



NEFE / Knology Financial Education Database Training Fellowship

New Directions in Financial Education Research

November 1, 2022

Knology



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Table of Contents

Introduction	1
Fellowship Overview	2
Selection Criteria	2
Fellows	2
Fellowship Research Seminars	6
Feedback from Fellows	7
Research Outputs	9
Abstracts	9
Next Steps	13



Introduction

Across the US, a growing number of states are investing in financial education, and making coursework on this topic a prerequisite for earning a high school diploma. Despite this trend, little is known about the impact of these investments, as data on historical state-by-state trends in financial education spending has been elusive. To fill this gap, in 2018, Knology launched “A New History of Investment Across the United States.” Supported by the National Endowment for Financial Education (NEFE), the project explored the impact of state-level investments in financial education on individual outcomes—especially those for low- and moderate-income US residents. Through the use of a consolidated database and a new public mapping tool developed through NEFE funding, we found that financial education mandates for public schools were linked to a decrease in financial fragility, and that increases in financial education spending per student were associated with positive (albeit small) changes in individual financial health assessments.

These findings helped build a general picture of the impacts of financial education spending over time. In the hopes of promoting more in-depth, fine-grained analyses of financial education investments, in 2022, Knology and NEFE created the Financial Education Database Training Fellowship to help a small group of emerging scholars contribute to the next wave of financial education research through the use of the NEFE/Knology database and mapping tool.

In this report, we provide an in-depth account of the Financial Education Database Training Fellowship, focusing on the following questions:

- How did we review applications for the program?
- Who are our Fellows?
- How did the Fellowship proceed?
- What outputs have our Fellows produced?
- What did our Fellows think of the program?
- What are the next steps for NEFE and Knology?



Fellowship Overview

In 2019, Knology received a research grant from the National Endowment for Financial Education (NEFE) for a project called “A New History of Investment in Financial Education across the United States.” Undertaken so as to determine the impact of financial education interventions on students, the project yielded two unique outputs: (1) an [open-access database](#) detailing state-level spending on financial education from the 1990s to the present; (2) an [open-access mapping tool](#) illustrating state-by-state financial education investments and outcomes over time. Taken together, the database and the data visualization tool make it possible for a wide variety of individuals and professional groups (including policy makers, education board members, journalists, and researchers) to better understand the relationship between state spending on financial education and individual financial well-being.

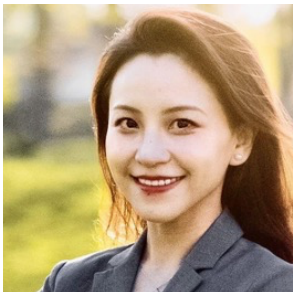
In February 2022, with additional NEFE funding, NEFE and Knology announced the creation of the Financial Education Database Training Fellowship (herein: the Fellowship). Operating with a budget of just over \$50,000, the goal was to support a small group of emerging scholars contributing to the next wave of financial education research with the database and mapping tool.

Selection Criteria

In order to be considered for the Fellowship, candidates had to have a background in social sciences, education, financial education, public policy, and economic theory. The Fellowship application (Appendix A) also inquired into candidates’ familiarity with data analysis in R and other statistical software, and the extent of their statistics training. In a series of open-ended questions in the application form, candidates were asked to discuss how their personal and professional experiences informed their research career interests, to propose potential questions they could explore through the dataset, and to explain what they hoped to gain from the Fellowship.

Fellows

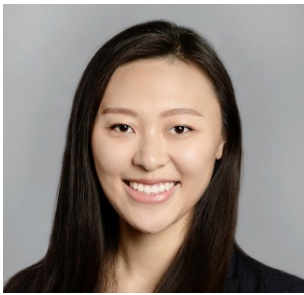
23 qualified candidates applied for the Fellowship. Ultimately, six scholars were chosen from among these. With life experiences in Africa, Asia, Europe, and North America, they brought a global perspective on financial education. Our 2022 NEFE - Knology Financial Education Database Training Fellows, presented in reverse alphabetical order, were:



Yingying ZENG- Yingying (she/her/hers) is a Ph.D. candidate in social work at the Brown School at Washington University in St. Louis and a research associate at the Center for Social Development. Her research interests include wealth disparity, financial capability, immigration, and social policy. She is particularly interested in social policies and programs in promoting financial well-being and equality among marginalized populations, such as low-income families, racial/ethnic minorities, and immigrants. Yingying earned a Master of Social Work degree from Fudan University and the Master of Social Policy from the Brown School in 2016. She has led and participated in a variety of research projects on financial inclusion and socioeconomic outcomes as part of her Ph.D. studies. She is currently working on her dissertation about immigrants' asset building in the United States. Zeng believes that effective applied social research aims for impact and hopes to advance research that could inform social policies and programs that aim to improve financial well-being.



