

# Improving Financial Literacy and Capability: What Works?

The George Washington University School of Business, June 21, 2012



## The Geography of Financial Capability and Financial Literacy

**SUMMARY OF FINDINGS FROM 2011 RESEARCH**



A joint center of the RAND Corporation, Dartmouth College,

# National Financial Capability Study

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- **Conducted to establish a baseline measure of Americans' ability to manage their money.**

## Multi-disciplinary team:

- » Annamaria Lusardi (GWU)
- » Applied Research & Consulting LLC (ARC)
- » FINRA Investor Education Foundation
- » Office of Financial Education, U.S. Treasury Department
- » Additional input from:
  - Employee Benefit Research Institute (EBRI)
  - American Institute of Certified Public Accountants (AICPA)
  - Bob Willis, Univ. of Michigan, past PI of U.S. Health and Retirement Study

# Objectives of FLC Research

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- **Atlas of financial capability for the United States**
  - Create two indices that can be used to identify the states where Financial Literacy and Financial Capability are low and where more initiatives should be considered.
    - ✦ Financial Literacy Index: Summarize 5 financial literacy quiz questions to provide a measure of financial knowledge.
    - ✦ Financial Capability Index: Combine the information on four main areas of behavior to provide a measure of financial capability.

# Objectives of FLC Research

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- Explore the effects of geography on Financial Literacy and Financial Capability.
  - ✦ Assess the extent to which index values are correlated with publicly available state-by-state measures of financial well-being.
  - ✦ Determine the magnitude of geographic effects on Financial Literacy and Financial Capability when isolated from underlying demographic effects.

Note: Data in this report are from the NFCS State-by-State online survey of 28,146 respondents (approx. 500 per state plus DC).

# Financial Literacy Index

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- Summarizes 5 financial literacy quiz questions to provide a measure of financial knowledge.
  - Interest rate question
  - Inflation question
  - Bond price question
  - Mortgage question
  - Risk question

