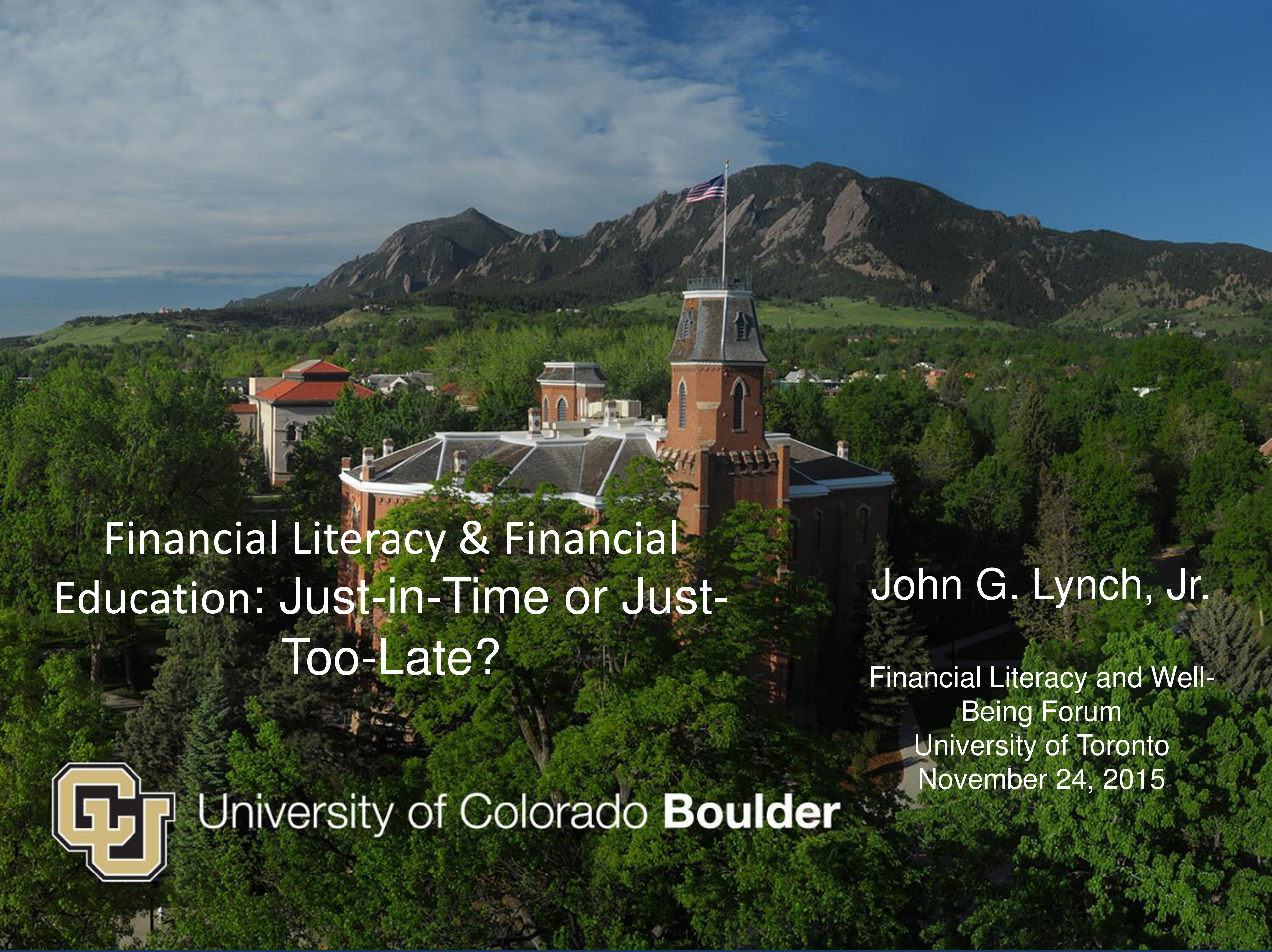

Financial Literacy & Financial Education: Just-in-Time or Just-Too-Late?

John G. Lynch, Jr.

