their debt-related communication to student audiences. Results in Tables 3 and 4 of this study make it clear that college students from different backgrounds have different preferences for learning about their college student debt. From here, these practitioners could explore segmenting their student information systems by demographic background and write different versions of debt letters to be sent to these different segments by preference. It is logical that bilingual students in this study preferred a debt letter with visual aids: These types of aids help students understand concepts beyond text. As a result, practitioners who are looking to best inform their student borrowers of their debt, payment structure, and resources could explore differentiating this communication to ensure that the debt letter is simple, engaging, and understandable.

Regarding policy, policymakers and government officials should take notice of this study's results and possibly expand the ASLA to include simple definitions of terms, resources for debt holders, and easy-to-read tables of debt amounts, interest rates, loan types, and other pieces of debt-related information that is already mandated in debt letters across the country (Attigo, 2021). If a student can access their debt information on NSLDS and then again through the ASLA during the MPN signing process, students should be given accurate, consistent information from source to source, including the debt letter. Then, if policymakers can work with institutions to ensure student loan borrowers are aware of every channel of information regarding their student debt load and possible pathways to repayment or forgiveness, college students will be better equipped to manage their student loan debt as they enter the workforce, military, or graduate school.

Table 4*College Student Preference for Debt Letters*

Letter	Theme 1			Theme 2			Theme 3			Theme 4		
	The debt letter was easy to read and not overwhelming in length.			The debt letter was friendly in tone and was student-focused.			The debt letter was detailed, informative, and provided helpful financial information.			The debt letter's layout was helpful, including visual elements to help comprehension.		
	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Gender												
Woman	6%	67%	35%	2%	8%	3%	86%	6%	25%	4%	39%	22%
Man	8%	69%	37%	3%	9%	2%	84%	6%	32%	4%	29%	19%
Non-Binary	8%	55%	36%	0%	5%	0%	84%	7%	50%	4%	21%	33%
Race/Ethnicity												
African American/Black	5%	64%	29%	2%	10%	1%	86%	17%	41%	5%	34%	25%
Asian American	6%	66%	28%	5%	9%	3%	88%	4%	32%	2%	33%	23%
Caucasian/White	5%	67%	36%	2%	8%	3%	84%	9%	25%	5%	36%	21%
Hispanic/Latinx	3%	72%	59%	0%	8%	0%	82%	7%	21%	3%	24%	16%
Mixed	0%	100%	0%	0%	0%	0%	67%	0%	0%	0%	100%	0%
Religious	7%	65%	37%	2%	10%	3%	85%	5%	24%	3%	38%	22%
First-Generation	5%	65%	36%	1%	11%	1%	91%	6%	33%	3%	34%	22%
Bilingual	11%	69%	44%	3%	10%	2%	84%	6%	24%	46%	35%	16%
English as 2 nd Language	10%	66%	46%	1%	9%	0%	86%	7%	24%	4%	32%	19%
n (total=1,386)	7%	67%	36%	3%	9%	2%	85%	6%	30%	4%	34%	21%

Note. ($n=1,386$); Percentages under L1, L2, and L3 is the percentage of students within the demographic that preferred Letter 1, Letter 2, or Letter 3 based on the above theme. Percentages may exceed 100%, as some students indicated they preferred a debt letter for multiple reasons (themes). Percentages rounded to nearest whole number

Finally, the research community could digest the results of this study and engage with college students—especially those borrowing student loans—to learn more about finance-related messaging. The research community has already demonstrated that college students have very different perspectives on debt and why they do or do not borrow to finance their postsecondary education (Ahlman & Gonzalez, 2019; Beale & Cude, 2017; Boatman et al., 2017; Elliot & Lewis, 2015; Lee & Mueller, 2014; Stoddard et al., 2017). However, this study suggests messaging matters, and now researchers could investigate how that messaging influences borrowing behaviors, including whether a debt letter and its composition can inspire a student to change their major, transfer to a different institution, alter their course load, or another action provoked by learning of their debt. Although an adoption of the ASLA as a part of the MPN process may inform a student loan borrower of their debt on a yearly basis, institutions of higher education can communicate with their students much more frequently and effectively. From here, research into debt letters and other forms of financial aid communication could be prioritized to better understand student behavior surrounding debt.

