





Trellis Research

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

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A TIME TO EVERY PURPOSE:

Understanding and Improving the Borrower Experience with Online Student Loan Entrance 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 multiphase 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;
- An interview and observation-based study on the borrower experience with online student loan entrance counseling (the subject of this report); 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; to Ken Redd of the National Association of College and University Business Officers,

whose insights on college financial management practices were exceptionally helpful; and to the National Association of Student Financial Aid Administrators (NASFAA) policy team — in particular, Charlotte Etier and Karen McCarthy — 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 entrance counseling before they receive their first federal student loan disbursement for a program of study.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 new borrowers learn about student loans, responsible borrowing, and personal finance in order to lower financial barriers to postsecondary success. Students, schools, taxpayers, and even general economic health are all best served when students know how to manage their finances and borrow responsibly; however, little is known about the effectiveness of current practices in entrance counseling.

In consultation with NASFAA,³ Trellis researchers interviewed and observed first-time borrowers at seven diverse higher education institutions using the Department of Education's (ED) online entrance counseling module, which most schools use to deliver entrance counseling.⁴ The module consists of five long Web pages, which contain large amounts of text as well as several interactive tools and calculators. 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 discouraging picture of the typical borrower experience with online entrance counseling. Most students begin counseling eager to learn more about how to finance their education and control their borrowing, but they tend to shift from reading material slowly and carefully to skimming and skipping as they progress. Three main factors contribute to this pattern: 1) at the beginning of the term, first-time borrowers are short on time and focus; 2) they find much of the material unhelpful and irrelevant to their circumstances; and 3) they struggle to comprehend both the content of the material and the navigation of the module.

Most first-time borrowers desire sound information and advice on how best to finance a higher education; however, stressed by the many demands and hurdles of the transition to college, they do not possess a great deal of patience for anything they perceive as unnecessary or unduly time-consuming in the short-term. As novices in personal finance and financial aid, they require a firm foundation grounded in basic principles and axioms that can serve as an effective guide to general decision making and as a point of departure for more esoteric financial questions in the future. What they find, however, is a collection of information that is often highly detailed, lacks simple explanations, assumes users know things they do not (and often cannot) know, and does not apply to the circumstances of a first-time borrower.

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 more comfortable following their instincts, which lead them to assume that much of the information is irrelevant or superfluous, skim

Most students begin counseling eager to learn more about how to finance their education and control their borrowing, but they tend to shift from reading material slowly and carefully to skimming and skipping as they progress.

- It also requires that borrowers receive exit counseling when they graduate, drop out, or otherwise drop below half-time enrollment. Trellis studied the exit counseling experience as a distinct topic, and a report on that research may be found at https://www.trelliscompany.org/research/trellis-company-research-and-reports/
- NASFAA personnel collaborated with Trellis in devising the study and by reviewing and refining recommendations, though the recommendations are ultimately Trellis' and do not represent NASFAA's official policies or positions.
- ⁴ According to a NASFAA membership survey: www.nasfaa.org/products/polls/Poll_The_Pros.aspx

Based on these findings, Trellis developed a series of recommendations for higher education practitioners and policymakers and for

the design of more

effective entrance

counseling materials.

or skip through it as quickly as possible, and do only what is necessary to complete the requirement. A variety of minor snags also frustrate users, both slowing them down and accelerating their disengagement from the material.

Based on these findings, Trellis developed a series of recommendations for higher education practitioners and policymakers and for the design of more effective entrance 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 that introduce and supplement the counseling, e.g., sample budgets
- Deliver interim/supplemental counseling, ideally with an expert in the classroom
- Standardize an extended disbursement schedule with opportunities to return funds
- Incentivize responsible borrowing and financial health

Policymakers

- Grant schools greater professional discretion to require supplemental counseling
- Explore incentives and/or requirements for interim or supplemental counseling programs
- Invest in counseling at both the high school and postsecondary levels
- Provide statutory flexibility for ED to design a more relevant, helpful experience

Designers

- Provide contextual information that introduces the module, explains its navigation, and relates the information to important goals/learning outcomes
- Reorder topics to promote movement toward actionable advice
- Employ a simple, conversational tone and vocabulary
- Where legal, remove or significantly pare down mistimed information (in particular, details related to the repayment process)
- Employ a simple, sequential design for calculators and offer relevant sample data
- Lower the word density, word count, and required time for completion through formatting, editing, and multimedia

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.¹

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 responsibility for assessing their individual financial situations to determine whether and how much to borrow. Borrowing either too little or too much in federal loans carries significant risks. Students who borrow too little ("underborrow") in federal loans often engage in academically and financially harmful behaviors, like enrolling part time, working more hours at the expense of academics, taking out private loans, and using a credit card without the ability to repay in a timely manner. They may also find their funds dwindling before the end of the term, further jeopardizing their ability to stay enrolled. Family, friends, emergency savings, or the college financial aid office may be able to provide stop-gap assistance; but if not, the student may be compelled to drop out and pick up more work.

Borrowing too much ("overborrowing"6) also involves considerable risks to students, most notably after they leave school but also while still enrolled. Students bear responsibility for repaying the full amount of their student loans plus interest, so a high loan balance can be financially burdensome and increase the risk of delinquency and

default. Overborrowing can also put students in academic danger. Federal law places caps on the amount of Direct Subsidized and Direct Unsubsidized Loans individual students can borrow both annually and cumulatively. Students who exhaust eligibility for these programs and would have to continue borrowing to finish their programs must decide whether to seek additional funds through private loans or Parent PLUS loans, both of which tend to offer less generous terms, or put their education on hiatus. Some research has found that, regardless of eligibility for Direct loans, higher loan balances increase the risk of students dropping out, often simply because they become increasingly averse to taking on additional debt."

Other risks being equal, overborrowing increases loan burdens, the financial strain on the borrower, and the odds of default; however, underborrowing tends to be the greater hazard in practice, as it puts students at greater risk of failing to complete their programs of study.

In terms of both magnitude and consequences, the risks of overborrowing and underborrowing 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. This both increases the odds that a student will make a suboptimal borrowing decision and decreases the likelihood that they will be able to effectively manage the consequences of that decision.

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).⁷ Delivered

- Readers should be aware that this section is largely similar to the Background section of Trellis' 2015 report on student loan exit counseling, From Passive to Proactive.
- We use "overborrowing" to refer to borrowing more than one's actual budgetary need at an institution. Given the high cost of attending college full time while sleeping indoors and eating food, many students may be in a position where even borrowing no more than their needs results in unmanageable debt burdens and high risk of delinquency and default, despite not having technically overborrowed.
- Federal law defines full-time enrollment as 12 credit hours or more per semester and half-time enrollment as six 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 six credit hours to define half-time enrollment.

Borrowers, institutions of higher education, taxpayers, and anyone with a stake in the economy at large have at least some interest in promoting responsible borrowing and *minimizing monetary* barriers to degree completion; however, relatively little is known about the effectiveness of the entrance counseling methods and materials designed to promote these goals.

at different points in a borrower's time in school, these sessions have different goals. Exit counseling 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. Entrance counseling has a somewhat more ambiguous and more ambitious set of objectives; indeed, a major finding of this study is that the breadth of information covered in entrance counseling creates a bulky and ultimately ineffective user experience. Nevertheless, the general goal of entrance counseling might be summarized as giving student borrowers the tools and information they need to manage financial aid and personal finances while in school and putting them on the right track for longer-term financial success. Borrowers, institutions of higher education, taxpayers, and anyone with a stake in the economy at large have at least some interest in promoting responsible borrowing and minimizing monetary barriers to degree completion; however, relatively little is known about the effectiveness of the entrance counseling methods and materials designed to promote these goals.

Debt prevalence and risk

Exploring the determinants of effective student loan entrance 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 debtfree, 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."

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. Vi 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 features diminished opportunities for college-level labor and sluggish entry-level wages.vii 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.viii

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. ix 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.x 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.^{xi} 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 financial 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 guick 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 entrance counseling.

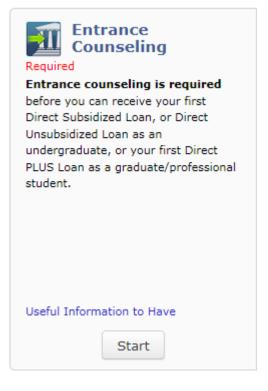
Online counseling module

While exact numbers are hard to pinpoint, evidence suggests that the majority of federal student loan borrowers complete counseling through ED's online loan counseling modules; in an informal 2012 NASFAA survey of member financial aid practitioners, more than 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.**ii 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 (by placing a bar on the student's aid file), the borrower is obliged to meet the requirement.

Borrowers who complete entrance counseling through ED's online tool log on to studentloans.gov and navigate to the module. After signing in and 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," "Manage

Your Spending,""Plan to Repay", "Avoid Default," and "Make Finances a Priority." Borrowers move through the counseling by scrolling down each page.

As they progress, borrowers encounter pages composed mostly of text in paragraphs, bulleted lists, and tables. The module also includes 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 bubbles or new tabs/



windows in the browser. After scrolling to the bottom of the last page, "Make Finances a Priority," borrowers click "Submit," and the school receives notification that the borrower has completed entrance counseling.

Financial aid offices generally make an effort to encourage entering students who were planning to borrow to complete their online entrance counseling prior to the start of the fall term. Anecdotal evidence from financial aid officers suggests that the parents of a significant number of these students complete the counseling in their place; however, many student borrowers show up on campus with the entrance counseling bar as yet uncleared. These students find out after arriving on campus that they cannot receive their funds until they have completed the counseling, despite needing the money for textbooks, tuition on the courses for which they just registered, and other expenses. Financial aid officers often direct these students to a computer lab (or, in the case of this study, to the researchers) to complete the counseling or simply inform them of the requirement and expect them to satisfy it independently. This critical context, along with its implications for policy recommendations and for the interpretation of the study's findings, will be discussed later in the report.



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.

Borrower knowledge deficiencies

Despite the federal counseling mandate, several studies suggest that many student borrowers are woefully uninformed regarding student loans. 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 survey contained only two questions on student loan literacy, 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.

Other research has suggested more directly that entrance counseling often fails to impart its key lessons to new borrowers. Akers and Chingos (2014) found that borrowers are frequently unable to identify either the annual cost of their education or their loan balances, which suggests that they are not monitoring or trying to reduce their borrowing as they proceed through postsecondary education.^{xv} They also 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 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 prospective 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 and ease their eventual repayment once enrolled. In their words, "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 by no means 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. **I 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 manage the financial risks of investing 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 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, xvii 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.xviii 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.

For a detailed presentation of the expansion of loan counseling requirements, see Trellis' loan counseling legislative history and literature review, available here: https://www.trelliscompany.org/research/trellis-company-research-and-reports/

The transition to ED's online loan counseling tool undoubtedly added valuable efficiency to a process that had become a substantial burden on colleges, but it also provided lawmakers new opportunities to expand its required scope. Taking advantage of the relative ease of modifying the online module, lawmakers have sought to increase its effectiveness by adding to the list of topics legally required to be covered by loan counseling,8 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 borrowers as tireless text processors, assuming that they will read whatever information is on the screen, comprehend it (so long as they grasp the vocabulary and grammar), and utilize it in making optimal decisions suited to their 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. This could influence 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 federal student loan system?

FIGURE 1. Legislative Additions to the Loan Counseling Requirement Over Time

1986

Review of repayment options

Average anticipated monthly repayments

Average indebtedness of students

Debt and management planning

1989

Consequences of debt
Estimated repayment burden
Clarify terms of loan for first-time borrowers

1999

Interactive repayment plan selection
Interactive calculators (e.g., deferment and forbearance)
Electronic loan counseling materials

2000

Anticipated monthly repayment based on student indebtedness

Consequences of default (e.g., adverse credit reports, federal offset, litigation)

Explain student obligation of repayment

Master Promissory Note

Full or partial cancellation of a loan Information on ED's Office of the Ombudsman

2002

NSLDS availability

Seriousness and importance of repayment obligation
Conditions under which loan may defer or forbear repayment
Conditions under which loan can be fully or partially discharged
Debt management strategies to facilitate repayment
Loan consolidation

Explanation of repayment plans

Anticipated monthly repayment based on ranges of student debt levels in the same program or school

2013

Impact of accruing interest on borrower's total debt
Possibility of losing interest subsidy for Direct Subsidized Loans
How a borrower's maximum eligibility, remaining eligibility,
and subsidized usage period is calculated
Loss of eligibility of student loans

This report
employs these
findings in order to
formulate a set of
recommendations
for the development
of more effective
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and the general
improvement of the
entrance counseling
experience.

INTRODUCTION

In the spring of 2014, Trellis began to explore the borrower experience with online student loan counseling with a study largely similar to this one but focusing on exit counseling instead of entrance counseling. Trellis researchers interviewed and observed borrowers at six diverse higher education institutions that use ED's online exit counseling module. Trellis collected data from users based on: their comments and actions during an initial "discovery" interview; their use of the counseling module itself; a debriefing interview; and surveys.

Analysis of this wealth of data painted a richly detailed though largely discouraging picture of the typical borrower experience with online exit counseling. The study found that most borrowers begin exit counseling interested in learning more about optimal student loan repayment but that they tend to shift from reading material slowly and carefully to skimming and skipping as they progress. Two main factors directly produce this pattern:

- 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, drained most users of their attention, focus, and tolerance long before the end. Irrelevant information and lack of personalization were found to inflict particular harm on the user experience. Users encountered a great deal of information that simply did not apply to them or required them to recall various details of their loan history to determine which conditions applied to their specific circumstances. Information that users saw as common sense, irrelevant, generic to the point of uselessness, overly detailed, or impersonal takes up considerable space and tended to devalue other material, accustom users to skimming and skipping, and impose a cognitive tax that limited users' ability to recognize and utilize truly helpful information.

Other features of the exit counseling also presented issues that detract from its effectiveness. Users often struggled with basic navigation of the tool, the high density of textual information, and both the use and interpretation of calculator features. Many assumed that the mandatory

questions embedded throughout the pages would test the most important information and, therefore, felt comfortable reading the bare minimum necessary in order to find the answers. A variety of minor snags also frustrated users and accelerated their disengagement from the material.

Given that the exit and entrance counseling modules share the bulk of their material, it was expected that replicating the research on users of the entrance counseling module would produce similar results; however, a separate study on entrance counseling was still considered necessary. Researchers hypothesized that key differences between the users of the — that is, between first-time borrowers, most of them college freshmen, and soon-to-be college graduates — would manifest in the ways they interacted with the modules and what they found to be helpful and unhelpful, clear and confusing, relevant and irrelevant, etc.

Each of these assumptions was borne out by research. Many of the same themes and issues seen in user behaviors and comments regarding exit counseling reappeared among users of the entrance counseling module; yet, even as entrance counseling users experienced many of the same difficulties, they did so in ways that reflected the differences between the two groups. With notable exceptions, these were differences not of distinctive type but of degree, with users of the entrance counseling module having the same issues more frequently, more severely, or with worse consequences. These users also experienced some distinct issues that were more specific to their circumstances as first-time borrowers unfamiliar (in most cases) with student loans, financial aid, personal finance, and higher education in general.