Financial Literacy and Well-Being Forum
University of Toronto
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University of Colorado **Boulder**

Boulder Summer Conference on Consumer Financial Decision Making

Boulder Summer Conference 2016 Information

May 22nd-24th, 2016
Boulder, Colorado

St Julien Hotel
900 Walnut Street
Boulder, CO 80302
877.303.0900

Contact Us

consumerfinance@colorado.edu
director: john.g.lynch@colorado.edu
303.492.8413
Office: Koelbel S405H
Location & Map
Twitter

Cutting edge research on consumer financial decision making by scholars across diverse fields: economics, law, psychology, sociology, anthropology, marketing, finance, and consumer sciences. Lively discussion of this research by scholars, regulators, consumer advocates, and financial services professionals.

Heretic in the NEFE Cathedral

- NEFE Quarter Century conference (2010)
  - John Gannon of FINRA “Given mixed evidence and cost considerations, maybe now is not the time to continue to press for state mandates”

- Implicit model: Education → Gains in Financial Knowledge → Delayed Retrieval and Application of Knowledge at time of financial decisions months and years later… cf. Thompson, Gentner, Loewenstein

- Let’s see who is right…meta-analysis and follow up research, funded by NEFE – Fernandes, Netemeyer

Our Guiding Hypothesis

- Correlation ≠ causation
- Two kinds of studies in this literature
  1. Experimental & Quasi-Experimental studies of effects of educational *interventions* on financial behaviors
  2. Correlational / econometric studies that *measure* financial literacy of consumers by some test & predict some downstream financial behavior
- We expect that first kind will show weak effects compared to second kind

Sample Financial Literacy Questions

- Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102, or less than $102?
- Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?
- Suppose you owe $3,000 on your credit card. You pay a minimum payment of $30 each month. At an Annual Percentage Rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?

Meta-Analysis: Coded 201 Studies For

- Effect size of financial literacy on financial behavior: r(financial literacy, financial behavior)
- Financial Behavior type: saving; planning for retirement; absence of debt; stock ownership and investment decisions; cash flow management; activity in retirement plans; and financial inertia such as choice of default options and payment of unnecessary fees.
- Low income sample or general population sample

From Fernandes, Lynch, & Netemeyer (2014, Management Science)

