

FEBRUARY 2015

FROM PASSIVE TO PROACTIVE:

Understanding and Improving the Borrower Experience with Online Student Loan Exit Counseling

Trellis Research

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FROM PASSIVE TO PROACTIVE:

Understanding and Improving the Borrower Experience with Online Student Loan Exit Counseling

By Chris Fernandez With Carla Fletcher, Kasey Klepfer, and Jeff Webster

In 2014, Trellis Company (Trellis) conducted four discrete but related studies as part of a multi-phase research project on student loan counseling in the United States. These studies include:

- A literature review on loan counseling and financial education, combined with a history of legislation, regulations, and major government actions pertinent to federal student loan counseling;
- An interview and observation-based study on the borrower experience with online student loan exit counseling (the subject of this report);
- An interview and observation-based study on the borrower experience with online student loan entrance counseling; and
- A study of the promising practices in financial literacy training and student loan counseling currently employed at schools whose student loan borrowers outperform expectations.

Each study is presented in its own report describing the study's findings and the recommendations they inform. An additional fifth paper will synthesize the findings and implications of the four studies and offer broader conclusions on the policy and practice of student loan counseling. Look for these reports in spring and summer, 2015.

ACKNOWLEDGMENTS

Trellis and the authors in particular would like to express gratitude to the numerous college financial aid offices that made this research possible; to Dr. Patricia Steele and Cynthia Bailey of Higher Ed Insight, who consulted and assisted on every phase of this project; and to the National

Association of Student Financial Aid Administrators (NASFAA) policy team — in particular, Charlotte Etier — which provided valuable perspective and advice in crafting recommendations based on this research.¹

While NASFAA personnel reviewed and refined recommendations in collaboration with Trellis, the recommendations in this paper are ultimately Trellis' and do not reflect NASFAA's official policies or positions.

EXECUTIVE SUMMARY

The majority of today's postsecondary students borrow to finance their education, and most who do borrow federal student loans. Federal law mandates that such borrowers receive exit counseling when they graduate, leave school, or otherwise drop below half-time enrollment.² It also mandates a great deal of the content of this counseling, including an extensive list of specific topics that must be covered. These requirements aim to help borrowers manage their loan burdens while avoiding delinquency and default. Borrowers, schools, taxpayers, and even general economic health are all best served when borrowers know how to repay their loans quickly and responsibly; however, little is known about the effectiveness of current practices in exit counseling.

The compounding impact of various issues with the current module, combined with its substantial length, drain most users of their attention, focus, and tolerance long before the end.

Trellis researchers interviewed and observed borrowers at six diverse higher education institutions using the Department of Education's online exit counseling module, which most schools use to deliver exit counseling. The module consists of five long pages, which contain large amounts of text as well as interactive tools designed to give users a more exact, numerical understanding of their circumstances and the implications of various options. Researchers collected data from users' comments and actions during an initial "discovery" interview, their use of the counseling module itself, and a debriefing interview.

Analysis of this wealth of data painted a richly detailed though largely unfortunate picture of the typical borrower experience with online exit counseling. Most borrowers begin counseling interested in learning more about optimal student loan repayment, but they tend to shift from reading material slowly and carefully to skimming and skipping as they progress. Two main factors directly produce this pattern: 1) borrowers' initial mindset, which, while generally interested and mildly concerned, lacks the sense of urgency and importance necessary to engender sustained focus; and 2) issues with the design and content of the material itself.

The compounding impact of various issues with the current module, combined with its substantial length, drain most users of their attention, focus, and tolerance long before the end. Of all issues identified in the data, irrelevant information and lack of personalization may inflict the most harm. Users encounter a great deal of information that simply does not apply to them at all or requires them to recall various details of their loan history to determine which conditions apply to their specific case. Information that is seen as common sense, irrelevant, generic to the point of uselessness, overly detailed, or unpersonalized takes up considerable space, devalues other material, accustoms users to skimming and skipping, and imposes a cognitive tax that limits users' ability to recognize and utilize truly helpful information.

Other features of the counseling also present issues that detract from its effectiveness. Users often struggle with basic navigation of the tool, the high density of textual information, and both the use and interpretation of calculator features. Many assume that the mandatory questions embedded throughout the pages test the most important information and, therefore, feel comfortable reading only what they must in order to find the answers. A variety of minor snags also frustrate users and accelerate their disengagement from the material.

It also requires that borrowers receive entrance counseling when they first borrow for a program of study. Trellis studied the entrance counseling experience as a distinct topic, and results of that research will be presented in a forthcoming report.

Based on these findings, Trellis, in consultation with NASFAA,³ developed a series of recommendations for higher education practitioners and policymakers as well as for the design of more effective exit counseling materials. These recommendations are fairly extensive and can be found in the full report; the synopses below are highly condensed, thematic summaries.

Practitioners

- Develop materials for borrowers that introduce and supplement the counseling
- Deliver interim counseling and personalized loan information to enrolled borrowers
- Select high-risk students for supplemental counseling, ideally in a face-to-face setting

Policymakers

Revise counseling statutes through the reauthorization of the Higher Education Act of 1965 to:

- Grant schools greater professional discretion to require supplemental counseling
- Explore incentives for schools that implement supplemental counseling programs
- Edit topic requirements to promote a more relevant, helpful experience
- Explore requirements for intermediate counseling in some form

Designers

- Provide more contextual information that introduces the module, explains its navigation, and relates the information to important goals/learning outcomes
- Include information filtering and skip logic based on borrower traits and actions
- Employ a simple, sequential design for calculator features to aid understanding of inputs and outputs, and offer relevant sample data for users who need it
- Utilize short, quick "slides" with a progress indicator instead of long pages
- Include a break, ideally accompanied by the ability to save and return
- Lower the word density, word count, and required time through formatting, editing, and multimedia

Based on these findings, Trellis, in consultation with NASFAA, developed a series of recommendations for higher education practitioners and policymakers as well as for the design of more effective exit counseling materials.

NASFAA personnel collaborated with Trellis by reviewing and refining recommendations, but they are ultimately Trellis' recommendations and do not reflect NASFAA's official policies or positions.

BACKGROUND⁴

Students aspiring to higher education have nearly always had to make some sort of financial sacrifice in the pursuit of learning. In addition to its direct costs, higher education has traditionally required that students forgo the income and work experience gained through full-time employment, exchanging current and future resources for the possibility of an even more prosperous future. In recent decades, higher education has required students to make progressively larger investments in that future, to the point where today most students leverage their future earnings through student loans. The creation and expansion of federal student loan programs have provided additional opportunities for students to pursue higher education, while ensuring a measure of protection and flexibility for borrowers. Yet, this method of financing a higher education comes with certain drawbacks. Students invest in themselves and their futures through federal student loans but assume the costs of and responsibility for repayment in doing so. They also face the risks of future financial hardship, including potential student loan delinquency and default.

These risks are exacerbated by two main factors. One is that the future is unpredictable. Borrowers may or may not complete their programs of study and/or find remunerative employment. The other is that borrowers tend to be inexperienced. Most are fairly young, have never made a major financial decision, and may even lack basic financial literacy. Provisions of the federal student loan system attempt to address each of these factors. Under the terms of most federal student loans, borrowers are entitled to certain repayment options that, if exercised correctly and in a timely manner, should minimize if not eliminate the risks of delinquency and default. Borrowers are also entitled and required to receive loan counseling when first borrowing ("entrance counseling") and when leaving school or dropping below half-time enrollment ("exit counseling").5 Delivered at different points in a borrower's time in school, these sessions have different goals. Exit counseling, which is the focus of this report, comes too late to encourage responsible borrowing for most borrowers, but it can teach them how to navigate the loan repayment process and

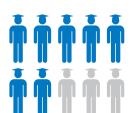
promote general financial well-being. Borrowers, institutions of higher education, taxpayers, and anyone with a stake in the economy at large has at least some interest in students successfully repaying their loans; however, relatively little is known about the effectiveness of the exit counseling methods and materials designed to promote these goals.

Debt prevalence and risk

Exploring the determinants of effective student loan exit counseling has grown more urgent along with the growth in the size and prevalence of student debt burdens. The typical student leaving higher education today will contend with at least some student loan debt, especially if that student was enrolled long enough to earn a degree. Seventy percent of bachelor's degree recipients in the Class of 2014 graduated with student loan debt, averaging about \$33,000 — both figures record highs." Associate degree recipients seem to fare somewhat better; about half of 2011–12 academic year (AY) recipients graduated debt-free, though this was down from 52 percent in AY 2007-08 and 63 percent in AY 2003-04. Data on students who fail to receive degrees are somewhat harder to come by, but they too indicate high rates of indebtedness. Over a third of all students who began postsecondary education in AY 2003–04 had left without a degree by 2009, and about half of these students had borrowed student loans, which has likely gone up in recent years given current trends.iv

While some students still manage to graduate debt-free, rising prices and largely stagnant grants and wages have rendered them increasingly rare. Moreover, the pursuit of a debt-free or low-debt degree might actually harm most students, who must rely on readily available federal student loans to provide the crucial aid necessary to stay enrolled, limit work hours, and focus on academics. While many students may benefit from using more loan resources, all loans entail some risk to the borrower, the lender, and — in large enough numbers — even the economy at large.

The pervasive debt financing of higher education acquires much of its risk from the lethargic economic climate, which



7096
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- 4 Readers should be aware that this section is largely similar to the Background section of Trellis' 2015 report on student loan entrance counseling, A Time to Every Purpose.
- Federal law defines full-time enrollment as 12 credit hours or more per semester and half-time enrollment as 6 credit hours or more per semester (HEA Sec. 428(b)(1)(a); 34 CFR 668.2(b)). Institutions that define minimum full-time enrollment as more than 12 credit hours may still use the federal minimum of 6 credit hours to define half-time enrollment.

features diminished opportunities for college-level labor and sluggish entry-level wages. vi Even large amounts of student debt can be manageable if the borrower's income is sufficient to make the required payments without undue burden, such that the hazards of high student loan debt depend more on the ratio of the monthly payments to the borrower's monthly income than on the absolute amount of debt. The probability that educational borrowing will harm the borrower has increased as, more often, stalled incomes fail to exceed loan payments by sufficient margins. For some borrowers, especially those who fail to complete their programs of study and rarely realize a wage premium from their time in higher education, circumstances become so severe that they default on their loans, triggering a host of highly detrimental consequences and resulting in potential losses to the government.vii

Even when borrowers are able to avoid delinquency and stay in repayment, evidence suggests that both high debt-to-income ratios and high total student debt loads can significantly harm borrowers, with important economic implications. A financially healthy household needs enough income after satisfying debt to enable saving and support consumption, including occasional major purchases that may require additional debt. While one methodologically problematic study found that borrowers' debt burdens are not substantially higher currently than they were in the recent past, most research has found both higher debt levels and their subsequent impact on the consumption of non-durable and durable goods, like houses and cars.viii Other studies have found negative associations between student debt and both entrepreneurship and marriage, each of which has important implications for economic growth, community well-being, and household wealth.ix Furthermore, research has shown that households headed by young, college-educated individuals without student debt have an average net worth about seven times higher than similar households with student debt. These findings suggest that student debt might severely inhibit wealth accumulation, although other factors may also be involved.* Even as it expands access to higher education for its attendant individual, societal, and economic benefits, student debt results in considerable hazards to both individuals and the broader economy.

While financing higher education through student loans will always carry potential hazards and consequences, borrowers can take steps to mitigate their personal risk. By planning properly, making responsible choices, and utilizing options for flexibility and relief as necessary, borrowers can not only minimize the financial drag of student debt but also nearly eliminate their risk of defaulting due to overly burdensome loan payments. Both aiming for the ideal (minimal borrowing and quick repayment) and avoiding default depend on borrowers having the right information and the ability to turn that information into wise decisions. Given the personal and economic stakes, as well as the youth and relative financial inexperience most borrowers share, it is critical that borrowers have a resource that can assist them. make sure they have adequate information, and help them connect that information with their circumstances to arrive at a course of action; in other words, it is critical that they have effective exit counseling.

Online counseling module

While exact numbers are hard to pinpoint, evidence suggests that the majority of federal student loan borrowers complete counseling through the Department of Education's (ED) online loan counseling modules; in an informal 2012 NASFAA survey of member financial aid practitioners, over 70 percent of respondents reported using the ED online tools for at least most of their campus's loan counseling, with most of the remainder still using face-to-face sessions.xi As stated earlier, a financial aid office must ensure that a first-time borrower complete entrance counseling before receiving his or her first loan disbursement. Because the school withholds the disbursement until counseling is complete, the borrower is obliged to meet the requirement. For an exiting borrower, however, the situation is somewhat more complicated. A financial aid office may inform an exiting borrower that he or she is required to complete the online exit counseling module, but it has no leverage to compel compliance.