This report describes the design, execution, findings, and implications of that study, which conducted observation and interview-based research with borrowers undergoing online student loan entrance counseling (hereafter, entrance counseling) sessions in the late summer and fall of 2014. As with the exit counseling study, researchers 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

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

- 1. How do borrowers interact with online entrance counseling modules?
- 2. What themes and patterns characterize their experience with the counseling material?
- 3. How is the experience influenced by contextual factors external to the material itself?
- How might insights into the user experience with entrance 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 entrance counseling using the ED online entrance counseling module. Analysis of this data revealed a wide variety of themes and principles implicated in entrance counseling. These findings ranged from identifying the relatively minor points at which borrowers tended to become lost or confused to overarching principles and general observations that describe the experiences and needs of a typical first-time borrower. This report employs these findings in order to formulate a set of recommendations for the development of more effective counseling materials and the general improvement of the entrance counseling experience.

Researchers identified a pool of prospective institutional participants that would reflect diversity with respect to geographic region, institutional sector, and student body demographics.

RESEARCH DESIGN

endeavor more generally.

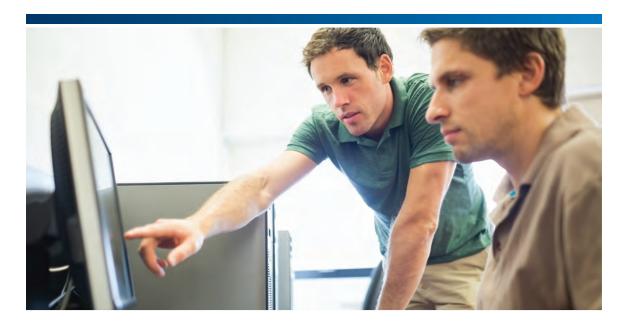
The core data collection method was User Experience (UX) testing, which was conducted with individual borrowers fulfilling their entrance counseling requirements using ED's online entrance counseling module. To facilitate recruitment of students and promote diversity in the participant pool, researchers asked for the help of several institutions, 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 userfriendly 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 the user experience based on institutional and individual factors. Based on all of these considerations, researchers conducted 36 UX testing sessions on entrance 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 student body demographics. Ultimately, the pool consisted of seven institutions with the following traits:

- Two in Texas, two in the Midwest, one in the Mid-Atlantic, one in the Northeast, and one in the Southwest
- Three public (primarily) two-year colleges, one private four-year university, one public four-year university, one proprietary university, and one proprietary trade school
- One Hispanic-Serving Institution, two where a minority group was the largest racial/ethnic group, two where white students composed less than half of the student body, and two with a majority of white students
- Four with the majority of the student body aged 24 years or younger, one with about half aged 24 years or younger, and two with the majority aged 25 years or older



The financial aid offices at participating institutions facilitated student recruitment in two ways. At some institutions, financial aid offices distributed recruitment materials to incoming borrowers (or soon-to-be borrowers) identified as required to complete entrance 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.

Information collected through this recruiting survey was used primarily to select a diverse body of 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.

However, some institutions were unable to contact and recruit incoming borrowers ahead of time. Instead, financial aid staff informed borrowers who visited the office having not yet completed entrance counseling that they had the opportunity to complete it as part of a study, that it would take somewhat more time, and that they would receive the \$25 gift certificate in exchange for their participation.

These walk-in participants were accepted into the study on a rolling basis; researchers started a new session after finishing the previous one as soon as a new participant was available.

Due to time constraints, the full set of background data was not collected for walk-in participants. Characteristics of the final sample of 36 participants who completed the full UX test can be found in the Appendix, which also indicates when the figure reflects only those who were recruited ahead of time. Implications of the discrepancy in recruitment are considered in the section "Discussion of Research Limitations."

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
- 2. Initial survey on the participant's current knowledge and learning priorities
- 3. Discovery interview on the participant's background and thoughts on student loans
- 4. Completion of the entrance 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 with findings derived from the discovery interview, as they provide a portrait of borrowers' attitudes and preconceptions that helps to make sense of their behaviors during the UX testing. It then outlines the major findings gleaned from the UX testing and debriefing, which form the bulk of the insight gained from the project. 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, comparisons, and quotations 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. Some quotations are edited for grammar, clarity, and brevity.

I. Discovery Interview

After completing a short survey, participants talked with researchers about their backgrounds, academics, plans for the future, and thoughts and feelings regarding student loans. While these interviews were designed to shed light on their interactions with the entrance counseling material, they also suggest patterns and themes that are significant in and of themselves.

FIRST-TIME BORROWERS ARE UNFAMILIAR WITH KEY CONCEPTS

Most first-time borrowers are just beginning their programs and are inexperienced and uncertain with regard to financial aid, personal finance (including loans), and/or higher education; they tend to lack basic financial knowledge and have widely varied plans for the future.

Relative youth, inexperience, and uncertainty are among the most common and most influential traits among users of the entrance counseling module. About two-thirds of study participants fit the increasingly anachronistic description of the "traditional" college student, at least as regards enrolling in postsecondary education full time immediately after completing a high school degree. Further, more than three-quarters of participants were both within the traditional age range for undergraduate education (18 to 24) and were just beginning their first postsecondary program. Most of the older participants (all of whom were enrolled in two-year or trade school programs) were also just beginning their first years.

In keeping with their youth, the participants generally lacked meaningful personal financial experience. Most had held some sort of job in the past, but only about 25 percent had been a primary provider and only a handful of the participants had ever taken out debt in their own name, including credit card debt. While the majority cited (mostly positive) family experiences with debt — generally a mortgage or car loan — they often lacked personal knowledge of such financial instruments. In addition, these sorts of family experiences were far more common among the students who enrolled directly in four-year programs after high school. These students were also far more likely to cite a family member, often a parent or older sibling, who had taken out student loans.

Across programs and ages, participants frequently expressed a lack of familiarity with financial aid and student loans and had only cursory plans for paying for their education. Most were familiar with basic concepts in financial aid, as simply getting to the point of doing entrance counseling had involved submitting the Free Application for Federal Student Aid (FAFSA) and receiving an award letter from their financial aid office. However, they saw college costs and

Relative youth, inexperience, and uncertainty are among the most common and most influential traits among users of the entrance counseling module.

LESS THAN 20% OF STUDENTS PURSUING

OF STUDENTS PURSUING BACHELOR'S DEGREES ARTICULATED A CONNECTION BETWEEN THEIR EDUCATION AND A DEFINITE CAREER PATH

financial aid as a "black box" that assigned grants, loans, and bills in ways that are difficult to understand and harder to predict. Asked about how they would pay for school, most participants cited tentative plans to work while enrolled, use whatever automatic grant funding they qualified for, and borrow to fill the remaining gaps. About half (and more than three-quarters at four-year institutions) expected to receive at least some assistance from family, though in many cases participants specified that their families were helping with living expenses but not tuition, books, or other academic costs. Few participants (all of them older and having spent more than a year in the workforce while not enrolled) cited personal savings as a significant source of education funds, and none mentioned applying for scholarships outside of state and federal formula-funded grants. Asked about paying for college, some participants responded:9

- "I'm getting a Pell grant and some money from the school and I want to work too, but I still don't think it's going to be enough without taking out at least some loans. Like I think there's enough to pay for school, but I have to live too, and I don't know what that's going to take."
- "I know that there are different kinds of loans, but I'm not really sure what the differences are or if they even matter."
- "I just decided to take a loan out pretty much last week. So as far as education [about loans] goes, not very much right now. It was just because I wasn't sure where I was going to be living until August came. And so moving off campus when I couldn't find anything on campus changed my plans completely. So I don't really know much, and my mom hasn't had to take out a loan ... no one knows student loans or how they work, so I'm going through this for the first time."
- "I guess just pay the bills as they come. I know that there
 are federal loans and also private loans, so I'll probably
 borrow a lot just so I won't run out, and if there's money
 left over I guess it's good to have a cushion."

While inexperience with financial aid and lack of a detailed plan to pay for college were exceedingly common, participants expressed various amounts of planning for their academic and career futures. As with knowledge of personal finance, divisions in levels of planning were often connected both to participant's age

and to the type of program in which they were enrolled. Older students and those enrolled in two-year technical programs (and these were strongly inter-correlated) often approached higher education with a firm understanding of what they would be studying and how they would apply their education to the workforce, some even going so far as to mention specific employers or discuss market trends they felt would be amenable to their chosen field.

In contrast, less than 20 percent of students pursuing bachelor's degrees articulated a connection between their education and a definite career path, and just over half had settled on a single major, with the rest mentioning multiple possible majors or broader fields of study. In general, students in two-year programs, even those enrolled immediately after high school, discussed their academic pursuits in terms of career plans. Younger students in these programs based their academic choices on their understanding of intersections between remunerative, accessible fields and their ability to enter those fields, while older students tended to have narrowed their plans to the level of specific professions within fields — often fields with which they already have working experience at a lower skill level. Students in bachelor's degree programs, on the other hand, generally discussed their academic plans as being motivated by their interests and sometimes the intersection of interest and ability, with career implications included as an afterthought if at all.

- [From a two-year student] "I just graduated from
 [other institution] with their auto mechanics certificate ...
 But I talked to a lot of bigger people in the industry,
 and they said it's a falling or harder type of trade
 to do now, so then I looked at AC and I was like, 'It's
 [southwestern state], when are you not going to have
 AC?' And then I figured it's better payroll as well ... And
 I've already done electrical and wiring and everything."
- [From a four-year student] "[I'll probably major in]
 psychology or English. I might double-major. [Do you
 know what you want to do when you get out of school?]
 Umm, no. Not exactly ... "
- [From a two-year student] "I'm going to do the robotics manufacturing program, because pretty much everything in manufacturing right now is going towards automation and I think it's interesting enough that I'd actually pay attention in class."
- Bulleted quotations appear frequently in the paper; they represent participant comments on the topic discussed in the previous paragraph and are sometimes lightly edited for grammar, clarity, or brevity.

[From a four-year student] "I want to do either business or international studies with a minor in Spanish. I'm not really sure what I want to do after school, but those seem general enough that I could go into a lot of different fields or maybe do an MBA. For now I'll probably stay 'undecided,' just do some general requirements and see what I like."

BORROWERS KNOW THEY SHOULD MINIMIZE BORROWING

Despite being unfamiliar with financial aid and student loans, participants nearly always grasped the core principles of borrowing: that loans must be repaid, that interest will cause the amount repaid to grow larger than the amount borrowed, and that they should borrow only what they need.

Without exception, participants understood that it was in their best long-term financial interest to borrow only what they needed. They all understood that they would have to pay back even more than they borrowed, and many understood that larger initial borrowing would result in faster rates of increase on their total loan amounts and that the total cost of their loans would also increase if a larger balance required more time to repay. Even when participants lacked knowledge of the exact mechanisms by which larger initial borrowing would be more expensive in the long run, they still accepted that they ought to borrow as little as possible as a pragmatic axiom. Some, particularly older students enrolled in non-bachelor's programs, cited personal or secondhand experience as the basis for this understanding, but even those who did not discuss such experiences had a basic theoretical understanding of the importance of minimizing borrowing.

- "I know that I shouldn't take out too much debt, because then the payments might be too much later."
- "I think I know the basics, like not to borrow more than I need because of the interest and all that. I don't want to start off owing like \$50 grand right when I get out of college."
- "I don't want to borrow very much, because like my friend took out like \$18,000 and then dropped out and ended up defaulting on it. I'll definitely take out as little as possible. But I also don't want to take out not enough, because then I'd be screwed."

While it would be inappropriate to assume that the universal acceptance of minimal borrowing as a guiding principle among the study participants is mirrored among all firsttime borrowers, it does suggest that the vast majority understand it, with important implications. On the one hand, the importance of minimal borrowing is a key message for first-time borrowers to internalize, so it should be seen as a positive finding that most already understand it without being told. On the other hand, that the basic principle was already well understood among participants suggests that more effectively communicating it to borrowers would be an unproductive non-improvement, even though it could be accomplished with relatively low-cost design modifications. True improvements require giving borrowers the tools and information necessary to act on their understanding that they should borrow only what they need.

COSTS AND BORROWING ARE NOT PRIMARY CRITERIA IN CHOOSING A COLLEGE

While recognizing the value of minimizing borrowing, participants generally thought of college costs, including whether and how much they would have to borrow, as secondary criteria in choosing a college. Primary criteria differed somewhat, but common factors included location, reputation, general "fit," and particular program offerings.

Asked why they decided to enroll in their institutions/ programs, less than one-third of participants cited cost as a primary factor in their decision. This is not to say that cost was not involved in the decision at all for the other two thirds, only that the cost was generally considered more as an afterthought and as a binary factor: either affordable and therefore within reach or unaffordable and not. For these participants, the college choice began with their interests in either the school's liberal arts offerings or a particular, career-oriented program, a relatively close location (only three participants had moved from a different state, and all of these were at the one top-tier university included in the sample) and other elements of logistical workability, a feeling that they would fit in on campus (more prevalent for bachelor's degree seekers, but mentioned by some others as well), and some notion that graduates of the institutions were well positioned for careers or further education. Participants often described selecting an institution on these grounds, examining costs to see whether they

Without exception, participants understood that it was in their best long-term financial interest to borrow only what they needed.

would be prohibitive, and — finding that they would not be — enrolling.

The participants who did cite costs as a primary factor were almost exclusively those who had been comparing costs between institutions. Some bachelor's seekers had also applied to other bachelor's programs or considered community college and made their final decision after receiving financial aid award letters; and a few at community colleges had been considering a bachelor's degree but found four-year programs too expensive. For these students, enrolling in some type of postsecondary education was a foregone conclusion, and the relative costs of institutions helped to determine which to attend. Only participants who had spent substantial time in the workforce before enrolling in postsecondary education for the first time seemed to have assessed the economics of their decision as a choice between education and work.

- "I basically ended up here [Texas private, non-profit university] because they guaranteed a scholarship for me. The other places [other four-year institutions] weren't guaranteeing anything ... I had a guaranteed scholarship here that I knew would carry me through."
- "I was a little bit worried about the costs, but then my
 financial aid letter said I could pay for [Midwestern flagship
 university] only using federal loans. I still could've picked a
 cheaper school if I wanted to, but this was my top choice
 and it's a really good school, so I think that matters more."
- "I mean, I guess the cost kind of mattered because if [public, primarily two-year college] had been like super expensive I would've picked something else, but mostly I was just looking at schools in [Midwestern state] that I thought I could get into."
- "No. Don't get me wrong, I like that [Northeastern community college] is really affordable and I probably wouldn't go if it wasn't, but I didn't set out to find the cheapest school or anything. I just knew I wasn't ready for [Northeastern public university] and I probably didn't have the grades anyway, plus this is a lot easier for me to work and take care of my son. Coming from where I come from, this is just where you go."

Participants' comments suggest that costs and borrowing have a relatively minor impact on the actual enrollment decision. The impact of costs was most pronounced for bachelor's degree seekers who had applied to a number

of schools that all met their other, more fundamental criteria than for students attending their local community college; however, even for the bachelor's seekers costs tended to be a marginal, secondary consideration at most, while other elements of fit, preference, and admissions were weighted far more heavily.

FIRST-TIME BORROWERS OFTEN WANT TO WORK WHILE ENROLLED BUT DO NOT KNOW IF THEY WILL

Most participants expressed a desire or need to work while enrolled, but few knew for certain whether they would, could, or should. Reasons cited for this uncertainty were similar: the availability of jobs for students, scheduling concerns, the impact of work on academics and social life, and whether low wages would justify the time and energy.