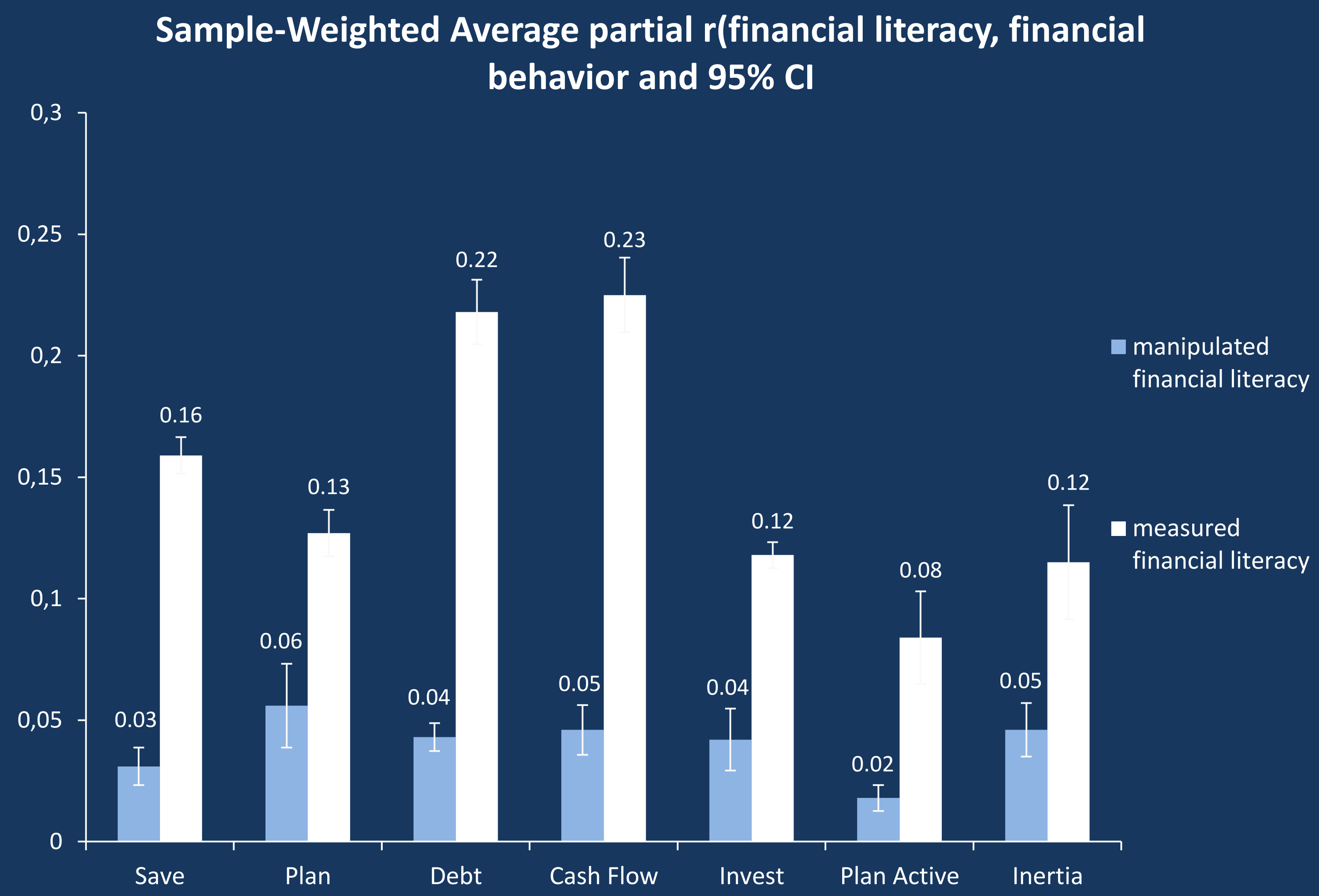
Financial education explains only

0.1%

