SOCIAL SUSTAINABILITY
DOW DISTINGUISHED AWARD

DEEP DIVE INTO GENDER AND RACIAL INEQUALITY AND LONG TERM IMPACTS OF STUDENT LOAN DEBT

September 13, 2018

PROJECT TEAM

Catalina Kaiyoorawongs | MBA/MA Education, 2019
Huyen Phan | MSI, 2019
Jaselle Valdez | MA Education, 2018
Victor Poon | MBA, 2018
Lauren Elbaum | MSI, 2019

EXECUTIVE SUMMARY

Dow Distinguished Award supports a project whose objective is to research the student debt problem and build a solution co-designed by students to meet students' loan literacy needs and deepen their understanding of the long term impact of over-borrowing. This project is considered a social sustainability project as debt burden disproportionally affects those that most need education for social and economic mobility. The five Masters students that conducted this work include: Catalina Kaiyoorawongs (School of Education & Ross School of Business), Huyen Phan (School of Information), Jaselle Valdez (School of Education), Victor Poon (Ross School of Business), and Lauren Elbaum (School of Information).

Who Does Student Loan Debt Impact?

Our country has 8 million students in default, to the tune of $137 billion dollars[1]. One in eight students will default on their students loan (~11.5%) and Michigan's default rates are slightly higher than the national average, at 12.7%.[2]

This is clearly an issue of social sustainability in the current education landscape. The problem is persistent for many students, encompassing those who do not complete, those that graduate and work in lower paying careers (non-profit, sustainability, teaching, social work, etc) as well as those who complete but have taken on sizable debt.

Social inequality is evident in the demographics of debt burden. On average, women assume more debt than men for almost every degree level and type, from associate degrees to doctoral degrees and across institution types. Research shows that in 2015–16, women in college took on initial student loan balances that were ~14% greater than men's. Upon completion of a bachelor's degree, women's average accrued student debt was ~$2,700 greater than men's, and black women took on more student debt than members of any other group.[3]

How Funding was Used?

Dow funding had two primary functions. It provided a small incentive to the Detroit-based students that were interviewed. We queried students who were entering a broad variety of professions, in order to understand what factors they considered to determine their field of study as well as how they evaluated financing their education.

Funding was also utilized to design a simple application to help students fully understand the impact of their borrowing decisions, from long term financial burden to credit challenges, so they could better achieve their goals. The app additionally helps the college/university to educate the student in a manner that lowered the barriers to reducing debt burden. This then made it easier to recommended more frequently to students and administer less burdensome loan packages.

What's the Solution?

The solution, Dough, is an application utilized by college financial aid offices to personalize and

---

1 US Department of Education Statistic, 2018

2 https://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html

3 https://www.aauw.org/research/deeper-in-debt/

simplify student loan literacy. Our goal is to reduce institutional student debt and default rates. Dough's process and platform facilitates increased transparency in the loan process. We help students to easily digest complex financial data and understand how increased borrowing affects the length of time and salary required for loan payback. Dough builds a step-by-step plan to reduce each student's debt burden in alignment with their in-school process.

Dough provides administrators a more effective service for students who expect a digital experience. We automate loan changes to decrease needed outreach and administrative costs, which allow colleges to recommend lowering loan amounts more frequently. The benefits are fourfold: increased loan literacy, reduced default, an exceptional student experience, and more efficient financial aid processes.

Impact of the Solution

Right now, ~44 million borrowers in the United States hold more than $1.4 trillion in outstanding student loan debt. If Dough could help lower overall borrowing for women and at-risk borrowers to be equal with white male borrowers, Dough would save students $109.87 M nationally. And, this figure is only principal; it does not include the savings in interest payments.

It may seem like a lofty goal, but if Dough can decrease the outstanding loan balance of each current borrower by 5%, then even at a low 4% interest rate, Dough would save students $400 M annually. That would directly influence the number of students that go into default as well as wealth creation for women and underserved populations.

There are more than 5M borrowers currently in default. If Dough could lower the number by 10%, it would directly improve the economic security of over half a million people. This is not unrealistic for Michigan. Decreasing default rates by 10% would place the Michigan closer in line to national default rates.