About 85 percent of participants said that they would either continue working at their current job when classes began (about 20 percent) or were interested in finding a job while enrolled (about 65 percent), and almost all of them, including those already working, expressed some uncertainty or concern about working. Those already working were primarily concerned about having enough time to study and do homework as well as simply scheduling work hours around their class schedule. Students who had not yet found work shared these concerns but were also worried about simply finding a job and whether the income, which they assumed would be low, would justify the inconvenience and loss of time for academics, relaxation, socialization, and extracurricular activities (concern for the latter two, particularly extracurriculars, was more prominent among bachelor's degree seekers). In fact, many students expressed a seemingly instinctive understanding of the findings of research on the impacts of working while enrolled: some work hours are better than none, but too many would be harmful to academics and campus engagement; and that jobs that relate to their field of study and that are closer to campus, ideally offered through a work-study arrangement, are preferable.xx Knowledge of work-study as a form of financial aid was far more common among bachelor's degree seekers, as was the preference for the job to be close to or on campus, though students in other types of programs (who tended to be living off-campus) also expressed the importance of a convenient commute.

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WHILE ENROLLED.



- "I'd definitely like to work because that would mean I wouldn't have to borrow as much, but I don't know. I don't know how hard my classes are going to be, and it's gotta be about education first of all, because it's when you borrow and then don't get your degree that you're in trouble. So for now I think I'll focus on the education even if I have to borrow more, because it's gonna pay off in the end."
- "I'll probably look for a job next semester, but for now I've got enough to worry about."
- "Yeah I've got a job and I told them I'm going to keep working, but I am kind of worried that it might be too much. I mean, I'm paying so much to be here, so I'm not going to sell myself short for like \$200 a week.
 But it's just too early to tell right now."
- "I'd rather not work but I've got a family to support, so hopefully with this loan I can work fewer hours and make it work that way. But if it's not enough then I guess I'll just get less sleep, worse grades, or both."
- "I'm going to keep my EMT job but switch to parttime. I'd like to work enough hours to start paying down my loans while I'm still in school."

Though some students had firmer employment plans than others, nearly all expressed the sense that there were important factors affecting the decision that could only be known later in the term or even in future terms. This common issue of the current unknowability of factors influencing employment foreshadowed a related but more significant issue that was to emerge during almost all of the user testing sessions: *Most first-time*

borrowers do not know — and indeed, have little practical means of knowing — information regarding their future income and expenses that is nevertheless crucial to the determination of whether and how much to borrow.

STUDENTS WANT FINANCIAL INFORMATION AND ASSISTANCE

Participants felt it important to learn more about student loans and financial aid and were particularly eager to learn strategies for reducing their costs and their borrowing. Often, this eagerness was informed by acceptance that at least some borrowing would be necessary combined with a desire to avoid worst-case scenarios.

Participants generally understood the basic principles of responsible, minimal borrowing, yet nearly all wanted to learn more about student loans and ways to make sure they adhered to those principles. These students accepted as a foregone conclusion that some borrowing was an unfortunate reality but believed it could be effectively managed with good information. However, while more than 85 percent expressed some level of stress or anxiety regarding their student loans, many of these participants also qualified their worry with a minimizing word, phrase, or sentence. Asked whether they felt at all worried or anxious about the prospect of borrowing, some responded:

 "I guess I'm a little bit worried, but only because I don't know that much about it. It's probably fine."

- "Yeah, but I think it's just natural to be a little worried when you borrow this much money. Just being on the hook can make you nervous, you know?"
- "A little bit, yeah, but I think it's just because it's all
 happening so fast that if feels like I might have missed
 something. I'm not really worried about paying it back."

About 40 percent of participants framed both the importance of learning more and their lack of serious anxiety with reference to cases of extreme borrowing. Participants occasionally referenced someone they knew personally as a cautionary tale but far more often did not have a particular individual in mind, reflecting both the actual rarity of cases of truly extreme loan balances and the prevalence of such figures in stories on student debt presented by the media. xii

- "I'm not worried because I know that school comes first.
 I told you about my friend who took out \$18,000 and
 then dropped out and defaulted, and I'm definitely not
 going to end up like him. I might borrow a little bit more
 than is absolutely necessary, but just to be on the safe
 side, because I know if I finish my degree then I'll be fine."
- "I really want to try to not borrow that much and pay a lot back while I'm still in school. I don't want to graduate with \$100,000 in loans."
- "I'm a little bit worried, mostly because I know I have to figure out how to borrow less next year, but I know I can.
 I took out more than I needed this year to be safe, but I know if I keep doing that I'll end up graduating with like \$50 grand in debt, and that would suck so bad."
- "A little bit, because I know if you don't plan and watch
 the interest and all that you can end up with a crazy
 amount of debt by the time you graduate, and I do not
 want to be one of those people."

While many participants expressed a more general desire to minimize their borrowing, this particular motivation for learning about responsible borrowing has an ambivalent potential. On the one hand, these participants were willing to accept some borrowing as a necessity (as were all others) but saw a significant possibility of ending up with an extreme loan balance if they did not learn how to manage their borrowing. On the other, it may be that, going forward, they would consider levels of borrowing

acceptable that were actually too high, on the premise that they were not borrowing enough to land them on the local news. Furthermore, while explicit references to extreme borrowing were in the minority, it was not clear to what extent other participants might also incorporate this mindset in their attitudes toward borrowing either currently or in the future.

THE ENVIRONMENT AT THE BEGINNING OF THE SCHOOL YEAR IS NOT CONDUCIVE TO GOOD COUNSELING, ESPECIALLY FOR FIRST-TIME STUDENTS

Participants often felt rushed, anxious, and/or distracted by external factors; entrance counseling is another requirement that must be completed during a stressful, transitional period when first-time students are trying to navigate several challenges, often on their own.

Participants' feeling that they were not able to devote their full attention and mental capacity to entrance counseling was not explicitly coded in the data because it was often not actually expressed during the discovery interview or in ways that were uniformly notable. Rather, a sense of distracted, almost panicked energy emerged in the initial warm-up conversations between researchers and participants, in idiosyncratic comments offered later in the sessions, in discussions with campus administrators, and in the general mood and atmosphere that researchers perceived throughout their visits to campuses.

Most of the students needing to take entrance counseling were also hurrying to accomplish a long list of other tasks: registering for classes; scheduling or taking placement exams; submitting medical records (sometimes learning that they needed immunizations); compiling reading lists and buying books; finding, accessing, cleaning, stocking, and moving into housing; locating various offices and buildings on campus; and attending orientation. Perhaps most stressfully, this was also the time most students had to secure funds to pay off account balances — often, balances that were unknown until administrative flags were raised — so that they could begin attending classes in a matter of days.

• [While reading about the Master Promissory Note]

"I have not [yet signed the MPN]. I was busy moving in and getting the first couple days of school started. If I had done this over the summer I probably would have already been through most of it, but it just had weird timing this semester where it just all happened at once. These past two weeks have been kind of crazy for me, and I keep telling myself I'll look it up, but I don't have Internet at home yet, and whenever I'm on campus I'm not really thinking about this."

On most campuses, a number of tangible signs suggested that most participants had more pressing matters on their minds. Many campuses had set up "counseling workshops" in computer labs, where first-time borrowers clicked through their entrance counseling en masse while student employees or financial aid staff circulated to help them quickly progress through the module, even offering tips on how to get through it more quickly. While the actual learning taking place in such workshops was questionable at best, their absence would likely have been even more problematic. On a campus that did not have such a workshop, one participant stated that he had tried to complete entrance counseling on his own in order to receive a federal loan but had given up, finding it too hard to complete, and gone back to trying to borrow a private loan.

If tried to borrow from Sallie Mae, but I guess the financial aid office found out because they emailed me and said I should borrow a subsidized loan from the government instead, but I would have to do the entrance counseling. I tried to, but I couldn't figure out how to get through it, so I tried to go back to Sallie Mae. They make it so much easier. You tell them your information, and they can send you everything in the mail. I probably would have done that instead, just to get it taken care of, but then they told me that you guys were coming ... "

Participants often communicated at the beginning or near the end of sessions that they had a limited amount of time or needed to leave immediately after they had successfully completed the counseling. Their reasons differed widely but all reflected demanding, busy schedules.

- "Is this almost done? I'm scheduled to take a tour in 15 minutes, and I still have no idea where anything is."
- "Just so you know I only have about half an hour before I need to leave for work." [Most of the sessions lasted over an hour, but with a combination of cutting the survey and interview portions of the session and the participant rushing through the counseling, she was able to leave in time.]
- [Asked afterward if he was concerned about having finished the counseling too quickly] "Not really. I mean I might have skipped over some important stuff, but I don't think I could've really focused right now anyway since I knew that I needed to get this out of the way to get my loan. I think I read enough to know that, right now today, most of that information isn't going to make much difference anyway. It's more important to figure out where my first class is, you know?"

II. Counseling Module and Debriefing

As participants progressed through the online entrance counseling module, researchers observed their behaviors, noted their comments, and asked them open-ended questions to encourage further commentary. Researchers also made video recordings, which were then reviewed and coded to develop a more formal and granular dataset of the user experience. This was then used to explore and verify researchers' preliminary findings, which were hypotheses based on their notes, observations, and impressions during the sessions. The findings presented below represent the preliminary hypotheses supported by the encoded data.

THE MODULE'S EXPECTATIONS FOR USER KNOWLEDGE DO NOT ALIGN WITH THEIR ACTUAL KNOWLEDGE

The entrance counseling module assumes that users know things they do not know. This is a pervasive and multifaceted issue that pertains to vocabulary and financial aid/student loan concepts, navigation of the module, current financial information, and future career and financial information.

Specialized Vocabulary and Concepts

Participants are regularly confused by the vocabulary in the entrance counseling module. While material defining many key loan-related terms appears near the beginning of the module, it comes after a substantive section in which users are expected to enter detailed information about the loan they are about to take out as well as any student loans they will take out in the future. Vocabulary is not the sole obstacle to comprehension; issues of unknown current and future financial information and lack of introductory guidance would hinder effective use of the tool even if the vocabulary were fully explained. However, unfamiliarity with various terms and concepts, such as federal and private loans, the various federal loan programs, and interest subsidies, confused almost all users.

Repayment Period - The maximum time period over which you must repay your federal student loan. The repayment period may range from 10 years to 30 years, depending on loan amount, loan type, and repayment plan.

Loan Fee - A fee charged for each federal student loan you receive that is a percentage of the total loan amount you are borrowing (gross amount). The loan fee is deducted proportionately from each disbursement of your loan. This reduces the actual loan amount you receive (net amount). You must repay the gross amount. You can find your loan fee amount in a disclosure statement you will receive before the first disbursement of your federal student loan.

Even while and after reading through the sections describing basic concepts pertaining to federal student loans, many users struggled to understand key terms and concepts. While about two-thirds of users who commented on these sections said something positive about the importance of establishing the fundamentals from the outset, about 40 percent of commenters (overlapping somewhat with the group that expressed appreciation) also remarked that they found the descriptions and explanations complicated and difficult to grasp. Users also struggled to determine which explanations applied to their specific circumstances, with fewer than 10 percent making the extra effort to

cross-reference documentation from their financial aid office to ascertain which information (loan types, half-time, student types) applied to their individual case.

- "I like that they're defining everything up front, but the definitions are kind of hard to follow. The language is really specific, like a contract or something."
- [After finishing the module] "Some of it got really wordy. Some of the jargon it look a while for me to get used to. I was probably getting used to it by the time I was on the third section. By then I knew what they were talking about."
- "[Of loan types] I didn't even know there were that many kinds. Well, I'm probably going to Google those later. So, I'm going to have to look that up because I

- don't even know the difference, really, other than if something is subsidized or unsubsidized."
- "Wait, so which loan type do I have? Because I am not going to read all of this for every single one when I know I'm only getting one loan."
- "If they can't tell me how [participant's school]
 defines half-time enrollment, then what's the point
 of including all this extra stuff [referring to detailed
 description of ways of defining half-time enrollment]?
 All I really need to know is that if I drop below a certain
 number of hours, then I might have to start paying in
 six months, right? What's so hard about that?"

Users frequently seemed to struggle to truly learn new terms and concepts before proceeding to the next sections, especially when the explanations were lengthy and/or written with undue technical precision and elaboration. Conversely, users regularly expressed appreciation when the material explained concepts simply, concisely, and with helpful examples or illustrations. This was most evident in users' reactions to the section explaining simple interest ("Interest Accrual", on page one), which were exclusively positive. Users often remarked on the tone, the simple diction, and the helpfulness of an example. One user expressed this particularly well by contrasting it to a previous section:

Interest Accrual

Federal student loans made after June 30, 2006 have fixed interest rates.

Direct Loans are "simple daily interest" loans. This means that interest accrues daily. The amount of interest that accrues per day is calculated by dividing the interest rate on your loan (as a decimal) by the number of days in a year, and then multiplying that by the outstanding principal balance.

For example, on a \$10,000 Direct Unsubsidized Loan with a 6.8% interest rate, the amount of interest that accrues per day is \$1.86:

(0.068 / 365) * \$10,000 = \$1.86

 "Okay, this part is way better than that last one. Like, 'the entity that holds your loan promissory note'? What does that even mean in, like, practical terms? And what's a 'promissory note,' anyway? Here they only use words that everyone knows, and then they have an example just in case."

The following section, "Capitalized Interest," received more mixed reviews. Users again appreciated the fairly simple terms and the inclusion of an example. However, borrowers often became confused and



reacted negatively when the text failed to indicate that it was using the same example scenario from the previous section. Users were also confused by the text describing capitalization in the context of deferment and forbearance, terms with which they were unfamiliar.

"It's getting kind of jargony now ... it's a lot of these [indicates deferment and forbearance] vocabulary words there, and I just learned those vocabulary words. So, I'm kind of like, trying to piece it together."

It would be more logical to either discuss capitalization in the context of an unsubsidized loan at the end of the grace period or to broach the topic after introducing the user to deferment and forbearance, though the later material on those topics has issues of its own. As it is, requiring users to have or to acquire an understanding of deferment and forbearance before they can learn about capitalized interest unnecessarily confuses readers. Furthermore, it suggests that interest capitalization is relevant only in the context of difficulties in repayment, which can cause users to classify it erroneously (along with a high percentage of the entire module) as information that will become relevant only in years to come and therefore can and should be ignored for the time being.

Navigation

Users often struggled with the basic mechanics of navigating through the module. Although they were able to resolve almost 80 percent of navigational snags themselves, these issues were still a source of notable irritation. About a third of users did not realize that the question elements were mandatory until they were prevented from proceeding past the first page by their failure to answer one or more. In these cases, users almost always identified and corrected the problem based on the automatically generated error message(s) that appeared at the top of the screen.

There are one or more errors on this page

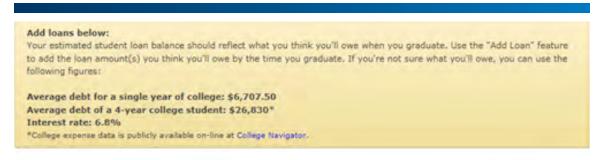
You must go to Step 2: Your Funds This Year before continuing to the next topic.