Dr. Thomas KORANKYE - Thomas (he/him/his) is a Certified Financial Planner (™) professional with over ten years of teaching and research experience from universities in the United States and Ghana. He is an Assistant Professor in Personal and Family Financial Planning at the University of Arizona Norton School of Family and Consumer Sciences. He holds both a Masters Degree and Ph.D. in Personal Financial Planning from Texas Tech University, two Masters of Science degrees, in Finance and another in International Fisheries Management from the United States, Sweden, and Norway, respectively. Korankye also possesses a First-Class Honors degree in Banking and Finance from the University of Ghana. His industry experience includes serving as a finance consultant, financial coach, and entrepreneur. He is the recipient of the 2021 Academy of Financial Counseling and Planning Education's (AFCPE®) Outstanding Symposium Research Award. With over ten publications in peer-reviewed journals, Korankye's current research focuses on families and individuals' financial decisions and well-being.



Dr. Lu FAN - Lu (she/her/hers) is an Assistant Professor at the University of Georgia. Her research interests include financial advice-seeking and information search behaviors, consumer well-being, financial education and socialization, and behavioral finance. As a CFP® educator, Lu has a broad teaching interest in personal financial planning areas and is passionate to educate the next generation of financial planning professionals to serve families and communities. Lu now serves as a director for the

Academy of Financial Services and serves on editorial boards for the Journal of Financial Counseling and Planning and the Journal of Personal Finance. She also provides her services to different professional organizations and academic journals. Before joining UGA, Fan was an Assistant Professor at the University of Missouri. She earned a Ph.D. in Financial Planning, Housing, and Consumer Economics, a Masters degree in Journalism and Mass Communication from the University of Georgia and holds a bachelor's degree in Communications from the Capital University of Economics and Business in Beijing, China. Fan hopes to strengthen her knowledge and skills in using the NEFE/Knology Database and mapping tool to build connections with other scholars and professionals in financial education and related fields.



Lena GAN - Lena (she/her/hers) is a current Ph.D. student with the Department of Personal Financial Planning at Kansas State University where she specializes in consumer and household financial analytics, specifically on how people think, feel, and make financial decisions. She has 15 years of work experience in international business and finance, foreign policymaking, and consulting for MNCs and business owners in Asia-Pacific. Gan has served as the Inamori International Fellow at the Center for

Strategic International Studies (CSIS) in Washington DC and Vasey Fellow at the Pacific Forum in Honolulu. She has a Bachelors degree in Economics, a MBA in Finance and a MA in Political Science. She is also a Certified Financial Planner and a Certified Investment Management Analyst. Gan's goal is to learn from other passionate and committed researchers on how to cultivate positive financial capabilities through financial education and experience financial wellbeing and increase equity and inclusion for underrepresented individuals.



Dr. Jeffrey ANVARI-CLARK - Jeffrey (he/him/his), will be an Assistant Professor of social work at the University of North Dakota (starting July 2022). His teaching interests include social work practice with individuals, families, and groups; financial social work; and behavioral and mental health. His research focuses on financial behavioral health; racism and financial interdependence; and behavioral interventions in developing financial efficacy. He completed a Ph.D. at the University of Maryland School of Social Work, where he also received his MSW. Anvari-Clark holds a Masters degree in social justice in intercultural relations from the SIT Graduate Institute, and a Bachelors degree in international relations from American University. Jeffrey ran the Family Prosperity Program, conducting financial education, coaching, and eviction prevention case management at Promise Heights in West Baltimore. He is an experienced financial advisor, private financial coach, and ran an IRS Volunteer Income Tax Assistance (VITA) Program. He has taught the MSW course Financial Stability for Individuals, Families, and Communities over several years and is an active member of the Financial Social Work Initiative. He is interested in exploring how sharing money impacts the outcomes of financial education.



