

Where Financial Education is being delivered *...and for whom?*

Bridging Research and Practice

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Dr. Rebecca Joy NORLANDER



- Part of a transdisciplinary team
- Leads Knology's research & evaluation with cultural institutions
- Oversees FINRA Foundation's Thinking Money for Kids initiative

Knology®

Dr. Jeffrey ANVARI-CLARK



- Assistant Professor @ the University of North Dakota in Department of Social Work
- NEFE/Knology Financial Education Database Training Fellow





Today's Agenda

- Exploring a financial education database and mapping tool
- Going deeper into the data
- Resources
- Where do we go from here? Future opportunities
- What does it mean for you?

About Knology





practical social science for a better world



6 research areas

NEFE Research Award





A New History of Investment in Financial Education across the United States

- Address a gap in the data, literature on FinEd mandates, frameworks, and state spending



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- Researched ROI from state FinEd spending using the SHED survey
- Created a mapping tool to visualize the data
- Coordinated a fellowship for early career scholars



Our Hypothesis

Increased state spending and investment in financial education had an impact on key economic security outcomes in the SHED survey.

- 50 states public school spending & mandates data from 2001 – 2017
- Mean student by graduation year
- SHED data from 2013-2019
- SHED-based scales: subjective well-being, foregone necessities, retirement savings, and **financial fragility**
- Non-profit spending



What did we do?

- FinEd activities from state requirements and academic standards
- Compilation of nonprofit spending
 - Council for Economic Education
 - 990s from NCCS
- SHED Crosswalk



Our Findings

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Our Findings

- "Connections" not causation between spending & increased individual outcomes
- Small change in people's assessments of their own financial health
- Increased financial education mandates for public schools is also linked to a decrease in financial fragility.
- However, we did not find that financial education is associated with people's ability to afford routine healthcare.

Database & R-Package





Database – Spending Datasets

- **Public School Spending** – Mean public school spending by state per year.
- **Other FinEd Activities** – Snapshot of FinEd spending by states in non-public school settings.
- **FinEd spending NCCS** – National Center for Charitable Statistics historical spending by private charities (non-profits) and foundation with direct FinEd mission.



Database – Other Datasets

- **Pooled SHED Survey Data (SHEDAY)** – Pooled responses to annual SHED survey data from 2013-2021.
- **State Financial Education Academic Standards** – Historical academic content standards by state, by year.
- **State Financial Education Requirements** – Historical state graduation requirements and implementation year.



R Package - KnologyFinEdStateSpending

knologyresearch.gitlab.io/KnologyFinEdStateSpending/

KnologyFinEdStateSpending 1.0.0 Get started Reference Codebooks ▾

A Database of Financial Education Interventions by State and Year

[About the Database](#)

From 2019 to 2020, Knology built an extensive database as part of our research into financial education spending at the state level, as well as financial health outcomes for individuals living in those states. For a detailed overview of this database, please see [this article](#).

How to download or install

You can download the compendium as a zip from this URL:

<https://gitlab.com/knologyresearch/KnologyFinEdStateSpending/-/archive/master/KnologyFinEdStateSpending-master.zip>

Or you can install this compendium as an R package, KnologyFinEdStateSpending, from GitLab with:

```
# install.packages("remotes")
remotes::install_gitlab("knologyresearch/KnologyFinEdStateSpending")
```

- Convenient access to all datasets & easy understanding of the SHED scales
- Pre-loaded functions & packages necessary to replicate Knology's analysis