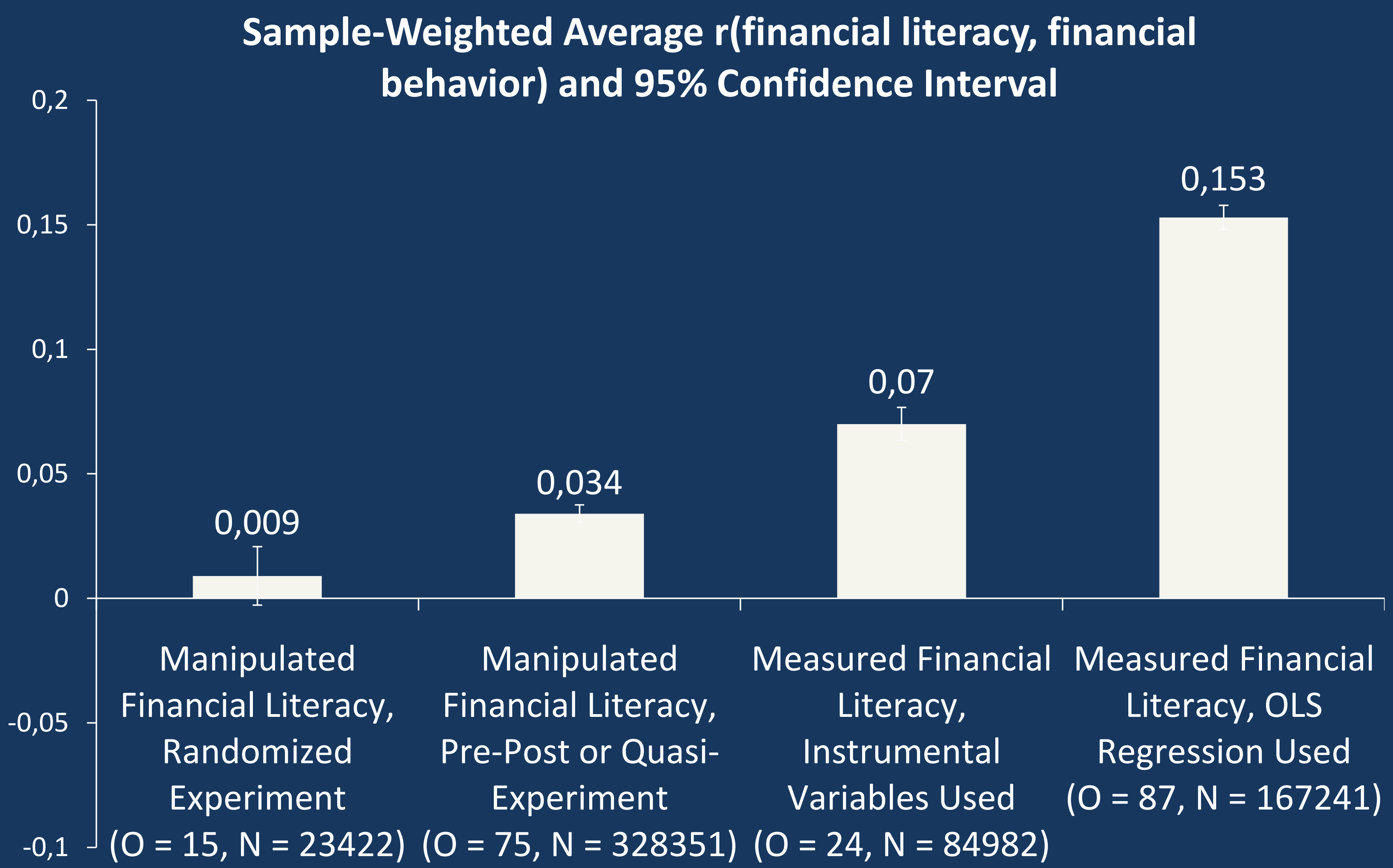
of the variability among consumers good v. bad financial behaviors.