Yet, a few of this study's findings are difficult to place within the current body of literacy and text preference literature. Limited literacy research into grade-school age children's preferences for illustrations within reading materials has found that children's reading comprehension increases when text accompanies illustrations, rather than illustrations alone (Brookshire et al., 2002). Somewhat related, Schenkman and Jönsson (2000) tested Internet users regarding their preferences for websites, finding that Internet users preferred illustrations to text, and if an image accompanies text, the more beautiful the image is perceived to be, the less important text complexity and legibility was in the overall preference for the website. In this study, 34% of the overall sample preferred Letter 2, which featured an image and a table, possibly helping students comprehend the text that accompanied these features. However, these prior studies focused on grade schoolers and not adult preferences for written communication.

Focused on college students, Sharma's (2019) study only investigated college students' preferences between electronic and print academic texts, finding that students preferred printed texts, and there were no significant associations between gender and the preferred medium of the texts. In this study, similarly, gender was not predictive of debt letter preference. Focused on adults, Foltz and Sullivan (1996) analyzed communication preferences of cancer patients, many of them African American, and found that African American cancer patients preferred medical texts with ample information, but the researchers did not go into detail regarding specific word- or sentence-level elements of these texts. In this study, a large majority of African American students preferred debt letters for their detail and informativeness, but data in Table 4 suggests that nearly all types of students preferred debt letters that were detailed and informative. And regarding this study's finding linking religiousness to debt letter preference, no prior literature exists to make these connections—this particular finding is wholly unique to this study. Beyond these loose connections to prior, non-higher education or finance related literature, this study perhaps raises more questions regarding debt letter preferences than provides concrete answers.

Ultimately, this study finds that messaging matters as it relates to student loan debt and how students perceive the simplicity, clarity, depth, or length of the messaging may influence their behavior. As the first study of its kind to analyze how college student loan borrowers perceive debt-related messaging, multiple stakeholders should take action to ensure that debt is communicated simply, clearly, and with enough detail for a student to make an informed decision. Of the major implications of this study, data suggest that many students prefer simple communication, and the authors of this study believe that simple, standardized student loan debt letters are possible. Supporting the argument for standardized debt letters, the majority of student loan debt is federal, not private, and therefore funds flow from the same place (federal government) to nearly all students in the U.S. (Boatman et al., 2017; Darolia & Harper, 2017; Huelsman, 2015). If the funds are coming from the same place, and loan types do not vary (the federal government only awards certain loans with specific interest rates), why shouldn't student loan debt letters reflect that commonality? Surely, institutions can add their own institutional resources within the letter, but the core information should not have to vary substantially from letter to letter—loan amount, loan type,

interest rate, total payoff amount, etc.—this information could all be standardized. The FAFSA is standard—could student loan information be standard?

Although students may not want an institution to “talk debt to them” as financial issues may cause anxiety or stress, institutions and governing bodies must do their part to communicate student loan debt to alleviate any student loan debt crisis, either now or in the future.

Nexus:

- Institutions should communicate and collaborate with diverse student audiences to better understand what students do and do not understand within debt letters.
- Debt letters should be written in simple, clear language and include updated information when possible.
- Debt letters should include clear next steps and contact information of the institutions in case the student has questions.
- Debt letters that include images, infographics, or tables may be an efficient and simple way to share complex financial information.