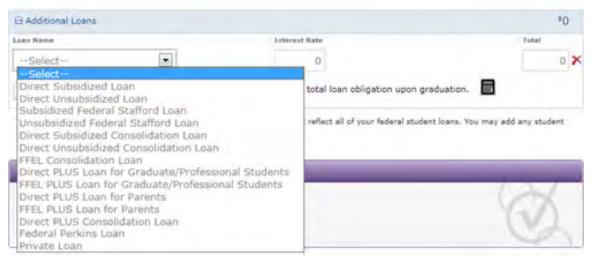
Your School Expense Budget Complete the two tabs below.

Expenses Funds Based on what you entered, you will have enough funds to pay your expenses. Check out our video on YouTube. Step 1 Step 2 Your Expenses This Year Your Funds This Year

The two budgeting tools in the counseling module presented more significant navigational challenges. After figuring out what the budgeting tools were for and the information that would be required to use them effectively, more than threequarters of users decided to skip past them without inputting their information (issues with these tools are discussed at greater length in later sections). These users were prevented from advancing to the next page because they had not clicked on the tabs to go to step two of these tools. Of those who received this error message, more than half immediately clicked the second tab and about 20 percent found it after a short time, but the remaining third required a prompt, hint, or direct intervention from the researchers to find it (though more users may have solved the problem independently had the researchers not been present). Furthermore, almost half of users who had initially skipped the second step after determining (correctly) that the tool would not be helpful at this time actually entered information into the "Step 2" tab after receiving the error message, presumably only because they thought that inputting the information was required to proceed. On both tools, time, energy, and patience were wasted first by users not realizing that they would have to go to step two to continue, then by users' difficulty in locating step two, then by users entering information into the tool under the misapprehension that they had to despite it adding no value.

"Wait, it says I have to go to step two. I scrolled all the way down and I never saw a step two [scrolls down and back up the page]. Oh, it's this, isn't it? It's confusing how this whole time it's been based on scrolling down and now you're supposed to go to the next tab before going down."





Current and Future Financial and Career Information

Numerous elements of the module, in particular the budgeting tools and other calculators, assume that borrowers will either know or be able to make usefully accurate guesses regarding fairly minute details of their current student loan borrowing, all future student loan borrowing, current expenses, current revenues, and expenses and revenues during repayment, whenever that will be. User responses to the calculator tools are generally negative, reflecting the calculators' reliance on information that users do not have and/or concepts they do not understand, as well as the irrelevance of many of their lessons and inaccuracy of their outputs for first-time borrowers.

 "Well it asked how many months until you get out of school, and I don't know, so I just kinda left it blank."

This unfortunately common pattern first occurred at nearly the very beginning of the module in the "Add Loans" feature, which asks users to input all of their future student loans, including loan types, interest rates, and principal amounts, on the premise that "your estimated student loan balance should reflect what you think you'll owe when you graduate." In a partial recognition that this might be difficult for users who are usually just beginning postsecondary education and have no experience with student loans, the module provides the average debt for a single year of

college (without specifying which programs the figure is based on), the average debt of a "four-year college student" (without specifying whether the figure refers to graduates of bachelor's degree programs or students who have been in any college for four years), and the "average federal student loan interest rate," which is erroneously listed as 6.8 percent and does not reflect the way interest rates are currently set for Direct loans. Average figures are not available for students in non-four-year sectors, who make up more half of all first-year undergraduate students; and there is no indication of either the wide range of average debt figures or the fact that the median debt, which is a better indication of a typical student, is generally about half the average.^{xxii}

To make matters worse, this segment is followed by a question asking users, "As of today, how much do you owe in student loans" — despite the fact that the question is actually asking for the total estimated indebtedness at graduation based on the information they have just entered. Predictably, this was a frequent source of confusion.

Users also had negative reactions to the two budgeting tools — the first intended to help users create a budget for living expenses while in school, the second intended for loan repayment after leaving school. In almost all cases, users who criticized the tools also qualified their criticism, adding that the tools could be helpful if they

were easier to understand and if they were presented months or even years in the future, when users would have more of the necessary information (e.g., income while enrolled, post-college income, or cumulative borrowing). Complaints regarding the current usefulness of the tools were considerably more common for the repayment budgeting tool than for the in-school tool (100 percent vs. about 85 percent, respectively), as users were able to make use of the in-school tool when they met the following conditions:

- Accepted the automatically populated estimates of educational and living expenses as accurate or knew enough to edit them;
- Had detailed information regarding their grants, scholarships, etc. on hand;
- 3. Knew how much help they could expect from family;
- 4. Knew whether they would be working during the semester; and
- 5. If working, knew how much they would be earning.

Users who either had this information or could estimate it (and also discerned proper navigation of the tool) were able to make full use of the tool; however, even these users often expressed the same uncertainty in the accuracy of the figures and were almost never prepared to use them in making decisions about borrowing.

Users found that both tools were difficult to interpret and navigate and were not useful given their present

circumstances. However, they saw the in-school budget tool as far more relevant than the repayment budget tool. More than three-quarters of those who questioned the value of the in-school budget tool made comments suggesting that they saw it as being potentially valuable in the near term. For instance:

- "I see what they're trying to do, like I get it, but I don't know if I'm going to get a job or not, and I have no idea how much I spend on food and entertainment and stuff. This would be more helpful next semester, when I know how much everything's going to cost."
- "I know I've got the financial aid letter somewhere and I think I got a Pell grant, but I don't think I've even gotten a bill yet. And I'm not sure whether these are the right costs or not. If I knew for sure then I could try to figure it out, but right now it doesn't really seem helpful."
- "[Laughing], I don't even know where I'm supposed to eat or where I'm living and they want me to know how much it costs? The sad thing is, this could actually be useful if they gave it to me like a month from now, when I'm settled in, you know? [Researchers confirmed that he could return to the counseling module and use the budgeting tools at any time.] Oh okay, that's cool, but still, why even try to make me do it now?"

In contrast, negative comments on the repayment budgeting tool tended to be more severe and reflected users' exasperation. Users added qualifications about their future usefulness in fewer than a quarter of cases, and the



Enter the amount you expect to receive to help pay for school this year. Refer to your student account to see the financial aid package awarded. If you have not received your financial aid package, refer to the Loan Limits in Understand Your Loans.



Enter data into the fields to view a chart of your funds.

qualifications seemed to do less to reduce their frustration and incredulity.

- "Wait, so they want me to put in how much I'm going to owe when all of this is over and how much I'm going to be making? That's ridiculous! What's the point of even trying to guess right now? This is for like, four years from now!"
- [Asked why she had quickly skipped past the tool] "I read
 that line about how they were going to start with my
 balance from the first page, which was a total guess in
 the first place. What's the point of trying to do something
 complicated with a number that's still just a guess?"
- "Are you kidding me? 'Enter what you expect to earn annually once you graduate'? How am I supposed to do that? [Researchers redirect participant to the tool, and he clicks the CareerOneStop link] Okay, so for this to be useful I'd have to have a career already picked out. I don't even have a major yet. I can just skip this if I want to, right?"

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.



The other two calculator features, which focus on the interest costs of postponing payments and the benefits of paying interest even when not required to do so, also received negative comments regarding their applicability to present circumstances. However, users also suffered from issues of basic comprehension; in more than a third of cases, users were not able to properly interpret these tools, such that they were unable to tell whether the tool was relevant. Issues with understanding the calculator tools are discussed in the section on calculator design.

THE SEQUENCE OF INFORMATION DOES NOT PROMOTE EFFECTIVE COUNSELING

The order in which information is presented does not reflect the learning needs of users and does not aid them in making responsible borrowing decisions.

Relatively few user comments dealt with the order in which information appears in the module, but those that did were almost exclusively negative. Many users expressed a desire that the module start with the basic financial literacy

and financial aid information that is currently split between the first, second, and fifth pages of the module.

- "I don't know why this [information on managing expenses on the second page] isn't the very first thing they have you read. It's too early to get into specifics like with the tool, but it seems like a budget should be the place to start. You have a budget, you get all the grants you can, you try to make it work, and then, if you still need more money, you start in with the loan stuff, not before."
- "I think they should have put this stuff [financial information on the fifth page] a lot closer to the front.
 Not the parts about taxes, maybe, but definitely the credit card parts. Because most of us probably haven't had credit cards before, and I know there are going to be ignorant people who think you can just put it all on a credit card and be fine."
- "They should have the 'Free Money First' part actually be the first thing you read. Like before they start loading you up on all the details about loans, they should try to help people not have to borrow, or at least not have to borrow as much."

As reflected in these and other comments, the most glaring and pervasive issue in the ordering of information is that users need a framework of basic financial concepts and best practices that contextualize student loan borrowing in general before they are ready to grapple with the specifics of the Federal Direct Loan Program. However, even excluding this consideration, users were sometimes confused by the ordering of the loan information. Comments explicitly related to the sequencing of this information were relatively sparse — occurring in fewer than 20 percent of sessions — but they often pointed to ways in which the order might be improved.

- [After reading the deferment and forbearance bubbles in the Capitalized Interest box] "So, capitalized interest happens if you don't pay the interest when you have to postpone payments during repayment? It seems like that's something I don't really need to worry about right now."
- "I think they should tell you that the subsidized loan doesn't get interest before they do that whole thing about how interest is going to stack up on you."
- "They should tell you earlier that you can pay it off while you're still in school. I almost didn't see it because I was

just skimming through all of this stuff about repayment because it's not really relevant right now, but then I happened to see that box about paying when you're not required to, and that caught my eye because I definitely want to pay it off faster. But I had assumed this whole section would be about after you leave school."

These comments, in addition to those desiring that more basic financial information come before the loan information, suggest that a sequence reflecting the ideal chronology of student loan borrowing and repayment would serve users more effectively. This sequence will be discussed at greater length in the recommendations section.

MUCH OF THE MATERIAL IS IRRELEVANT TO FIRST-TIME BORROWERS

Users find a great deal of the textual information to be irrelevant distractions that neither serve their current needs nor correspond to their current or near-future circumstances.

Even if presented in a more user-friendly, chronological order, much of the information would still be irrelevant to users' present circumstances. This timing issue paralleled the issue of calculator tools that were only helpful or even truly usable in a future scenario: the material simply is not necessary or useful for first-time borrowers and will not become useful soon enough to merit close attention.

"I don't know how that would apply to me ... I don't know, I just don't see myself not making a payment on this. I mean, god forbid, if I run out of money and I can't, then it's good to know ... but I've never not made a payment. [The example numbers] are really big, but that's just because I'm taking out a really small loan ... I feel like I'm just an exception. [Would you prefer to see numbers that reflect your circumstances?] I think it would help me to understand my own situation, because I'm having to look at all this and then size it down in my head, but I don't have anything accurate."

While instances of irrelevant information appeared throughout the module, users most frequently commented that information was irrelevant, superfluous, or otherwise unhelpful given their current circumstances when reading pages three and four, which cover various

Trouble Making Payments

Even if you're having trouble, keep making your federal student loan payments whenever possible to reduce your debt and the amount of interest you pay over the life of the loan. See Plan to Repay for more details regarding repayment options.

If you need to lower your payments, consider one of the income-driven repayment plans in Plan to Repay.

However, if you cannot afford to make any payments, or your difficulty is temporary, you can temporarily postpone or lower your payments with a deferment or forbearance.

Deferment

 Allows you to temporarily stop making payments on your federal student loans.

Deferment

You may qualify for a deferment if y

aspects of repaying federal student loans and avoiding default. Much of the repayment information is contained in expandable boxes with questions as headings, e.g., "Who do I make my payments to?" More than 90 percent of users skipped or skimmed at least one of these boxes, about 70 percent failed to click on one or more of these boxes to read the answers, and just under a third skipped more than they opened. Similarly, information comparing the various repayment plans; and describing deferment, forbearance, and the consequences of delinquency and default were skipped or skimmed more often than they were read fully. Asked about this reading pattern, users responded with frank explanations of their logic:

- "I mostly just skipped my way through it. I figure I have a few years to go before I need to be worrying about the whole repayment thing, so I'll learn that stuff then. It just isn't helpful right now, and I have enough on my mind."
- "Yeah, I definitely noticed that I was skipping a lot. It was intentional. I think I read enough to get the basic ideas, like the servicer is important, there's stuff you can do if you can't pay, default is pretty bad. The details don't really matter right now."
- "Oh I totally skipped most of it. Did they really expect
 me to stop and read all of that? It was bad enough when
 they wanted me to know how much I'm going to borrow
 for my whole education, do they really think I should pick
 a repayment plan and then get freaked out about not
 being able to stick with it? That's totally absurd."

Interest Savings Calculator							
If you can, pay interest during your grace period or periods of deferment/forbearance to avoid having interest capitalized (added to your principal) on unsubsidized loans, PLUS loans, and subsidized loans that have lost interest subsidy.							
Outstanding Balance:	§26,830	You finish school in:					
Interest Rate:	6.8 %	months	Potential Savings: \$				
¹ When you are signed in, the Outstanding Balance includes:							

USERS OFTEN STRUGGLE WITH THE CALCULATOR TOOLS

Besides issues of relevance and unknown information, the calculator tools suffer from complexity, wordiness, and frequent user difficulties in understanding their operations and interpreting results.

Users generally stopped trying to use the calculator tools after realizing what they would be required to input and/ or the function that the calculator performed; but in many cases this understanding eluded users for some time. In almost two-thirds of all interactions with the tools, users expressed confusion or uncertainty regarding their operations. While the use of specialized vocabulary (vocabulary to which most users have just been exposed for the first time and might not yet truly understand) likely plays some role in this confusion, other issues include:

- Non-linear design that does not specify connections between numbers
 - "I don't understand this at all. I put in one number and they combine it with four other numbers and then nine numbers come out? What does this mean?
 I feel like I need someone to just walk me through this, step by step."
 - "I would have explanations for what they're putting in here. Like what it means if it's like deferment and then total interest and principle, like what exactly that's saying. Because right now I don't feel like I'm getting anything out of this."
- Lack of clear introductions that describe the operation and meaning of the tool
 - "Wait, it said this was about paying interest during grace and deferment and the other one, but then it's asking how long until I finish school. How is that related?"
 - "I don't see what I'm supposed to be getting out of this. Like, even if I knew all about my expenses and my financial aid, what's the point? Am I supposed to be figuring out whether I can afford to go to school?"

- [Was that clear?] "Yeah, I just had to read it a couple more times."
- [Explaining why he skipped a tool calculating and comparing the cost of deferment and forbearance]
 "Well I don't want to postpone it. I read that and I was like, 'Why would I want to postpone it?' ...
 I just don't see the point in giving someone an option to be lazy, to slide farther and farther in debt. I don't see the purpose in it, but I do understand why you have to have it."
- Confusion about pre-generated numbers and the inability to change them
 - "But this says \$26,830 with a 6.8 percent interest rate. I'm not going to borrow near that much, and the interest rate for my loan is like four point something, right? Plus, doesn't it matter when you borrow it? Like if I put in 24 months until I finish school, it's going to tell me how much I would save if I made interest payments on \$26,830 at 6.8 percent for 24 months, but that's not right, because I wouldn't have that whole balance the whole time. And is it the difference in what you'd owe at graduation or what you'd end up paying over the whole ten years or whatever, because that's important. It would've been better if they just had an example to show you, 'Hey look, paying the interest even when you don't have to saves you money, and then move on. This was a confusing waste of time."
 - Most users did not possess a sophisticated enough understanding of the concepts involved to recognize or articulate the issues identified with the interest savings calculator; however, the comment from the exceptional user above serves to illustrate the difficulty of understanding what some of these calculators are doing.
- Difficulty getting the calculator to output results
 - Users were sometimes confused by the lack of an "Enter" button on screen. The calculators return results when the user inputs information then hits

Users were sometimes 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.