In the event that an exiting borrower fails to complete the online counseling, which is frequently the case when a student leaves before graduating without alerting the administration, the institution can also meet its exit counseling obligation by emailing or mailing information to the student's last known non-school address. No

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THE FEDERAL RESERVE BANK OF NEW YORK

recently conducted a survey that uncovered

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regarding the consequences of student loan default and the difficulty of discharging student loans through bankruptcy among student loan borrowers.

confirmation of receipt is required. The absence of more substantive loan counseling could be one of several factors contributing to the high rate of default among student loan borrowers who fail to complete their degree programs.⁶

Borrowers who complete exit counseling through ED's online tool log on to studentloans.gov and navigate to the module. After selecting their institution (so that it can be notified when they finish), borrowers proceed through a set of five pages, each focusing on a different general topic: "Understand Your Loans," "Plan to Repay," "Avoid Default," "Make Finances a Priority," and "Repayment Information." Borrowers move through the counseling by scrolling down each page.

As they progress, they primarily encounter boxed text in paragraphs, bulleted lists, and tables, as well as interactive tools that display results using borrower information and questions based on information found on the page. Borrowers are required to at least attempt each question and, often, to at least click on the interactive elements before they can proceed to the next page. The pages also contain links to additional information, which is provided through pop-up windows or a new tab in the browser. On the last page, "Repayment Information," borrowers enter detailed contact information for themselves and two references before indicating which repayment plan most interests them. All of this information is (presumably) shared with borrowers' loan servicers after they click "Submit," finishing the module.

Borrower knowledge deficiencies

Several studies suggest that many student borrowers are woefully uninformed with regard to their student loans and the repayment process, despite the counseling mandates. **II The Federal Reserve Bank of New York recently conducted a survey that uncovered exceptionally low knowledge rates regarding the consequences of student loan default and the difficulty of discharging student loans through bankruptcy among student loan borrowers. **While the "student loan literacy" question set contained only two items, it found that only half of bachelor's degree recipients with student loans (the most knowledgeable group among those surveyed) were able to identify the consequences of default correctly.

Borrowers are also frequently unable to identify either the annual cost of their education or their loan balances, suggesting that they are not closely monitoring or trying to reduce their borrowing as they proceed through postsecondary education.xiv Akers and Chingos (2014) outline potential consequences of this misinformation, pointing out that borrowers with a poor understanding of the price of education cannot accurately assess the relative value of schools and degree programs. They also argue that borrowers experience an "unpleasant surprise" at learning their actual loan balances, which could skew their employment and consumption behaviors and may even color the perceptions and enrollment decisions of perspective students. While Akers and Chingos are primarily concerned with the consequences of borrower misinformation on higher education as a functional market, the knowledge deficit also has severe implications for individual borrowers' ability to take proper steps to limit their borrowing, as well prepare for and successfully navigate the repayment process. In the words of Akers and Chingos, "We need to take steps to develop a culture of informed and critical decision making in higher education," for the sake of both individual borrowers and higher education as a whole. While not a panacea, the development of such a culture might indeed go a long way toward encouraging responsible borrowing and successful repayment; unfortunately, the current system of mandatory student loan counseling does not seem to be moving students in that direction.

Counseling policy and design missteps

To at least some extent, policymakers have long recognized the opportunities and challenges involved in student loan counseling. Federal law has stipulated that federal student loan borrowers receive some form of counseling since the 1986 reauthorization of the Higher Education Act, and lawmakers have been gradually modifying and adding to it ever since.** The long history of the counseling requirement and its frequent modifications and expansions suggest an acknowledgment by Congress not only that borrowers need assistance in successfully navigating the federal student loan system, but also that better assistance can encourage better outcomes, helping borrowers reap

Gross et al (2009) concluded the following based on their literature review: "Finally, several researchers have explored the effects of loan counseling or consumer education programs and found that they appear to be related to lower rates of default...Whether this is a function of self-selection or program efficacy is unclear, however, as students who participate in such programs may be less likely to default anyway."

more from their investments in higher education. The basic premise is sound; the details of its legislative enactment, however, reflect potentially counterproductive patterns.

These patterns have emerged in two varieties: additional specified content and delivery requirements and expanded use of technology. When policymakers have substantially modified the student loan counseling requirements, the alterations have added new times at which counseling must be provided, new material that must be covered in the counseling session, and/or new possibilities for delivering the counseling through electronic means. The general thinking seems to have been that providing borrowers with more information, at more times, and on a wider variety of topics would better equip them to make wise borrowing and repayment decisions.

With a statutory green light and the additional burden imposed by new requirements and higher borrowing rates, online loan counseling modules began to replace traditional face-to-face counseling delivery. The transition to online counseling accelerated in response to two developments: the 2000 release of ED's online module, which was not only free for colleges but also guaranteed satisfaction of related statutory requirements; and the 2010 cessation of originations through the Federal Family Education Loan Program (FFELP), under which lenders and guarantors provided schools with substantial assistance and resources for loan counseling services. You'll Furthermore, ED's online module was linked to the National Student Loan Data System (NSLDS), which enabled a degree of personalization while facilitating smoother operations and regulatory compliance.

The transition to ED's online loan counseling tool undoubtedly added valuable efficiency to a process that had become a substantial burden on colleges. Taking advantage of the relative ease of modifying the online module, lawmakers have sought to increase its effectiveness by adding topics to the list of information legally required to be covered by loan counseling, all under the vague stipulation that the information be communicated in "simple and understandable terms." The implicit theory behind such a method of improvement posits that the primary determinants of effectiveness are

the presence of adequate information and the language in which that information is conveyed. It imagines the borrower as a tireless text processor, implicitly assuming that the borrower will read whatever information is on the screen, comprehend it (so long as the borrower grasps the vocabulary and grammar), and utilize it in making optimal decisions suited to his or her individual circumstances.

Some policymakers seeking remedies for heavy student loan borrowing and persistently high default rates may have begun to take a more behaviorally realistic view of student loan counseling. Several recent legislative proposals would seek to improve outcomes for borrowers by altering the delivery of information.xix This could affect how effectively information is learned and amend borrower behaviors, opening up valuable opportunities to encourage responsible borrowing and successful repayment. However, for those opportunities to be realized, it is necessary to critically examine how the various aspects of student loan counseling relate to the effectiveness of the overall counseling experience.

Impetus for study

This premise has motivated Trellis, in consultation with NASFAA, to begin a large-scale, multi-phase study of student loan counseling. The study began with research on the policy and legislative history behind student loan counseling, so that we might better understand the pattern of legislative and regulatory changes that led to our current loan counseling requirements and materials. The study also incorporated a literature review of efficacy in student loan and financial counseling. This review identified several important principles that can be productively applied to understanding and critiquing current student loan counseling. However, it also found that almost no research specific to students attempting to make optimal borrowing and repayment decisions in a counseling context had been conducted, making the next phase of the project — an empirical study on the borrower experience with current online loan counseling — all the more vital. How are students actually interacting with the materials tasked with helping them navigate our complex student loan system?

Information collected through a recruiting survey was used primarily to select a diverse body of student borrower participants.

INTRODUCTION

This report describes the design, execution, findings, and implications of a study that conducted observation and interview-based research with borrowers undergoing online student loan exit counseling (hereafter, exit counseling) sessions. The study hypothesized that the assumption of the borrower as inexhaustible text processor is inherently flawed and empirically false. The study also theorized that the actual dynamics of borrower interaction with the material are complex and varied but related to various aspects of the material, the context in which the material is consumed, and the borrower's circumstances. A better understanding of these dynamics has implications for improving the design of counseling materials and the effectiveness of the loan counseling endeavor more generally.

Proceeding from that hypothesis, the study's general research questions were as follows:

- 1. How do borrowers interact with online exit counseling modules?
- 2. What themes and patterns characterize their experience with the counseling material?

RESEARCH DESIGN

The core data collection method was User Experience (UX) testing, which was conducted with individual borrowers fulfilling their exit counseling requirements using an online module. To facilitate recruitment of students and promote diversity in the participant pool, researchers asked for the help of several institutions of higher education, whose financial aid offices were instrumental in securing student participants.

Determining sample sizes in qualitative research is something of an inexact science, if indeed it can be considered a science at all. Many UX practitioners adhere to a standard that posits a sharp drop-off in the marginal benefit of additional tests when as few as six or seven tests have been conducted; however, this was determined to be inadequate for the purposes of this study, as the goal here was to compile a dataset that would be sufficiently large and rich to reveal patterns suggesting more general principles of user-friendly design in loan counseling modules. This required a somewhat larger pool of participants in order to boost the generalizability of the findings, enable the recognition of subtler nuances of the user experience that may not have been apparent as patterns in a smaller sample, and account for the possibility of significant differences in

- 3. How is the experience influenced by contextual factors external to the material itself?
- 4. How might insights into the user experience with exit counseling inform both design improvements to counseling modules and reform of the regulatory/ legislative framework that structures usage of the modules and the entire counseling experience?

To answer these questions, researchers executed a research project based on observing and interviewing borrowers going through their mandatory exit counseling using an online module (in almost all cases, the tool designed by ED).⁷ Analysis of the data collected revealed a wide variety of themes and principles implicated in exit counseling. These findings ranged from identifying the relatively minor points at which borrowers tended to become lost or confused, to general, overarching principles that describe a typical user experience. This report employs these findings in order to develop a set of recommendations to develop more effective counseling materials and in order to discuss the state of exit counseling more broadly.

the user experience based on institutional and individual factors. Based on all of these considerations, researchers conducted 38 UX testing sessions on exit counseling.

To avoid over-representing a single institution (whose financial aid office may have a particular policy or program that better prepares borrowers and thus causes them to interact differently with the counseling module), a tenperson maximum was placed on the number of sessions that could be conducted with borrowers of any given college.

Researchers identified a pool of prospective institutional participants that would reflect diversity with respect to geographic region, institutional sector, and Minority Serving Institution (MSI) status. Ultimately, the pool consisted of six institutions with the following traits:

- Three in Texas, two in the Southeast, and one in the Midwest
- Three public two-year colleges, one private four-year college, one private four-year university, and one public four-year university
- One Historically Black College/University and one Hispanic-Serving Institution
- The Mapping Your Future® tool (https://www.mappingyourfuture.org/OSLC/) was used at one institution when the ED tool was taken down for maintenance.

The financial aid offices at participating institutions facilitated student recruitment by distributing materials to all borrowers identified as required to complete exit counseling. After learning about the study (including that participants would receive \$25 gift certificates for Amazon.com), interested borrowers completed a survey that requested information on their availability, academics, demographics, perceived knowledge of financial aid and consumer finance, and email address. Characteristics of the final sample of 38 participants who completed the full UX test can be found in the Appendix. These are the same characteristics that were captured by the recruitment survey and utilized in constructing the sample.

Information collected through this recruiting survey was used primarily to select a diverse body of student borrower participants. It was not hypothesized that most of the traits examined by the survey would influence the user experience in uniformly patterned ways, and indeed the potential connections between these factors and the user experience that did appear in the data tended to be idiosyncratic and irregular when examining the full pool. Furthermore, the research sought to identify principles that describe a single typical experience with the counseling, although it did allow for the possibility

of multiple typical experiences. Even so, the objective of inducing general principles required that attention be paid to the composition of the participant pool.

Data were collected in two-on-one sessions (two researchers with one participant) scheduled to last roughly an hour and 15 minutes, although the actual durations of the sessions varied considerably based on the amount of time participants took to complete the module. A session consisted of the following:

- 1. Brief, informal introductory "warm-up" period
- Initial survey on the participant's current knowledge and learning priorities
- Discovery interview on the participant's background and thoughts on student loans
- 4. Completion of the actual exit counseling module
- 5. Follow-up survey on the participant's general impressions of the module
- 6. Debriefing interview for further participant reflection on the experience

Detailed descriptions of data collection and analysis activities can be found in the Appendix.

FINDINGS

Note on the Research Findings

This section presents the findings of the multiple parts of the project. It begins by outlining the major findings gleaned from the UX testing, which form the bulk of the insight gained from the project. Findings derived from the discovery interview follow, as they provide a portrait of borrowers' attitudes and preconceptions that helps to make sense of their behaviors during the UX testing. Presentation of the pre- and post-counseling surveys comes last. While these surveys offer a few points of helpful secondary context, they lack the rich descriptive and explanatory power of the other methods of data collection.

The sections covering survey data provide summary descriptions of the results of the survey and offer cursory observations based on those summaries. The sections on interviews and UX testing present the large majority of the findings (as well as the most significant findings); however, they also employ a starkly different method of presentation. The survey data are relatively easy to present in a more

or less complete form, but a full presentation of the rich, encoded metadata from the interview and UX tests would at least double the length of this report; yet, the key findings of this study all depend heavily on this data.

Based on this constraint, the qualitative sections include selected data points, aggregations, and comparisons to support the assertions that compose the findings of the study. These assertions represent the end result of a process of hypothesis formulation and validation, which is discussed in greater detail in the Appendix.

I. Counseling Module Testing and Debriefing

Once coded and analyzed, results of the module testing and subsequent debriefing interviews provided a rich source of data to explore and validate the preliminary findings. These findings not only contributed to the development of thematic insights on the overall counseling experience, they also revealed more specific issues with the counseling material itself.

