How to Use Research for Advocacy

FEII22

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Financial Education Affects Financial Knowledge and Downstream Behaviors

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Tim Kaiser, Annamaria Lusardi, Lukas Menkhoff, and Carly Urban

The need for a (new) meta-analysis

Does financial education work?
→ It is important to rely on data and evidence.

- The research on financial literacy/financial education has exploded.
- Very hard to do a narrative review of so much work
  → A meta-analysis may help.

→ Financial literacy has its own code in the *Journal of Economic Literature* (JEL) classification: G53. It is officially a field of research.

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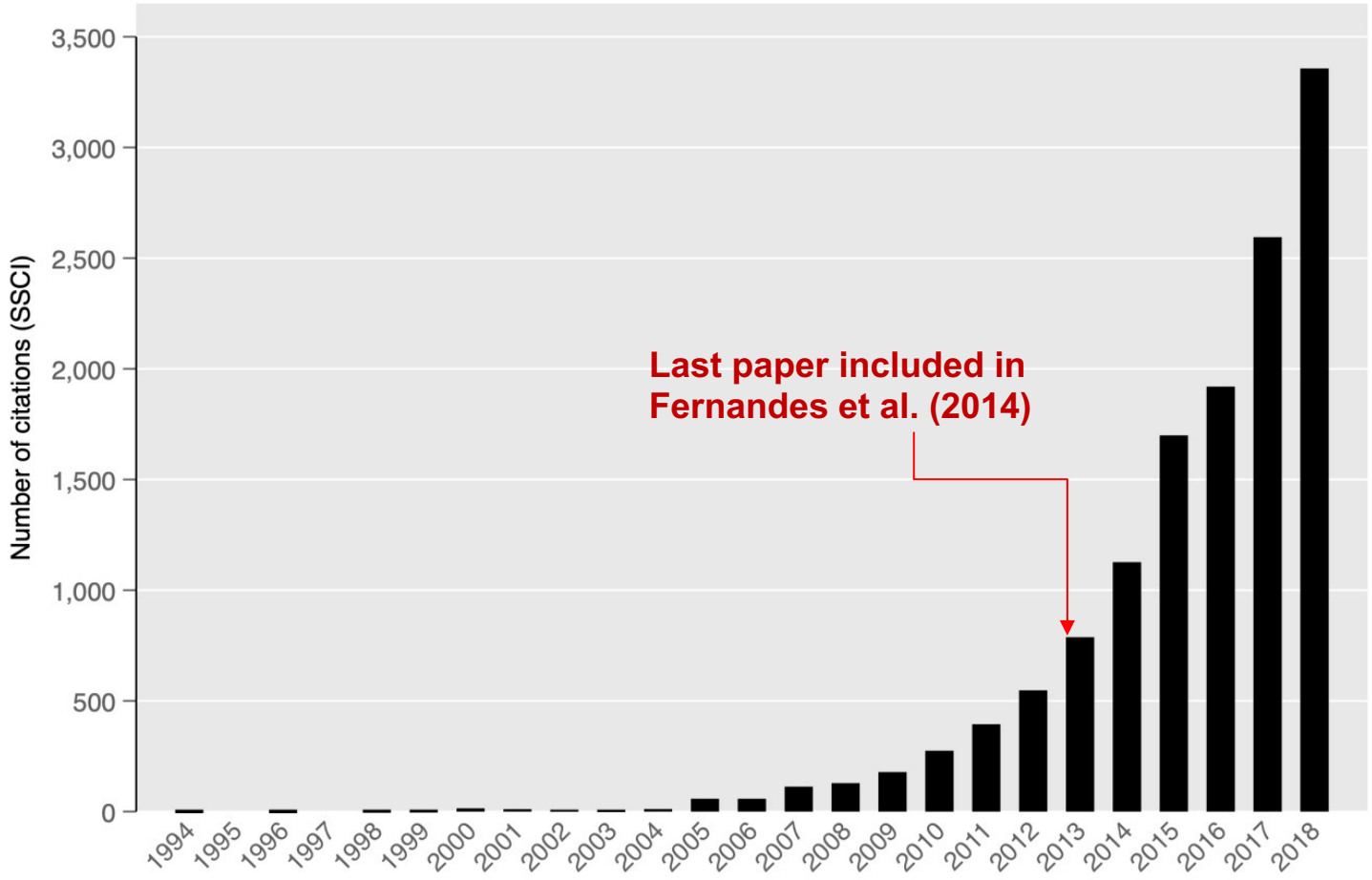
Citations to the term "financial literacy" over time: Time for an update of the evidence