Jack KROGER - Jack (he/him/his) is a Ph.D. candidate in Policy Analysis at the Pardee RAND Graduate School and an Assistant Policy Researcher for the RAND Corporation. His research interests broadly include poverty alleviation, social insurance, and policies designed to improve economic security and well-being. Kroger looks forward to applying his data and statistical skills to questions about how financial education may improve economic outcomes and what mechanisms can help make it more, or less, successful. Jack received a master's degree in development studies from the London School of Economics and Political Science and a Bachelor's degree with majors in economics and statistics and international relations from Carnegie Mellon University.

Fellowship Research Seminars

Between April and September, 2022, our Fellows carried out original research to build on Knology's initial exploration on the impacts of state investment in financial education and education policy. To facilitate their work, Knology and NEFE held a series of seminars to support the Fellows through all stages of their research—from the formulation of their questions, peer-review of their data analysis, review of findings, and their draft publications or presentations. Modeled on workshop programs Knology had developed for emerging professionals in other contexts, these seminars included a team of Knology researchers, NEFE staff, and the Fellows cohort.

At each seminar, Fellows provided updates on their research, delivering short presentations and then receiving feedback from Knology staff, NEFE, and the other Fellows. Between seminars, Fellows had an opportunity to meet with members of the Knology team through virtual office hour visits, Slack, or email.

Knology staff included Dr. Joseph de la Torre Dwyer (research methods, database, and mapping tool mentoring), Joanna Laursen Brucker (seminar planning and facilitation), Shaun Field (communications management, and technical guidance on the database and mapping tool), and Dr John Fraser (editorial advice). Key NEFE contributors included Dr. Jill Jones, (NEFE's Managing Director of Research), Stacey Chan, Lauren Lecy, Gwendolen Teok, and Sarah Volk—all of whom shared their expertise through feedback that facilitated the Fellows' work.

The first three-hour seminar was held in May 2022. It began with a detailed overview of the database and mapping tool, and also gave Fellows the time to discuss how these could be incorporated into a final research proposal. Following that seminar, Fellows met individually with Knology staff to discuss their projects, and then submitted a draft research plan (see Appendix B for the Research Plan Template). From here, Fellows helped one another through a process of peer-review, offering resources or references that could help refine their colleagues' work.

The second seminar was held in June 2022. It focused on short research presentations, which were followed by peer-critiques using a structured 3-5 minutes of oral feedback. Knology and NEFE also provided comments and suggestions on each Fellows' plan at that meeting. Seminar follow-up included scheduled thirty-minute discussions and action planning with Knology staff.

During the July and August seminars, each Fellow was given 30 minutes to discuss their work to date, and to receive additional peer review from the other Fellows, NEFE, and Knology. The first 10 minutes of these sessions consisted of presentations, where Fellows addressed the following questions:

- Why are you interested in studying these questions?
- What literature have you used to support the critical questions you are asking? Bring three references that help guide your research with a short discussion on the topics.
- What critical findings have emerged to date? What challenges, assumptions, caveats are you finding?
- What do you need help with?

In August, Fellows presented drafts of either a peer-reviewed article or poster presentation as the capstone for their participation in the program. This meeting also provided an opportunity for individual guidance on the peer review and presentation processes with Knology staff.

Initially, we envisioned these articles and presentations as Fellows' final output. But to ensure that their work is having the broadest possible impact, NEFE agreed to host a series of webinars, in which each Fellow will have the opportunity to publicly present their research. At the time of this writing, we anticipate that each webinar will begin with an overview of the effort, followed by presentations from two Fellows, who will discuss their key findings and the implications of their research. The schedule for these Zoom webinars is as follows:

- November 9: Kick-off presentation with Dr. Joseph de la Torre Dwyer
- November 30: Lena Gan and Jack Kroger
- January 25: Dr. Jeffrey Anvari-Clark and Dr. Lu Fan
- February 22: Dr. Thomas Korankye and Yingying Zeng

Feedback from Fellows

Prior to the final webinar series, Fellows were asked to provide informal feedback on the program. Their responses indicate that the fellowship was a valuable opportunity. Both the database and mapping tool were found to be useful, and to provide *"rich information"* on state-level investments and financial outcomes. As one Fellow explained, these instruments *"can be used by a wide range of scholars across disciplines, like social work, financial planning, consumer studies, education, and so on."*

Fellows found that the process of collecting and analyzing data was *"fairly simple and straightforward."* Along with the database and mapping tool, they also applauded the SHED survey crosswalk tool, which helped them identify relevant questions and determine what variables to use in their analyses. They found that the research guidance provided by NEFE and Knology was also incredibly helpful. Reflecting on their experiences, one Fellow concluded that the program offered

"a wonderful opportunity for me to learn and explore a new database to advance my data analysis skills, develop a new research project in line with my core research interest, and build connections and share ideas with other fellows and NEFE and Knology teams."