References

- Amazon Mechanical Turk. (2018). Amazon mechanical turk: Access a global, on-demand, 24x7 workforce. <https://www.mturk.com/>
- Ahlman, L., & Gonzalez, V. (2019). Casualties of college debt: What data show and experts say about who defaults and why. <http://hdl.handle.net/10919/99788>
- Attigo. (2021). Definitive guide to student debt letters. <https://www.attigo.com/definitive-guide-to-debt-letters>
- Beale, E.M., & Cude, B.J. (2017). College students' attitudes toward debt. *International Journal of Undergraduate Research and Creative Activities*, 9(5), 1-12. <https://doi.org/10.7710/2168-0620.1099>
- Blalock, C. (2017). African American graduates' experiences of managing college debt. [Doctoral dissertation, Walden University]. <https://scholarworks.waldenu.edu/dissertations/4422/>
- Boatman, A., Evans, B.J., & Soliz, A. (2017). Understanding loan aversion in education: Evidence from high school seniors, community college students, and adults. *AERA Open*, 3(1), 1-16. <https://doi.org/10.1177/2F2332858416683649>
- Britt, S. L., Grable, J. E., Cumbie, J., Cupples, S., Henegar, J., Schindler, K., & Archuleta, K. L. (2011). Student financial counseling: An analysis of a clinical and non-clinical sample. *Journal of Personal Finance*, 10(2), 95-121.
- Brookshire, J., Scharff, L.F.V., & Moses, L.E. (2002). The influence of illustrations on children's book preferences and comprehension. *Reading Psychology*, 23(4), 323-339. <https://doi.org/10.1080/713775287>
- Brown, A., Collins, J. M., Schmeiser, M., & Urban, C. J. (2014). *State mandated financial education and the credit behavior of young adults* (Federal Reserve Board Working Paper 2014-68). Washington D.C.: Federal Reserve Board. <https://www.federalreserve.gov/pubs/feds/2014/201468/201468pap.pdf>
- Carver, R. P. (1974). Two dimensions of tests: Psychometric and edumetric. *American Psychologist*, 29(7), 512-518. <http://psycnet.apa.org/journals/amp/29/7/512/>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.
- Clear Language Group. (2020). Readability: What is readability? <http://www.clearlanguagegroup.com/readability/>
- Darolia, R. (2016). *An experiment on information use in college student loan decisions* (Federal Reserve Bank of Philadelphia Working Paper 16-18). <https://ideas.repec.org/p/fip/fedpwp/16-18.html>
- Darolia, R., & Harper, C. (2017). Information use and attention deferment in

college student loan decisions: Evidence from a debt letter experiment. *Educational Evaluation and Policy Analysis*, 40(1), 129-150. <https://doi.org/10.3102%2F0162373717734368>

- Elliott, W., & Lewis, M. (2015). Student debt effects on financial well-being: Research and policy implications. *Journal of Economic Surveys*, 29(4), 614-636. <https://doi.org/10.1111/joes.12124>
- Follmer, D.J., Sperling, R.A., & Suen, H.K. (2017). The role of MTurk in education research: Advantages, issues, and future directions. *Educational Researcher*, 46(6), 329-334. <https://doi.org/10.3102%2F0013189X17725519>
- Foltz, A., & Sullivan, J. (1996). Reading level, learning presentation preference, and desire for information among cancer patients. *Journal of Cancer Education*, 11(1), 32-38. <https://doi.org/10.1080/08858199609528389>
- Fry, E. (1987). The varied uses of readability measurement. *Journal of Reading*, 30(4), 338-343. <https://www.jstor.org/stable/40032863>
- Houser, D.J., & Schwarz, N. (2016). Attentive turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods*, 48, 400-407. <https://doi.org/10.3758/s13428-015-0578-z>
- Huelsman, M. (2015). The debt divide: The racial and class bias behind the "new normal" of student borrowing. <http://hdl.handle.net/10919/90810>
- Huff, C., & Tingley, D. (2015). "Who are these people?" Evaluating the demographic characteristics and political preferences of MTurk survey respondents. *Research & Politics*, 2(3), 1-12. <https://doi.org/10.1177%2F2053168015604648>
- Institute for Higher Education Policy. (2008). Student aversion to borrowing. Who borrows and who doesn't? <https://files.eric.ed.gov/fulltext/ED503684.pdf>
- IU Newsroom. (2015a, June 25). Indiana University to host national summit on student financial wellness. *Indiana University*. <http://archive.news.iu.edu/releases/iu/2015/06/financial-wellness-summit.shtml>
- IU Newsroom. (2015b, June 3). IU leader testifies about success of university's financial literacy efforts. *Indiana University*. <http://archive.news.iu.edu/releases/iu/2015/06/financial-literacy-testimony.shtml>
- IU Newsroom. (2016a, September 1). Indiana University initiatives continue to pay off in reduced student borrowing. *Indiana University*. <http://archive.news.iu.edu/releases/iu/2016/09/student-loan-reductions.shtml>