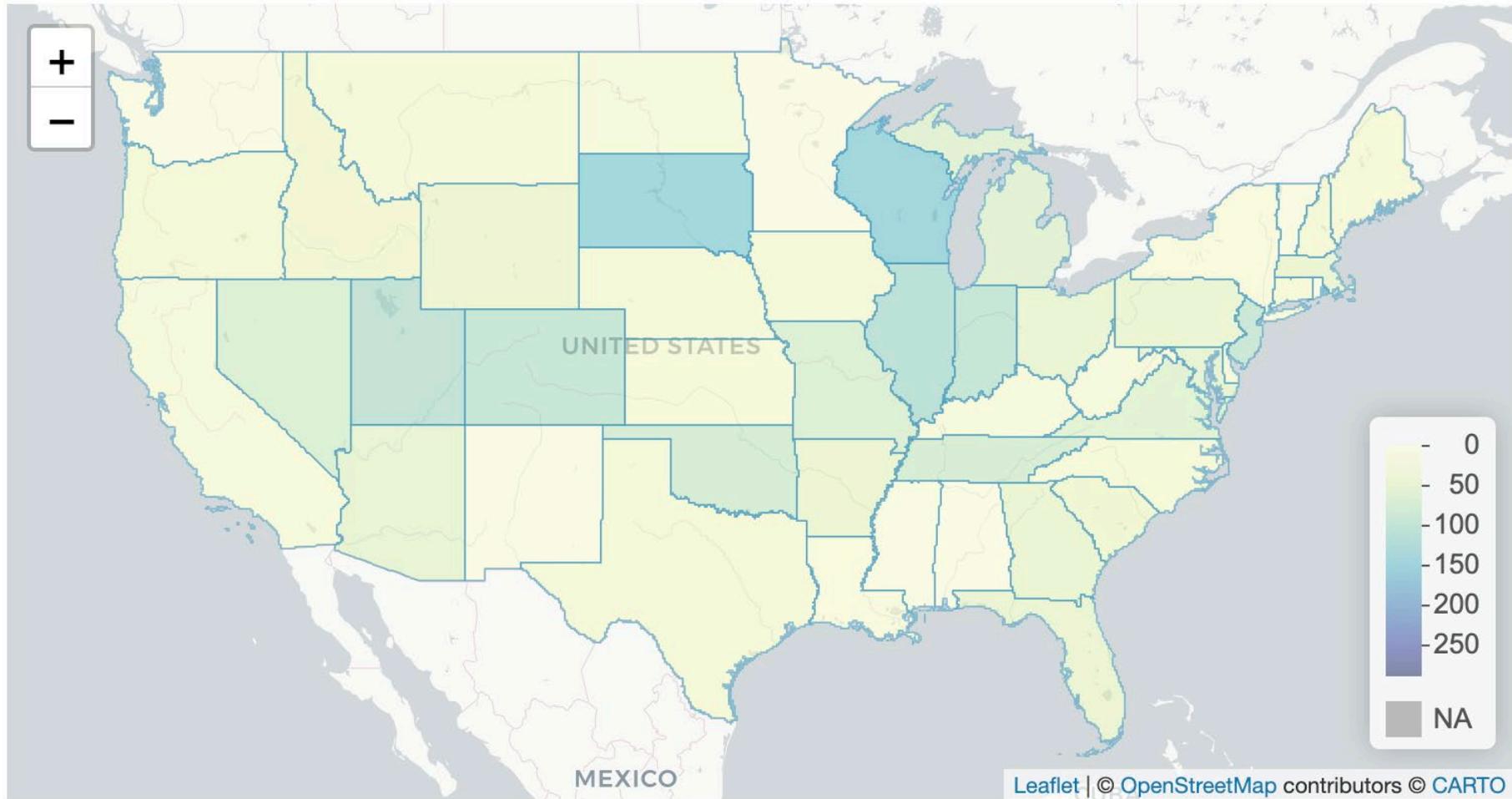
Mapping Tool





Mapping Tool

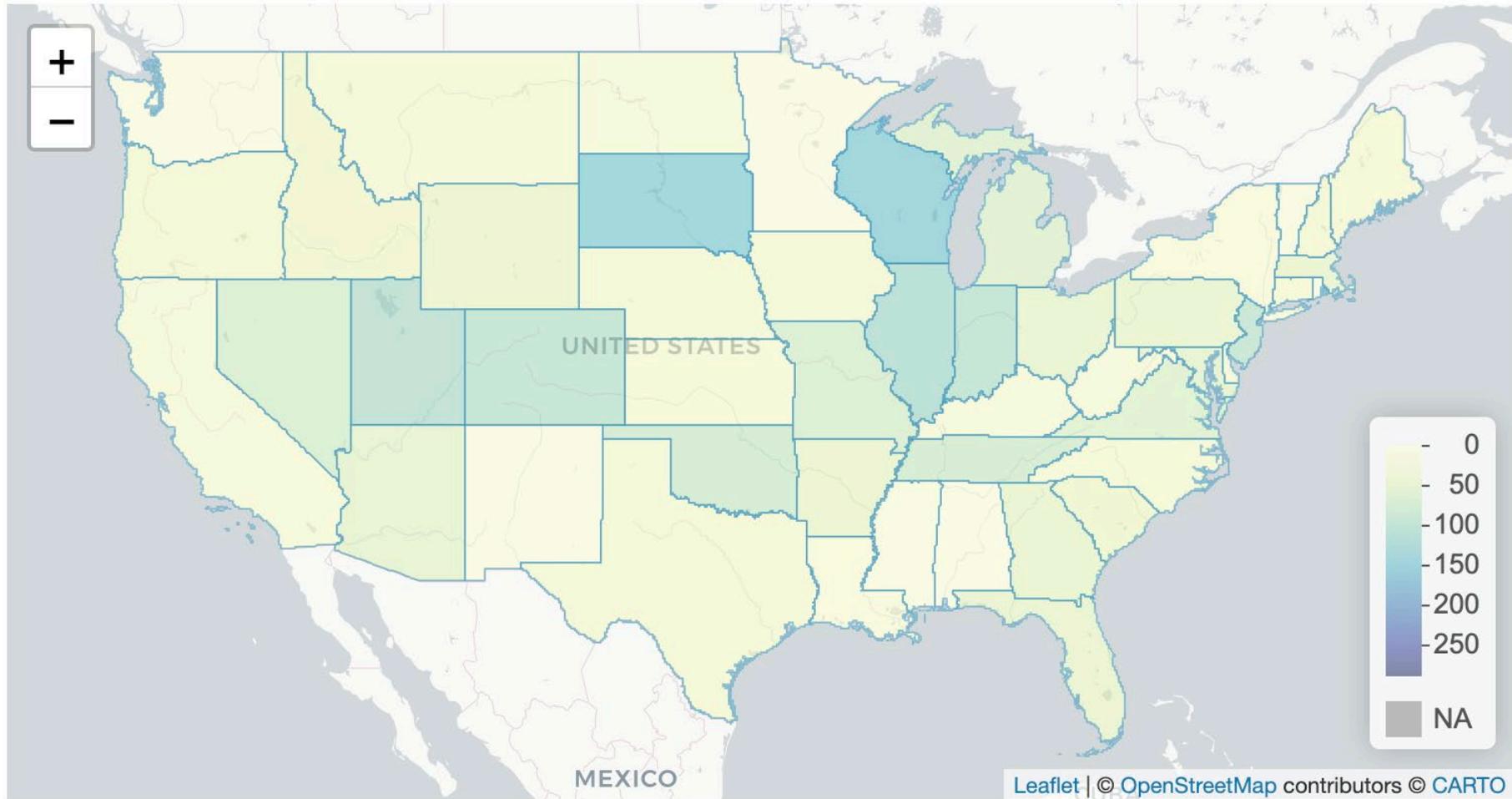
Total Financial Education Intervention for High School Graduates (2012)





Mapping Tool - Demonstration

Total Financial Education Intervention for High School Graduates (2012)



NEFE Knology Financial Education Training Fellowship





Fellow – Dr. Thomas KORAYNKE



The Impact of Student-Loan Debt on Emergency Savings and the Moderating Role of Financial Knowledge

Datasets used: SHEDAY; SHED Crosswalk



Fellow – Jack KROGER



The Effect of State Financial Education Mandates on Educational Debt Outcomes

Datasets used: NCCSAY, SHEDAY, SHED Crosswalk, State Year Economic and Demographic Data, Urban and Schmeiser 2020



Fellow – Dr. Lu FAN



Financial Education Mandates, Financial Behavior, and Perceived Financial Wellness of Young Adults

Datasets used: SHEDAY; SHED Crosswalk; Urban and Schmeiser 2020



Fellow – 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

Datasets used: SHEDAY; SHED Crosswalk; Public School Spending



Fellow – Lena GAN



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

Datasets used: SHEDAY; SHED Crosswalk



Fellow – Dr. Jeffrey ANVARI-CLARK



***Financial Knowledge and Financial Fragility,
as Moderated by Individual-Level Sharing and
Receiving of Monetary Assistance***