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 WITH THE AMOUNT AND DENSITY OF INFORMATION

Users find the module "bulky" and "cumbersome"; there is a lot of information, often in a dense, text-heavy format; and it takes a long time to complete. This length and bulk, combined with other issues — notably irrelevant material — contribute to the tendency to skim and skip information.

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 explicitly. About half of users commented on this theme on the very first page of the counseling:

- "It's fine so far, but it seems really wordy. I had no idea it took so many words to explain 'half-time enrollment."
- "I know that it's important to read through it, but at the same time it's really dry and wordy, and it seems like they're making too much effort to account for all of the details."
- "It's weird that they try to put so many details into it. Like for the Master Promissory Note, I feel like they could have literally just said, 'It's the contract that explains the terms and conditions of your loan. Read it carefully and hang on to it.' Done."
- [On the Types of Federal Student Loans table] "I like how it's broken down like this. It's easier to read what's what. Instead of just reading it. It's like as you're reading along you'll pick up key parts but you're basically just skimming over it. So having something like this at the bottom of it just makes it easier to understand."

As with the last comment above, users frequently responded positively when information was formatted in ways besides paragraphs. For instance:

- "I like this chart, how they lay out the information based on which year you're in. It's not all relevant to me right now, but still it makes it easy to find what I need and not have to mess with the other stuff."
- "I think these green boxes were good and helpful.
 I like how it asks the question and then the answer is right there ... Those are questions I might actually ask, and then they give you a simple answer."

During the debriefing interviews (and sometimes even sooner), about three-quarters 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. Explicit complaints of high density or excessive detail were far more frequent on the first page, although this can be explained by users' tendency to simply skim the wordier, more detailed information later in the counseling, or to skip it entirely; however, the tendency to skip details later in the counseling can also be attributed to the irrelevance of information on repayment and avoiding default.

Asked about the impact of length and density issues, users frequently said that they became gradually more tired, bored, and/or frustrated. The same marked tendency was observed in users of the exit counseling module, although users of the entrance counseling module were likely saved both time and frustration by their recognition that repayment information did not apply to them and could be skipped without hazard. Whatever the specific reason or emotion, nearly all users 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, density, or irrelevance of the material skimmed or skipped elements later in the counseling more often than users who did not share these complaints.

The perception of the counseling material as "long," "cumbersome," "bulky," or otherwise burdensome was among the most common themes in user reactions.

Check Your Knowledge

Which sources of federal student aid do you have to repay?

Grants

Federal Work-Study jobs

Federal student loans

All of the above

(3) Incorrect

You must repay your federal student loans but you do not have to repay grants or money from Federal Work-Study jobs.

THE MANDATORY QUESTIONS ARE OFTEN UNHELPFUL AND MAY BE HARMFUL

The question features often fail to impart important information and instead facilitate skimming and skipping.

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 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" (under which all questions appear), about 20 percent 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. When users entered their balance they were often confused, either by the fact that the question asked for their balance "as of today," (though the right answer was the amount they had added as their estimated eventual balance) or by the perceived pointlessness of simply entering the zero displayed above.

Most of the other questions also ask users to recall a simple point of fact from earlier on the same page, facts that often pertain to the student loan repayment process and are therefore ultimately irrelevant. However, the switch to somewhat more substantive questions, as well as the realization that answering the questions clears the user to proceed to the next page, can cause users to assume that all necessary information is covered by the questions.

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 each questions to proceed).

- "So, if you get a question wrong they just let you try
 again until you get it right? I mean, it's kinda nice
 just because I don't really care about the repayment
 information and I can get through it faster this way,
 but it's definitely not going to teach me anything."
- "By about the third page I was just scrolling down to the questions and guessing until I got them right. It was convenient, but really they shouldn't let you do that. Then again, the questions should make sure you really learn the key concepts, not test you on some meaningless detail that you're not going to remember anyway."

While only about 20 percent of users seemed at times to be making no effort to find correct answers to the questions, about 60 percent engaged in some form of purely 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 more than three-quarters; 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.

As an aside: when borrowers use the online counseling modules in a college computer lab, where others have taken it before them on the same computer, the answers to fill-in-the-blank questions appear as auto-complete suggestions when they begin typing. Researchers attempted to clear cookies between sessions, but this had no effect.

USERS PREFER TO STAY ON THE "MAIN PATH" THROUGH THE MODULE

Users regularly fail to follow links to additional information, including the links to the YouTube videos, which users find valuable and effective but misplaced.

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 users following these links numbered in the low single digits. User comments regarding the copious amounts of detail included in the main text suggest that this is a product of users assuming that the links would only lead to additional superfluous detail.

 "It says 'Tell Me More' ... I don't want to do that right now. I just want to keep going, because there's a lot ahead of me to look through."

While this assumption was generally accurate, it was not correct in the case of the links to YouTube videos at a few locations in the counseling. Users almost uniformly failed to click these links; asked why, common explanations included not having seen them at all, not knowing what the videos were about, assuming that they would elaborate unnecessarily on the sections in which the links were placed (which include the budgeting tool and "navigating repayment" sections, which were often thought of as irrelevant), and not knowing how long they would be. To observe responses to the videos, researchers randomly asked some users if they would be willing to watch one of the videos, and they were kind enough to oblige. Without exception, users who watched the videos found them to be helpful, succinct, appealing introductions to, respectively: budgeting, borrowing best practices, and student loan repayment. Many wondered why they were not embedded at the beginning of the counseling or the tops of pages, where they could better serve the purposes for which they seem intended.

How do I change my repayment plan?

Check out our video on YouTube.

"I saw the optional videos but I didn't click on them.
 I didn't know what those were even about. But at that point, if they have all of this on top of the video —

- I don't know how long the video was but I'm not going to bother with the video if you're making me go through all of this at the same time."
- [After watching the repayment video] "That was perfect.
 They should have replaced page three and page four with just that video. It's just enough detail to get the essentials across without getting overwhelmed."

USERS WANT TO TALK THROUGH BASIC PRINCIPLES WITH A PERSON

Overall, the typical user experience with online entrance counseling is defined by the attempt to extract basic principles of personal finance, financial aid, and responsible student loan borrowing from material that presents too many details on too many topics and makes no effort to prioritize fundamentals. Frustrated by the difficulty of the task, many participants sought to learn by pushing researchers into a conversational, counseling role.

Participants frequently tried to engage researchers in conversation about the topics in the counseling, often asking questions to confirm their understanding of the material. Faced with students who clearly needed or at least very much wanted the help of someone familiar with the world of financial aid, researchers generally capitulated to some degree. Maintaining the discipline to simply redirect participants' questions back to the material proved too trying in many cases, though researchers generally asked open-ended questions to confirm the nature and source of the participant's uncertainty before offering supplemental information.

In fact, calling the information provided by researchers "supplemental" is not quite accurate; in most cases, researchers actually provided less information than the written text and simply rephrased the basic concept in question in concise, simple terms. The second most common exchange involved participants rephrasing a concept in their words and then asking whether their understanding was accurate, which it was in almost half of such occurrences. When it was not, researchers would generally point out that they had something wrong and then ask if they could see something in the material that

would help clear up the misconception. Participants were rarely able to locate the appropriate information and instead turned back to researchers for clarification or correction. The regularity with which about 25 percent of participants (disproportionately enrolled in two-year programs) turned to researchers for information could be yet another indicator of participants' frequent struggle to extract a firm foundation of knowledge from the material while controlling the time and effort necessary to read through all the information. From one two-year student:

 "I don't really like over-thinking things to begin with. So when it comes to stuff like this, I feel more comfortable talking to you than I do on the computer."

MOST USERS GRADUALLY DISENGAGE FROM THE MATERIAL, READING MORE QUICKLY AND LESS CLOSELY

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 still feel a need to learn more, they assume that the module contains too much irrelevant material to justify continued engagement.

As seen in the discovery interview, users began the counseling session with motivation and genuine interest in learning about how best to utilize student loans. Informed by a perception of serious hazards in student borrowing, they feel a strong need to acquire a set of useful principles and practices for minimizing their costs and their borrowing. They are ready and willing to learn; in essence, they have a full tank.

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 sections later identified as unnecessarily detailed; yet, many users read even these sections fully. However, even at this early, optimistic stage, users began to suspect that the module might assume an unrealistic level of knowledge, familiarity, and foresight/planning.

On the second page, users encountered more issues, most notably the unhelpful in-school budget tool, along with the sources of frustration and disengagement identified above. They began to view irrelevant detail not as an isolated incident but as a pervasive, recurring shortcoming, and began not only to critique it but also to modify their behavior in response to it. As users encountered even less helpful material in the repayment budgeting tool and repayment information, 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 the norm, and users fall back on the understanding that they do not really need most of the information at this very moment, 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 disengaging from the entire endeavor and simply rushing to finish, is illustrated below through a series of quotes from a single, fairly dedicated user (in chronological order) and a conceptual diagram.

- 1. "On the log in, they said [it would take] about 30 minutes, and I'm like [skeptical noise]. Maybe for someone who knows what they're looking for; for me, probably not so much. Probably longer. It's wordy, but I do read what they show me, just because I would not feel okay just scrolling through really fast and then just accepting things. I would not be comfortable with that. But I don't know if this is all words. I don't know if I have to input stuff later ... I don't know what's coming up. [Would you prefer to know?] Yeah, yeah. I guess this is the table of contents up there? That's a lot. But I guess it's stuff you need to know, so I can't complain, it's there."
- "Now it's getting to be a lot in my mind. But it's okay, because I see where I am and I'm almost done with this stage."
- 3. "[My reading] is starting to go more like this [indicates skimming]. But the small sections are helping. At least that's better than if it was just a huge block of text. Those are the worst."

Users began the counseling session with motivation and genuine interest in learning about how best to utilize student loans.

- 4. [On in-school budget tool] "Yeah, it doesn't really help me ... but I feel like they're going to make me do that, if I skip it."
- 5. "I think it's funny that they make you do this all in one go. At least that's how I understood it. Like you can't partially do it? That stinks, because I'm not rushing, but I don't want to be here forever. And your brain kind of wants to check out after a little bit. I'm probably not going to be absorbing as much information now as when I first started this."
- 6. "At this point, if I could go away from the computer, I would. I would take a break."
- 7. [On repayment budget tool; How are you feeling?] "Sad ... I'm still only halfway, not even halfway, and there's more things I need to input, and ... [audible groan] I don't even have a job yet!"
- 8. "I'm like [groans, snaps fingers]. I've gotta get this done ... At this point I'm not even reading; I'm just looking for the numbers [to answer the mandatory question]."
- 9. [On tax benefits section] "I'm not gonna lie, I don't know much about taxes ... I wish I did know more ... When it comes to stuff like this I feel so clueless about it ... [Do you want to keep reading about it?] Not right now. Later ...? Right now I'm almost done, and they're making me go on this tangent ... It makes sense, but right now I'm like over it."
- 10. [After completing the module] "It was way more than I thought it was going to be ... I like reading everything, and I would have if I had gotten a break. I started skimming probably around that third section. Then it was just they didn't meet me halfway with my effort."

Interest in learning, with time and cognitive constraints

Reading for practically useful, basic concepts

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

Inattention, uniform devaluation

Skimming

Selective reading

Inability to differentiate important info

Severe inattention and frustration

Complete disengagement; rush to finish

This progression of attitudes and behaviors, which leads to users disengaging from the entire endeavor and simply rushing to finish, is illustrated through a series of quotes and a conceptual diagram.

III. Surveys

Pre-Counseling Survey

The pre-survey presented a list of the topics covered in the entrance counseling module and asked participants to rate both their current knowledge of that topic and the importance of knowing 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 promote 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=33)				
#	Торіс	Knowledge average	Importance average	
1	Basic concepts of how loans work (principal, interest, balance, etc.)	3.19	4.60	
2	When you are and are not required to make payments on a student loan	3.23	4.65	
3	Strategies for financing your education while minimizing borrowing	3.14	4.58	
4	When you're responsible for the interest on different kinds of loans	2.81	4.47	
5	Federal loan programs and how their terms and rules differ	2.33	4.23	
6	Limitations on eligibility for subsidized student loans	2.60	4.33	
7	Annual limits on borrowing from certain student loan programs	2.40	4.14	
8	Creating a personal budget and lowering expenses	3.23	4.63	
9	Loan disbursements and how to manage them	2.77	4.37	
10	Reducing the cost of the loans you borrow	2.49	4.67	
11	How federal loans compare to private bank loans	2.05	4.02	
12	Estimating what you'll owe and earn after you leave school	2.81	4.53	
13	Loan repayment plans and how their terms and rules differ	2.65	4.40	
14	How repayment will work after you leave school	2.70	4.65	
15	How to change your repayment plan during repayment	2.49	4.14	
16	How to avoid defaulting on your loans during repayment	2.51	4.51	
17	What to do if you have trouble making payments on your loans	2.28	4.63	
18	Options for forgiveness or cancellation of your student loan debt	2.05	4.33	
19	Consequences of student loan delinquency and default	2.60	4.51	
20	How to resolve disputes about your student loans	2.47	4.40	
21	How to simplify repayment through loan consolidation	2.21	4.26	
22	Basic principles of personal money management	4.36	4.70	
23	Income, payroll taxes, and education tax incentives	2.39	4.27	
24	Credit cards, identity theft, and maintaining a good credit score	3.24	4.70	

Participants' average ratings of their knowledge of the various subjects tended to cluster between two ("little knowledge") and three ("some knowledge"), so 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 — budgets and loan fundamentals — while lower-rated subjects tended to be more specific and pertain to detailed aspects of the federal student loan system, like loan forgiveness and consolidation.

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 few clear patterns emerge in terms of differences in importance between the topics. Examining which topics fell above and below the median score of 4.47, it seems that the clearest pattern rests on the level of detail involved in the topic. Participants rated several topics pertaining to the specifics of repayment fairly low, but they did the same for details regarding the federal loan programs. On the other hand, topics that seemed more general and focused on basic principles both before and during repayment tended to receive higher ratings. It would be easy to read too much into these slight variations, but they do reinforce and add possible nuance to what was seen in users' behavioral patterns while reading (or skipping through) the counseling module: It is not necessarily the case that first-time borrowers reject any information about the future of their loans; rather, they reject information about both the present and future of their loans that they perceive

as unnecessarily and counterproductively detailed given their current position, preferring information that establishes fundamental concepts.

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 in the column "Agreed." Based on previous research, the column to the right ("Agreed (exit)") gives the percentage of responses in agreement with the same statement regarding the online exit counseling module. As much of the material is shared verbatim between the two modules, the comparison suggests the impact of being a first-time borrower, new to student loans and higher education, as opposed to being on the verge of graduation and repayment.