Effects Much Larger for Measured than Manipulated Financial Literacy

Effect-size r



Smaller Effect Sizes with More Rigorous Designs



From Fernandes, Lynch, & Netemeyer (2014, Management Science)

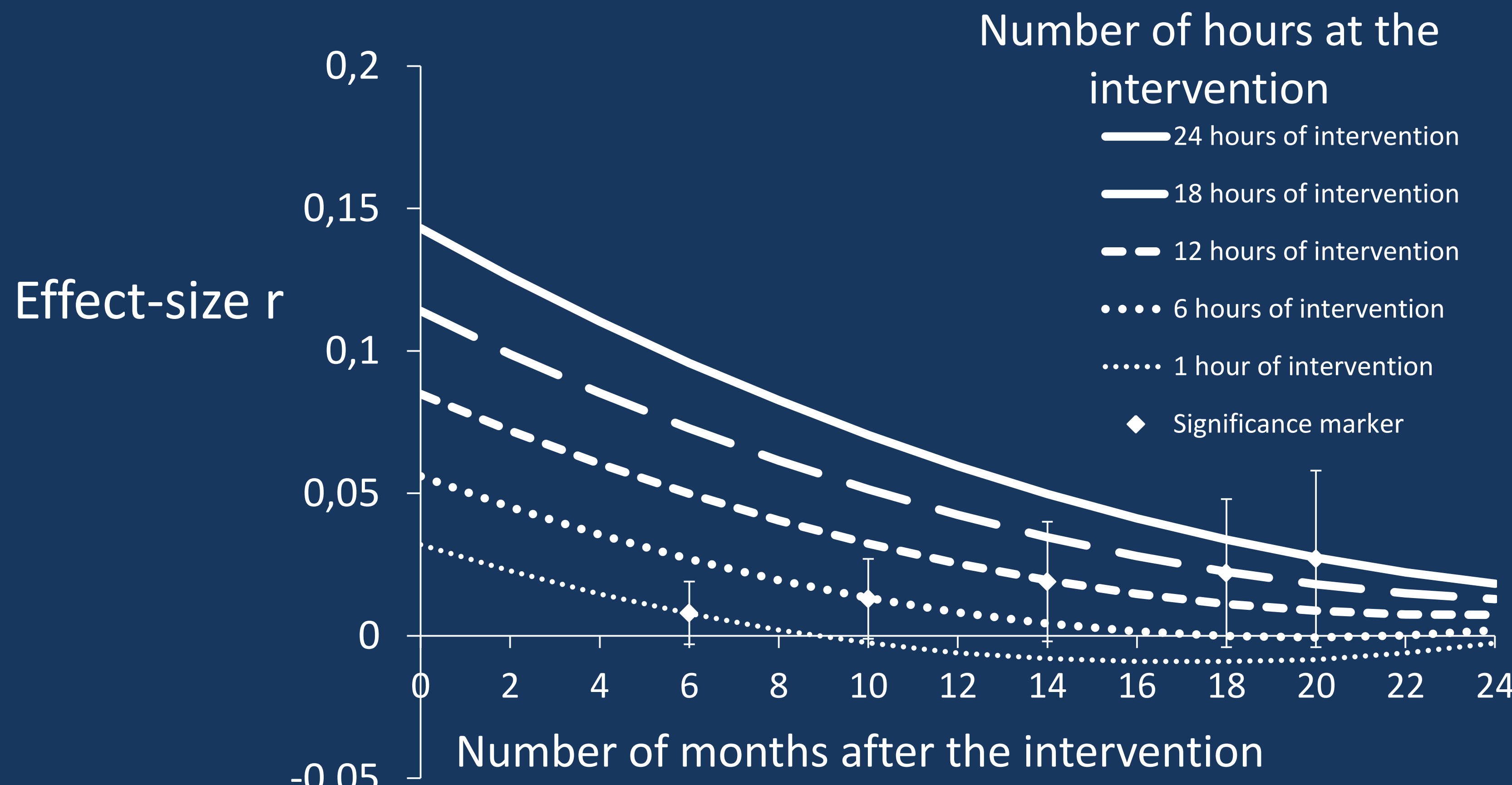
Why?

- Why are effects so much smaller for interventions than when we correlate measured financial literacy with financial behavior?

- Three reasons

Reason #1:
Interventions Decay

Interventions Decay: The Case for "Just-in-time" Financial Education



After a delay, even long interventions have no significant influence

Reason #2: Knowledge v. Correlates

- It isn't financial knowledge that is so critical; Financial literacy is correlated with other traits that really matter (Boris Palameta & Taylor Shek-Wai Hui's talks)
  - Confidence in information search to be proactive
  - Propensity to Plan use of money
  - Willingness to take prudent investment risks
- We ran our own correlational studies mimicking those published. Financial literacy predicted financial behaviors alone, but when traits above added, financial literacy became much less sig.

Reason #3: Financial Education Has Low "Share of Voice," and People Rely on Other Sources