As this report seeks to document principles that will be useful for online loan counseling and educational sessions in general, the data are organized by the findings they support. These findings are in bold, with supporting evidence beneath.

Users find the module "bulky" and "cumbersome"; there is a lot of information, often in a dense, textheavy format, and it takes a long time to complete. This length and bulk negatively affects user attitudes and user behaviors.

The perception of the counseling material as "long," "cumbersome," "bulky," or otherwise burdensome was among the most common themes in user reactions. Users applied this critique to individual elements and to the module overall. When applied to individual elements, it almost always indicated dissatisfaction with the amount and/or formatting of text into traditional paragraphs or long, tightly packed bulleted lists. Users described feeling daunted by "walls [or blocks] of text," a phrase that several used. About two-thirds of users commented on this theme on the very first page of the counseling:

- "It's fine so far, but there's a lot of information.
 Is every page like this?"
- "It's pretty wordy. The information is mostly good, but they put it in these blocks of tiny words that take so long to read. It felt kind of like reading a contract."

Deferment

Forbearance

You may qualify for a deferment if you are:

- Enrolled at least half-time at an eligible postsecondary
- . In a full-time course of study in a graduate fellowship p
- In an approved full-time rehabilitation program for indidisabilities.
- Unemployed or unable to find full-time employment (fo of three years).
- Experiencing an economic hardship (including Peace Co defined by federal regulations.
- Serving on active duty during a war or other military or national emergency and, if you were serving on or after 2007, for an additional 180-day period following the de date for your qualifying service.
- Performing qualifying National Guard duty during a war military operation or national emergency and, if you we

 "I read all of that text because it was there, but I'm not really sure what the point was. I just want to know how to pay back my loans and they're having me read this wall of text that isn't going to help me do that."

During the debriefing interviews, about two-thirds of users expressed an opinion that the entire counseling module took too long, included too much information, and/or had a tendency to pack

too much information into too small a space. Review of the UX data also supported the assertion that the density of some elements was an issue. While explicit complaints of heavy density during the UX tests were rare, they were all in reference to elements that listed extensive details about a given topic, including the terms of various loan types and repayment plans, a detailed description of grace periods in paragraph form, and an exhaustive listing of the eligibility criteria for deferments and forbearances. Even the majority of users who did not remark on them skimmed or skipped these elements with somewhat higher than average frequency, though users' recognition that many of these details simply did not apply to them could also have contributed to this pattern. In many cases, these bulky details were required in order to cover contingencies that might apply to a subset of borrowers — this is addressed in the section on personalization.

Asked about the impact of length and density issues, users frequently said that they became gradually more tired, bored, and/or frustrated. Whatever the specific emotion, the result was impatience, loss of attentiveness and a growing desperation to finish the counseling; these dissatisfied users all indicated that they had begun to rush as the counseling went on, skimming more often and more quickly, and skipping entire elements with greater frequency. The data support the users' perception of their own behaviors, showing that users who commented negatively on the amount or density of the material skimmed or skipped elements later in the counseling more often than users who did not share these complaints.

Users want more automatically populated, personalized information, and its exclusion confuses borrowers and harms the user experience.

The desire for the counseling module to automatically utilize more personalized information was evident through user actions and comments on a variety of elements and in the debriefing. In addition, users were often confused and frustrated by non-personalized information that relied on users to determine how it applied to them.

Your Student Loans

Estimated Student Loan Balance:



Enter your student loan information below:

Remember, if you sign in, we will display your current federal student loan information available in NSLDS.

You must repay your federal student loans, even if you:

- · Don't complete your program of study.
- · Can't find employment after graduation.
- Aren't satisfied with or didn't receive the education or other services that you
 paid for with your federal student loans.

Your estimated student loan balance should reflect what you owe in student loans. Use the "Add Loan" feature to add any loan amount(s) that are missing from the list below, such as any private student loans you may have taken out in addition to your federal student loans.

Did you know?



When you are signed in, we automatically display your federal student loan data currently available in the <u>National Student Loan Data System (NSLDS)</u> ③. You may also add a loan that is not displayed.

You may visit NSLDS anytime to view your federal student loan information.

User behaviors on the first page of the module illustrate both the desirability of personalized information and the drawbacks of using it only partially. User reactions to the very first element in the counseling (an estimate of the user's federal student loan balance) demonstrate the importance of information drawn directly from the borrower's circumstances. Of the roughly 80 percent of users who reacted to this element, over half thought their balances would be lower, about 15 percent thought their balances would be higher, and the remainder said that their balances were about what they would have estimated them to be. This information mattered a great deal for the users who had under- or over-estimated their balances, and this was reflected in their comments:

- "Wow, that is a lot more than I thought it was going to be. So I guess I actually have to pay attention now."
- "Well that got my attention [sigh]. I probably would've gone to the thing the financial aid office put on if I knew it was this much. Still, I'm here now, right?"

Even the users who had accurately estimated their loan burden expressed appreciation for the information in many cases:

- "That's about what I thought it would be, but it helps to see it. It makes it real."
- "Yep, that's my student loan alright. At least we're all on the same page."

Broader analysis of user behaviors also demonstrates a clear preference for personalized information. On the

whole, elements containing personalized information (including calculator tools) were rarely skipped and rarely received merely token engagement, whereas elements without personalized information were skipped or skimmed (a rough equivalent of token engagement) in about one out of every four interactions. In addition to engaging with personalized elements more frequently, users also reacted more positively to them. Personalized elements received positive feedback in over 80 percent of coded reactions, the most common being expressions of relevance/usefulness and explicit appreciation of the personalization. In contrast, non-personalized elements received positive feedback in barely over half of all coded reactions, the most common being generic appreciation (e.g., "This is good" or "Good to know").

Finally, user comments during the debriefing also expressed a clear preference for personalized elements and a desire that the amount of personalization increase. Presented with open-ended questions about their experiences with the counseling and what they liked or disliked about various aspects, about two-thirds of all users stated that they liked the personalized elements, found the personalized elements the most helpful, and/or would have preferred to see more personalization. The following quotes represent some of the more articulate and insightful expressions of this generally held opinion:

 "I liked when they did stuff with my actual numbers.
 It made the point a lot better than just reading it off the page."

In the case of many elements, especially those involving only the reading of text, the only evident user behavior was reading the information slowly, skimming quickly, or skipping the element altogether. Phrases such as "of users who reacted" indicate that the group in question contains only those who exhibited a reaction notable enough that researchers were able to code it as a "Reaction." This could range from an obvious nonverbal expression (e.g., a sigh or leaning forward in interest) to a generic verbal expression (e.g., "I don't like this" or "This is good") to a more detailed response (e.g., "I like the table formatting" or "I don't understand this sentence").

Example assuming Direct Unsubsidized Loans at 6.8% interest using a standard 10 year repayment plan. Loan fee=1%.

- "Overall the information was good, but it would have been more helpful if it was more directly related to me, like if they could have done more with those calculators maybe."
- "It seemed really boilerplate and generic, like they
 were trying to make it one size fits all and avoid all the
 specifics, so I just kind of tuned out a lot of the time.
 Plus a lot of it wasn't even helpful. Like it was either
 really common sense-type stuff that everyone knows or
 it was details that don't even apply to me."

Personalized information helped to draw users into the counseling, providing helpful knowledge and demonstrating both the reality of the situation and the value of the counseling as something that can be relevant on an individual basis.

Given the value of personalization, it should come as no surprise that its absence can cause notable harm to the user experience. As users continue to scroll down the first page, they encounter explanations of basic concepts in student loans and interest accrual. These explanations utilize numerical examples in both charts and simple equations to illustrate the composition and growth of a student loan balance; however, about a third of users took the figures as representative of their actual loan balances, causing understandable confusion given that they had just been presented with different figures. The text does clarify that the various numbers are hypothetical, but locating this clarification requires close, careful reading (in one instance it appears in a footnote [see below]), whereas users are understandably paying more attention to the diagram and numbers themselves. Nearly all users confused by these elements were able to resolve the issue themselves, but about two-thirds of users (almost double the percentage that expressed confusion) questioned why the elements could not simply incorporate their own loan balances.

The data suggest that users react negatively when they perceive a lack of personalization or a sense that

information is generic or "boilerplate." They often reacted negatively to sections based on hypothetical circumstances they might face if they meet certain criteria. For instance:

"If you receive [sic] your first federal student loan after June 30, 2013, there is a limit on the maximum period of time... that you can receive Direct Subsidized Loans"

"You may have received an up-front interest rebate on a [loan] with a first disbursement date before July 1, 2012"

"If you have multiple federal student loans, you can consolidate them into a single Direct Consolidation Loan. A Direct Consolidation Loan may simplify repayment if you are making separate loan payments to different servicers..."

User responses to these three elements were overwhelmingly negative. As users skimmed or skipped them in almost three-quarters of all coded actions, they garnered relatively few reactions; however, those comments that did occur all coded for either confusion/lack of clarity, irrelevant/unhelpful information (in the case of the subsidized loan time limit, which applies to very few borrowers doing exit counseling), or a desire for personalization. Users were especially prone to express confusion in response to information on the up-front interest rebate and to question why the system could not simply tell them whether they had received one.

User responses to a table giving detailed information on the terms and conditions for every major federal student loan type provide another interesting case study in personalization. While some users skimmed this table (see above), no user skipped it entirely, and many spent a good deal of time reading it. However, about a quarter of users had difficulty with the table, as they were presented with information for all loan types and were unsure which applied to them. Some users who knew their loan types also remarked on the superfluous information. For instance: "It's not really a big deal because I know which

The data suggest that users react negatively when they perceive a lack of personalization or a sense that information is generic or "boilerplate."

	Direct Subsidized Loans/Federal Subsidized Stafford Loans (1)	Direct Unsubsidized Loans/Federal Unsubsidized Stafford Loans ()	<u>Direct PLUS</u> <u>Loans/FFEL PLUS</u> <u>Loans</u> ⊙	Federal Perkins Loans
Who may receive this loan?	Undergraduate students with financial need (3)	Undergraduate students and graduate or professional students	Graduate or professional students and parents of dependent undergraduate students. An adverse credit history might affect your eligibility. Tell Me More	Undergraduate and graduate or professional students with exceptional financial need
What is the Current Interest Rate?	4.66% for loans with a first disbursement date after June 30, 2014 and before July 1, 2015	Undergraduate Students 4.66% for loans with a first disbursement date after June 30, 2014 and before July 1, 2015 Graduate/Professional Students 6.21% for loans with a first disbursement date after June 30, 2014 and before July 1, 2015	7.21% for loans with a first disbursement date after June 30, 2014 and before July 1, 2015	5.0%
	While you are enrolled at	You pay all interest during all	You pay all interest during all	While you are enrolled at

part applies to me, but why would the other columns even be there? It's just more stuff in the way, but I still have to look at it to make sure I don't need it."

Much of the information is either not relevant to or already known by the user. This information adds to the overall length, to users' disengagement from the material, and to their tendency to skim/skip elements.

The exit counseling module contains a considerable amount of information that is either irrelevant to users or that many users already know. This issue is similar to but distinct from the desire for more personalization, as discussed above. This report uses the term "personalization" to mean the module utilizing individual borrower information to generate results, selectively display information, and give users advice that is not contingent on them first determining whether they fit into certain categories. Here, the issue of "relevance" concerns the inclusion of information that is not overly generic or contingent but simply unnecessary. While the set of elements that is irrelevant or unhelpful will differ somewhat from person to person, user responses indicated a great deal of commonality in this regard, which makes sense given the shared circumstances of soon-to-be former students preparing to repay their student loans. The elements most commonly identified by users as irrelevant (for reasons not having to do with personalization) include:

- Generic descriptions of the Federal Direct Loan and FFEL programs
- Information on loan fees, disbursements, and the Master Promissory Note

- Explanation of the time limitation on subsidized Direct Loans
- Generic advice to graduate, pay on time, and keep loan paperwork
- Basic personal finance tips (planning, saving, and smart spending, credit scores, identity protection, basics of credit cards, etc.)

Information on these topics contributes to a user's disengagement insofar as it adds to the length of the counseling module; however, user comments suggest that it may also harm the user experience in a more unique manner.

- "I got the sense that a lot of this stuff just has to be here so they don't get sued or something, like with a user agreement. So I sort of skimmed most of it, just to make sure I wasn't missing anything actually important."
- "I know there are probably a lot of people who need to hear this, but for me it's just kinda common sense, so I skipped over it."
- "It seemed like a lot of it was directed towards the lowest common denominator, so I figured it probably wouldn't help me all that much."

These comments suggest that users not only notice when material is not relevant to them but also modify their future behavior as a result. When users encounter information they perceive as irrelevant or overly simple, they expect more of the same and may fail to invest the time and energy to pay attention to it. It is entirely plausible that a user could develop this opinion and become disengaged to the point that he or she misses a piece of information that might have been helpful, perhaps even crucial. It is

even more plausible given the data on the actions of users who made these sorts of comments: by the third page of the counseling, users who at some point (during the UX test or debriefing) commented on the irrelevance of the material were skimming or skipping more often than not, and on the last page most seemed to pause only long enough to answer the mandatory questions.