TABLE 2. Percentage of responses answering in the affirmative (n=36)				
#	Statement	Agreed	Agreed (exit)	
1	I would have done counseling differently if I had been alone.	30%	21%	
2	Being observed made me feel inhibited or uncomfortable.	0%	_	
3	The interview questions helped me articulate my thoughts.	90%	_	
4	Online counseling took longer to finish than I expected.	39%	32%	
5	I felt frustrated when trying to complete counseling.	23%	18%	
6	Counseling taught me new things.	78%	79%	
7	The text/information was relevant and important.	81%	82%	
8	The text/information was easy to understand.	36%	61%	
9	I could easily find additional information/help.	58%	76%	
10	Things I learned in counseling will help me in the future.	89%	89%	
11	Screens had the right amount of information.	50%	53%	
12	The interactive elements (calculators, budget tools) were easy to use and understand.	44%	74%	
13	The interactive elements were helpful.	56%	74%	
14	I always felt I knew what to do next.	31%	61%	
15	It is clear how screen elements (pop-ups, expand/collapse, recalculate, etc.) work.	31%	89%	
16	The overall look and feel of the site is pleasing.	58%	58%	
17	Counseling was easy to complete.	50%	76%	

While it was expected that first-time borrowers would struggle to comprehend the technical student loan information and utilize the calculator elements, the extent of the gap in general navigation of the module was not

anticipated.

In and of themselves, these figures offer no definitive indication as to whether they should be considered positive or negative, comforting or troubling, etc. However, comparison to the responses given by participants in Trellis' 2014 study of exit counseling casts the entrance counseling module in a distinctly negative light. True to the findings of the UX testing, the first-time borrowers were far more likely to struggle with the module in a variety of ways. The following differences (entrance counseling participants vs. exit counseling participants) are particularly striking:

- Ease of understanding the information (36 percent vs. 61 percent)
- Ease of understanding and helpfulness of the interactive elements (44 percent vs. 74 percent and 56 percent vs. 74 percent, respectively)
- Ease of progressing through the module (31 percent vs. 61 percent)
- Ease of using the on-screen elements (31 percent vs. 89 percent)
- Ease of completing the module (50 percent vs. 76 percent)

While it was expected that first-time borrowers would struggle to comprehend the technical student loan information and utilize the calculator elements, the extent of the gap in general navigation of the module was not anticipated. It may have been that new students simply felt more comfortable expressing difficulty compared to graduating students — as new student borrowers, they may have felt it more acceptable to experience issues — but other explanations could come into play. For instance, the extra attention and energy that first-time borrowers must expend simply to comprehend the content might make them less attentive to navigation, where exiting borrowers might find the information easier to understand and/or less crucial and focus more on proceeding through the module. The ability to navigate online learning and information systems might also develop during the college years as students utilize campus systems, course management software (like Blackboard), tax software, and other purposedriven online modules. Whatever the specific cause, it seems clear that the content, elements, and design of the online

counseling modules (which, recall, are largely similar), are far better suited to exiting than first-time borrowers, though they are not particularly effective for exiting borrowers either (see *From Passive to Proactive*, a previous report in this series).

On the other hand, given users' propensity to skip over information on repayment and default and to comment on its irrelevance, it is not clear exactly why they tended to agree that "the text/information was relevant and important." One possible explanation is that users were thinking more about the text they actually read and not what they skipped, or that they were considering importance and relevance in a general sense that did not account for present circumstances, i.e., "while information about student loan default is not relevant to me at this time, it is both important and generally relevant to student loans." A number of factors may have biased the results in a positive direction. 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.xxiii 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.xxiv

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 question 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. In any event, the discrepancy illustrates the dangers of over-reliance on survey data and the importance of deeper qualitative analysis through observation and conversation.

RESEARCH LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

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 the "what", "how, and "why" of behavioral patterns, but it did so by sacrificing definitive insight into how often those patterns occur, whether they correlate with student traits (demographics and so on, though a few hypotheses in this vein were advanced in the section on the discovery interview), 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 36 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 entrance counseling module. Unfortunately, while national surveys can provide demographic information for student loan borrowers, demographic data on users of the entrance counseling module are not readily available, so a true comparison cannot be made.

Instead, the most glaring discrepancy between the sample and the population that should be completing entrance counseling is the possibility that a substantial number of first-time borrowers are completing entrance counseling weeks or even months before they arrive on campus. Completing counseling earlier has the potential to significantly reduce the levels of stress, inattention, and cognitive overload that the average user might experience. On the other hand, without research that records the actions of unwitting users as they complete the module, there is no simple way of knowing whether borrowers who complete

the counseling requirement ahead of time leverage these advantages into a more effective learning experience. They would likely experience many of the same issues with navigation and irrelevant material, though perhaps with less severe consequences. Furthermore, staff members at many of the financial aid offices in the study conveyed that they often heard from their borrowers that their parents had completed the module for them or that they had rushed through it as fast as possible to clear the hurdle. An experiment in which a financial aid office informed a random group of incoming students about the entrance counseling requirement prior to arriving on campus and informed others after their arrival, then compared their knowledge and financial outcomes at some point in the future, could shed light on the subject, although the ethical implications may be problematic.

Other possible limitations concern the impact of the researchers' presence on participant behavior during the test. Although the two-on-one research design eliminated the bias (often present in focus groups) introduced by social dynamics between participants, even the strictest adherence to research protocols cannot eliminate the existence of a social dynamic between participant and researcher. 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 30 percent of participants who said otherwise all felt that they would have been prone to moving through the counseling more quickly, with more skimming and skipping and no effort to find answers to their own questions in place of asking questions of the researchers. 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 unobserved users.

Two glaring holes currently exist in research in effective student loan counseling. One could be filled through advanced user testing incorporating an automated tracking system, which records such minute data points as exactly

completing counseling earlier has the potential to significantly reduce the levels of stress, inattention, and cognitive overload that the average user might experience.

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.

where on the screen users look on screen and for how long and enable observation without the knowledge of the subject — again, an ethical gray area. The other would require a properly randomized or quasi-experimental study comparing student loan knowledge, knowledge retention, and/or even longer-term outcomes in borrowing, academics, repayment, and financial health 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, such that special waivers would likely be required; however, such a study could be designed without this need.

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 is actual treatment/counseling for first-time borrowers and intent to treat/counsel for exiting borrowers) 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 would be more likely to produce a measurable positive impact, but it would 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 measurable 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. 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 significant assistance and experimental waivers in these sorts of efforts, which entail substantial possibilities for replicability and economies of scale.

While longitudinal studies of new loan counseling techniques would add great value to the specific topic at hand, this research also suggests that further work may be needed in the burgeoning interdisciplinary subfield examining how people read, learn, and otherwise interact with information via the Internet and various digital devices. Some research on this subject has already found that, true to McLuhan's dictum, readers interact with digital text in a distinctive way better understood as "power browsing" than as reading in the traditional sense.xxvi Findings of this study certainly point to the ineffectiveness of large amounts of text for digitally conveying new information to an online learner. The possibility that static, "printed" text (and perhaps even static non-textual materials like graphs and illustrations) may not be the optimal or even a preferred means of digital communication demands further scientific exploration if the Internet is to fulfill its great potential as a source of knowledge and education.

RECOMMENDATIONS

Analysis of the data produced a number of general findings regarding negative patterns in the user experience with entrance 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 complexity of the information, it makes sense to simplify it and provide more

helpful, concrete illustrations of abstract concepts. 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 and interventions have not been tested against the current module or control groups — but the 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' entrance counseling practices. ¹⁰ By the same token, many of these recommendations — particularly those that involve providing students with more or better information and data — could be implemented more effectively and far more efficiently as improvements to the design of the tool itself.

Many of the practitioner recommendations that follow suggest ways in which institutional actors, primarily financial aid offices, might compensate for specific shortcomings of the entrance counseling module to create a more effective entrance counseling experience. Each of these recommendations responds directly to a specific issue whose nature itself strongly suggested the means of mitigation.

On the other hand, the research also pointed to more deep-seated issues in the effort to promote responsible student borrowing and financial management, including the possibility that the circumstances surrounding entrance counseling (timing, setting, students) create inherent limitations on the efficacy of entrance counseling in any form. Recommendations aimed at these limitations generally involve an added measure of creative thought, as they respond to larger, more systemic issues (e.g., how students manage their finances) for which a far broader range of possible solutions are conceivable. Recommendations of the latter type should be seen as an effort to advance and not to foreclose research and discussion of these broader policy issues.

These recommendations are not designed to fit together into a comprehensive plan for reform; rather, many represent alternative ways to address the same issue and should not be implemented in tandem. Furthermore, relatively little attention is paid to technical feasibility, cost,

or whether likely benefits would exceed costs. We cannot say whether these recommendations would result in a net benefit to students or schools; however, our research suggests that, given entrance counseling's shortcomings, the benefits of the proposals advanced here are likely larger than conventionally understood, as the need for helpful counseling is greater than previously thought. Practitioners should view the recommendations as a compendium of discrete ideas, each of which could be adapted, combined, modified, or discarded as appropriate for institutional circumstances.

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.

In April 2015, ED released a Dear Colleague Letter¹¹ to "remind institutions of ways that they can help students and their families make informed decisions about taking out student loans." On the whole, the letter outlines several ways in which institutions can create and offer counseling programs and services in addition to the online entrance counseling module. It also makes it clear that institutions may only encourage participation in supplemental counseling programs: requirements (or implications of requirements) are strictly prohibited. While many borrowers would likely benefit from additional counseling services, reliance on voluntary participation means that many who stand to benefit the most will be least likely to receive the service: people who are involved, concerned, and proactive enough to seek out additional assistance on their own tend to experience positive outcomes with or without actually receiving the assistance. If statutes continue to prohibit colleges from requiring additional counseling, institutions will need to engage in concerted awareness and outreach programs to achieve participation from borrowers who are more likely to experience future difficulties with their loans.

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

Practitioners
should view the
recommendations
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discrete ideas, each
of which could be
adapted, combined,
modified, or discarded
as appropriate
for institutional
circumstances.

Some of these recommendations involve the handling of Title IV loan funds, which is substantially governed by federal statutes and rules. Any institution considering changes to the way it handles federal student loan dollars should consult with its general counsel or other qualified legal advisor before implementing any such changes. Institutions should pay particular attention to 34 CFR 668.165(b), which pertains to the handling of federal student aid (FSA) funds and obtaining proper authorization to hold an FSA credit balance.

www.ifap.ed.gov/dpcletters/attachments/GEN1506.pdf

A primary cause of participants' struggle to use the budget tools and determine their optimal borrowing amount was their ignorance regarding their future expenses.

- 1. Provide a general introduction to the counseling. Ideally, entrance 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 student borrowers, perhaps in the form of an email or webpage that borrowers visit prior to beginning the counseling module. 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 videos on budgeting and responsible borrowing These videos provide clear, concise, and engaging introductions to key topics in personal finance, financial aid, and borrowing, but they are linked to the middle of the counseling module through links that borrowers hardly ever click. Ideally, these videos would be embedded in the beginning of the counseling or at the beginning of pages covering their respective topics; still, embedding them in digital communications or including the links along with brief descriptions of the videos and their length could encourage borrowers to view them. The videos could also be incorporated into a counseling app designed to supplement the module (see recommendation #5).
 - 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 far 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 all new students with a sample budget that includes their personalized financial aid information and is accurate to the local cost of modest living. A primary cause of participants' struggle to use the budget tools and determine their optimal borrowing amount was their ignorance regarding their future expenses. While sample budget information should not be used to compute an exact borrowing amount, it could assist borrowers in developing more accurate understandings of their financial situations and borrowing needs while providing benchmarks for a healthy budget. This information, along with links to loan counseling resources, could accompany award notifications so that borrowers could incorporate it into their enrollment decisions and begin to create a financial plan for attendance earlier.
- 3. Provide the median debt for graduating borrowers at their institution and explain how to use the Add Your Loans section. Several tools in the module rely on students having some idea of how much they will borrow over the course of their entire degree program. Understandably, borrowers generally do not have this information on hand and are hesitant to rely on the national averages provided within the module. Even with this information, borrowers would likely struggle to input it in the Add Your Loans tool, which is structured to take the information on a loan-by-loan basis. Instead, the school should provide median indebtedness figures, broken out by subsidized balance and unsubsidized balance, for both Pell grant recipients and non-recipients, as recipients are more likely to qualify for subsidized loans. The school should also instruct borrowers to input these balances as two loans, one subsidized and the other unsubsidized, in order to better use the tools that estimate the costs of deferment versus forbearance. This information and the accompanying instructions could accompany award notifications, any communications currently used to remind borrowers about entrance counseling, or the introduction to the module discussed in recommendation #1.

Dealing with the module's expectation that users have some concept of their income after graduation is somewhat more difficult. Users would likely benefit most from knowing the median income of recent graduates of their program, ideally accompanied by data showing how the average income increases

(presumably) over the years following graduation, but this information depends on state and institutional data capacities that may not be in place. Also, student borrowers have often not yet determined a major at the time they go through entrance counseling. Institutions could utilize internal, state, and even federal data resources to give their first-time borrowers an estimate of their future earnings that is as accurate as possible.

If income data is to be incorporated in loan counseling, it should be properly contextualized with information regarding variability and earnings trends in the years following graduation; however, this would introduce additional complexity to a process that is already overwhelming for many borrowers.

The suggestions discussed above assume that the entrance counseling will remain largely the same, without topics being deleted or transferred to an intermediate counseling module. Based on participant feedback to the module's efforts to introduce concepts related to cumulative debt, income, and repayment, it would likely be more productive to simply excise them from entrance counseling and pursue them in later counseling.

4. Provide simple, "walk-through" explanations of the interactive calculator and budget tools and make them independently accessible. Assuming the calculator modules remain in their present form, users, particularly first-time borrowers, need supplementary explanations. They should explain where the various figures derive, how they interrelate, and how to interpret the outputs. They should also describe the navigation of the tools in a straightforward, step-by-step format. Perhaps most importantly, they should outline the key lessons that the calculators are intended to convey but rarely state explicitly. See recommendation #5 for ideas regarding the communication of these explanations. Users also regularly expressed that they would like to use the tools, especially the in-school budgeting tool, at a future time when they would have the information necessary to better utilize them. All tools and calculators should be made accessible independent of the module to facilitate future use. They should also be available in both demo format and after a student signs in to studentloans.gov so that they can automatically incorporate individual borrower information.

5. Create a "mixed counseling" booklet or app that gives summary information in place of the details offered in the counseling module, without omitting legal requirements. Many participants correctly concluded that much of the information, especially extensive details related to loan repayment, do not apply to their current circumstances and begin to skip and skim as a result. This behavior risks users accidentally skipping over information that might actually prove useful. Users may fail to retain even the most basic version of a key concept, like the existence of income-driven repayment plans, as a result of their aversion to the extensive details offered about such plans. Irrelevant, skippable information also contributes to users coming away from the counseling thinking that it was largely a hurdle to be cleared rather than a tool to be used productively, diminishing the odds that they will utilize it in the future.

While it would require a major redesign to structure the counseling in such a way that it builds towards an informed, individualized plan of future actions, simply assisting users in identifying and summarizing certain unnecessary details could preserve their sense of the value and relevance of the counseling while promoting learning of the key principles. Users could follow along with a supplemental document or app to inform them that, for now, they should feel free to skip over details regarding, for instance, the consequences of student loan default, so long as they know that it can do grave damage to their finances and careers. Such a product would presumably be relevant to first-time borrowers at most campuses and could be productively shared between institutions. Input from legal counsel, who could assess compliance with the counseling requirements of the Higher Education Act of 1965 (as amended), would also be necessary. Obviously, simplification of the source material itself would be preferable; this is discussed in the section on design recommendations.