In their feedback, fellows also highlighted several areas where the program could be improved. While noting that the advice they received *"was always good,"* one Fellow suggested that small groups or a "buddy" system would promote more regular dialogue among program participants. Others recommended that more time be set aside during seminars to talk about the database in greater detail, or to have discussions with NEFE on topics such as *"funding opportunities"* and *"proposal writing."*

Other suggestions for improvement pertained to the dataset itself, or to the skills needed to utilize it. Though one Fellow indicated that the assistance they received on R statistical

software was incredibly beneficial, another reported that prior expertise in R statistical software was *“necessary”* to complete their project. A third added that *“incorporating some workshops regarding methods training may be helpful.”* Lastly, fellows recommended that Knology and NEFE consider alternative approaches for using R packages (including those used by the Consumer Financial Protection Bureau), the use of tools (such as MICE) that can account for missing SHED data, and the creation of a STATA version of the database—which would make this *“more useful to many researchers.”*



Research Outputs

Each of our six Fellows built on the work we initiated through “A New History of Investment in Financial Education Across the United States.” Exploring the impact of financial education mandates on a variety of behaviors and attitudes, our Fellows found that investments are associated with a number of positive outcomes—including a higher likelihood of having emergency savings, providing financial assistance to extended family or friends, not using high-cost alternative financial services, paying off student loan debts, having general financial knowledge, and having a positive sense of financial well-being. Establishing clear causal relationships between these phenomena and financial education mandates is difficult, and the magnitude of these investments appear marginal. Nevertheless, our Fellows demonstrated the utility of the database and mapping tool, and launched a new wave of research with results that can provide guidance on optimizing financial education mandates.

Abstracts

Yingying Zeng, *“Can Spending \$20 on Each Student Make A Difference? An Analysis on Financial Education, Gender, and Use of Alternative Financial Services Among U.S. Young Adults”*

While alternative financial services (AFS) provide credit options to those who have limited access to mainstream financial services, exorbitant fees and interest rates put a great financial burden on consumers and the public spending. This study used state-by-state financial education investment dataset that linked with SHEDAY 2015-2019 data to examine the relationship between state-level financial education spending and young adults’ AFS use. Findings suggest that state investment in school financial education is associated with young adults’ use of AFS. Specifically, young adults from states that spent over \$20 per student in a year were found to have better financial outcomes, which highlights the importance of the quality of financial education programs. Additionally, findings indicate that gender moderates the association between state financial education investment and individual financial outcomes; males have benefited more than females from the high financial education spending. Implications for financial education policies and practices were discussed.

Dr. Thomas Korankye, *“The Impact of Student-Loan Debt on Emergency Savings and the Moderating Role of Financial Knowledge”*

This study uses data from the 2018 and 2019 Survey of Household Economics and Decisionmaking to examine the

impact of holding student-loan debt on emergency-saving decisions, including the moderating role of financial knowledge. Controlling for self-selection bias through propensity score and coarsened exact matching, the study finds that those with student-loan debt are less likely to save for financial emergencies. On the contrary, the results show that financial knowledge is associated with a higher likelihood of having emergency savings. Results from the moderating analysis indicate a statistically significant interaction effect. The empirical findings and corresponding interaction plots suggest that student debt makes households susceptible to financial shocks, necessitating the need for intervention.

Dr. Lu Fan, *"Relationships Between Financial Education Mandates, Financial Behavior, and Perceived Financial Wellness of Young Adults"*

The objective of this study is to explore the relationships between state-mandated financial education and several financial outcomes of American young adults. Financial knowledge, behavioral financial outcomes (including holding credit cards, having emergency savings, and having retirement), and perceived financial wellness were specifically examined as potential outcomes of financial education mandates. Using three waves of the SHEDAY dataset, combined with the Urban and Schmeiser (2020) dataset, and a series of regression analyses, the results indicated that mandated financial education was positively associated with financial knowledge but was not directly related to financial behavior and perceived financial wellness of young adults. Financial knowledge, having credit cards, emergency savings, and retirement savings positively contributed to young adults' perceived financial wellness.