Users are frequently confused by the quiz/ question elements, which often detract from the overall experience.

The counseling module includes a number of questions that users must answer before they proceed to the next page. While these little quizzes sometimes offer borrowers a valuable opportunity to apply important knowledge to realistic dilemmas, they are highly inconsistent and may even do more overall harm than good.



The first question asks users to enter their current loan balance into a blank box. Under the heading "Check Your Knowledge" (as are all of the questions), over a quarter of users interpreted the activity as voluntary and skipped it, only to find later that they could not proceed to the second page without giving an answer. About a third of users, the majority of whom entered their loan balance, made a comment indicating confusion, incredulity, or the unhelpfulness of the element. Several turned to researchers to confirm that their impressions. For example:

 "So it really just wants me to enter the number at the top of the screen? What am I supposed to get out of that?"

Most of the other questions also ask users to recall a simple point of fact from earlier on the same page, although they cover facts that are more important for someone navigating the student loan repayment process. However, the switch to somewhat more substantive questions also introduces the danger that users will interpret that the questions pertain to the only truly critical pieces of information on a given page. This danger may increase

for users who realize that the questions are mandatory to proceed; as one user put it in the debriefing, "After the first page, I pretty much just skimmed until I hit a question, then I scrolled back up and found the answer. I figured whatever they'll let you do to finish it is probably enough."

Furthermore, users who answered a question incorrectly learned that the module informs users of incorrect responses and allows them to attempt the question again, such that a user trying to complete the module as quickly as possible could simply skip to the next question and keep trying answers until finding the correct one (although this is, strictly speaking, unnecessary, as users need only attempt the questions in order to proceed).

While only a few users seemed to be making no effort to find correct answers to the questions, just under one-third indicated that they had engaged in some form of question-based reading at some point in the counseling. For users who had attempted to proceed without having answered a question, this figure rose to over half, and these users also had a somewhat higher than average tendency to skim and skip elements. While this might support the theory that knowledge of the questions as the mandatory minimum encourages users to treat them as such, it might also be that users who attempted to skip the questions were less invested in the counseling in the first place, though the comments do suggest an impact.

User experience with the calculator tools is mixed. While users often found them helpful, other common reactions indicate that they can be confusing, frustrating, and difficult to interpret.

The counseling module contains numerous interactive tools that perform various functions based on information entered by the user. Some are fairly simple — for instance, a tool that calculates potential long-term savings from making interest-only payments during grace, deferment, or forbearance. Others are more complex, such as a multipart tool that incorporates the user's loan balance, personal budget, and income (with tax withholding) to calculate the financial burden of monthly loan payments and then requests family size to estimate eligibility for incomedriven repayment plans (IDR). Calculators are among the least frequently skipped elements in the counseling. Even users who commonly skimmed through text-based elements would regularly pause to at least attempt them.

There are one or more errors on this page

You must go to Step 2: Other Monthly Expenses before continuing to the next topic. You must go to Step 3: Your Monthly Income before continuing to the next topic.

Estimate What You Will Owe, Spend, and Earn



While the calculators regularly garnered at least moderately positive reactions, their heavy usage also revealed a number of minor snags and drawbacks, which collectively suggest several thematic findings.

- Users often struggle to navigate complex, multipart tools. About one in four users had difficulty moving through the three-step process of the budgeting tool, only noticing the additional tabs because the module will not allow the user to progress until each tab has been clicked (see above). The majority of users were also confused by the IDR eligibility estimator, which displays results in a location where they are not visible at the point of data entry.
- Users were often confused by the lack of an "Enter" button on screen. The calculators return results when the user inputs information then hits the return key or simply clicks out of the entry box. As there is no way for the user to know this and often nothing else to click on, many users scroll down (either looking for a button or giving up and moving on) until the tool is out of sight before clicking and causing the results to generate.
- Users struggle to interpret the precise meaning and implications of the calculations, largely due to unclear instructions and vocabulary. This was particularly noticeable in the case of the budgeting tool, where users had difficulty understanding the meaning of "Suggested Minimum Gross Income" in this context and did not readily grasp that the results of the tool were meant primarily to inform consideration of repayment plans. Users also struggled to interpret the multiple calculators that generate results in a table format (see above). Tellingly, many of the users who did interpret these tools successfully cited experience in finance-related courses as the source of their ability.
- Users often lack sufficient knowledge of their own information to use the calculators effectively. This was especially evident for the budgeting tool, where many users did not know details of their personal expenses and/or their incomes and were unsure how they should proceed.

Deferment and Forbearance: Calculate the Costs					
Postpone your payments for:	months		Capitalized Interest	Total Interest	Total Interest and Principal
Unsubsidized Balance ¹ : Subsidized Balance (Subsidy Lost):	\$26,830	Deferment*			
Total Balance:	§10,000	Forbearance			
Repayment Period: Based on Plan to Repay figures.	10	Interest-Only Payments During This Period			

Users often struggle with the basic principles of navigating through the module, adding to their frustration and to the time necessary to complete it.

Users' frequent confusion when attempting to proceed through the module was demonstrated most clearly by the frequency with which they failed to satisfy the requirements necessary to proceed to the next page. Over two-thirds of users were prevented from proceeding to the next page at least once, often due to a skipped question or failure to use a calculator feature. Users were able to resolve these errors without direct assistance from the researchers in over 80 percent of cases, but this still leaves a substantial number of instances in which the automatically generated error messages were insufficient to guide users (see top of page 14). Even though the far majority of users were able to resolve the issue on their own (and more may have done so without the researchers there), users still found it exceptionally frustrating, and it constituted a sometimes time-consuming distraction from the material itself.

Navigation was also one of the only areas in which significant differences appeared between subgroups of the participant sample. Community college students over age 30 were significantly more likely to experience difficulty navigating the tool, to the point where they constituted the majority of users who required direct assistance to resolve an issue, compared with only 20 percent of the total sample.

Users generally refrain from clicking links to extra information, often because they see them as tangents that will distract from forward progress.

At various points in the material, users have the option to click on links that will allow them to learn more about various topics; however, instances of these users following these links numbered in the low single digits, despite user comments attesting to confusion and/or a desire for more information. A link to a salary data resource in the personal budgeting tool provides an ideal example (see below).

Enter what you expect to earn annually once you graduate.

Projected Annual Income

Check the Bureau of Labor Statistics available at CareerOneStop to estimate your future salary.



How do I change my repayment plan?

Contact your federal loan servicer to select or change your repayment plan:

- Your federal loan servicer can advise which repayment plans are available to you.
- If you do not select a repayment plan, your federal loan servicer will place you on the standard repayment plan with fixed payments over a maximum of 10 years.
- · You can change your repayment plan at any time.

Check out our video on YouTube.

To estimate the financial burden of a user's loan payment, the tool requests information about the user's expenses and income. Under the heading "Projected Annual Income" is the sentence "Check the Bureau of Labor Statistics at CareerOneStop to estimate your future salary," with "CareerOneStop" as a hyperlink to the resource. About three-quarters of users expressed uncertainty about their future incomes, yet almost none clicked this link.

In another example, users uniformly failed to click on a link to a YouTube video in the counseling (see above). Common explanations given for this include not having seen it at all, not knowing what the video is about, assuming the video is about how to change your repayment plan (as the link follows an element on that topic), and not knowing how long it is . To observe the response to the video, researchers asked about half of users if they would be willing to watch it, and they were kind enough to oblige. Without exception, users who watched the video found it a helpful, succinct, appealing introduction to student loan repayment. Many wondered why it was not embedded at the beginning of the counseling, where it could better serve the purpose for which it seemed intended.

While these were the most prominent examples, users regularly chose not to follow several other links to additional information throughout the counseling. A handful of users clicked links to verify whether their prospective employers would qualify them for Public Service Loan Forgiveness, but that was the extent of it. User comments during the debriefing interview suggested that lack of interest, a "just-in-time" mentality towards seeking out information, not seeing the links, and/or a desire to finish the module more quickly were behind this pattern. For these users at least, the overall implication seemed fairly clear: if users are going to see a piece of information at all, it must appear within the counseling module itself.

First-generation and community college students have a greater tendency to interact with the counseling in extreme ways, with either intense attention or complete disengagement.

Examination of possible differences in the application of this model between subgroups in the sample led to one interesting observation. The behavior of users earning a bachelor's degree or higher with at least one parent who had earned a bachelor's degree or higher followed the model fairly consistently, with a gradual but substantial increase in skimming, skipping, and negative reactions as the module progressed. On the other hand, the behavior of users who were the first in their family to earn a postsecondary credential and/or were earning an associate degree split largely into three groups. Although their discovery interviews followed similar lines, these users started the module with even more attentiveness than their peers, often reading each segment word for word. However, only about half showed the similar pattern of a gradual disengagement with the material. The other half split into two camps: one smaller group that continued to read through the entire module in more or less the same slow, deliberate fashion; and another larger group that seemed to keep up the close reading only to a point before experiencing a sharp drop-off in engagement. This point varied significantly, with some lasting only through the first page effort and others getting all the way to the last page before seeming to suddenly abandon the effort, scroll quickly to the questions, and finish the module.

It seems that many first-generation and community college students felt a need to pay closer attention to the material. While they shared with other users the desire to confirm their knowledge and ensure that they were not missing something important, they may have felt this as a more pressing need or more acute fear. Whatever their motivation, these users invested significant time and energy in reading through the material very closely, until they rather suddenly did not. As sources of frustration, tiredness, and disengagement compounded, they might have simply refused to moderate their reading pattern until their patience or energy was exhausted, resulting in the sudden decline in attentiveness. The few users who maintained slow, close reading until the end required at least an hour and fifteen minutes to finish, which would be an excessive amount of time to read dull information from a screen even without the various issues in the counseling

module. They may also have been less accustomed to Web-based skimming or to speed-reading in general, causing them to approach the text more traditionally.

Over the course of the counseling, the user experience evolves like an emptying gas tank, in which (most) users start with a full tank that gradually empties as the user contends with the numerous issues chronicled above. Even when users read and understand information, the lack of remaining energy and focus may contribute to their frequent failure to apply it to their circumstances to inform their actions.

As seen in the discovery interview, users began the counseling session with optimism and moderate motivation. They saw no pressing need to learn more about their student loans, especially not what to do if they ran into trouble with repayment, but they were still interested in confirming their pre-conceived notions and finding out how to handle repayment even more quickly and cheaply than they already envisioned.

Powered by this full tank, users start off on the first page hardly ever skimming or skipping information. In rare instances when users did not read elements more or less in their entirety, they skimmed over both the information for loan types they did not have and the description of the Master Promissory Note; yet, many users read even these irrelevant sections. Some issues occurred as users figured out that the questions were mandatory and were sometimes prevented from progressing to the next page, but these issues garnered few critical remarks and did little to dampen positive spirits.

On the second page, users encounter more issues, confusing elements, blocks of detailed text, and the other sources of frustration and disengagement identified above. They begin to view these not as isolated incidents but as pervasive, recurring shortcomings, and begin not only to critique them but also to modify their behavior in response to them. At some point between starting the second page and early in the third, the counseling becomes less a source of good ideas to be reviewed and applied and more a procedural hoop to be afforded just enough attention to insure against missing something absolutely critical. Skimming, skipping, and question-based reading become more common, and users fall back

on their old standbys — general optimism, the ability to Google information to resolve issues if/when they occur, and faith that servicers will take care of them — along with the naïve but misplaced belief that answering the mandatory questions correctly means that they are in good shape. This progression of attitudes and behaviors, which leads to users moving too quickly to learn or even identify important information, is illustrated below.

"There's so much information, but *almost no* counseling."

Uniform high importance

Meticulous reading

Persistent issues: irrelevant material, dense text, confusion, etc.

Inattention, uniform devaluation

Selective reading

Inability to differentiate important info

Severe inattention and frustration

Incorrect skipping and failure to learn

Furthermore, the framing of much of the information does not correspond to the concerns and interests of users/borrowers. Borrowers tended to be optimistic and more interested in finding ways to save money and pay off their loans ahead of schedule, yet many topics are framed as responses to avoiding the possible consequences of a heavy loan burden. Users might both read more of the information and use it more effectively if the topics were framed as tools for constructing an optimal repayment strategy. Vanishingly few users completed the counseling with either a definitive loan repayment plan or the resources to proactively develop one and advocate for themselves with their loan servicer. As one user put it, "There's so much information, but almost no counseling."

II. Discovery Interview

Many patterns and themes emerged in the responses participants gave during the discovery interview. These commonalities are significant insofar as they characterized the sample of participants who expressed them, shaped the way these participants engaged with the counseling material, and thereby provided a crucial perspective on the overall experience of exit counseling.

Almost all participants had some sort of plan for life after college, ranging from a definite opportunity for a job or further education to a plan for obtaining one or the other. The presence of a plan contributed to participants' general optimism by providing either confidence in the ability to repay or an opportunity to postpone payments.