We would like to launch Dough to all of Michigan's 93 universities and college. Now is the prime time. Federal loan counseling is on the verge of being required annually and Dough has the potential to expand nationally through supplanting this curriculum. We can create a more effective digital solution, rather than requiring the same ineffective system 4 times over the course of a student's college career. Dough can be a key part of the solution to address and ameliorate the unprecedented default rates.

Next Steps

As a result of the Dow Distinguished Award, our team will pilot Dough this November in Detroit, at Wayne State University. The pilot will consist of a cohort of 50 first year students entering into their second semester. The team will present the preliminary outputs and outcomes at the upcoming December Dow symposium for future funding.

Future funding will be utilized to design the payback education modules, test them with 50 to 75 additional graduating seniors, make design improvements and iterate the application. The detailed funding proposal with timelines, milestones and budget is at the end of the report.

INTRODUCTION

The executive summary summaries student loan debt burden on students as well as the potential impact to addressing the debt challenged to low income and minority student groups. However, there are also major implications for schools.

Impact on Schools

Lending and default affects schools in a multitude of ways. Default rates affect a school ability to qualify for funding in the future. A college's eligibility for federal student aid could be revoked by the Department of Education if more than 30 percent of borrowers default for three consecutive years or if its default rate surpasses 40 percent in one year[4]. Common methods of padding this statistic includes recommending forbearance, which delays rather than resolves the student loan crisis.

On top of that, schools are spending $75 per defaulting students to collect.[5] Furthermore, a decrease in student retention impacts the schools tuition revenue and budgeting. The state of Michigan has a multimillion dollar contract with student loan collectors to support Michigan public institutions manage student loan debt.

The cost to schools is enormous. There is alot a risk associated with rising default rates that make schools incentivized to address student debt. States have started to intervene to assist public university and community colleges.

METHODS

Over methods were completed in 3 steps: (1) perform research and review secondary sources; (2) interview students and observe them interact with the Dough interface; (3) utilize findings to build out the first student loan borrowing features.

Stage 1: Our research process integrated industry publications, academic journals, and national education statistics. The Dough team summarized journal and publication grouped into three major themes: (1) what is happening in the student loan industry; (2) best practices in financial aid to assess and manage rising default rates, (3) best practices on effective financial education for college students; (4) developmental psychology on young people's ability to think about the future and plan as well as psychological influences/ "nudging".

---

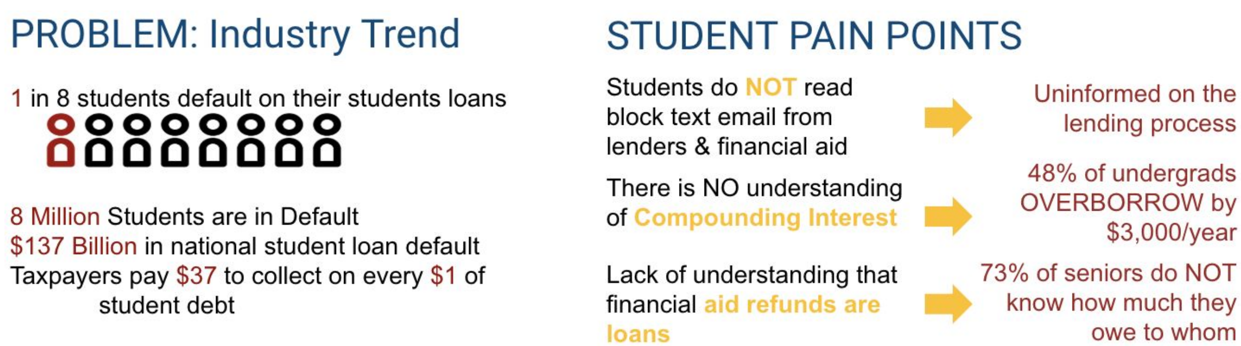
4 https://www.nytimes.com/2018/05/11/us/politics/colleges-student-loan-default-rates.html

5 Decreasing Your Student Loan Cohort Default Rate: Leading a College-Wide Change Initiative at Mohave Community Collegehttps://naspa.tandfonline.com/doi/abs/10.1080/10668926.2015.1125814?journalCode=ucjc20#.W3oBBHVKhhE

Although there is not enough space to report on all these topics the Dough team researched, we will provide a summary of the industry landscape as it affects directly addresses what makes Dough unique.