Datasets used: SHEDAY; SHED Crosswalk

Jeffrey's Research Project





Financial Knowledge and Financial Fragility, as Moderated by Individual-Level Sharing and Receiving of Monetary Assistance

WHY?: Next step question in research agenda on financial interdependence

- SHEDAY dataset provided larger data pool
- Crosswalk enabled faster identification of items x wave
- Financial fragility measure & R construction enhanced ability to measure financial precarity (theoretically and technically)
- Opportunity to think about what's important (the outcome of financial knowledge vs the source of that knowledge)

Thank You, NEFE & Knology!



Questions:

How does financial knowledge impact one's financial fragility, when moderated by individual-level sharing and receiving of monetary assistance?

1. As financial knowledge increases, how likely are people... To share? To receive? To share and receive?
2. Do sharing, receiving, or sharing and receiving, enhance or reduce the positive impact financial knowledge has on financial fragility?



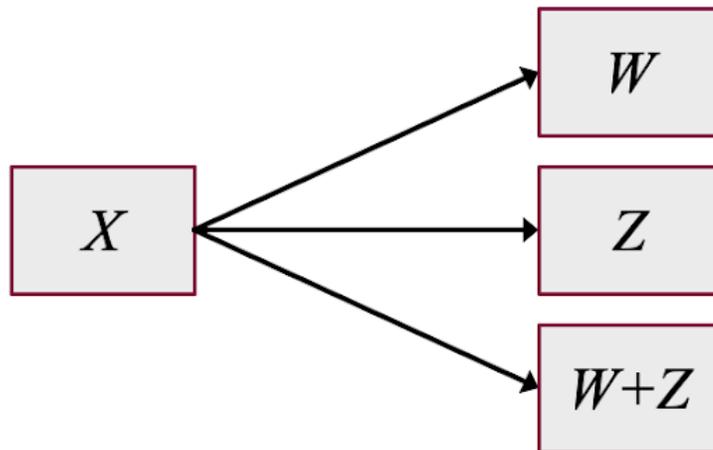
Models

Waves 2017, 2018, & 2019

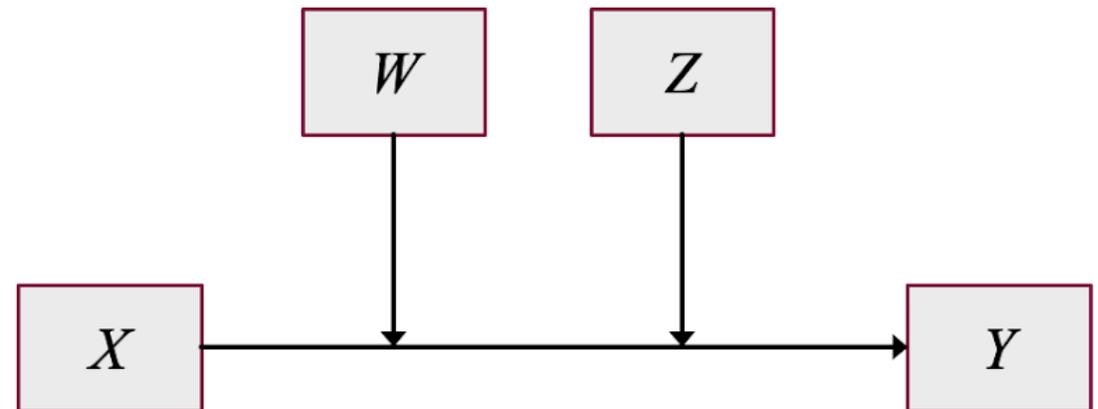
$N = 35,676$ observations from $N = 23,496$ respondents

	Variable	Scale	M (SD) / n (%)
X	Financial knowledge score	Summative score, 3Qs, 0 to 3	1.9 (1.1)
W	Sharing	Binary, 0=N 1=Y	5,819 (16.4%)
Z	Receiving	Binary, 0=N 1=Y	3,005 (8.5%)
Y	Financial fragility	11 item scale score, 0 to 0.85	0.2 (0.2); $\alpha = 0.67$