Participants generally had a more or less definite idea of what they would be doing after graduation. They discussed their futures in terms of employment, further education, and living situation. Some had already accepted jobs or were in the process of interviewing for jobs; others already had a job they intended to keep, possibly while seeking a new one. Almost all participants had some prior work experience, and those without a job offer seemed confident that they could secure adequate employment to live independently (if modestly) and repay their loans quickly.

Student borrowers who did not fit these categories tended to be headed directly to graduate or professional studies or to a four-year institution to pursue a bachelor's degree.

Some were seeking a period of interim employment before additional education. Regardless of future plans, nearly all planned to live independently of parents after graduating, though some expected to receive some measure of parental financial support from.

Participants regularly expressed surprise and/ or regret at their student loan balances but had almost never attempted to reduce their borrowing or learn more about borrowing and personal finance. Entrance counseling had accomplished little if anything toward these goals.

Most participants say they tried to borrow only what they needed, but nearly three-quarters also expressed some regret or a feeling that they might have been able to borrow less. However, when asked about this feeling, participants never cited an effort to seriously alter their expenses to reduce borrowing. On the contrary, many said they had borrowed comparatively higher loan amounts in later years, as they sometimes became ineligible for grants/ scholarships, personal financial circumstances changed, or they received less institutional aid.

Entrance counseling, which seeks to encourage responsible financial practices for postsecondary students (e.g. adequate but minimal borrowing, proper use of financial aid, personal budgeting, etc.), seems to have been, at best, minimally effective. About one in three participants could not recall having completed mandatory entrance counseling for their federal student loans. Those who could generally remembered only that they had done it, often adding that they "just clicked through it to get it out of the way," [didn't] feel like [they] got much out of it," or a similar expression that they had not seriously invested in or benefited from the experience. Furthermore, few participants felt that they had learned significantly more about student loans since they initially borrowed. The common impression was that the process is mostly automated and does not require effort on their part. Asked whether he had learned more about loans and borrowing during his years of education since entrance counseling, one borrower replied, "Not really. I mean, I would learn that I got another loan to pay for another year, but I already knew I didn't have to pay it yet, so it kinda just felt like everything was working."

Participants lacked detailed knowledge of student loans but did not see this as problematic. Many participants saw their student loans as "just another bill" that would not require special attention and that they would probably pay off the debt early, before the end of the standard repayment period.

Asked about their current knowledge of their loans and how to repay them, most said they knew "the basics" and were not eager to learn more. It was common for participants to cite similarities to other payments, like monthly living expenses or car payments, perhaps as justification or explanation: "I know that student loans have all these different options and everything, but it's really just another bill."

The notion that a student loan was "just another bill" or simple expense was fairly pervasive. Most participants seemed comfortable having a plan for repayment as simple as "I might have to cut down spending a little, but I think I'm just going to pay it off, hopefully pretty quickly." Participants cited psychological reasons, financial reasons, or both in discussing their preference for quick repayment:

- "I just want to get out from under it"
- "I want to get it out of the way so I don't have to worry about it"
- "Ten years seems like way too long to have to deal with this"
- "I know that it's cheaper to pay it off faster because you don't pay as much interest"

A few participants said that their parents were either helping with loan payments (in a few cases covering the whole amount) or would probably help if they had difficulty repaying.

In keeping with the belief that they could pay off their loans in a quick, straightforward manner, most participants expressed little if any anxiety or worry about the prospect of repaying their student loans. Just over three-quarters of participants said that their only concern was to pay off their loans as quickly as possible, and many seemed to view the full ten-year standard period as a worst-case scenario. The roughly one-third of participants who had tenuous plans for employment or additional postsecondary education

expressed marginally more concern about their ability to make loan payments; however, participants who fit this profile also tended to go into somewhat more detail when asked about their current knowledge of student loan repayment and relief options.

Participants' knowledge of and interest in repayment relief options was generally marginal. This disinterest was rooted in confidence in the loan servicer, general optimism regarding repayment, and reliance on justin-time intervention.

Though more aware of relief options, even the participants who mentioned them often lacked knowledge of details and proper terms ("I know there are plans where you only pay a certain percentage of your income"; "I'm a little worried because I don't have a job yet, but I'll just get the postponement if I can't get one in six months") and expressed marginal interest in learning more about them now. Only about 15 percent of participants explicitly expressed interest in learning what to do if they struggled or were unable to make a loan payment.

Most participants did not offer explicit reasons for their lack of interest in relief options, but comments made by those who did, as well as comments made in response to other questions, suggest that the disinterest is based on confidence in the loan servicer, general optimism regarding repayment, and belief in just-in-time intervention. About a quarter of participants mentioned that they had already been contacted by their loan servicers. Participants cited this contact when explaining a lack of stress regarding loan repayment, the adequacy of a simple "I'll just pay it off" repayment strategy, and the feeling that loan counseling could be a "helpful review" but was not critically important. One participant summarized the effects of servicer contact especially well: "I already got some emails from my servicer so I know they'll tell me what to do when it's time, so I'm not really worried about it."

Participants generally saw relief options as part of a last-minute safety net, not a pre-meditated strategy. One participant said that "If I do have trouble paying, I'll just Google what to do and figure it out then." Even lacking details, the knowledge that they had options "just in case" seemed to substantially moderate the stress levels of participants who foresaw possible difficulties, such that they were rarely more concerned than borrowers who felt more secure or certain about their futures.

Despite their general lack of anxiety or concern, most participants expressed interest in exit counseling based on the possibility of learning something important or financially helpful and a need to know functional details of repayment.

When asked why they wanted to learn more when they already felt confident in repayment, most participants gave one or more of three types of explanations:

- Confirmation: "It would be nice to confirm stuff. Like,
 I could be wrong about something I think I know";
- 2. Potential unknowns: "There may be something important that I don't even know about"; and
- 3. Financial motivation: "It's my money, so it matters to me".

Asked whether they had specific questions or loan-related topics about which they wanted to learn more, the roughly two-thirds of participants who did generally cited something related to the fundamentals of making a loan payment. For example:

- "I guess I just want to know when to make payments and who I pay"
- "The only specific thing I can think of right now is when the grace period ends"
- "If there's any way to pay it faster or cheaper, that's definitely something I want to know"

General Finding

Participants' comments reveal an internally consistent logic whose product is an attitude toward exit counseling characterized by interest and willingness but a lack of urgency or deep investment. Though participants sometimes regretted their high loan balances, acceptance and confidence were the norm. Participants expected to pay off their loans quickly and fairly painlessly, without the need to plan for repayment. The few who foresaw the possibility of repayment difficulties countered that potential with basic knowledge of relief options and the belief that they can learn more about them and utilize them if or when difficulties actually arise. Similarly, those who mentioned having been contacted by their servicer often relied on the servicer to provide information and instructions as needed; they expected the servicer to lead them by the hand through the repayment process. These two dynamics moderated potential stress,

defusing any sense of anxiety and resulting urgency that the recognition of possible future hazards might have produced. In this way, common beliefs about loan repayment caused participants to conclude that exit counseling was theoretically important and potentially useful, but ultimately dispensable and therefore somewhat superfluous.

III. Surveys

Pre-Counseling Survey

The pre-survey presented a list of the topics covered in the exit counseling module and asked participants to rate both their current knowledge of that topic and how important they thought it was for them to know more about it. Ratings were given on parallel Likert scales of one to five, with one indicating "no knowledge" on the knowledge scale or "irrelevant" on the importance scale and five

indicating "very knowledgeable" or "essential," respectively. A visual display of these options was presented to encourage the perception of symmetry and the usefulness of the mean as a measure of central tendency.

Results from the pre-survey are presented in tabular form, with notable observations following.

TABLE 1. Mean responses to pre-counseling survey (n=50)			
#	Торіс	Knowledge average	Importance average
1	Basic concepts of how loans work (principal, interest, balance, etc.)	3.35	4.71
2	Basic concepts of financial aid, like loans, grants, and scholarships	3.96	4.56
3	How interest gets added to student loans and is sometimes subsidized	2.92	4.46
4	Characteristics of different types of student loans	2.75	4.15
5	Annual and aggregate limits on student loan borrowing	2.10	4.10
6	Strategies to manage my income and expenses	3.71	4.73
7	Strategies to lower the amount of student loans I have to borrow	3.06	4.60
8	How to change the amount of loan disbursement	2.48	4.19
9	How interest rates and payment plans affect monthly loan payments	2.90	4.42
10	Advantages and disadvantages of different repayment plans	2.31	4.62
11	How to switch repayment plans	1.90	4.50
12	Strategies and options for flexibility or relief if I have trouble repaying	2.13	4.75
13	Consequences of being delinquent or defaulting on student loans	3.02	4.65
14	How to get a delinquent/defaulted loan back into healthy repayment	2.04	4.46
15	How to access information about my loan(s) online	3.52	4.54
16	Who I can contact if I have questions about my loan(s)	2.75	4.54
17	How my remaining eligibility for subsidized loans is calculated	1.85	4.06
18	How loans affect eligibility for other types of financial aid	2.33	4.29
19	What a loan servicer is and does	2.44	4.27
20	Who my loan servicer is	2.77	4.58
21	How to make a loan payment	2.85	4.88

Participants' average ratings of their knowledge of the various subjects had considerable range, from almost four ("knowledgeable") to less than two ("little knowledge"), with the majority of the subjects rated at somewhere

between two and three ("some knowledge"). On the whole, participants seemed to believe that their knowledge of most topics is somewhere in the low to middling range. Higher-rated subjects tended to be more general matters

of basic financial concepts, while lower-rated subjects tended to be more specific and pertain to detailed aspects of the federal student loan system exclusively.

On average, participants indicated that they thought it was important if not crucial to learn more about all of the subjects, with every average response falling between 4 ("very important") and 5 ("essential"). With so little variation, it is not surprising that no clear patterns emerge in terms of differences in importance between the topics. Among the most important topics were some that are very specific to the student loan repayment process and some that are matters of general financial well-being.

Logic dictates the some of these topics should be more important to student borrowers than others, given the circumstances of preparing to leave postsecondary education (in most cases) and begin repaying student loans. To some extent, the slight variations in average importance rating follow this logic, with topics that pertain to student borrowers who will be borrowing again (financial aid eligibility, managing disbursements, types of loans, borrowing limits, and limits on eligibility for subsidized loans) ranked near the bottom. However, even these topics received average scores that indicate a

general impression that these topics are of nearly equal importance as higher-ranked subjects. Furthermore, a small number of participants ranking these topics as 1 ("irrelevant") or 2 ("little importance") significantly lowered the average score, such that the majority of participants made even less of a distinction in the importance of these topics compared to the others.

On the whole, results of this survey suggest that most participants felt they had low to middling knowledge of how to navigate student loan repayment but consider it very important to learn more about all topics related to student loans, with little ability to differentiate between topics that are critical and those that have little practical relevance to their future.

Post-Counseling Survey

After finishing the counseling module, participants completed a short survey on their experience. Participants were asked to rate their agreement with a series of statements on a one-to-five Likert scale, with one indicating strong disagreement and five indicating strong agreement. The table below presents the percentage of responses that are in agreement (four or five) with the statement in question.

TABL	2. Percentage of responses answering in the affirmative (n=38)	
#	Statement	Agreed
1	I would have done counseling differently if I had been alone.	21%
2	I spent more time reading and thinking about the material than I would have alone.	29%
3	I was comfortable being honest with the researchers.	100%
4	Online counseling took longer to finish than I expected.	32%
5	Counseling was easy to complete.	76%
6	I felt frustrated when trying to complete counseling.	18%
7	Counseling taught me new things.	79%
8	The text/information was relevant and important.	82%
9	The text/information was easy to understand.	61%
10	I could easily find additional information/help.	76%
11	Things I learned in counseling will help me in the future.	89%
12	Screens had the right amount of information.	53%
13	The interactive elements (calculators, budget tool, etc.) were easy to use and understand.	74%
14	The interactive and customized elements were helpful.	74%
15	I always felt I knew what to do next.	61%
16	It is clear how screen elements (pop-ups, expand/collapse, recalculate, etc.) work.	89%
17	The overall look and feel of the site is pleasing.	58%

At first glance, these largely positive results seem to contradict the major findings from the UX testing and debriefing interviews, which highlighted the common issues encountered by large numbers of users. However, a number of concerns should be kept in mind. First, a number of well-documented biases may have affected the survey results. The survey ought to have balanced the number of statements framed in positive and negative light (positively/negatively/"keyed") to control for acquiescence bias, which is the tendency of a participant simply to agree with the statement at hand.^{xx} Social desirability bias may also have affected the responses of participants who did not wish to appear overly sensitive or whiny and downplayed their criticisms on that account. ^{xxi}

Moreover, both the spirit of the survey questions and the particulars of the qualitative data must be contextualized. The survey asks that participants judge the entire counseling module on the aspect in question. For instance, on number 8, a participant might ask herself, "Do I agree that, on the whole, the information in the counseling module was relevant and important?" Even if that participant had encountered multiple instances in which the information was superfluous, she might agree with the statement on the grounds that the large majority of the information was

both relevant and important. There is no reason why a few instances in which the statement was not true should be privileged over the majority of times when it was; if anything, the participant might disregard entirely the one of two notable counter-examples as anomalies to be discarded.