Stage 2: First-hand interviews with students and financial aid officers. We spoke with about 50 students spanning all phases of the student loan experience (from freshmen to seniors and graduates who have defaulted).

We understood through our primary research that the consistent student pain point of financial illiteracy was not a factor considered by existing solutions yet was at the heart of the current borrowing process. Figure 1 below highlights how industry trends and current statistics are connected to the student pain points we discovered.



<u>Fig 1: Industry trends and student pain points</u>

Stage 3: When designing our solution, we sketched out three alternatives and discussed with students which features they would value most. We incorporated this feedback in creating our low fidelity mobile application. We then tested our design with the first cohort of students (See Appendix A for the interview guide). Upon further design and engineering iterations, we will incorporate the most valuable features in an application to pilot at Wayne State this November.

The results of the primary and secondary research will be summarized in the following section.

RESULTS AND RECOMMENDATIONS

We understood there was a serious gap in the services being provided by a myriad of agencies looking to profit off the burgeoning student debt problem. We recognized that pain points ranged from students not understanding loan terms, to schools being unable to reach students on an individualized basis to financial institutions writing off irrecoverable debt.

Existing solutions do not focus on an altruistic vision to support our students. Colleges seek out default management services which does not address the root of the problem--borrowing more than a student can afford. Under 5% of employers provide repayment help. Direct-to-consumer solutions provide pricey options which increase spending as much as they facilitate debt repayment.

This section is structured to highlight the results from the primary and secondary sources in the following order: current financial aid landscape, Wayne State current landscape, Pilot Metrics, and the Solution to be piloted at Wayne State

Current Financial Aid Landscape

Students graduate with between $6-47,000 in debt from public schools (averaged at the school level), and $6-77,000 from private schools. Below, we have illustrated the average debt outstanding at our target states for undergraduates of 4-year programs. Note that although these numbers are averages, the principal beneficiaries of our application will have higher amounts of student debt. As we roll out with Wayne State and expand to other schools, we will devise a distribution of outstanding debt to enhance understanding of our target market.

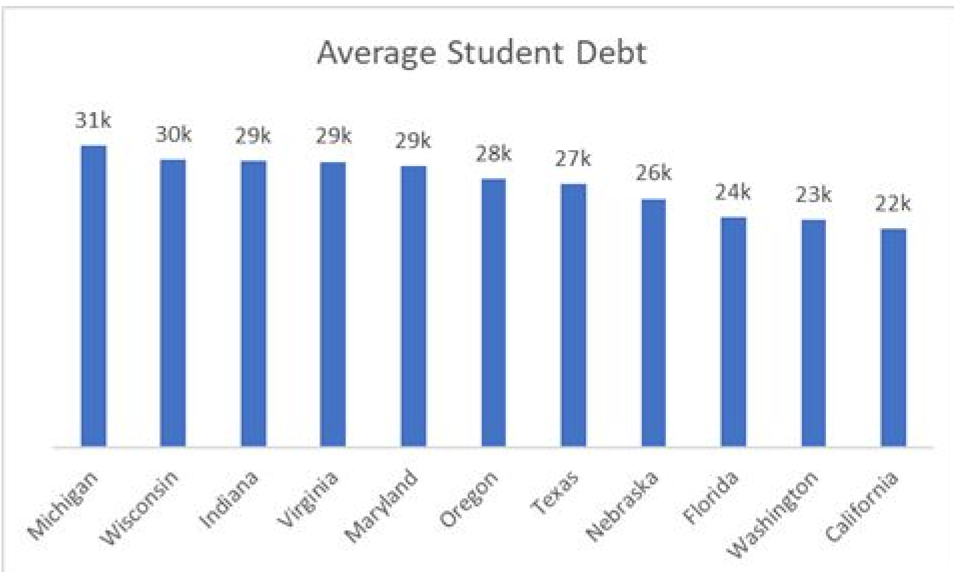


Figure 2: Average student debt by state

Student default rates continue to increase, with 11.5% of graduates defaulting within 3 years of leaving college in 2017[6]. Broken down, private nonprofit colleges default rates are reported to be 7.4%, with for-profit colleges at 15.5%. Though we partially attribute this to the continuous increase of college tuition, we wish to resolve this issue with the student as we believe we can empower the individual.