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We dedicated a webpage to it on GFLEC website

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Financial education affects financial knowledge and downstream behaviors

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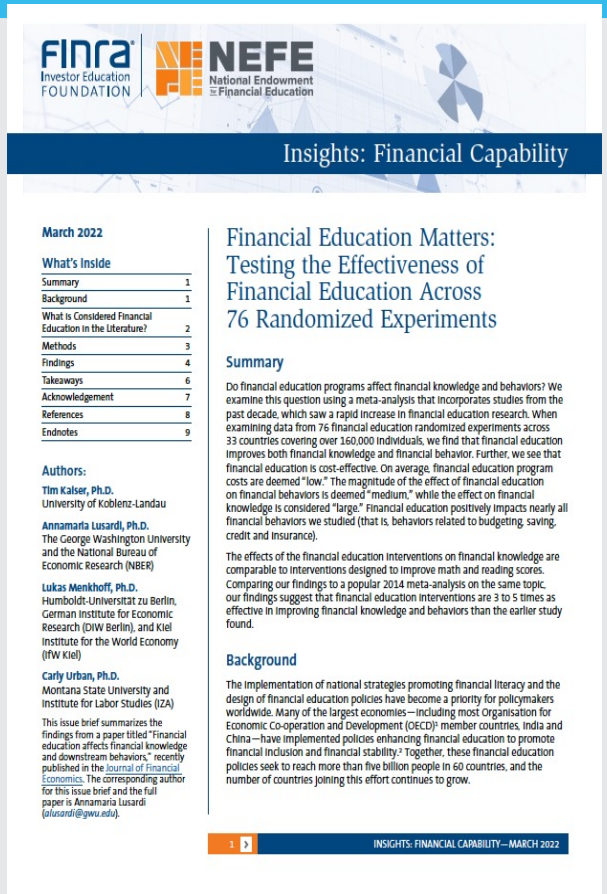
Abstract

We study the rapidly growing literature on the causal effects of financial education programs in a meta-analysis of 76 randomized experiments with a total sample size of over 160,000 individuals. Many of these experiments are published in top economics and finance journals. The evidence shows that financial education programs have, on average, positive causal treatment effects on financial knowledge and downstream financial behaviors. Treatment effects are economically meaningful in size, similar to those realized by educational interventions in other domains, and robust to accounting for publication bias in the literature. We also discuss the cost-effectiveness of financial education interventions.

Introduction

The economic importance of financial literacy is documented in a large and growing empirical literature (e.g., Collins and O'Rourke, 2010; Xu and Zia, 2012; Hastings et al., 2013; Lusardi and Mitchell, 2014; Lusardi, 2019). Consequently, the implementation of national strategies promoting financial literacy and the design of financial education policies and school mandates have become a high priority for policymakers around the



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Insights: Financial Capability

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What's Inside

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This issue brief summarizes the findings from a paper titled "Financial education affects financial knowledge and downstream behaviors," recently published in the Journal of Financial Economics. The corresponding author for this issue brief and the full paper is Annamaria Lusardi (alusardi@gwu.edu).