Furthermore, close examination of both the survey responses for individual participants and user behavior patterns during the UX tests indicate that a participant is rarely exceptionally troubled by one particular aspect. Occasionally one single issue, like the density and bulk of information, would severely damage a user's experience, and in those cases the user would express that damage in actions, comments, and the survey. For the most part, however, users were merely "pricked" once or twice by occurrences of a thematic issue. The minor damage caused by a single instance of an issue does not call users' attention so strongly that they identify a pattern, especially since they have already moved on to contend with another issue. Instead, the pattern emerges through analysis of aggregates. There is no easily identifiable villain, only the growing desire to hurry up and be done with it. In this way, most individual aspects tested in the survey can remain relatively untarnished even while the effectiveness and appeal of the module as a whole declines.

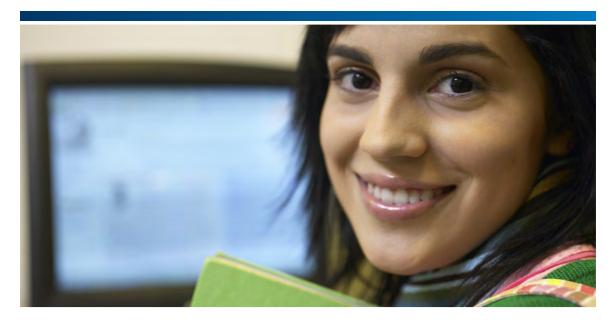
DISCUSSION OF RESEARCH LIMITATIONS

As with all research projects, conditions of scarcity dictated that the research design omit certain considerations for the sake of providing answers to the research questions that were as complete and helpful as possible given available resources. In this case, that meant favoring qualitative depth, interpretive reach, and explanatory power over quantitative precision and exacting assessment. This approach facilitated an analysis of how and why certain patterns occurred, but it did so by sacrificing definitive insight into how often those patterns occur, whether they correlate with student traits (demographics and so on), to what degree they impact learning and long-term outcomes, and other matters better explored with a quantitative design.

Besides inherent limitations on the sorts of questions it can address, the qualitative approach can suffer from issues regarding the generalizability of findings from sample to population. Intuition may suggest that patterns observed in the experiences of 38 participants cannot be extrapolated to the experiences of all undergraduate participants, but

this largely depends on the type and framing of the findings. Crucially, the analysis makes no attempt to identify findings that rely on subgroup distinctions, like age, race, gender, etc. As the entire study sample is analyzed as one group, the question becomes to what extent that group reflects the population of students who use ED's online exit counseling module. Unfortunately, demographic data on users of that tool are not readily available, so a true comparison cannot be made. As a proxy, the sample can be compared to the populations of either postsecondary students or graduates, revealing some differences but none that should have introduced a major bias.

Instead, the most glaring discrepancy between the sample and the population who should be completing exit counseling is the same as the discrepancy between those who should be completing exit counseling and those who, in all likelihood, actually are: graduation. The sample consisted entirely of borrowers who were preparing to graduate from their programs, whereas



a great many of the borrowers who drop below half time in a given year are transferring, stopping out, or dropping out. Anecdotal evidence from financial aid officers suggests that most of these student borrowers will not complete the official exit counseling module, but rather receive paper or PDF materials instead (or, at least, the materials are sent to them). So, the study sample likely does reflect the traits of borrowers who actually use the module, though only as a result of the failure to deliver exit counseling to the non-graduating borrowers who, it should be noted, are also most likely to run into trouble with their loans.xxii Other possible limitations concern the impact of the researchers' presence on participant behavior during the test. The study attempted to explore this possibility by including it on the post-counseling survey and mentioning it

during the debriefing interview. Most participants seemed to think that, true to instructions, they had gone through the counseling in more or less the same way they would have had they been alone. The less than one-fifth of participants who said otherwise all felt that they would have been prone to skimming, skipping, and otherwise trying to rush through and finish the counseling more quickly. As these behaviors were well documented in the data regardless, this suggests that the research setting moderated the tendency to rush, introducing a conservative bias. As marked as the tendency was for the study participants to gradually disengage from the material as they proceeded, the dynamic is likely far more common and severe for "real" users.

RECOMMENDATIONS

Analysis of the data produced a number of general findings regarding negative patterns in the user experience with exit counseling. Based on these findings, researchers have developed a set of recommendations that could promote persistent student engagement and effective learning. Some of these recommendations correspond fairly closely to the findings; for instance, as it was found that users have trouble with the length of the module, it makes sense to explore options to reduce the amount of time necessary to complete the module, or at least the amount of time that

a user must devote to the counseling in a single sitting. Other recommendations, however, involve somewhat more creativity on the part of the researchers. They move beyond the elimination of issues, offering alternatives that could profitably replace the current, problematic aspects. There is no way to know this for certain — these alternatives have not been tested against the current module — but these recommendations remain grounded in identification of core issues in the data.

Practitioner Recommendations

This study was conceived with the objective of identifying ways in which the design of loan counseling modules and the policy surrounding them could be improved to promote more effective counseling; however, even in the absence of any such improvements, higher education practitioners may be able to utilize these findings in bettering their own institutions' exit counseling practices. The practitioner recommendations that follow suggest some ways in which institutional actors, primarily financial aid offices, might compensate for specific shortcomings of the exit counseling module as identified in research findings. Broader practitioner recommendations on the scale of whole programs will be examined in a forthcoming Trellis report detailing a study undertaken on promising practices and programs in loan counseling. This report should be released in late spring or summer 2015.

The numbering is for convenience only and should not convey any sense of significant order or relative importance.

- Provide a general introduction to the counseling.
 Ideally, exit counseling would begin with a general introduction to the module. Including such an introduction is one of the core design recommendations presented in the next section; it is reproduced here since, in its absence, financial aid offices could provide standard introductory guidance for their own students.

 This introduction should include several elements:
 - a. Description of learning outcomes
 (What will I learn? What will I be able to do? How will the counseling empower me?)
 - b. Navigational guidance
 (How do I progress through the counseling?
 What types of elements will I encounter, and what should I do with them?)
 - c. ED's YouTube video on repayment.

 This video provides a clear, concise, and engaging introduction to key topics in repayment, but it is linked to the middle of the counseling module through a link that borrowers hardly ever click. Ideally, this video would be embedded in the beginning of the counseling, but embedding it in a digital communication or including the link along with a brief description of the video and its length could encourage borrowers to view it.

- d. Reasonable estimate of time commitment and recommendation to take a break.
 Both this study and a large body of research in behavioral economics suggest that accurately managing user expectations promotes effectiveness and user engagement. The tool estimates about 30 minutes to complete the session, but many borrowers take even longer. Based on the experiences of borrowers who read the entire module, users should be advised to allocate at least an hour for counseling, including time for a short break (after several minutes of inactivity users are automatically logged out, but a short break is possible).
- 2. Provide regular loan status reports to borrowers. Many users seem surprised at the amount of their loan balances. In addition, many borrowers leave school prior to graduation without informing the administration; a financial aid office can never know when an opportunity to communicate with a borrower is its last. Loan status reports (possibly at the beginning and end of each semester) could help borrowers track their loans and reiterate the steps that borrowers should take when they leave school. These reports should also identify the servicer for each loan, provide the servicer's contact information, and suggest that borrowers with multiple servicers explore consolidation. Early evidence from a similar effort at Indiana University suggests that simply informing borrowers of their balances might significantly decrease future borrowing, but further research is needed.xxiii
- 3. Create loan profiles for exiting borrowers that correspond with contingencies in the counseling. Many borrowers struggle with counseling modules that require them to know certain details about their loans, like when they received their first disbursement or whether they received an up-front interest rebate. If borrowers had this information in hand, they could more easily determine which aspects of the counseling apply to them.
- 4. Offer stronger guidance on repayment strategies.

 Users often fail to make connections between their own circumstances, the information they are reading about different repayment plans, and concrete actions, like choosing a plan or pursuing a forgiveness option.

The practitioner recommendations suggest some ways in which institutional actors, primarily financial aid offices, might compensate for specific shortcomings of the exit counseling module as identified in research findings.

Financial aid offices could develop more definitive guidance to help student borrowers understand how they should factor different concerns and plan features into their decisions.

5. Explore incentives for early/additional counseling. A key issue in the delivery of exit counseling is how to motivate borrowers to complete it. Schools can inform them of the requirement and threaten to withhold transcripts, but they may lack leverage to enforce compliance, especially for borrowers who drop out. Schools might explore utilizing a carrot instead of a stick, perhaps by offering an incentive to borrowers who complete exit counseling earlier or on an annual basis. Supplemental counseling conducted in a face-to-face format would likely be even more effective, especially for targeted, higher-risk borrowers. This will be discussed further in the forthcoming report on promising practices.

Design Recommendations

These recommendations are intended to address the problems outlined above within the confines of existing statutes, making the counseling module more user-friendly and responsive to borrower needs and circumstances. Many of them would work in concert to address the same issue or issues; for instance, we recommend both better filtering of the material based on borrower characteristics already available through the National Student Loan Data System (NSLDS) as well as the inclusion of a broader range of characteristics in order to better tailor the information and counseling messages. Either could be implemented on its own to address issues of length and the relevance of the material, but in tandem they would address these issues more effectively. Inversely, there are recommendations designed to address a given issue that are not complementary but mutually exclusive, as they represent alternatives to address the same problem.

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1. Smart Filtering/Skip Logic – based on either information automatically gathered from various sources or information entered by the borrower, exit counseling should remove or minimize information that is not relevant to the individual borrower. For instance, information on the terms and conditions of student loans should be presented only for the type(s) of loan(s) that the borrower actually holds. Other helpful information could be gathered as well, such as whether the exiting student is graduating or stopping/dropping out. Students stopping out might benefit from detailed advice for getting back on track and completing a degree program, whereas those graduating do not need the current, generic advice to simply "finish your program and graduate." Servicers might also be

able to better target outreach to these students, as dropping out is currently a key risk factor for default.

The counseling could also incorporate the user's employment status. Currently, borrowers who do not know their expected income cannot make full use of the budgeting tool meant to help them determine whether they should apply for an income-driven repayment plan. For borrowers without a known income, the tool could make it easier to find a sample income based on data or explore different income scenarios. Job hunting tips and resources (possibly even location-specific resources) could also be provided for these students. There are many promising opportunities for collecting and utilizing borrower information to create a more tailored and effective counseling experience.

- 2. General Introduction exit counseling should begin with a general introduction to the module. This introduction might include several elements (which could also be implemented in various ways absent the creation of a general introduction):
 - a. Description of learning outcomes
 (What will I learn? What will I be able to do?
 How will the counseling empower me?)
 - b. Navigational guidance
 (How do I progress through the counseling?
 What types of elements will I encounter, and what should I do with them?)
 - c. ED's YouTube repayment video This video provides a clear, concise, and engaging introduction to key topics in repayment, but it is attached to the middle of the counseling module through a link that borrowers hardly ever click.

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- d. Reasonable estimate of time commitment Both this study and a large body of research in behavioral economics suggest that accurately managing user expectations promotes effectiveness and user engagement. The tool estimates about 30 minutes to complete the session, but many borrowers take longer than this.
- 3. Better School Selection borrowers frequently struggle with the school notification/selection page. This function may be improved with clearer instructions or by only showing the drop-down menus to choose a different school after the borrower indicates that the automatically populated school is incorrect. Improving this function will avoid confusing and frustrating the borrower before he or she even gets started in the module.
- 4. Contextual Headings headings should provide specific cues regarding the utility and value of the information they precede. They should relate the information directly to a concrete capacity borrowers already know they should develop, like saving money or making payments. For example, on the "Plan to Repay" page, there is a collapsed box with the heading "When do I need to start making payments?"This engaging title lets the borrower know exactly what the expanded text will cover. Other sections can use this same logic for instance, the section on the "Avoid Default" page titled "Loan Consolidation" could instead have a title such as "Should I combine all my loan payments into one?"
- 5. Dynamic Cues visual and/or subtly animated signs or indicators could point borrowers toward next steps and highlight key pieces of information. This should help users better follow the flow of the page and should reduce frustration with errors when trying to continue to the next page. For example, many borrowers unintentionally skip over steps 2 and 3 in the budget tool at the top of the "Plan to Repay" page. If the next steps could draw their attention more, they may have more success getting through the page in the intended order and in a more efficient manner.
- 6. Simplify Calculators borrowers sometimes struggle to interpret the meaning of calculator elements, especially when results are presented in a grid. Calculators should offer a simple, linear process in which borrowers fill in blanks, step by step, to

- complete a narrative: "If I do action A in amount X, I will save amount Y every month and amount Z overall."