- IU Newsroom. (2016b, March 11). MaryFrances McCourt awarded Indiana University President's Medal. *Indiana University*.
<http://archive.news.iu.edu/releases/iu/2016/03/mccourt-presidents-medal.shtml>
- Johnson, K. H. (1972). *An analysis of the relationship between readability of Air Force procedural manuals and discrepancies involving non-compliance with the procedures* (Master's thesis). Available from ERIC database. (UMI No. ED070941)
- Jurafsky, D. & Martin, J.H. (2014). *Speech and language processing: An introduction to natural language processing, computational linguistics, and speech recognition*. Retrieved from:
<http://www.cs.colorado.edu/~martin/SLP/Updates/1.pdf>
- Kniffin, J. D. (1979). The new readability requirements for military technical manuals. *Technical Communication*, 26(3), 26-3. <https://www.jstor.org/stable/43086724?seq=1>
- Korn, M. (2017, July 12). I owe that much? Having student-loan data leads to drop in borrowing. *The Wall Street Journal*. <https://www.wsj.com/articles/states-require-more-disclosure-on-student-loans-1499798161>
- Lee, J., & Mueller, J.A. (2014). Student loan debt literacy: A comparison of first-generation and continuing-generation college students. *Journal of College Student Development*, 55(7), 714-719. <https://muse.jhu.edu/article/558257>
- Leighty, A. (2018). Implications of student debt on financial wellness: Can universities help? [Thesis, Butler University]. Retrieved from:
<https://digitalcommons.butler.edu/ugtheses/427/>
- McClure, G. (1987). Readability formulas: Useful or useless? *IEEE Transactions on Professional Communication*, 30(1), 12-15. <http://dx.doi.org/10.1109/TPC.1987.6449109>
- McKinney, K.P. (2020). Student loan debt for community college transfer students and how debt information letters impact future borrowing decisions. [Doctoral dissertation, Mississippi State University]. <https://hdl.handle.net/11668/19458>
- McRobbie, M. (2018, October 16). Progress and growth in the last year of Indiana University's second century. *Indiana University Office of the President: State of the University*.
<https://president.iu.edu/speeches/state-of-university/2018.html>
- National Assessment Governing Board. (2020). *The nation's report card*.
<https://www.nationsreportcard.gov/>
- Plieger, T., Felten, A., Diks, E., Tepel, J., Mies, M., & Reuter, M. (2017). The impact of acute stress on cognitive functioning: A matter of cognitive demands? *Cognitive Neuropsychiatry*, 22(1), 69-82. <https://doi.org/10.1080/13546805.2016.1261014>
- Quinton, S. (2016a, May 19). What happens when you warn students about their loan debt? *The Pew Charitable Trusts*. <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/05/19/what-happens-when-you-warn-students-about-their-loan-debt>

- Quinton, S. (2016b, May 24). Could this simple solution solve the student loan crisis? *CNN Money*. <http://money.cnn.com/2016/05/24/pf/college/student-loan-letter/index.html>
- Rai, M. K., Loschky, L. C., & Harris, R. J. (2015). The effects of stress on reading: A comparison of first-language versus intermediate second-language reading comprehension. *Journal of Educational Psychology*, 107(2), 348-363. <https://doi.org/10.1037/a0037591>
- Reschke, M. (2017, March 20). Bill would make IU student debt initiative a nationwide requirement. *IU Bloomington Newsroom*. Retrieved from: <http://archive.news.indiana.edu/releases/iub/iu-in-the-news/2017-03-20-debt-bill.shtml>
- Sandi, C. (2013). Stress and cognition. *WIREs Cognitive Science*, 4(3), 245-261. <https://doi.org/10.1002/wcs.1222>
- Sharma, L.R. (2019). Students' preference for electronic and printed academic reading texts. *Journal of NELTA*, 24(1-2), 204-219. <https://doi.org/10.3126/nelta.v24i1-2.27693>
- Schenkman, B.N., & Jönsson, F.U. (2000) Aesthetics and preferences of web pages. *Behaviour & Information Technology*, 19(5), 367-377. <https://doi.org/10.1080/014492900750000063>
- Sticht, T. G. (1970, October). *Literacy demands of publications in selected military occupational specialties* (Research Report No. 25-70). <https://eric.ed.gov/?id=ED044615>
- Sticht, T. G., & Zapf, D. W. (1976, September). *Reading and readability research in the armed forces* (Research Report No. 76-4). <http://eric.ed.gov/?id=ED130242>
- Stoddard, C., Urban, C., & Schmeiser, M. (2017). Can targeted information affect academic performance and borrowing behavior for college students? Evidence from administrative data. *Economics of Education Review*, 56, 95-109. <https://ideas.repec.org/a/eee/eoedu/v56y2017icp95-109.html>
- Taylor, Z.W. (2018). Intelligibility is equity: Examining the readability of international undergraduate admissions materials. *Higher Education Quarterly*, 72(2), 160-169. <https://doi.org/10.1111/hequ.12155>
- Taylor, Z.W. (2019). Six easy steps: Do aspiring college students understand how to apply for financial aid? *Journal of Student Financial Aid*, 48(3), 1-17. <https://ir.library.louisville.edu/jsfa/vol48/iss3/1/>
- Taylor, Z.W. & Bicak, I. (2019) What's the FAFSA? An adult learner knowledge survey of student financial aid jargon. *Journal of Adult and Continuing Education*. <https://doi.org/10.1177/1477971418824607>
- Taylor, Z. W. (2020). ¿Comprenderán mis amigos y la familia? Analyzing