Financial Education Matters: Testing the Effectiveness of Financial Education Across 76 Randomized Experiments

Summary

Do financial education programs affect financial knowledge and behaviors? We examine this question using a meta-analysis that incorporates studies from the past decade, which saw a rapid increase in financial education research. When examining data from 76 financial education randomized experiments across 33 countries covering over 160,000 individuals, we find that financial education improves both financial knowledge and financial behavior. Further, we see that financial education is cost-effective. On average, financial education program costs are deemed "low." The magnitude of the effect of financial education on financial behaviors is deemed "medium," while the effect on financial knowledge is considered "large." Financial education positively impacts nearly all financial behaviors we studied (that is, behaviors related to budgeting, saving, credit and insurance).

The effects of the financial education interventions on financial knowledge are comparable to interventions designed to improve math and reading scores. Comparing our findings to a popular 2014 meta-analysis on the same topic, our findings suggest that financial education interventions are 3 to 5 times as effective in improving financial knowledge and behaviors than the earlier study found.

Background

The implementation of national strategies promoting financial literacy and the design of financial education policies have become a priority for policymakers worldwide. Many of the largest economies—including most Organisation for Economic Co-operation and Development (OECD)[1] member countries, India and China—have implemented policies enhancing financial education to promote financial inclusion and financial stability.[2] Together, these financial education policies seek to reach more than five billion people in 60 countries, and the number of countries joining this effort continues to grow.

https://gflec.org/metaanalysis

What is a meta-analysis and why is it important?

- A meta-analysis is a statistical tool that aggregates the results of many different studies on a particular topic to summarize a body of research (in our case financial education).
- Policymakers can rely not only on a few studies in making decisions but an entire body of evidence.
- We restrict the analysis to randomized controlled trials (RCTs) which are considered the gold standard of impact evaluation.

Previous meta-analyses on financial education

- The first meta-analysis by D. Fernandes, J. Lynch, and R. Netemeyer was published in 2014 in *Management Science*
- Other meta-analyses with different emphasis (Miller et al. 2015, Kaiser and Menkhoff 2017, 2019) have been published since, but Fernandes et al. (2014) have been most cited, in particular these two findings:

1) "We find that interventions to improve financial literacy explain only 0.1% of the variance in financial behaviors studied" (page 1861)
2) "Intervention effects may decay over time – the case for 'just in time financial education'."(page 1866)

What we do in our meta-analysis

- (1) We take stock of the new evidence
  - Focus on RCTs, which are considered the gold standard of impact evaluation
  - Include all earlier studies and more than quintuple the number of RCTs (from 13 to 76)
    - Many more studies in top economics-journals
    - Can look at different types of behavior in addition to financial knowledge

What we do (cont.)

- (2) Calculations of the economic size of the effects and analysis of cost-effectiveness
  - What do the statistical effect sizes mean in economic terms?
  - What is the average cost of financial education and is it cost-effective?

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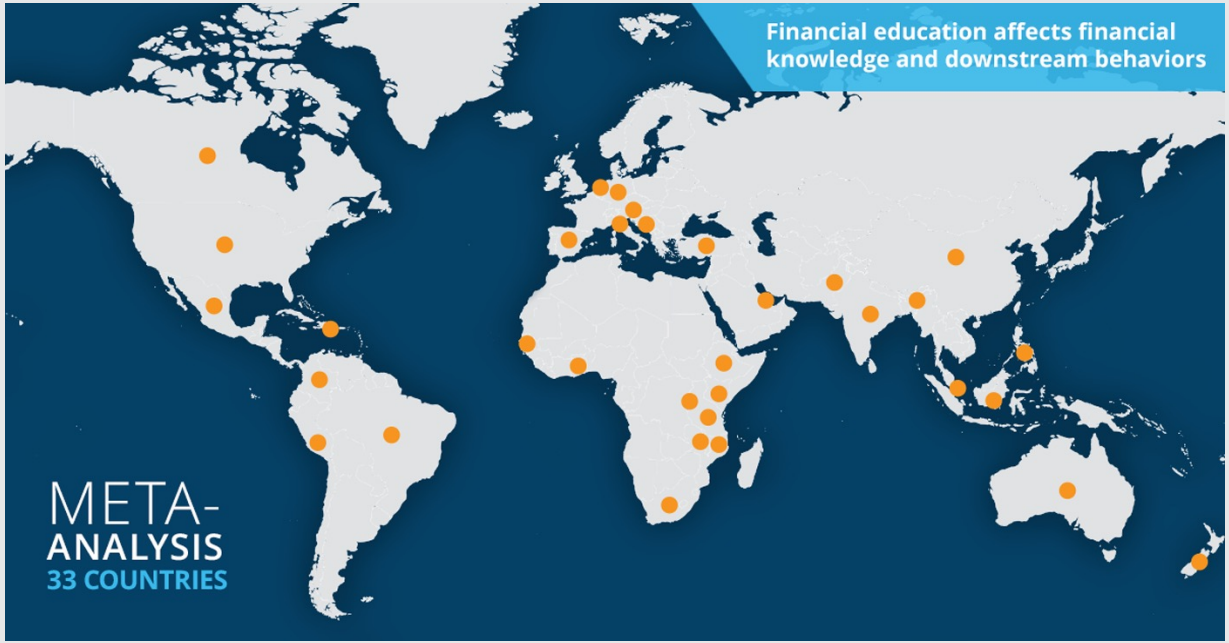
New meta-analysis relative to Fernandes et al. (2014)