 Dynamic cues and/or a more clearly defined sequence of simple steps leading to understandable outcomes connected to actionable implications would make the calculator tools far more effective.
- 7. Shorter Pages splitting the five long pages into short "slide" type pages would provide much needed space to increase font size and decrease density, encourage focus by removing the need to scroll, maintain a sense of measurable progress, and facilitate meaningful sequencing of information (see below). Assigning topics to individual pages would allow the module to better control the order in which borrowers encounter information, providing opportunities for logical, narrative sequencing and re-ordering based on learning priorities.
- 8. Narrative Sequencing as users progress through the counseling, they should be reminded of what they've already learned, what they are about to learn, and how that will help them. For instance, "You just learned the basics of student loan repayment, including the existence of different repayment plans. Now we're going to take a look at your personal budget to see which plan might work best for you." Narrative sequencing may help to engage users, who often pause during the module due to a lack of guidance. It may also contribute to a better understanding and retention of loan counseling information by providing more specific context for the sections the borrowers are reading.
- 9. Possible Audio Guidance a recorded voice could help provide narrative context and navigational assistance without adding to the reading load, which many borrowers see as onerous. An additional learning method could also promote a more immersive experience and boost knowledge retention.
- 10. Stronger Advising based on the personal information borrowers enter (or that is collected and auto-populates screen fields), exit counseling should offer stronger recommendations regarding repayment plans. Many users failed to understand how the information provided in exit counseling should be applied to their circumstances in order to guide their repayment decisions. Straightforward advice ideally based on borrower's individual circumstances would address

users' concerns that they are receiving a lot of information, but little counseling. Borrowers want the knowledge and skills to apply information to their own circumstances and achieve better outcomes for themselves.

- 11. Sample Budgets and Embedded Income Data provide sample budgetary information and an embedded income search utility based on the most individualized data available (by region, degree, major, specific program, etc.) so that borrowers who cannot estimate their income and personal budgets during repayment can still get some sense of the financial burden of repayment.
- 12. Expanded and Early Information Collection collect borrower information to use in filtering and calculator/ tool functions at the beginning of exit counseling, possibly in a pre-counseling module, along with explanations of how that information will be used and why it is important. Additional information regarding borrowers' employment, academic, and financial circumstances could allow the counseling to emphasize information that will be more relevant to each individual user. Adding a clear and guided way for borrowers to provide all necessary information at the beginning of the module may make the counseling session run more efficiently and help focus attention on the content, not the process.
- 13. Progress Indicator borrowers should have some way of knowing how much of the session they have completed and how much remains. This could be made easier by implementing recommendation #7 (Short Pages).
- 14. Occasional Breaks the module should provide periodic breaks, especially if it remains at or near its current length, without the ability to save and return, and even more so if it remains formatted in a small number of long pages. These breaks would help borrowers regain focus and prevent exhaustion by interrupting the counseling at logical points, e.g., after an important learning outcome has been achieved. Such breaks could take the form of simple, fun games or short, enjoyable videos. They could also be made optional.
- 15. Save and Return borrowers should have the ability to save their place and return to the counseling later, especially if it remains at or near its current length. Even with other measures to prevent loss of focus and motivation over time, some borrowers would benefit

from not having to complete exit counseling in one sitting. This would also give them an opportunity to retrieve financial information needed to get the full benefit of exit counseling.

- 16. Reduce Overall Length through Formatting and Editing – the exit counseling module is exceptionally long and includes a great deal of information. Student borrowers find dense text hard to read and understand. Paragraphs and long bullet points in small fonts require close reading that takes time and is more cognitively taxing. Formatting for length and readability would work well in conjunction with the use of shorter slides in place of long pages (see recommendation #7).
 - Editing for both content and style could also trim the length and enhance the readability of the material. From minute details to whole topics, some information is not helpful to students, sometimes because of their individual circumstances but sometimes because of circumstances that are shared by most if not all borrowers going through the counseling module. While statute requires that some information be provided to borrowers, it generally does not dictate either the manner in which it will be provided or the level of detail, which creates space for certain details to be either removed or minimized. This would work best in conjunction with a smart filtering system (see recommendation #1) that could alter the counseling module based on borrowers' individual characteristics.
- 17. Risk Factor Targeting exit counseling should focus on changing the behaviors known to increase the risk of poor financial outcomes, including default. The targeted behaviors should inform both the prioritization of learning outcomes, which should be reflected in the structure and content of the counseling. While the counseling module currently discusses risk factors/behaviors in general terms, students see the nonspecific information and generic advice as common sense and unhelpful. They know the principle, but not the magnitude. As the relevance of risk factors will vary from borrower to borrower, personalization based on a set of traits, like academic status, employment status, and debt-to-income ratio, would facilitate tailored, individually meaningful assessments of default risks and learning priorities.

Policy Recommendations

This set of recommendations addresses obstacles to effective exit counseling that will require new legislation and/or changes in ED regulations. Many would either require amendments to the Higher Education Act of 1965 (HEA) or would be most effectively pursued in that manner; the one fundamental recommendation, then, is that ED collaborate with higher education practitioners, student and consumer advocates, and Congress to examine and reform HEA loan counseling statutes as part of the reauthorization process. The following recommendations are largely suggestions for improvements that could be made through that collaboration.

1. Clarify Counseling Regulations and Allow Greater Professional Discretion. Some schools would like to provide more robust loan counseling but fear that their good intentions may be interpreted as improperly obstructing students' access to federal aid. These more engaging counseling experiences might include a required educational session for borrowers or homework assignments to explore a debt-to-income by major tool.

We call for a balanced approach that protects access to aid while allowing schools to perform their statutory loan counseling duties more effectively. As schools are held responsible for their cohort default rates (CDRs) and precluded from categorical loan limitations, they should have greater discretion to promote responsible borrowing and repayment behavior for their student bodies. Additionally, they should be allowed to innovate with the timing, content, and delivery of loan counseling. Greater discretion may allow schools an opportunity to serve their unique student bodies more effectively. It may also allow financial aid offices to be more innovative, becoming incubators for new, more effective methods of delivering loan counseling.

Schools should also be allowed to target robust or face-to-face counseling to student borrowers who exhibit borrowing behavior that indicates an ability to benefit from additional counseling resources. For example, borrowers who have requested to take out alternative loans before exhausting their eligibility for Direct subsidized loans could be required to attend face-to-face loan counseling. While schools

- are currently empowered to require additional or supplemental counseling, they are strictly prohibited from making the disbursement of aid funds contingent on such requirements.
- 2. Explore Incentives for Robust, Supplemental, or Innovative Counseling Methods. Currently, ED's online loan counseling tools provide regulatory safe harbor for schools. Faced with limited resources, the burden of compliance, and confusion over permissible alternatives, schools default to ED's tool to fulfill counseling requirements. This may hinder innovation that could lead to finding better methods for more effective loan counseling.

Policymakers should explore funding or regulatory incentives for experimenting with more robust forms of loan counseling, face-to-face interactions with students, supplemental or annual counseling, or other innovation strategies for information delivery and knowledge retention. Provisions reducing administrative burdens for schools with exceptionally low CDRs may serve as a model for incentivizing promising new practices in loan counseling.

3. Provide Greater Resources for Counseling in Financial Aid Offices. Facing internal budget strain and a substantial compliance burden, financial aid offices have few resources to dedicate to loan counseling. Face-to-face counseling, though more effective, is untenable for many institutions because of resources; a NASFAA survey showed that it is often the first service to be cut in response to budget reductions. Providing additional resources for schools may lead to more effective counseling, which is one method policymakers have used to address student loan default. If these resources do help lower defaults on federal loans, it may even be a cost-saving or cost-neutral proposition.

External call center support could supplement institutional efforts at counseling and borrower outreach, especially for those who do not proactively seek assistance from a financial aid office yet are often most in need of it. Institutions could explore ways to form consortia based on achieving economies of scale for phone-based counseling services.

This set of recommendations addresses obstacles to effective exit counseling that will require new legislation and/or changes in ED regulations.

Properly supported with federal resources, additional loan counseling could help address the effect that the current timing of loan counseling has on borrowing habits and information retention.

- 4. Provide Clarity and Executive Flexibility for HEA Counseling Requirements. Statutory language lists by individual topic — the information that must be covered during entrance and exit counseling. These specific requirements may contribute to problems with the length, complexity, and consumption of exit counseling. The statutory language may also limit the ability to target specific information to borrowers and de-emphasize or eliminate information that is irrelevant to the borrower. Allowing ED to determine the details of content, timing, and other particulars will provide regular opportunities for improvement and make the counseling more responsive to future developments in higher education, financial aid, and counseling research. It will also give ED more opportunities to enable professional discretion at the school level, empowering institutional staff to better serve the needs of their student bodies.
- 5. Encourage More Learning with Less Information.
 Borrowers often express that there is too much information required in exit counseling. These counseling sessions can take upwards of one hour for some borrowers, affecting the comprehension and retention of loan information. Exit counseling should ensure that borrowers receive important information that can assist in loan repayment; however, well intentioned requirements for a growing list of topics that must be covered in counseling are diluting the essential information and counseling messages.

Policymakers should consider simplifying the information required in statute by either:

- a. Providing ED with more discretion to set counseling topics or alter the amount of detail based on the borrower's circumstances.
- Modifying the statute to require what is deemed the most important information or most relevant to either entrance or exit counseling.

6. Require Intermediate/Additional Counseling in Some Form. Exit counseling is intended to help borrowers devise a repayment strategy, avoid default in the event of that strategy's failure, and pursue financial wellness. The current timing of exit counseling is not conducive to meeting these goals. For many students, exit counseling occurs right before finals and graduation, which is often a time of stress, transition, and distraction. It generally fails to reach borrowers who leave school before graduating and are at a much higher risk of loan delinquency or default. Additionally, many borrowers who attend proprietary institutions participate in apprenticeships that require them to be off campus during their final term. Many of these borrowers do not complete exit counseling, as working off campus can make it challenging for financial aid offices to reach them and ensure borrowers complete their counseling requirement. Annual counseling will hopefully lead to more knowledge retention and reach a higher proportion of student loan borrowers, including those who drop out.

Requiring additional loan counseling sessions between entrance and exit counseling could promote knowledge retention by increasing borrowers' exposure to key concepts, spreading out the information into more manageable chunks, and avoiding student stress and distraction that occur at the beginning and end of a postsecondary education. It would also facilitate more relevant counseling if certain topics could be covered in alternate sessions. Additional counseling would create opportunities to reinforce key points and expose students to new tools and information at a time when they are better equipped to utilize them in their decision making. Properly supported with federal resources, additional loan counseling could help address the effect that the current timing of loan counseling has on borrowing habits and information retention.

DIRECTIONS FOR FUTURE RESEARCH

The most glaring hole in research on effective student loan counseling is the absence of a properly randomized or quasi-experimental study comparing student loan knowledge, knowledge retention, and/or even long-term loan repayment and financial outcomes depending on different counseling treatments. Of course, such a study might raise serious ethical questions, as it could involve the denial of certain, theoretically beneficial services to student loan borrowers who might then be at greater risk of delinquency and default. Furthermore, failing to deliver entrance or exit counseling to federal student loan borrowers would be illegal.

Even in the absence of the ethical/legal consideration, the most helpful research design would not compare current mandatory counseling to the lack of any counseling. Rather, the mandatory minimum under current practices (which, as regards exiting borrowers, is the intent to treat) should compose the control group, and the treatment group should receive one or more additional services thought to be beneficial. These might include access to or treatment with an online module designed according to the principles suggested here, but it might also involve interim counseling,

face-to-face sessions, call center outreach, or other services and interventions. Of course, a larger suite of services applied to a single treatment group will be more likely to produce a measurable positive impact, but it will also lose the ability to pinpoint the relative benefits of each service. On the other hand, it may be that the whole is greater than the sum of its parts; each individual service could fail to produce a benefit, while multiple services could improve outcomes through a mutually reinforcing dynamic.

Even so, initial evidence from text message and email based outreach efforts indicates the possibility that relatively minor, low-investment interventions, often relying on technology and automation, could result in significant improvements. XXIV One productive area for both research and practice could be the development and piloting of such techniques by academic consortia, which could provide multiple, diverse campuses on which to conduct randomized trials. ED could also provide substantial assistance in these sorts of efforts, which entail substantial possibilities for replicability and economies of scale.

CONCLUSION

Based on prior studies and analysis as well as Trellis' extensive primary research on student loan counseling, it seems clear that there is substantial room for improvement. Changes to the design of both policies and learning materials are necessary to ensure that well-designed, informative counseling is delivered to every federal student loan borrower. Though already quite high, the stakes on loan counseling's ability to encourage responsible borrowing and repayment decisions will only increase as more and more nontraditional and first-generation students enroll in our increasingly expensive postsecondary system.

Even moving past exit counseling to consider student financial counseling in general, effective counseling is not a panacea for all that ails higher education; however, it stands to benefit students in several respects. It can encourage students to borrow neither too much nor too little to focus on academics, but just the right amount. It can empower students to move beyond haphazard, drifting complacency and formulate plans to achieve their dreams in higher education and beyond. And, in the face of the formidable challenge of navigating a complex repayment system, it can make the difference between helpless panic and the informed confidence to take responsible action. There can never be perfect assurances, but with proper guidance for seeking the best and averting the worst, students can strike out secure in the knowledge that a higher education need not be an investment they come to regret.