- Focus of Ward & Lynch, to be discussed next

Implications for Financial Ed & Policy

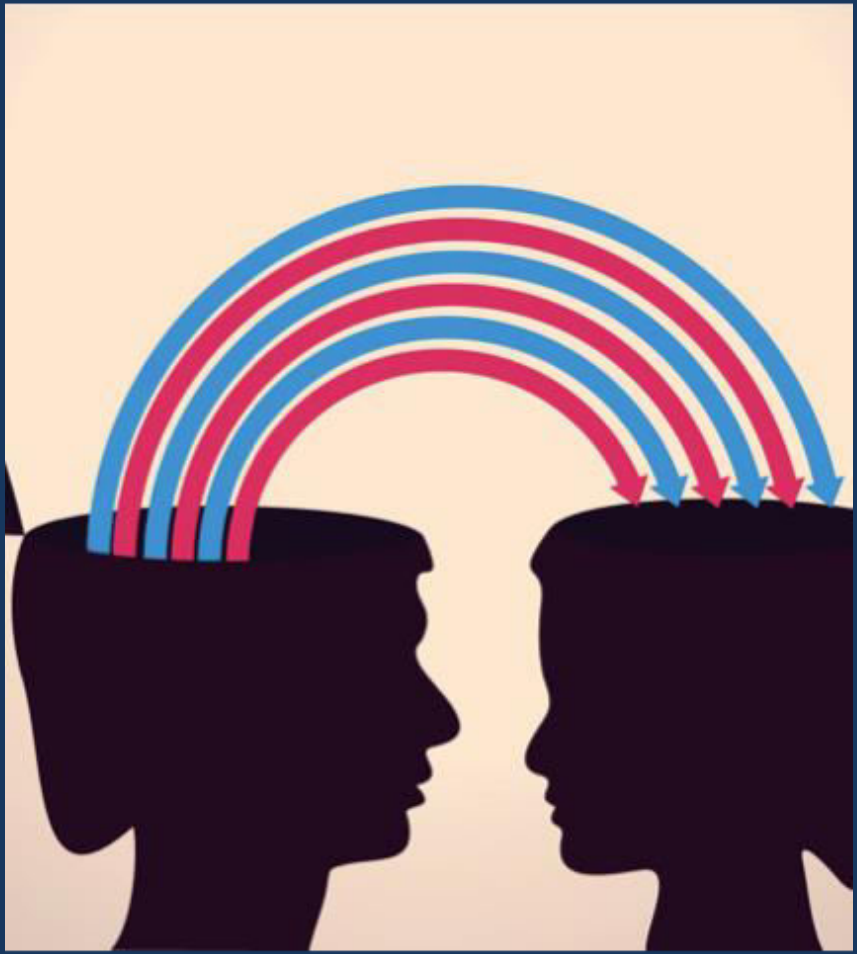
- Clear that financial ed as now practiced is surprisingly ineffective
  - Behavior change
  - Knowledge change
- Focus on financial facts rather than skills and traits (confidence, planning, risk taking)?
- Just in time financial education?
- Multiple skills v focus on 1 behavior?

Opportunities for Just-in-Time Financial Education / Decision Support

- *At job termination: hardship withdrawals, loans, cash--outs*
  - *Hello Wallet study claims $0.40 withdrawn for every $1.00 employee dollar contributed*
  - *Aon-Hewitt: 43% cash out at termination*
  - *Company disincentives to rollover*
- *At hiring*: Emergency fund before 401(k)? *At retirement*: Annuitization

Back to #3: People rely on their partners

- Consumers don't know because they don't think they *need* to know.
- "My partner has it covered"
- Consider the social context



Thus Far: Financial Literacy of Individuals

- John in 1979, starting his job at University of Florida
- But…..Married to Pat since 1974