6. Turn counseling into a "flipped classroom" that combines independent reading of the module with dialogue and assistance from a knowledgeable instructor/counselor. Innovations in the use of learning technology to create "flipped classrooms" could provide valuable models for entrance counseling. While current rules require that schools make a knowledgeable

As with many of the practitioner recommendations, leveraging additional data resources would be more efficient, more effective, and more easily accomplished if incorporated into the counseling tool for all students; these recommendations suggest ways practitioners might improve the counseling experience in the absence of such enhancements.

individual accessible to borrowers taking counseling, most seemed either unaware of this resource or unwilling to utilize it. On the other hand, many participants seemed to desperately want and benefit from dialogue with knowledgeable individuals already close at hand: in this case, the researchers. This suggests that more closer, more direct involvement is necessary. While many first-time borrowers currently complete counseling in computer labs staffed by financial aid personnel (often, work-study employees), staff in these environments did not guide borrowers as a group towards an effective learning process but rather helped them clear snags in order to push them towards faster completion. Moving borrowers through the counseling in structured group sessions could allow counselors to provide many borrowers with a more effective experience, as they would be able to walk users through difficult areas, rephrase complicated concepts in simpler terms, and answer questions as they arise, without sacrificing the efficiency gains of the online module. A work-study employee could participate in the session to pose important or common questions and encourage others to be comfortable expressing their confusion.

If placing a financial aid staffer or highly trained student employee with each group of students completing entrance counseling would be infeasible or too costly, institutions should consider methods to target this extra assistance to higher-risk students. For instance, schools could offer staff-assisted entrance counseling to first-generation students or Pell grant recipients during an orientation or summer bridge program. Schools could also explore ways to let these students complete counseling, finalize their disbursements, and pay off their account balances after the term has begun (for instance, after a two-week "shopping" period) in order to provide them with more time to establish themselves, get a handle on their personal finances, and receive more robust loan counseling.

7. Explore strategies to facilitate borrowers making interest payment on their unsubsidized balances while enrolled and in grace. Given the frequency with which they express confusion and frustration with the calculator tools (as well as a general sense of being overwhelmed), it would not be surprising if borrowers often fail to comprehend the benefits of paying down

interest while enrolled. Furthermore, even if they comprehend the principle, the added complications and stress of being in touch with their loan servicers and making payments on their loans despite their uncertain financial future may discourage many from attempting to make interest payments. This misses key opportunities to help borrowers control their balances, familiarize them with the repayment process, and habituate them to making regular payments.

Institutions could promote in-school interest payments in a variety of ways, including public awareness, facilitating contact between enrolled borrowers and their servicers, an incentive program of some kind, monthly text message or email reminders, or other innovative concepts. Each of these approaches has its benefits and drawbacks that should be assessed in the context of institutional circumstances. Institutions should also assess the extent to which their student borrowers would likely benefit from any effort to promote interest payments. Ideal candidates would be borrowers of unsubsidized Direct loans and private loans whose interest accumulates while they are enrolled; however, borrowers with high unmet need may find it difficult if not impossible to make interest payments even with institutional support or encouragement. On the other hand, some form of support or encouragement may be necessary to convince borrowers to even attempt to find enough room in their budgets to make interest payments. Borrowers who succeed in making interest payments as a result of institutional support can be encouraged to see their success as a demonstration that they can borrow less in the future.

- 8. Establish and promote a standardized system of numerous disbursements along with regular opportunities to return funds. ¹³ Even if the counseling were ideally calibrated to the needs and circumstances of first-time borrowers, it is unlikely that users would be able to determine their actual borrowing needs; they simply do not have enough information regarding their income and expenses for the coming term. Furthermore, the risks of underborrowing and running out of money (primarily academic risks, though some may turn to private loans in this eventuality) far outweigh the financial costs of marginal overborrowing in the short-term. ¹⁴ As such, student borrowers have a strong
- A more labor-intensive disbursement schedule could introduce substantial new burdens on financial aid offices, which are already often overburdened and would likely require additional resources to take on additional responsibilities (see policy recommendation #4). In recommending that institutions implement a more burdensome system, we assume that such system would be (or could easily be made) feasible and legal and that resources are (or can be made) adequate.

incentive to borrow more than they think they will actually need, regardless of the accuracy of their budget.

Institutions should accept not only that borrowers (especially first-time borrowers) will overborrow but also that, given the alternatives, they probably should, at least by some relatively small margin of error. Institutions can make the best of this reality by establishing a borrowing system that incorporates as many disbursements as practicable, with each accompanied by opportunities to change one's borrowing amount and return previously disbursed funds without penalty (which should be possible with 120 days of disbursement). Treating student loans (or, indeed, all financial aid) more like a paycheck – that is, disbursed on a regular, short-term basis – would provide students with more accurate heuristic signals regarding their financial circumstances, especially as compared to large, lump sum disbursements that create a harmful perception of sudden abundance.15 It would also give borrowers confidence to lower their borrowing closer to their actual budgeted need, as they could more easily and quickly access additional funds in case of unexpected expenses. See recommendation #7 for other suggestions regarding institutional promotion of financial responsibility.

9. Explore ways to divide the counseling topics and financial skills education into multiple sessions that can be delivered later. First-time borrowers frequently find themselves overwhelmed by the sheer bulk of the information covered in the entrance counseling module. This is understandable, as the module contains a great deal of information on many topics, several of which are not relevant to borrowers' current circumstances. While current law requires these topics to be covered in entrance counseling and makes it difficult for institutions to mandate interim loan counseling sessions, institutions could explore ways (including some discussed here) to de-emphasize less relevant topics during the entrance counseling module and teach them in later counseling sessions in order to spread out the burden, reinforce

- key concepts, and provide important opportunities for students to re-evaluate their circumstances and needs. Student borrowers may benefit from a model that treats loan counseling like a regular medical check-up: a chance to evaluate progress and issues, learn relevant, useful information, and form a plan of action that can be reassessed at the next visit.
- 10. Explore incentives for positive financial practices and responsible borrowing. These could include prizes, an earnings subsidy for students who limit work hours, a matching fund for reduced borrowing, or other innovative designs. While participants generally understood that they should limit their borrowing, their expenses, and their work hours, it was not clear how important they thought these behaviors were, especially since the calculators designed to illustrate them were ineffective. Furthermore, it may be that the long-term incentives for positive behaviors, some of which are framed in terms of savings over a ten-year repayment period, are not persuasive or economically meaningful in the very short-term budgetary framework under which most student borrowers are operating. Colleges could explore various short-term incentive schemes to encourage positive financial behaviors and/or further counseling/financial education. These incentive or reward programs, accompanied by promotional campaigns, could serve as symbolic reminders of positive financial behaviors, vehicles for fostering financial responsibility in the campus culture, marketing tools for recruitment purposes, and functional incentives that will improve the behavior of students operating within a rational budgetary framework. Properly structured, the resulting improvements in financial practices and/or academic success from these programs would also defray their costs, perhaps substantially.
- 11.Employ knowledge evaluations in targeting outreach for future counseling services. While institutions are strictly prohibited from requiring borrowers to undergo supplemental loan counseling in addition to entrance

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issues, learn relevant,
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at the next visit

¹⁴ The relative risks of underborrowing and overborrowing become more difficult to assess in the long-term, when considerations of loan eligibility and borrowers' aversion to mounting debt come into play.

For additional research and information on "aid like a paycheck" see: The Ware, Michelle, Evan Weissman, and Drew McDermott. "Aid Like a Paycheck: Incremental Aid to Promote Student Success." (2013). Retrieved from: http://test.mdrc.org/sites/default/files/ALAP%20brief.pdf

Lopez, J. I. (2013). Unmet Need and Unclaimed Aid: Increasing Access to Financial Aid for Community College Students. *New Directions for Community Colleges*, 2013 (164), 67-74.

Nelson, L. (2011). Pell as a Paycheck. *Inside Higher Ed.* Retrieved from: www.insidehighered.com/news/2011/07/28/pilot_program_looks_at_distributing_pell_grants_as_paycheck

and exit counseling, they are empowered to add knowledge evaluations to their entrance counseling programs, to encourage participation in additional counseling services, and to target that encouragement to certain categories of borrowers (provided such targeting is not based on certain demographic traits).¹⁶

Scores on a knowledge evaluation administered after completing the entrance counseling module could be used to flag low-scoring borrowers for closer monitoring and to target efforts to encourage, incentivize, or otherwise promote participation in supplemental loan and financial awareness counseling.

Design Recommendations

These recommendations are intended for use by the Department of Education or any party engaged in either a redesign of the current online entrance counseling module or the development of a new one, though many of them may have broader applications. They attempt to address the findings 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 the inclusion of a general introduction that outlines learning/ action objectives and the adoption of a structure that leads users from learning basic concepts to applying those concepts to future actions. Either could be implemented on its own to address users' difficulty in contextualizing the information and using it effectively, but they would accomplish this far better in tandem. Inversely, there are recommendations designed to address a given issue that are not complementary but mutually exclusive, as they represent alternative solutions to the same problem.

Note on Design Revisions Already Underway

After completing a study of student loan exit counseling in summer 2014, Trellis reached out to ED to inform them of our findings and design recommendations, both of which were largely similar to those found in this report. Trellis and ED officials engaged in several productive conversations regarding potential improvements to the online loan counseling modules.

When we conducted our research on student loan entrance counseling in August and September, 2014, both the counseling modules and their homepage, studentloans.gov, were largely the same as they had been since the beginning of the exit counseling study. In the time between the conclusion of our research and the publication of this report in late spring 2015, ED substantially revised studentloans.gov. The site is now more aesthetically appealing, streamlined, and easier to navigate. In addition, many of these revisions aligned in large part with recommendations communicated

to ED and reproduced below. For instance, there are now multiple pages ("What To Expect" and "FAQs") that provide some introductory information regarding the counseling modules. The YouTube videos now appear fairly prominently on the front page of the site, which should result in more views despite users' preference for embedded videos. Users also now have easy access to a helpful glossary, although it cannot be accessed while progressing through the counseling module. These initial changes should benefit the overall counseling experience and signal a welcome direction for future improvements along the lines discussed in our recommendations.

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

1. Smart Filtering/Skip Logic - based on either information automatically gathered from various sources or information entered by the borrower, entrance 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 is eligible for and considering borrowing. Other helpful information could be gathered as well, such as whether the student has a job, a definite choice of major, or a car. Such factors can influence student borrowers' current and future financial circumstances in ways that alter the choices they need to make and the sort of advice they should receive. For instance, the in-school and repayment budgeting tools could make it easier to find sample incomes based on data or explore different income scenarios, if they could incorporate users' uncertainty regarding employment. Job hunting tips and resources (possibly even locationspecific resources) could be provided for unemployed students, while employed students could receive advice on talking with supervisors about balancing academic demands or leveraging their education into

In the time between the conclusion of our research and the publication of this report in late spring 2015, ED substantially revised studentloans.gov. job advancement in the near term. There are many promising opportunities for collecting and utilizing borrower information to create a more tailored and effective counseling experience.

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 entrance 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 introduction to paying for college video This video provides a clear, concise, and engaging introduction to financial aid and college finance, but it is attached to the middle of the counseling module through a link that borrowers hardly ever click.
 - 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.
- 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 reducing borrowing. 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, instead of an already-opened box (with an amount of text that might be intimidating) with the heading "Managing Disbursements" (the importance of which users might not understand), a clickable, expandable heading could read "How do I get money when I need it?"

- 4. 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 in the budgeting tools, preventing them from proceeding to additional pages. 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.
- 5. Simplified Calculators borrowers often 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.
- 6. 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.

Based on either information automatically gathered from various sources or information entered by the borrower, entrance counseling should remove or minimize information that is not relevant to the individual borrower.

As users progress through the counseling, they should be reminded of what they have already learned, what they are about to learn, and how that will help them.

- 7. Narrative Sequencing as users progress through the counseling, they should be reminded of what they have already learned, what they are about to learn, and how that will help them. For instance, "You just learned the basics of financial aid, including the existence of different loan options if you need more money for your education. Now we're going to take a look at your personal budget to estimate how much you'll need to borrow." 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.
- 8. 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.
- 9. Stronger Advising based on the personal information borrowers enter (or that is collected and auto-populates screen fields), entrance counseling should offer stronger recommendations regarding borrowing, scholarships, and other financial decisions. Many users fail to understand how the information provided in entrance counseling should be applied to their circumstances in order to guide their borrowing 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. For instance, the module should advise users who input zeroes into both the income and scholarships boxes in the personal budgeting tool to seek part-time employment and seek free money through scholarships. It should also provide links to resources that will help them accomplish those goals. Borrowers want the knowledge and skills to apply information to their own circumstances and achieve better outcomes for themselves. At the end of the counseling module, the user should have a list of recommendations in essence, a to-do list — that applies to his or her circumstances. This list should be automatically emailed to an already verified account, and the email should contain links to supplemental information that will help the user accomplish the listed goals.

- 10. 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 future income and personal budgets during repayment can still get some sense of the financial burden of repayment.
- 11. Expanded and Early Information Collection collect borrower information to use in filtering and calculator/ tool functions at the beginning of entrance 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.
- 12. 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 #6 (Shorter Pages).
- 13. Occasional Breaks the module should include at least one break, especially if it remains at or near its current length, without the ability to save and return, and 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.
- 14. 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 the counseling in one sitting. This would also give them an opportunity to

retrieve financial information needed to get the full benefit of entrance counseling.

- 15. Reduce Overall Length through Formatting and Editing the entrance 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 #6).
 - 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 borrowers, 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.
- 16. Risk Factor Targeting entrance 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,

- borrowers 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.
- 17. Remove Non-Required Information and Tools, Especially the Repayment Budget and Income-Driven Repayment Eligibility Calculators – A great deal of the material included in the entrance counseling module is required under current law (and changing current law is included in our policy recommendations); however, these statutes do not require the presence of every element in the module. Among the non-required elements are interactive calculators that incorporate first-time borrowers' post-graduation incomes and student loan balances to estimate their loan burdens and eligibility for income-drive repayment plans. As these calculators regularly confuse and frustrate users, require their time and energy, and perform their calculations with speculative information that cannot be used as a firm basis for financial planning, we recommend they be removed, along with any other irrelevant or unhelpful information or tools that can be legally omitted.17
- 18. Knowledge Evaluation entrance counseling should conclude with a brief but meaningful evaluation of users' knowledge of the subject matter. Student borrowers would not have to pass this evaluation in order to receive their loans; however, their scores could be useful both for themselves and for their institutions, which could use them to help target scarce counseling resources.

Entrance counseling should conclude with a brief but meaningful evaluation of users' knowledge of the subject matter.

The one fundamental recommendation, 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.

Policy Recommendations

This set of recommendations addresses obstacles to effective entrance counseling that may require new legislation and/or changes in ED regulations. Many would require amendments to the Higher Education Act of 1965 (HEA); 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.

As with the practitioner recommendations, these ideas target two distinct but interrelated problems:

- 1. Entrance counseling itself, and
- 2. The broader student loan borrowing process, given entrance counseling's limited ability to prepare student borrowers for that process.

Also, as with the practitioner recommendations, some of the proposals would involve additional costs and burdens to institutions, many of whom already struggle to support their borrowers. Some could also bring about cost savings and improvements in student success and satisfaction; however, policymakers should be aware that the effort to inform, counsel, and assist the millions of students who engage with our complex federal student loan system each year is a massive undertaking that requires an investment proportionate to its magnitude.