Our study includes 76 RCTs (vs. 13) from 33 countries (vs. 8) with over 160,000 (vs. 23,000) individuals across the lifespan.



The sample include many low-income countries/target groups. The effects are measured after 30 weeks, on average, and up to more than two years.

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Our findings

We found that:

- The estimated effect of financial education is ***at least three times as large*** as the effect documented in Fernandes et al. (2014)

3x

- Accounting for differences in programs, effects are ***more than five times as large*** as the effects reported in Fernandes et al. (2014)

5x

- We **do not find clear evidence** of a dramatic **decay** of the effects of financial education over time. Effects persist up to two years after intervention

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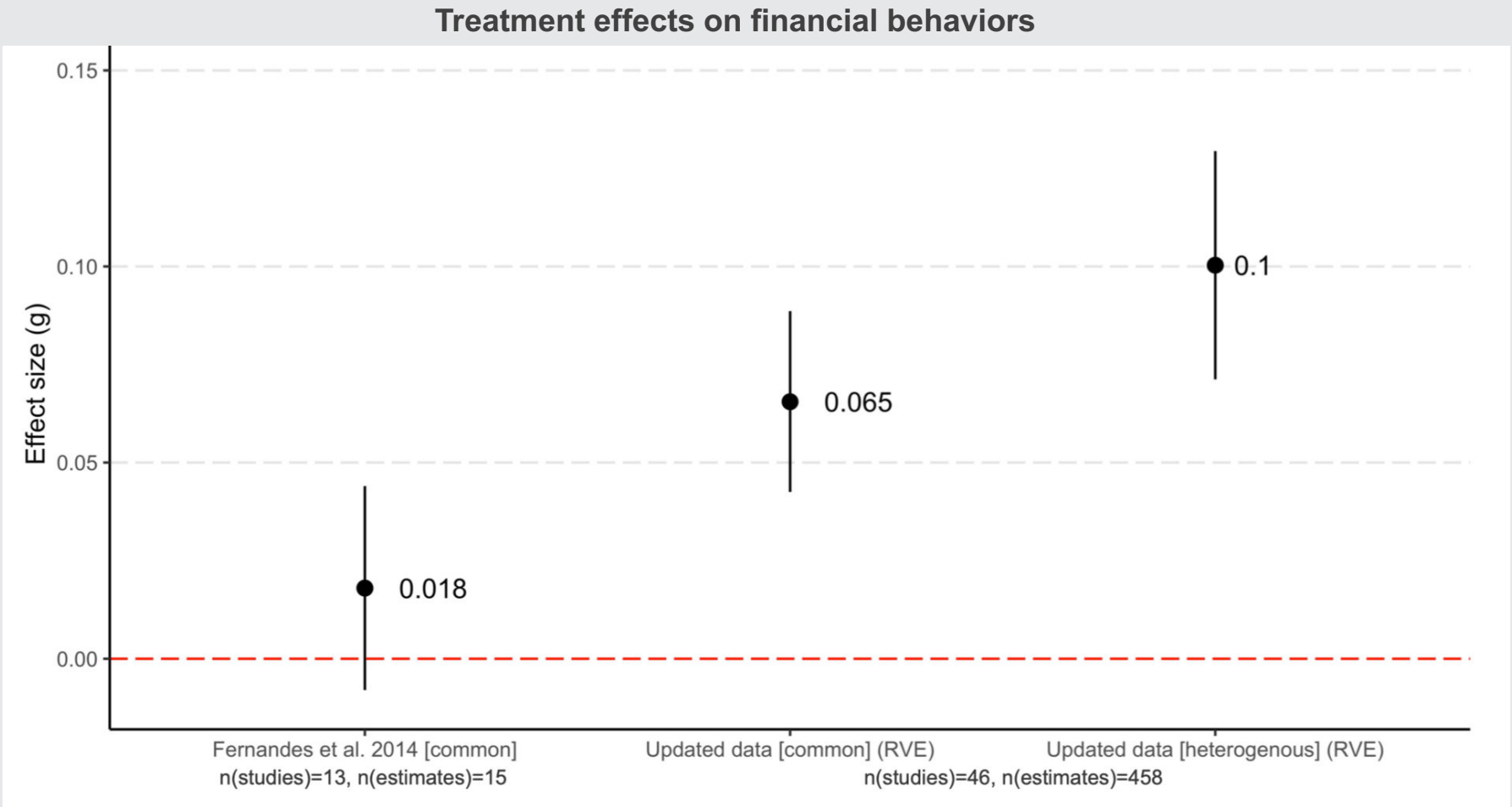
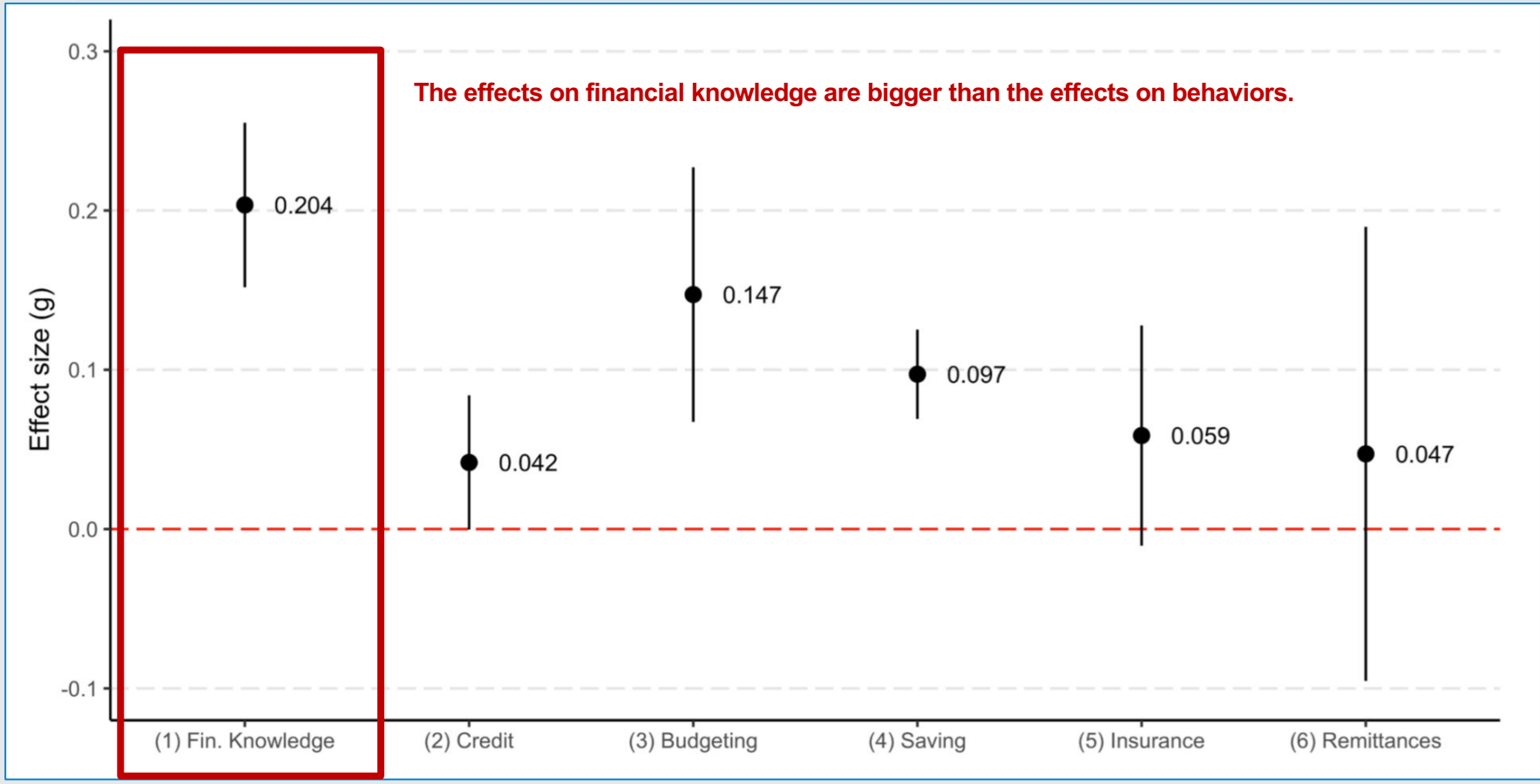
Comparing the new evidence to the result in Fernandes et al. (2014)