Lena Gan, *"Investigating the relationship between human capital investments and financial well-being among at-risk households using the SHEDAY 2013-2021"*

Using nationally representative data from 2013-2021 Survey of Household Economics and Decisionmaking (SHED), the study examined the relationship between human capital investments, i.e. higher education, health status, having children, financial literacy and financial well-being among 4,410 at-risk households. Human capital investments have been shown to explain variations in economic growth, wage earnings, social mobility, and financial well-being (Becker, 1963), even among lower income groups (Benton & Keister, 2017; Chase-Lansdale et. al., 2019; Simmons et. al., 2007). Studies have also shown how financial literacy increased the likelihood of achieving higher levels of financial well-being (Bruggen et. al., 2017; Clark

et. al., 2021; Schmeiser & Seligman, 2013). Using multinomial regression analysis, the study found that having children, good health, higher education and financial literacy were significant predictors for financial well-being when comparing households who reported living comfortably versus those having difficulty getting by. Financial literacy was also a moderator for the relationship between higher education and financial well-being. However, among households in the lower levels of financial well-being (i.e., just getting by and difficulty getting by), higher education was not a significant predictor. Nonetheless, financial literacy was significant and had a size effect. In sum, the study found important associations between different levels of financial literacy and the probability of being in each of the four financial well-being categories. Findings from this study will inform financial practitioners, educators, and policy makers on the importance of human capital investments, in particular, the importance of financial literacy, and their impact on the different levels of financial well-being among at-risk households.

Dr. Jeffrey Anvari-Clark, *“Financial Knowledge and Financial Fragility, as Moderated by Individual-Level Sharing and Receiving of Monetary Assistance”*

Improving financial fragility through education efforts usually entails addressing topics such as compound interest, diversified investing, and savings mechanisms. However, many behaviors that also impact money decisions are imparted through family and cultural financial socialization. Specifically, financial interdependence activities – sharing and receiving ongoing financial assistance among extended family or friends – may play an important role in moderating the association between improving financial knowledge and lower financial fragility. Using three waves of SHED data and regression analysis, findings from this study suggest that increased financial knowledge is associated with increased likelihood to share, and a decreased likelihood to either receive or both share and receive. Furthermore, the presence of sharing and receiving activity appears to diminish the association between financial knowledge and financial fragility. Although higher scores of financial knowledge via financial education efforts may contribute to lowering levels of financial fragility, when a person’s familial or cultural financial socialization encourages sharing and receiving, educational interventions to improve financial stability will likely need to account for these behaviors.

Recent literature has highlighted the impact that state mandates requiring financial education for graduation have on improving students' and young adults' decision making on student loans and educational debt. This study expands on this research by assessing the longer-term effect that financial education in high school has on future difficulties repaying debts students borrowed for their own education. Exploiting variation in the timing of financial education mandates and multiple waves of the Federal Reserve's SHED survey the study determines that financial education mandates may marginally decrease the likelihood that individuals aged 22-30 in the SHED surveys fall behind on their education debt payments. However, examining subsets based on reported levels of financial wellbeing and conducting an event study analysis, we find that the effect is large and strongly significant for those who are doing okay financially but not for other groups and that the effects decrease as time from financial education grows. This suggests that state mandates have an impact on educational debt burden for some borrowers, but that the policy may be a relatively blunt instrument that should be complemented with other efforts to assist borrowers who are struggling financially.



Next Steps

The Fellows program has demonstrated that the database and mapping tool can advance research with national data on financial literacy education mandates in a cost-effective manner. The Fellows' findings demonstrate the importance of keeping these resources up to date and suggest that future investment in research using them can be used to advocate for changes to mandates—which may be serving some populations more than those most at risk (due to their economic circumstance and family history).

The results of the work of this Fellows cohort seem useful for creating a synthesis report to support advocacy for refinement of mandates for K-12 public school systems. Such a report could be used to advocate for policy change in those states that do not require financial literacy education for all students, or those that tend to time those course offerings after students have the right to withdraw from formal schooling. Our Fellows' research could also be used to advocate for the creation of college-level courses designed to help students (and especially, those who are the first in their family to attend college) better understand the risks of student loan debt and debt service. We recommend that NEFE consider leveraging these tools for advocacy.

In December, 2022, NEFE is organizing a national conference on financial literacy education in Denver. At the conference, Dr. Rebecca Norlander will present on Knology's financial literacy work (including our collaborations with NEFE, FINRA, ALA, and Pockets Change), while also exploring a potential new partnership with FiCycle.



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