Q1



Q2





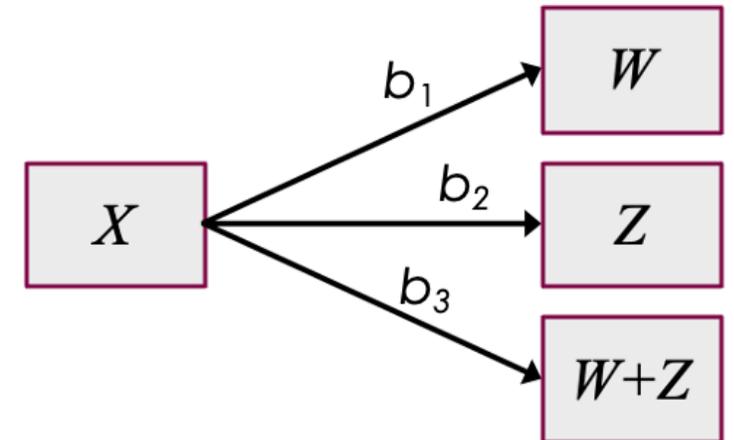
Relation between financial knowledge score and sharing & receiving

	Sharing (b_1)			Receiving (b_2)			Sharing & Receiving (b_3)		
	Est	SE	p	Est	SE	p	Est	SE	p
(Intercept)	-1.93	0.04	***	-1.89	0.04	***	-3.65	0.09	***
FK Score = 1	0.12	0.05	*	-0.13	0.06	*	-0.12	0.12	
FK Score = 2	0.27	0.05	***	-0.53	0.06	***	-0.64	0.13	***
FK Score = 3	0.50	0.05	***	-1.01	0.06	***	-1.19	0.13	***

... As financial knowledge score \uparrow , likelihood of:

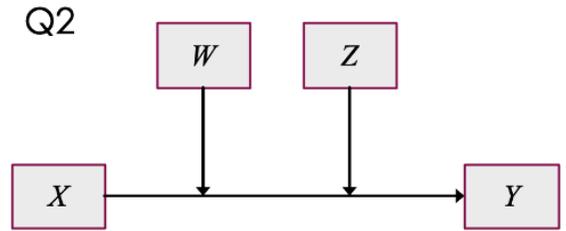
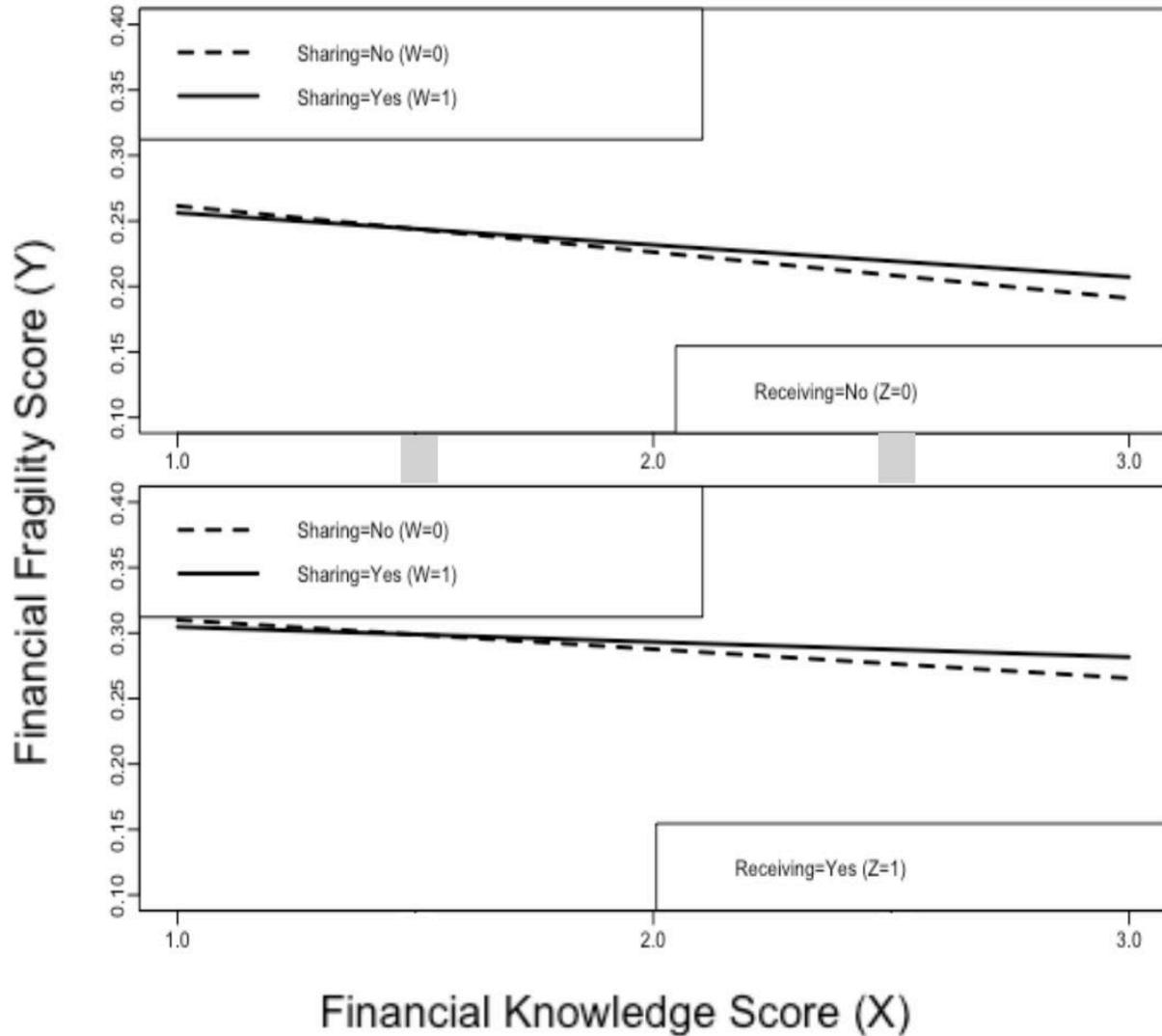
- Sharing \uparrow
- Receiving \downarrow
- Sharing & Receiving \downarrow

Q1





Conditional effects of Financial Knowledge on Financial Fragility at occurrence of Interdependence Activity



Share	Receive	Effect	SE	t	p	LLCI	ULCI
0	0	-0.035	0.00	-36.75	***	-0.04	-0.03
1	0	-0.025	0.00	-11.97	***	-0.03	-0.02
0	1	-0.022	0.00	-8.40	***	-0.03	-0.02
1	1	-0.012	0.00	-3.65	***	-0.02	-0.01

Note: Financial Fragility scale 0 to 0.85. Results control for state, survey year, race/ethnicity^{***}, income^{***}, gender^{*}, and age^{***}.
^{*} $p < .05$, ^{***} $p < .001$. $R^2 = 0.29$.



Take away:

Q1: Although the likelihood of the respondents sharing increases and receiving decreases as financial knowledge improves...

Q2: Sharing, then Receiving, and then Sharing & Receiving increasingly inhibit the impact of Financial Knowledge on reducing Financial Fragility.

- The role of financial interdependence activity across all populations warrants greater investigation.
- How should financial education account for cultural expectations of mutual assistance?

In this model... race/ethnicity, income, age, and to a lesser extent, gender play an important role. State and survey year do not.

- As state accounts for varying financial education policies, perhaps other, more nuanced intervention approaches than policy mandate, may be more impactful.