Changes to the design of both policies and learning materials are necessary to ensure that well-designed, informative counseling is delivered to every federal student loan horrower.

Appendix

I. Characteristics of the Sample

- All but one were graduating or transferring to another school at the end of the term.
- Only 56 percent reported having completed entrance counseling (though all were required to). Only one student recalled completing entrance counseling in person; the rest had completed it online.
- Three-quarters had reported a high school diploma or GED as their highest completed level of education, 18 percent had earned a bachelor's degree or higher, and 7 percent had earned an associate degree.
- Two-thirds were pursuing (generally, about to earn) a bachelor's degree, 21 percent were pursuing an associate degree or technical certification, and 13 percent were earning a graduate or professional degree.
- About 38 percent were majoring in a social science, 18 percent in the humanities, 18 percent in business-related programs, 13 percent in the natural sciences, and the remaining 13 percent in healthcare professions, general studies, or a niche professional program.
- Asked to rate their knowledge of consumer finance on a scale of one to five (one being least knowledgeable, five being most), 18 percent rated themselves a "one," 18 percent rated themselves a "two," 41 percent rated themselves a "four," and 5 percent rated themselves a "five," for an average rating of 2.7.

to financial aid, 5 percent rated themselves a "one," 18 percent rated themselves a "two," 46 percent rated themselves a "three," 18 percent rated themselves a "four," and 10 percent rated themselves a "five," for an average rating of 3.1.

Asked the same question as the above with regard

- About 23 percent of students reported making "Mostly As," 36 percent reported "Mostly As and Bs," 10 percent reported "Mostly Bs," and the remaining 31 percent reported "Mostly Bs and Cs or lower."
- The sample was 38 percent male and 62 percent female.
- Sixty-four percent of participants were 22 years old or younger, 16 percent were between 23 and 29 years old, 10 percent were between 30 and 39 years old, and 10 percent were 40 years old or older.
- Asked what was the highest level of education their most educated parent/guardian had attained, 20 percent of participants selected "High school or GED," 20 percent selected "Some college." 8 percent selected "Associate degree or technical certificate," 33 percent selected "Bachelor's degree," 13 percent selected "Master's or terminal degree," and 6 percent did not know or preferred not to respond.
- Twenty-nine percent of participants selected their race/ethnicity as "African-American or Black," 6 percent selected "Asian or Pacific Islander," 18 percent selected "Hispanic or Latino," 44 percent selected "White, non-Hispanic," and 3 percent chose "Other/multi-ethnic."

II. Data Collection Methodology

After administering the initial survey, researchers read a brief, scripted introduction to the study, culminating in a request that the participant review a data protection protocol and waiver and sign if he or she agreed to participate. The waiver covered a variety of topics, including the possibility that doing loan counseling as part of a UX test might affect the experience and that the participant should revisit the counseling and/or contact his or her financial aid office with any questions or concerns after completing the counseling. After the participant signed the waiver, researchers started

the video camera, continued reading from the scripted text, and began the discovery interview.

The discovery interview was a semi-structured, semi-scripted interview. It served two main purposes: as an additional warm-up that would help put the participant at ease and get him or her thinking about their student loans; and as a way to learn more about the participant's background, attitudes, concerns, plans, and other circumstances that might affect what the participant hoped to get out of counseling

and how he or she would interact with it. Researchers conducted the interviews based on a list of topics to cover and questions that could be used to introduce those topics if they did not come up organically in the discussion of a previous topic. The researcher used active listening techniques, such as rephrasing/echoing, requests for clarification, and follow-up questions to gain more detailed information, encourage participant comfort, and transition to the next question where appropriate. The interview guide, which contains the list of topics that the researcher was to cover and sample questions, can be found in the Appendix.

After completing the discovery interview, the researcher read a scripted introduction to the loan counseling and UX test. This introduction stressed that the participant was free to complete the loan counseling however he or she wanted, at whatever speed the participant wanted, clicking or not clicking anything he or she wanted, with the only rule being that the participant understood that he or she was required to complete the counseling at some point and had agreed to attempt it now. It also emphasized the importance of thinking out loud and narrating his or her actions, reactions, and thought processes as he or she progressed through the counseling. The participant was informed that the researchers had not designed the module and would not be offended, so the participant should be honest and direct with both positive and negative feedback.

The UX test began with the participant logging into his or her account on studentloans.gov. Logging in went smoothly in about 90 percent of cases; in the remaining 10 percent of cases, the participant did not remember his or her login credentials and had to visit the PIN website to recover the information. Most of these participants were able to access or change their PINs and complete the full counseling, but three were unable to successfully navigate the site and had their accounts temporarily locked. They were kind enough to stay and complete the demo version despite it not counting towards the requirement.

Researchers sought to minimize the amount of direct intervention into the participant's commentary on the exit counseling module. The script emphasized the importance of unprompted feedback, and researchers relied on unsolicited comments as much as possible. However, when a participant was not forthcoming, the researcher would prompt the participant for his or her thoughts using openended questions (e.g., "What are you thinking right now?", "What do you think about this?", "What are you looking at

right now?"). The researcher would prompt the participant only after a protracted period of silence or if he or she was not offering feedback regarding one of the interactive tools. The researcher would also use the breaks between pages to ask the participant for thoughts on what he or she had just seen and to ask the participant how he or she was feeling about the experience overall. Comments made in response to these end-of-page inquiries were coded to a specific element of that page only when the participant referenced it explicitly; otherwise, they were coded to and analyzed as debriefing comments. See the next section for a more detailed description of the analysis methodology.

Intervention into the participant's actions was also minimized. Per the script, the participant was allowed to proceed through the counseling however they chose, including making mistakes. When a participant would ask a researcher whether he or she was doing something correctly or what the participant should do next, the researcher would inquire about the source of confusion and re-direct the participant to the material, asking what the participant thought he or she should do next or if the participant saw something on the page that might be of assistance. These strategies generally resolved the issue or at least resulted in the participant being able to move on in the counseling, though some confusion may have persisted. Only when participants attempted to solve an issue on their own but were still unable to proceed did the researcher offer enough direct assistance to enable them to continue.

The only other cases in which researchers made specific suggestions to participants involved links to YouTube videos. Participants almost always failed to click these links, so researchers would sometimes ask participants if they would be willing to click the link and watch the video before they moved on to the next page. Admittedly, this was an oversight. Data on users' responses to the video should have been collected at the end of the session to avoid any impact that watching the video may have had on future participant behaviors (although no patterned impacts were evident in the data).

As with the discovery interview, one researcher took the role of asking questions and prompting the participant while the other took notes using a template with screenshots of the counseling material. The note-taking researcher recorded notes regarding several different aspects of the participant's experience: pacing (how fast the participant progresses through the counseling elements), actions, comments,

notable moods, obstacles encountered, and any other notable patterns or occurrences. These notes formed the foundation of the data collected from the UX testing.

After finishing the loan counseling, the participant took a second survey that asked the participant to rate his or her agreement with various statements about both the counseling material and the experience of completing the counseling in the research setting. A debriefing interview followed the survey. During this interview, the

researcher asked the participant to reflect on various aspects of the counseling, including elements of the design, content, and language. The survey and interview covered essentially the same topics, but where the survey provided simple, quantitative responses to statements that were important though somewhat generic, the interview delved into the details, capturing the nuanced reasoning and complexity that often undergirds the relatively superficial quantitative response.

III. Method of Data Analysis

Altogether, the 38 full sessions provided four types of data: quantitative data from the two surveys; notes from the discovery and debriefing interviews; formatted notes from the UX tests; and video footage of the entire sessions. The quantitative data were analyzed with simple tabulations, but analysis of the interview and UX data required the development of a methodology and coding schema.

Analysis of the qualitative data began with a process of data review, notation, code development, and validation. The video footage for 8 randomly selected sessions was subjected to the same note-taking protocols as were the original sessions (that is, researchers taking notes from the video were paying attention to the same key topics and aspects of the user experience). The coding schema was developed based on these 8 sets of new notes. Code development began with a re-reading of all notes and reviewing of their respective videos, accompanied by open coding and then initial analytic memos.

Based on their initial memos, researchers quickly reached consensus around the basic structure of the coding schema. Data collected through the discovery and debriefing interviews would be coded through a two-tiered system, with major codes corresponding to topics/ questions covered in the interviews and minor codes (including some *in vivo* codes) based on participants' responses to those topics. While most minor codes tended to occur in groups under a single major code, similar responses were found in reference to multiple topics and questions, such that they were not true sub-codes. As the subject matter differed substantially between the two discovery and debriefing interviews, a distinct set of codes was developed for each. The full schemata for analysis of the interviews can be found in the Appendix.

Coding for the data collected through the UX tests required a somewhat more complex schema. First, the physical/visual structure of the counseling module had to compose the functional unit or "backbone" of the schema; in order to represent that a participant took action X for counseling element A, the set of counseling elements was first defined. Furthermore, the codes representing these elements had to reflect their key attributes in order to explore the possibility that patterns of response vary with those aspects. For example, in order to explore whether participants prefer to read text in paragraphs or bullet lists, the code must reflect that distinction. Each element was also assigned both a general topic and a specific topic in order to compare participants' behavior based on the subject matter covered.

To create this "backbone," the entire exit counseling module was subdivided into discrete elements, largely based on the boxes in which much of the material is already organized. Each of these elements was assigned a unique identifier based on its positioning and then encoded based on its significant attributes. Researchers compiled the list of significant attributes based on the formats and types of objects present in the counseling and on participant comments that suggested that an attribute might be a significant factor. The final code assigned to an element consisted of its unique identifier, a "type" code consisting of one of a set of mutually exclusive types, and a series of binary indicator variables representing the various attributes.

Participant behavior was encoded using two sets of codes, one for actions and the other for verbal comments, dubbed "reactions." In compiling these sets, researchers sought to represent the full range of actions and reactions recorded in the new notes (the material contained in the notes

already reflected the research questions). Since there were many possible actions and reactions and multiple actions/ reactions rarely occurred for the same element, each one was assigned a unique identifier (as opposed to making action and reaction its own binary variable).

The final coding schema was constructed as a template in Microsoft Excel, with the counseling module "backbone" going down the far left columns, space for the first participant's actions and reactions arranged in the six columns immediately to the right, space for the second participant's behavior to the right of that, etc. In this way, moving down a participant's set of six columns showed that participant's behaviors as he or she progressed through the module, and looking across a row showed how all participants behaved for one particular element.

All three of the coding schemata – one for each interview and one for the UX test – were based on notes taken from video footage of only eight sessions. For the remaining 30 sessions, there were no retaken notes, only those that had been taken during the sessions themselves. As retaking notes from the video footage would consume a great deal of time, a validation test was performed to verify whether the original notes contained sufficient data or whether new notes would have to be taken based on video footage for all sessions. Both the new notes and the originals for the eight sessions were encoded and compared.

The validation test produced mixed results. For the interviews, original notes did not provide sufficient data, with important details often omitted, probably due to the challenges of recording speech in real time without stenographical training. At first glance, the original notes for the UX tests also appeared to lack a great deal of detail, but a closer examination demonstrated that they were not substantially different. Nearly all of the discrepancies were omissions of three action codes: "Slow," "Skim," and "Skip," which describe the speeds at which a participant progresses through the counseling merely by scrolling down, such that it can appear that no substantive action is occurring. Based on these results, new notes were taken on the interviews for all sessions, and the original notes for the UX tests were augmented with appropriate action codes.

The development of findings from initial hypotheses also involved a process of validation. As the research questions on which the study is based were designed to be fairly open and generic, more specific hypotheses had to be formulated after the data were collected. Researchers developed these "preliminary findings" collaboratively, drawing on primary observations, notes, critical insights, and reviews of participant comments. The preliminary findings consisted of numerous, fairly specific mid-range hypotheses regarding borrowers' circumstances and perspectives as they approach exit counseling and the ways in which they interact with the counseling material. Researchers also postulated a general theory that unified the mid-range hypotheses into a single, dynamic model to describe how and why participants' interaction with the counseling material evolves as they progress through the module.

While grounded in direct observation of both the data and the participants themselves, these preliminary findings required more rigorous analysis to progress from pure hypotheses to findings with firmer data behind them. The need to validate the preliminary findings informed the tests that were performed on the data, which in turn produced the evidence given here in support of the findings. The few preliminary findings not supported by the data were duly discarded and do not appear.

The descriptive quantitative analysis of coded qualitative data places the hypotheses on somewhat firmer ground, confirming that the preliminary findings were not only the impressions of researchers but also substantially present in the data. On that basis, this report refers to hypotheses with quantified support as "findings"; however, this does not denote any claim to complete generalizability or factual status. It may well be that, for a variety of reasons including the composition of the sample, selection biases, and the effects of the research setting, many or even the majority of students using the exit counseling module could have an experience that differs substantially from the one presented here. From a scientific perspective, these findings would be more accurately thought of as data-supported hypotheses. Readers should keep this in mind when reviewing the research findings.

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