Spanish translations of admission materials for Latina/o students applying to 4-Year institutions in the United States. *Journal of Hispanic Higher Education*, 19(2), 195-209.

<https://doi.org/10.1177/1538192718775478>

Taylor, Z.W., Holthaus, G., & Weber, K. (2020). Student loan debt letters: How colleges communicate debt with students. *Journal of Personal Finance*, 20(1), 26-39.

<https://www.proquest.com/docview/2560409133>

Taylor, Z.W., Weber, K., & Holthaus, G. (2021). What's in a debt letter? A content and linguistic analysis of student loan debt letters. *Higher Education Politics & Economics*, 7(1), 33-54. <https://doi.org/10.32674/hepe.v7i1.3562>

U.S. Department of Education. (2020). The college financing plan.

<https://www2.ed.gov/policy/highered/guid/aid-offer/index.html>

Wessling, K.S., Huber, J., & Netzer, O. (2017). MTurk character misrepresentation: assessment and solutions. *Journal of Consumer Research*, 44(1), 211- 230.

<https://doi.org/10.1093/jcr/ucx053>

Woodruff, M. (2015, May 6). 5 genius ways colleges are tackling the student debt crisis. *Yahoo Finance*. <https://finance.yahoo.com/news/5-genius-ways-colleges-are-tackling-the-student-debt-crisis-194429389.html>

Appendix A

Debt Letter 1 – More Complex Letter

Dear Student,

This is a personalized summary of your estimated current student loan indebtedness. This information is being provided to you before you take on additional debt for the upcoming academic year. We encourage you to make use of the academic and financial planning resources suggested here (see other side) to minimize future borrowing while you complete your degree at Southmost State University.

Estimate of Your Total Education Loans: \$30,000

*See the “Important Information” section on the other side of this letter regarding all loan estimates.

Interest Rates

Student loan interest rates vary based on when you borrowed and the loan type. Calculations in this letter are estimated at 6.8%.

Estimated Monthly Payment – All Loans

Total Education Loans: **\$30,000**
Standard Repayment Term: **10 years**
Assumed Interest Rate: **6.8%**
Monthly Payment: **\$345**
Cumulative Payments: **\$41,400**
Projected Interest Paid: **\$11,400**

Federal Direct Loans

The Federal Direct Loan program provides the majority of funds for students. The total you have borrowed from this program, including both subsidized and unsubsidized loans, is \$30,000.

The maximum you may borrow for your dependency status and degree objective is \$31,000 with no more than \$23,000 in subsidized loans.

You have borrowed 95% of your current limit.

Other Education Loans

The estimated total of your education loans includes amounts below, based on Southmost State’s records about your borrowing history:

Federal Perkins Loans: \$0

Private Loans Certified at Southmost State University: \$0

Other Loans Certified at Southmost State University: \$0

(May include Grad PLUS and Federal Health Profession Loans)

Academic & Financial Planning Resources

Loans offered for the upcoming academic year are not included in the figures provided in this letter. There is still time for you to reduce future debt by planning your expenses carefully and borrowing only what you really need. Meet with your advisor and set a plan to expedite completing your degree, if possible. We encourage you to make use of these resources to find ways to balance your budget:

Student Money Management: money.southmost.edu

You are also invited to make an appointment or drop by the Financial Aid Office to review your loan debt figures, talk about future borrowing and discuss repayment options with a counselor.

The standard 10-year repayment plan for Federal Direct Loans is one of many options. To find out about alternatives, visit this site: <https://studentaid.ed.gov/repay-loans/understand/plans>

To calculate payments on loans of all types; or to estimate your monthly obligation for your cumulative debt under various repayment options, visit this website:
<http://studentaid.gov/repayment-estimator>

Loan Terms Glossary - <https://studentloans.gov/myDirectLoan/glossary.action>

Important Information about These Loan Estimates

***IMPORTANT:** Figures provided in this notice are NOT a complete and official record of your student loan debt. The most accurate information about your Federal student loans (excluding Title VII and VIII Health Profession Loans) is available in the National Student Loan Data System (NSLDS). http://www.nsls.ed.gov/nsls_SA/

Log in using your personal information and the FSAID you used to sign your FAFSA.