Resources





Resources on www.knology.org

Mapping Tool & Database

- **Mapping Tool** – Maps of the US, overlaid with a variety of annual measures relating to financial education and wellbeing, including state spending and measures developed from the SHED.
 - <https://knology.org/article/a-mapping-tool-for-financial-education/>
 - <https://knology.shinyapps.io/knologyfinedstatespendingshiny/>
- **Database** – All datasets can be found on Knology's website, with brief explanations about each one. All are downloadable as in a Zip file.
 - <https://knology.org/article/database-financial-education-and-outcomes-across-states>
- **R Package** – Preloaded functions and packages to replicate and build upon Knology's analysis
 - <https://knologyresearch.gitlab.io/KnologyFinEdStateSpending/>
 - <https://gitlab.com/knologyresearch/KnologyFinEdStateSpending>



Resources on www.knology.org

Project Report & Findings

- **Findings** – All the main findings and details about the project, including a video webinar about the Database & Mapping Tool and the project’s final report.
 - <https://knology.org/article/a-new-history-of-investment-in-financial-education-across-the-united-states/>
- **Behind the Research Part 1** – One of a pair of stories about designing a complex research process.
 - <https://knology.org/article/behind-the-research-the-big-picture-of-how-we-studied-states-spending-on-financia>
- **Behind the Research Part 2** – The second article offering insight into our research process.
 - <https://knology.org/article/behind-the-research-defining-the-gaps-in-the-financial-education-data>

Where do we go from here?

- The data is messy and will never be totally comprehensive, but can continue to improve
- A few examples to illustrate what we mean...



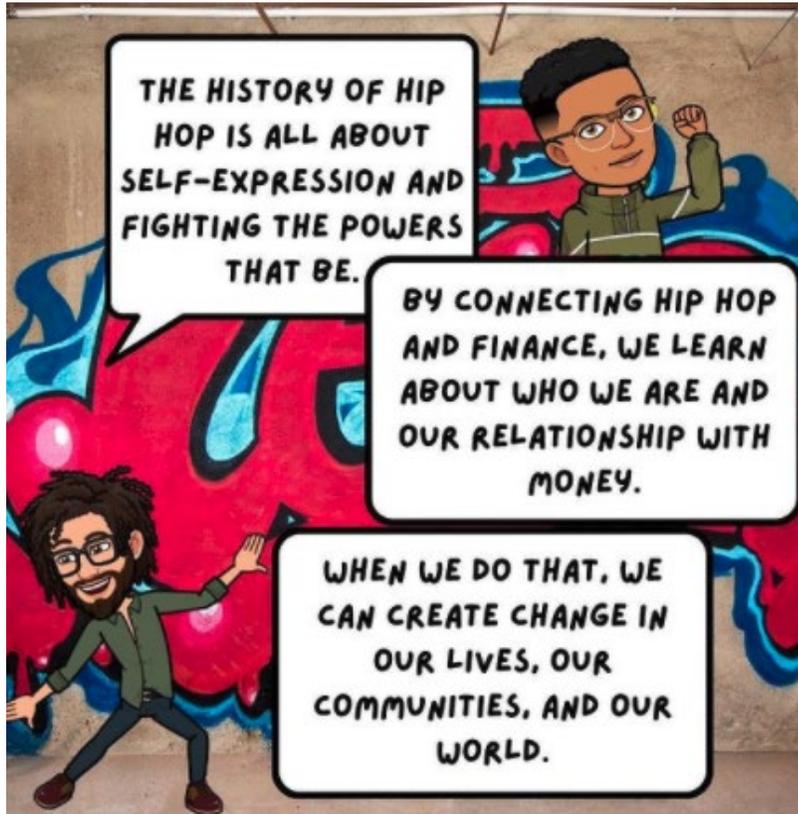
What's happening in libraries?

<https://tm4k.ala.org/>



Pockets Change: Hip Hop & Finance

Creating Change with the 5 Steps of Financial Resilience



Asking For A Friend Weekly
Webcomic



**1. Buy-In Conversations:
Create the Cypher**



**2. Examine Financial Systems:
Find Shared Rhythm**



**3. Build Habits:
Discover Personal Rhythm**



**4. Develop Advocacy Skills:
Taking the Stage**



**5. Identify Values:
Tap into Your Flow Style**

Let's Discuss!





Discussion Prompts

- Is there anything you want to know more about?



Discussion Prompts

- Is there anything you want to know more about?
- What's one surprising or unexpected thing that you heard today?



Discussion Prompts

- Is there anything you want to know more about?
- What's one surprising or unexpected thing that you heard today?
- Did you learn anything that affects your work in some way? What will you do with it?