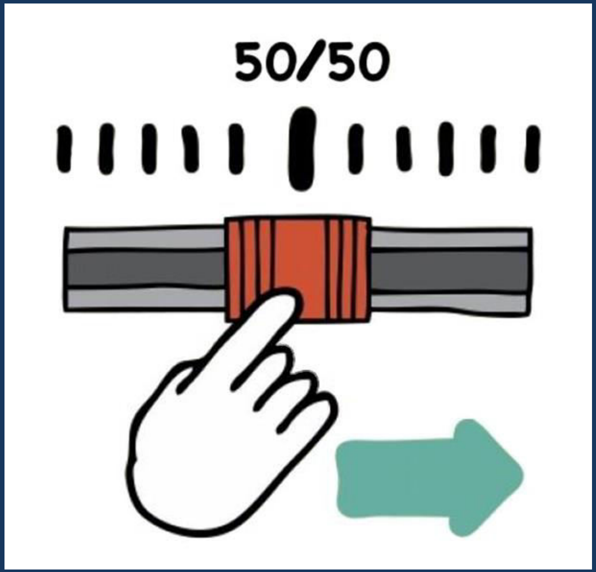
Ward & Lynch

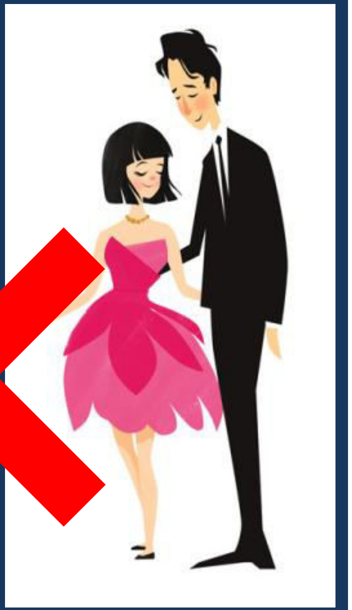
Financial Literacy in Context

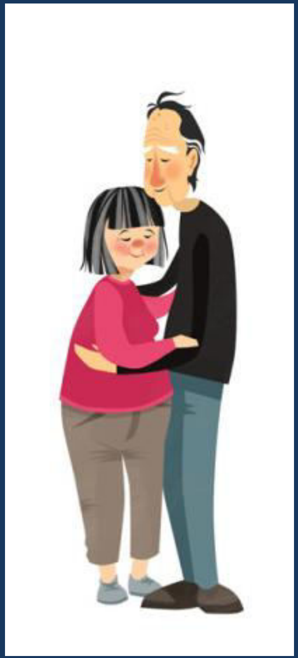
Development of Financial Literacy in Couples

- Ward and Lynch – Transactive memory processes in couples
- Couples divide roles for different tasks
- If you are not assigned the financial role, you rely on your partner
- If so, unsurprising that (some) people don’t know much or that financial education doesn’t help them – learned ignorance
- Low financial literacy leads to low use of just-in-time financial information and lower quality financial decisions
- Study of couples: How much responsibility has the partner had, and how long have partners been together?