Please read this important information about why loan totals in this letter may be incomplete or inaccurate.

- Students who have borrowed at multiple institutions, who have consolidated loans, had loan debt discharged or forgiven, or who have repaid a portion of their debt may find that these estimates are inaccurate.
- Grad PLUS Loans, Federal Health Profession Loans, state or institutional loans and private loans from other institutions are not included in these estimates.

- Federal Health Profession Loans, institutional loans and private loans certified at The University before the 2004-05 academic year are not included in these estimates.
- Interest that accrues while you are enrolled, which must be paid first or capitalized (added to your debt), has not been projected here and therefore has not been included in these estimates.
- The Federal Direct and Perkins Loan figures in this letter are based on the most recent information sent to Southmost State University by NSLDS and should include loans from any institution. However, if you recently received Direct or Perkins loans at another institution, these may not have been included in the information provided by NSLDS.
- State Teaching scholarships and Federal TEACH grants, which may be converted to loans if scholarship terms and conditions are not met by the recipient, are not included in these estimates.
- Education loans your parent took out on your behalf, and parent loans you may have taken for your children, are not included in these estimates.
- Loans included in this letter may have been discharged or forgiven.

Appendix B Debt Letter 2 – Simple Letter

Southmost State University
State University System of Southmost

Dear First Name,

Student Loan Debt

The purpose of this communication is to give you a quick recap of your student loans borrowed to date. We want you to be *informed* about your student loan debt and options for repayment. Although Southmost State University cannot guarantee or promise this is all of your student loan debt, this is a general overview of your account. Your estimated accumulated student loan debt and monthly loan payment estimate is:

Federal Student Loans:	\$30,000
Alternative Student Loans:	\$0
Total Estimated Student Loan Debt:	\$30,000
Estimated Monthly Payment @ 6.8%	\$345



How to Find Out More about Your Student Loan Debt

Please note that the disclosure above is **not** an official record of your student loan debt. Using your FSA ID, you can log into NSLDS.ed.gov to review all of your federal loans. You may also want to visit with your (insert financial aid counselor or money management center coach information) to obtain a more complete assessment of your student loan debt. For example, due to the timing and processing of your federal loans, student transfer loans accrued at other institutions, nursing student loan debt, or private loan debt this information may not be complete.

Learn about Programs Available to Reduce Loan Debt and Assist in Repayment!

You may be eligible for state tuition and fee waivers and rebates, the TEACH grant, or a loan forgiveness program for teachers or public servants as well as benefits for military personnel. There are also multiple loan repayment plans available for student borrowers. For questions or assistance in determining what you may be eligible for, please visit (insert information about financial aid office or money management center).

Appendix C
Debt Letter 3 – Very Complex Letter

Dear Student,

The purpose of this letter is to bring awareness to the amount of federal student loans you have borrowed. According to our records, you have borrowed \$30,000 in student loans. This dollar amount equates to over 95% of your maximum total undergraduate loan limit as a student pursuing your degree plan. Based on the amount you have borrowed, you should be close to or halfway through to completion of your study at Southmost State University.

Receiving the maximum amount of loans each year can add up quickly - which can result in less loan availability for the continuing your education and affect how much you owe the federal government when repayment begins. If your academic goal is to obtain a bachelor's degree from a 4-year institution or receive multiple associate's degrees from Southmost State University, you may want to consider how much you borrow while completing your degree at Southmost State University.

*For the most accurate information about your Federal student loans, visit the National Student Loan Data System (NSLDS). **You can estimate your Federal Direct Loan monthly payment amount by using the Repayment Estimator.

For additional information, refer to our Financial Aid TV videos or use the resources found below. To discuss how your current loan balance may affect your future borrowing, visit Student Central Services at Southmost State University.

Sincerely,
The Financial Aid Office

Southmost State University

Resources:

Responsible Borrowing

Award Revision Form

Register for the Financial Literacy 101 Seminar

southmost.edu

Southmost State University Scholarship Information

Tuition Payment Options

Student Services at Southmost State University