Dough will start with 93 Michigan colleges and universities and will expand across the country with a focus on the states with strict debt information requirement standards. Undergraduate

6

https://www.washingtonpost.com/news/grade-point/wp/2017/09/28/the-number-of-people-defaulting-on-federal-student-loans-is-climbing/?utm_term=.fff8e92bf16d college enrolment across the country will total ~21 million in 2019, with our focal segment totaling ~7 million. These students are disbursed between public and private institutions.

When we multiply out the average debt we are seeking to address in these states by enrollment, we reach an astounding ~$200 B. If we can decrease this balance by 5%, then even at a low 4% p.a. interest rate, we would be saving students an aggregate $400 M each year. Additional impacts are in the executive summary.

Current Solutions
There are companies and organizations that focus on financial education while students are still in school and those focusing on loan repayment for borrowers who have already graduated.

DIRECT TO STUDENT SOLUTIONS
StudentLoans.gov is the main resource for students to access financial aid and student loan education. While this government website and other free web pages offer financial aid information, they are full of block text and not effectively formatted to educate students. Another app that is offered to consumers is Edquity, aimed at high school students to compare realistic college costs, but does not educate college students student loans.

DIRECT TO COLLEGE SOLUTIONS
Major direct-to-college solutions sold to colleges include iGrad, GradReady, CampusLogic and SALT. These solutions mainly offer financial wellness platforms that are only educational and do not enable students to take action.

Current companies focus on either providing educational tools for college students or focused on graduates already in repayment. No one is making it easy for college students to understand their loans and encourage lower borrowing. Dough focuses on educating students with easy to understand terms. The app will actively nudge students into lowering aid packages and making payments while in school. Students will have a smaller loan when they graduate, setting them up so they are less at risk of default.

Wayne State Current System

Although what is discussed is applicable to Wayne State, it is not unique to Wayne State. The current system allocates the maximum debt allotment each semester in loans to students, because the school does not have the tools to individualize student requests. This leads to higher borrowing levels than necessary.

We are working closely with Wayne State's financial aid office to make it easier for students to lower their student borrowing and to make loan revisions by automatically generating student requests to the financial aid office on our platform (See Appendix B3: Prototype - Streamline Financial Aid). The current process requires a student to schedule and attend an loan advisory meeting to ensure they have the requisite funds for the payment. This process is manual, time consuming, and prohibitive for Wayne State to actively promote decreasing loan amounts.

Last year, 26% of the ~10,000 student interactions with Wayne State's financial aid office were for loan revisions, each case handled manually, presenting a large time investment for the department. Dough would streamline these manual interactions, which would allow financial aid to encourage more students to request a lower aid package.

Wayne State Pilot Metrics

We track requested financial aid reduction amounts and aim to reduce manual processes for the financial aid office. The app will also measure the percentage of students making regular payments on their loans and the student retention rate, which is highly impacted by perceived financial burden. By demonstrating an impact on these metrics, we will be able to share these tangible success metrics to schools, who will also experience an unburdened financial aid office and a reduction in student loan default penalties.

Ultimately, Dough will improve the student experience, lower the student debt burden, lower institutional default rates, and decrease costs to colleges to manage the lower of loans process.