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

1. Clarify Counseling Regulations and Allow Greater Professional Judgment. 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. Currently, schools are prohibited from requiring any loan counseling between entrance and exit counseling, although they are permitted to add information and requirements to their entrance counseling policy (provided such additions do not constitute an "unreasonable impediment" to the disbursement of funds). Our research suggests that the timing of entrance counseling harms borrowers' ability to internalize the vast amount of information involved in meeting minimum entrance counseling requirements; this should not be the only opportunity for schools to implement requirements that better prepare borrowers to minimize and manage their borrowing.

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 financial literacy for their student bodies. ¹⁸ 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 permitted (if not encouraged) to target and require 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 loans could be required to attend face-to-face loan counseling. While schools are currently empowered to encourage additional or supplemental counseling, they are strictly prohibited from requiring it (that is, making the disbursement of aid funds contingent on it), and anecdotal evidence suggests that many financial aid professionals refrain from introducing a more robust intermediate counseling model for fear of jeopardizing their Title IV funds through a compliance breach. Barring an individual professional judgment determination under HEA Sec. 479A(c), students may borrow the entire amount to which federal methodology and applicable loan limits entitle them. Given the inability of professional judgment actions to effectively limit excessive borrowing for large numbers of students, financial aid officers should be able to ensure that those who borrow an amount in excess of their recommendations are fully informed and capable of managing their debt. For instance, schools might require that student borrowers who wish to borrow in excess of their determination of need go through additional loan counseling and/or demonstrate sufficient knowledge, perhaps through passing a standardized test on student loan borrowing and repayment.

Post-Script on DCL GEN-15-06: "Loan Counseling Requirements and Flexibilities"

In our February 2015 report on exit counseling (From Passive to Proactive) and in prior conversations with ED, Trellis had recommended that ED clarify its regulations regarding loan counseling. As this report was being finalized, ED dispelled a great deal of the uncertainty surrounding these regulations through a Dear Colleague Letter (DCL). 19 This letter sought to "remind institutions of ways that they can help students and their families make informed decisions about taking out student loans." We support ED's effort to provide regulatory clarity and promote loan counseling activities; however, these clarifications underscore the extent to which current statutes run contrary to the pursuit of more effective counseling as we have come to understand it. The letter makes it clear that, under current law, the only way for an institution to require loan counseling beyond the federal minimum for non-exiting borrowers is by adding it to their entrance counseling requirements. Unless an institution is able to accomplish this by spacing out presentations, workshops, evaluations, or other requirements over the course of a sufficient period of time, we believe that the addition of requirements to the entrance counseling process will be largely ineffective and overwhelming to borrowers. Yet, time is short, as the additional requirements may not "unreasonably impede" borrowers' ability "to receive loan funds in a timely manner." The new guidance also forbids institutions from requiring loan counseling as a condition for appeals of a failure to meet satisfactory academic progress (SAP) requirements. This removes an important tool for institutions seeking to assist at-risk borrowers; academic difficulties are among the strongest predictors of future student loan delinquency and default. Statutory change would be needed to allow schools to include

loan counseling in SAP appeals policies. Barring such changes, schools may still encourage supplemental loan counseling through outreach and awareness activities that could target students in the SAP appeals process, but participation would be strictly voluntary.

We applaud ED's reminder that institutions may require first-time borrowers to undergo a reasonable evaluation of their knowledge as part of entrance counseling requirements. We also applaud the reminder that institutions can target additional counseling resources at borrowers flagged for risk indicators, including SAP ineligibility. However, we recommend that institutions be empowered to compel — not merely encourage — completion of additional counseling requirements for borrowers who exhibit behaviors shown to increase the risk of overborrowing and/or default. For instance, borrowers who fail to achieve a passing score on an entrance counseling evaluation might be required to attend a workshop on student loans and financial management prior to receiving a disbursement for the following academic term. Requirements of this sort could easily be structured in such a way that they would not, in our opinion, "unreasonably impede" access to loan funds, especially given the magnitude of the risks involved in uninformed, irresponsible student loan borrowing.

On the whole, the letter reminds institutions that they have substantial flexibility to create and offer counseling programs and services in addition to entrance counseling, but that institutions may only encourage participation; requirements (or implications of requirements) are strictly prohibited. While many borrowers would likely benefit from additional counseling services, reliance on voluntary participation means that many who stand to benefit the most will be least likely to receive the service: people who are informed, concerned, and proactive enough to seek out additional assistance on their own tend to experience positive outcomes with or without actually receiving the assistance. If statutes continue to prohibit additional required counseling, institutions will need to engage in concerted awareness and outreach programs to achieve middling levels of participation from borrowers who are more likely to experience future difficulties with their loans.

We recommend that institutions be empowered to compel — not merely encourage — completion of additional counseling requirements for borrowers who exhibit behaviors shown to increase the risk of overborrowing and/or default.

- 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 and/or regulatory incentives for experimenting with more robust forms of loan counseling, face-to-face interactions with students, supplemental or annual counseling, or other innovative strategies for information delivery and knowledge retention. Provisions reducing administrative and regulatory burdens for schools with exceptionally low CDRs may serve as a model for incentivizing promising new practices in loan counseling.²⁰
- 3. Establish Better Systems to Facilitate Return of Title IV Funds. Student-borrowers, particularly first-time borrowers, are in an exceptionally poor position to assess their personal budgets and borrow exactly "what they need," Furthermore, given the uncertainty of the future, even the most informed among them probably should not try to hew too closely to their anticipated needs for fear of running out of resources in the event of unexpected expenses. As such, we recommend that institutions take steps to promote their borrowers returning excess funds when they know they are no longer needed, as at the end of the term (see Practitioner Recommendations). However, the complex policies and procedures for the return of Title IV funds impose a substantial burden on institutions. Both in the past and presently, NASFAA has worked to rigorously study this issue and develop recommendations for improving the process. While much of this work focuses on returning funds for students who withdraw, it also has implications for the return of unused funds for enrolled students. We recommend that ED (and Congress, where necessary) work with NASFAA to implement reforms to the process for returning Title IV funds, allowing institutions to promote the return of unused loan funds without imposing an undue burden on themselves.
- 4. Increase 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 resource constraints; a NASFAA survey showed that it is often the first service to be cut in response to budget reductions. Providing additional resources for counseling services may lead to more effective counseling, which is one method policymakers have used to address student loan default. These resources could include earmarked funds, well-designed student-facing online tools, and practitioner tools that allow financial aid offices to more easily access real-time reports on both individual borrowers and entire cohorts. The lower default rates resulting from additional counseling resources may even defray a portion of their cost.
 - Policymakers could also promote expanded counseling services by offering funding and/or regulatory incentives for institutions to incorporate third-party support in their loan counseling repertoire. 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. Policymakers could further encourage this by facilitating the formation of consortia based on achieving economies of scale for third-party borrower outreach and counseling services.
- 5. Increase Resources for High School Counseling.
 In innumerable ways, the factors that influence postsecondary success are determined long before students step onto campus. Counselors at high schools with high student-to-counselor ratios often face a very different set of challenges, issues, and concerns compared to their less burdened peers. xxvii In the hierarchy of needs that describes a counselor's priorities, acceptance into a quality "good fit" program or optimal use of financial aid fall near the top. The counselors responsible for the needs of the most students are often those who must also set their sights lower on the hierarchy: at any postsecondary enrollment, at high school graduation, or at behavioral issues. The students

We recommend that ED work with NASFAA to implement reforms to the process for returning Title IV funds, allowing institutions to promote the return of unused loan funds without imposing an undue burden on themselves.

at these high schools are in greatest need of institutional support to prepare them for the college world and the financial maze they will have to navigate to flourish in it, yet their counselors are also the most overmatched by the sheer magnitude of their students' need.

Empowering high school counselors to promote postsecondary success for the students most in need of such assistance will require significant new investments to bring qualified staff into the field. While some programs, notably College Advising Corps, have duplicated the AmeriCorps model and begun to close the counseling shortfall with recent college graduates, even they require resources to operate and expand. High school counselors could also benefit from professional training that better equips them to prepare students for postsecondary success. The development of technological tools, including interactive counseling materials and tracking/flagging systems, could also help counselors better manage their caseloads and focus more on postsecondary preparation. Whether through an external program or direct application of funds/ tools, a sustained infusion of substantial resources into high school counseling will be necessary to remove the knowledge gap in preparation for higher education.

- 6. 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 length, complexity, and learning in entrance 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.
- 7. More Learning with Less Information. Borrowers often express that there is too much information required in entrance counseling. These counseling sessions can take upwards of one hour for some borrowers, affecting

the comprehension and retention of key information. Entrance counseling should ensure that borrowers receive important information that can assist in financing their education; 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 modifying the 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.
- Streamlining the requirements according to what is deemed the most important information or most relevant to entrance and exit counseling.

In either case, the modules, updated per the applicable policy changes, should undergo extensive user testing to assess effectiveness and usability.

8. Require and Invest in Intermediate/Additional Counseling in Some Form. Entrance counseling should help borrowers ensure that they are following financial aid best practices, establish their personal budgets, determine their borrowing needs, and take steps to maintain or improve their financial circumstances while enrolled. The current timing of entrance counseling is not conducive to meeting these goals. For many students, entrance counseling occurs immediately before or after students arrive on campus to begin their first term, which is often a time of stress, transition, and distraction. Student borrowers must acquire funds immediately in order to pay for books, housing, and tuition and begin their classes. They have little idea what the rest of the term will cost or how much they will be able to work and earn; little time to seek other sources of financial aid; and little capacity or inclination to memorize information not immediately necessary or useful.

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. Additional loan counseling could help address the effect that the current timing of loan counseling has on borrowing habits and information retention and promote improved financial practices in later terms.

Offer Grant Funding for Studies of Online Pedagogy.
 As more of our research, learning, and interaction with

institutions (including governments) migrate to digital platforms, it is crucial that designers have access to rigorous studies identifying the principles that describe effective online teaching materials. Basic research on this topic will improve the design of current and future online government resources and promote the development of new, effective online services in the private sector. Robust examples of public-private research partnerships, often centered around a university hub, already exist and can provide a helpful model for this work.

Ensuring that every federal student loan borrower receives effective counseling will require changes to the design of both policies

and learning materials.

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 in the design and delivery of entrance counseling. Ensuring that every federal student loan borrower receives effective counseling will require changes to the design of both policies and learning materials. Though already quite high, the stakes on loan counseling's ability to encourage responsible borrowing and repayment decisions will only escalate as more low-income, first-generation, and nontraditional students enroll in our increasingly expensive postsecondary system.

Even moving past entrance 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 budget responsibly, borrowing neither too much nor too little, 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.

Appendix

I. Characteristics of the Sample

Researchers intended to construct an intentionally diverse sample using a recruitment survey distributed by financial aid offices to incoming and returning students who were likely first-time borrowers. Unfortunately, only some institutions were able to comply with this aspect of the research design. At the other institutions, researchers invited students to participate who came into the financial aid office still needing to complete their entrance counseling. As a result, the total sample represents a composite of a partially constructed sample, where key traits were known and incorporated into selection as much as possible (scheduling and availability were still primary factors), and a sample of convenience, where most key traits were unknown. Thirteen of the 36 full tests were conducted with pre-selected participants with known traits. According to their responses on the recruitment survey, characteristics of this group included:

- Five had already completed one or more terms of postsecondary education, and eight were about to start their first term.
- Seven were already planning to borrow federal student loans, five were unsure, and one was not planning to borrow federal student loans.
- Twelve had earned a high school diploma, and one had earned a GED.
- Five were pursuing associate degrees or technical certifications, seven were pursuing bachelor's degrees, and one was pursuing a graduate degree.
- Four were majoring or planning to major in business/ legal professions, three in non-healthcare STEM fields, two in social sciences, two in healthcare professions, and one in humanities. One was undecided.
- Asked to rate their knowledge of consumer finance on a scale of one to five (one being least knowledgeable, five being most), two rated themselves a "1," three rated themselves a "2," six rated themselves a "3," and two rated themselves a "4," for an average rating of 2.6.

- Asked the same question as the above with regard to financial aid, one rated herself a "two," eight rated themselves a "three," and four rated themselves a "four," for an average rating of 3.2.
- 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."
- Of the five who had taken the SAT, two scored in the 1301 to 1500 point range (on the 2400 point scale), one scored in the 1501 to 1800 point range, and two did not recall their scores.
- Of the nine who took the ACT, three scored in the 17 to 21 point range, three scored in the 22 to 27 point range, one scored higher than 27, and two did not recall their scores.
- Eight were female and five were male.
- Nine were 22 years old or younger, two were between 26 and 29, and two were 40 years old or older.
- Asked what was the highest level of education their most educated parent/guardian had attained, one selected "Less than high school diploma", four selected "High school or GED," two selected "Bachelor's degree," five selected "Master's or terminal degree," and one did not know or preferred not to respond.
- Seven selected their race/ethnicity as "African-American or Black," three selected "Hispanic or Latino," and three selected "White, non-Hispanic."

Characteristics of the 23 walk-in participants who did not fill out the survey were somewhat harder to ascertain. As there was not sufficient time to request that they complete the recruitment survey (indeed, many were unable to complete the full session even without the survey), as much information as possible was gleaned from the discovery interview. The institutions that were categorically unable to recruit students ahead of time all offered primarily two-year programs, but some walk-ins were enrolled at four-year

institutions or were planning to transfer for a bachelor's degree. With the exception of gender, researchers did not presume to be able to ascertain participant characteristics from observation or implication, so these counts reflect only what participants stated explicitly; as such, some factors will not total to 23.

- Eighteen were in their first term at their institution, and five had completed terms before.
- Four were pursuing technical certifications, eleven were pursuing associate degrees (of whom five expressed a

II. Data Collection Methodology

After administering the initial survey (when there was sufficient time), 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.

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

- desire to transfer and earn their bachelor's), seven were currently in bachelor's degree programs, and one was pursuing a graduate degree.
- Three said explicitly that they were first-generation college students, and five said explicitly that they had some family experience with higher education.
- ▼ Fourteen were male and nine were female.
- Seventeen expressed having little to no prior personal or family borrowing experience.

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 almost all cases; in two cases, the participant did not remember his or her login credentials and had to visit the PIN website to recover the information. One was able to access his PIN and complete the full counseling, but the other was unable to successfully navigate the site and had her account temporarily locked. She was 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 entrance 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 open-ended 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 researchers 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

III. Method of Data Analysis

Altogether, the 36 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. Due to an unknown technical error, only 20 of the recordings

would be willing to click the links and watch the videos before they moved on to the next page. Admittedly, this was an oversight. Data on users' responses to the videos should have been collected at the end of the session to avoid any impact that watching the videos 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 (when time allowed) 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.

contained video footage; the remaining 16 were audioonly. 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 discovery and debriefing interviews, a distinct set of codes was developed for each.

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 entrance 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 analytically distinct 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. Researchers encoded both those eight and the remaining twelve for which footage was available, coding the original footage as opposed to the notes from which the codes were derived. After coding these sessions in their entirety, researchers compared the coded results to the original notes to ascertain whether the notes taken for the audio-only sessions would produce reliable results.

The validation test produced mixed results. For the interview portions, 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. However, the loss of video footage for the interview portions did little to damage their value. 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. Unfortunately, the other sessions lacked video footage from which to assess these actions, so the frequency with which users progressed through elements at different speeds was based entirely on the 20 sessions with video footage. Review of instances where these actions were mentioned in the original notes of the other 16 audio-only sessions confirmed the patterns and hypotheses seen in the video footage.

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 entrance 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 entrance 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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