Treatment effects by outcome domain



How big are the effects?

- Effects of financial education on *financial knowledge* are comparable to studies on math and reading (Hill et al. 2008; Cheung and Slavin 2016; Fryer 2016).
- Effects of financial education on *financial behaviors* are comparable to meta-analyses of interventions in other domains
  - anti-smoking (Rooney & Murray 1996)
  - tailored printed health interventions (Noar et al. 2017)
  - energy conservation (Karlin et al. 2015)

A scheme for interpreting effect sizes from causal studies (Kraft 2018)

		Cost-Effectiveness Ratio (ES/Cost)		
		Cost Per Pupil		
		Low (< $500)	Moderate ($500 to <$4,000)	High ($4,000 or >)
Effect Size	Small (<.05)	Small ES / Low Cost	Small ES / Moderate Cost	Small ES / High Cost
	Medium (.05 to <.20)	Medium ES / Low Cost	Medium ES / Moderate Cost	Medium ES / High Cost
	Large (.20 or >)	Large ES / Low Cost	Large ES / Moderate Cost	Large ES / High Cost

Notes: ES = Effect Size

(Kraft 2018, p. 20)

Are interventions cost-effective?

- Using Kraft's (2019) scale of educational interventions, effects are "medium/large."
- Average intervention has low cost per participant (mean costs are $60.40 and median costs are $22.90)
- With the data we have, for "medium effect sizes," Kraft's educational intervention scale would say average cost per participant of $60 implies "low cost."

Main takeaways

1) Financial education works! Recent work shows clear evidence of positive effects of financial education on financial behaviors (+knowledge)
   Statistical effect size is at three times as large as the effect in Fernandes et al. (2014)
   - It may be up to five times as large (when allowing for between-study heterogeneity in true effects)
   - Robust to a lot of different approaches to meta-analysis and even when accounting for publication selection for statistical significance
2) Policy recommendations should be based on economic effect sizes, not statistical effect sizes
3) No evidence of “rapid decay” but no evidence against it either

It is time to build a financially resilient society

Source: https://www.motherjones.com/food/2020/04/these-photos-show-the-staggering-food-bank-lines-across-america/

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