Solution

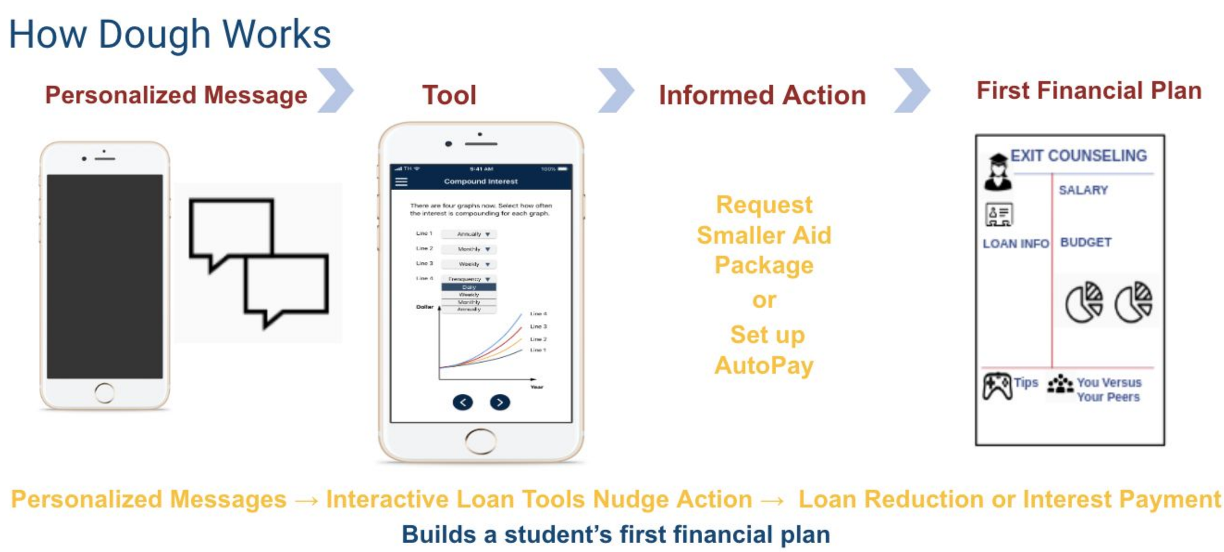


Figure 4: How Dough Works

Dough 1.0 : Dough is a web application platform accessible by students via desktop, tablets, and mobile phones. At its core, Dough connects with the partner school web portal with pulls student loan information from the financial aid office database.

Loan Overview and Payback Timeline: When students first log onto the platform, the application will inform them on exactly how much they owe and how much they will eventually need to pay back over the lifetime of the loan. Graphics and interactive charts are displayed to teach students the effects of compounding interest (See Appendix B1: Loan Overview).

Lower Aid Package: Next, personalized advice are offered to students based on realistic college costs. This is to ensure students are borrowing an appropriate amount and encourage students to request smaller aid packages if they borrowed too much (See Appendix B2: Prototype - Lower Aid Package).

CONCLUSION AND ANTICIPATED IMPACT

Because student debt affects retention, tuition income, and alumni giving, there are multiple avenues for business development within a college/university, including financial aid, registrar, and development.

The current solutions are generic and scattered. At school, students are offered information through pamphlets, workshops, and video programs. There is minimal, if any, customizing or discourse on debt burden. Post-graduation, a fragmented landscape of debt consultants is contracted to preventatively call students. It is an expensive, manual & ineffective process.

Dough's comprehensive solution engages across the university spectrum. Our impact resonates with the financial aid, registrar, and development offices at colleges because Dough links the in-school borrowing process to the post-graduation repayment process in an easy-to-understand format that promotes retention, success, and alumni generosity.

ADDITIONAL FUNDING REQUEST

We seek eligibility for the $50,000 Dow Distinguished Award. The increased funding would allow our team to develop the repayment facilitation feature to immediately allow our pilot cohort to experience the full set of Dough features from education to repayment facilitation.

The timeframe for the expanded scope will extend to December of 2019. The funds will be used for the following milestones:

- Implement the required changes to the current design and prototype (Jan-Mar 2019)
- Expand the scope to design and test an effective repayment methodology for graduating seniors (Mar-Apr)
- Develop the repayment portion of the application (Apr-Jul)
- Test the repayment prototype of recent graduated seniors (Aug-Oct)
- Make the required changes to the application (Oct-Dec)

Funds would be allocated as follows: design ($5,000), engineering ($35,000), testing and piloting ($2,000), marketing ($5,500), and technology maintenance ($2,500). If we achieve eligibility for 50% of the requested funding, we would cut the majority of spending beyond core engineering talent and strip down other planned features.

APPENDICES ARE DELETED IN THE PUBLISHED VERSION.

PLEASE CONTACT CKAI@UMICH.EDU FOR PERMISSION TO ACCESS DESIGN AND RESEARCH OUTPUTS.