Ward & Lynch, Financial Literacy in Context





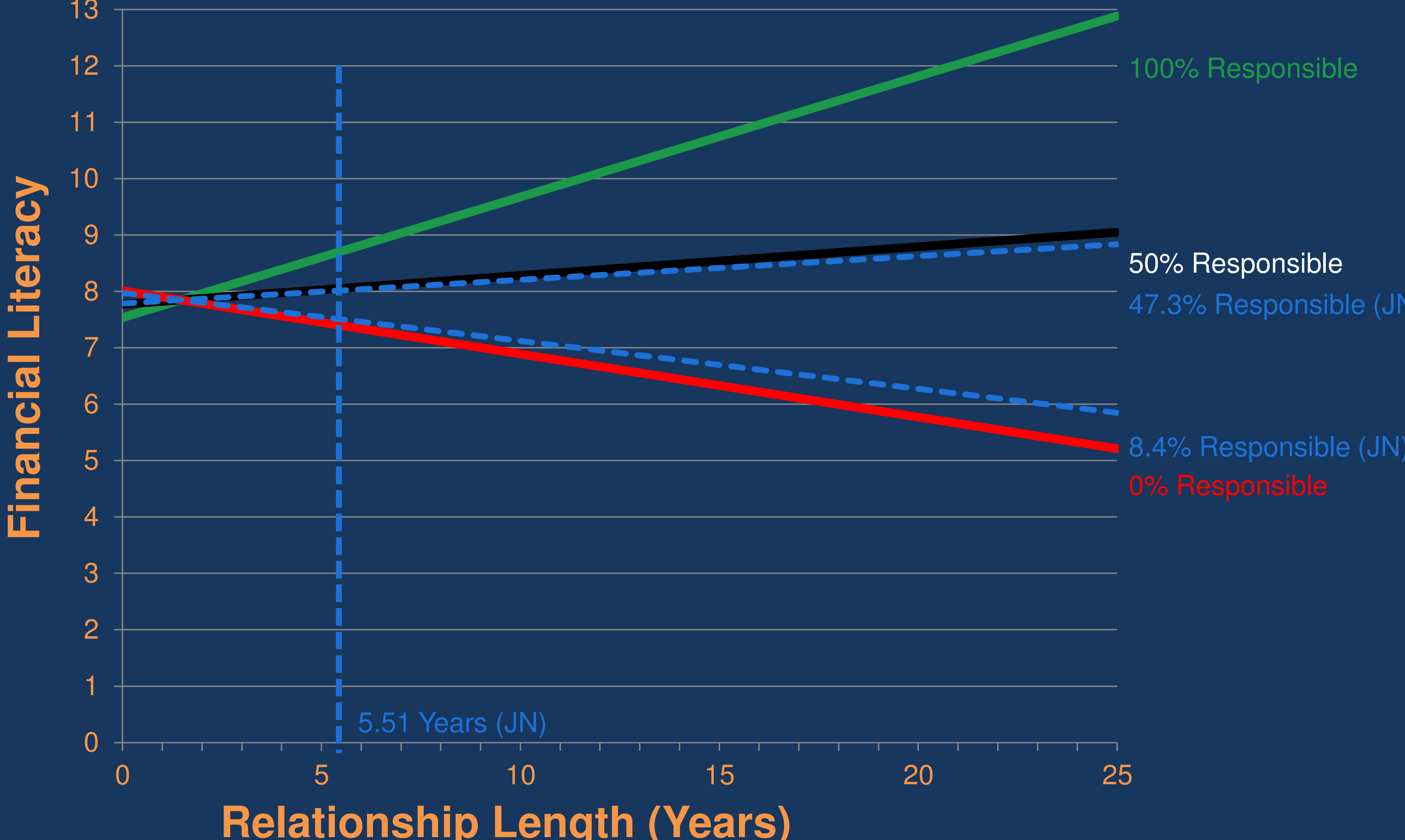


Financial Responsibility

Relationship Length

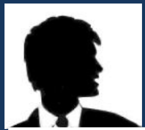
Interaction = amount of time a relationship partner has taken on (or given up) financial responsibility

Financial Responsibility Predicts the Development of Financial Literacy



Financial Literacy & Auto Loans

- Adults sharing finances participated in a study where they were paid for making good decisions about auto loans
- Before making decisions, given chance to review information about how to choose a good auto loan from Consumer Reports, Federal Trade Commission, etc.
- We measured how much information they looked at, and how well they subsequently did in picking appropriate auto loans



Married Couples & Information Search for Loan

You have looked around, and found two cars you like.

Car 1 costs $14,000, and has a special financing offer of only 1.9% APR.

Car 2 only costs $12,000, but your only financing option involves a 6.9% APR.

You plan to pay off whichever car you choose within four years (48 months).

Which of these two cars will allow you to stay within your budget of $300 per month and meet your goal of completely paying off the car in 48 months?

Financial Literacy & Auto Loans

- Identical pattern to above in graph shown earlier
- The longer someone had depended on partner for financial decision making, the lower the financial literacy
- The longer someone had been the person in charge, the higher the financial literacy
- Those more literate searched more and made better decisions
- Those less literate searched less and made worse decisions
- Analogy to relying on parents or others for financial decisions

Welfare Implications

- If I stay in a stable relationship, I can be financially illiterate and okay
- Analyzed Univ. of Michigan data…
  - Household financial outcomes relate to financial literacy of primary decision maker / “driver”
  - But no relationship between household outcomes and financial literacy of the “passenger”
- But sometimes partner is unavailable
- Moreover, divorce & death of partner

Just in Time Not Enough

- Ward and Lynch: getting information to someone just in time is not enough
- Must be directed to someone with significant responsibility for financial affairs
- Low financial literacy leads to low use of just-in-time financial information and lower quality financial decisions
- Effective "just in time" when consumers rely on others

Student Loans…
How to Be “Just in Time?”

Financial Mistakes

- Choosing not to go to college due to short term financial constraints and debt aversion
- Choosing a college that is expensive in sense of producing low ROI – target of college scorecard
  - Expensive and therefore high debt
  - Low graduation rate
- Borrowing more than needed for lifestyle in college
- Choosing a major without considering income implications

Role of Financial Education in Toolkit

- Economics offers three main tools: More choices; Better information; Incentives to perform desired behaviors
- Financial Literacy is a “better info” remedy
  - What’s the half-life?
  - ***Just in time financial education***?
    - Nudge / defaults when consumers homogeneous
    - JIT Financial education + active choice when needs heterogeneous
- problems for future work:
  - What to teach
  - When to teach it? How to teach it close to the point of decision
  - Focus resources on primary financial decision maker?