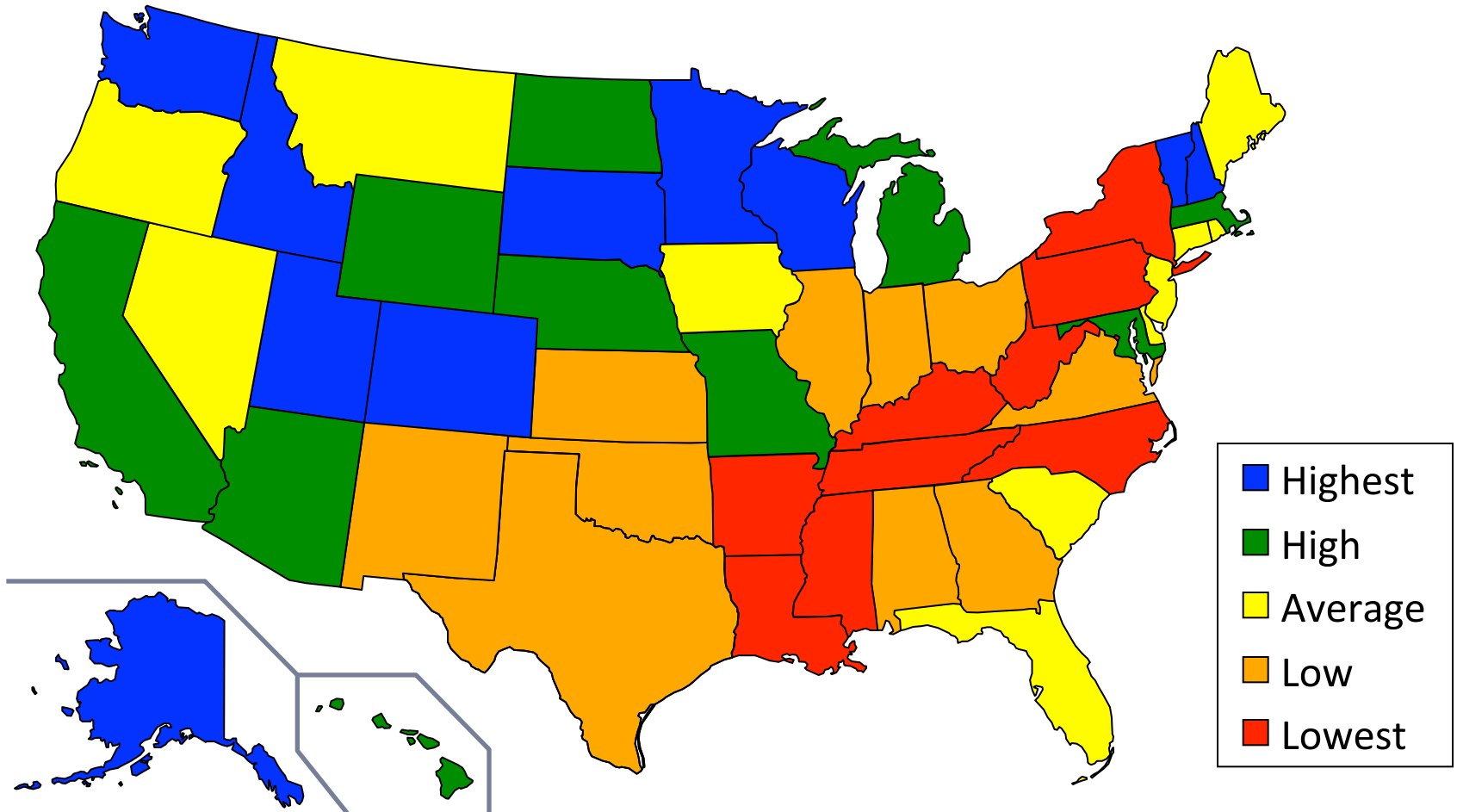
# Financial Literacy Index

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- Number of Correct Answers to Financial Literacy Quiz

	<i>Percent</i>
None	7%
One	11%
Two	17%
Three	24%
Four	27%
Five	15%

# Financial Literacy Index by State



# Financial Capability Index

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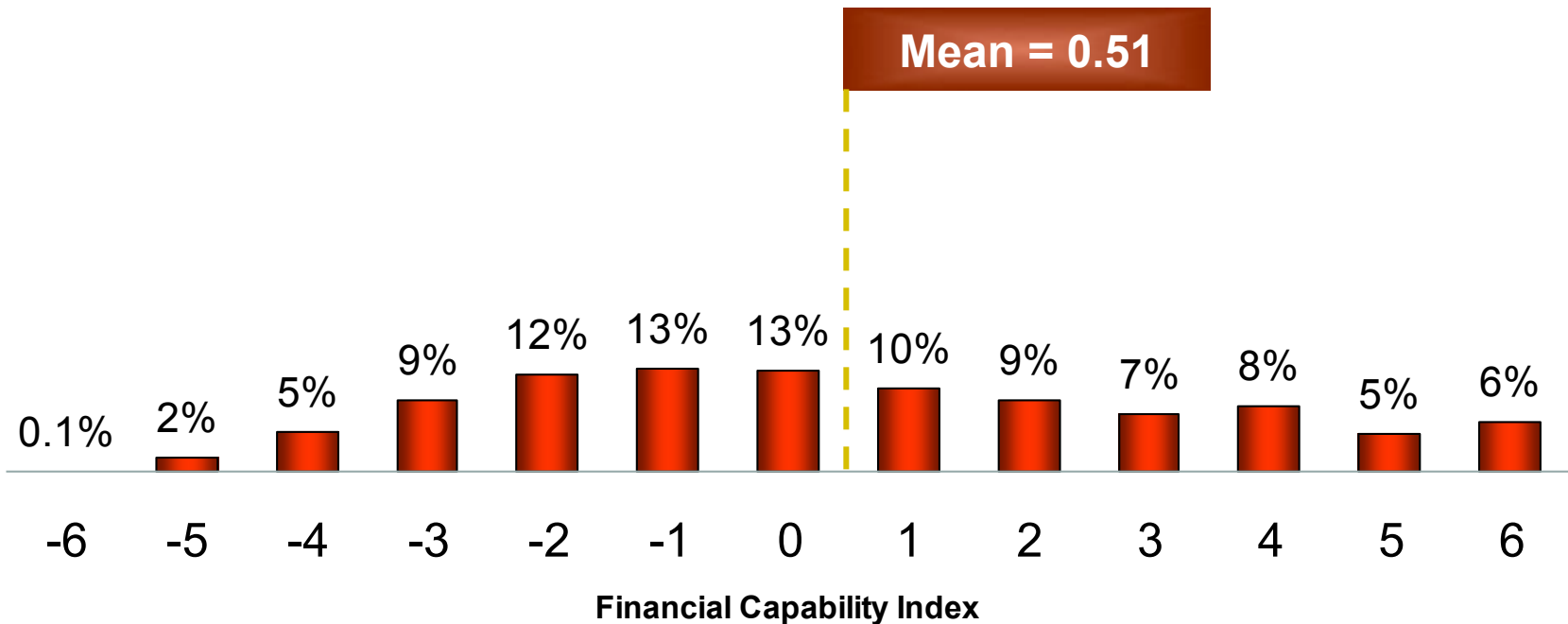
Questions selected to represent each of the four key components of Financial Capability:

- *Making Ends Meet*
  - Spending vs. income
- *Planning Ahead*
  - Planning for retirement
  - Rainy day funds
- *Managing Financial Products*
  - Banked vs. unbanked
  - Non-bank borrowing behaviors
  - Credit card behaviors
- *Financial Knowledge and Decision-Making*
  - Financial literacy

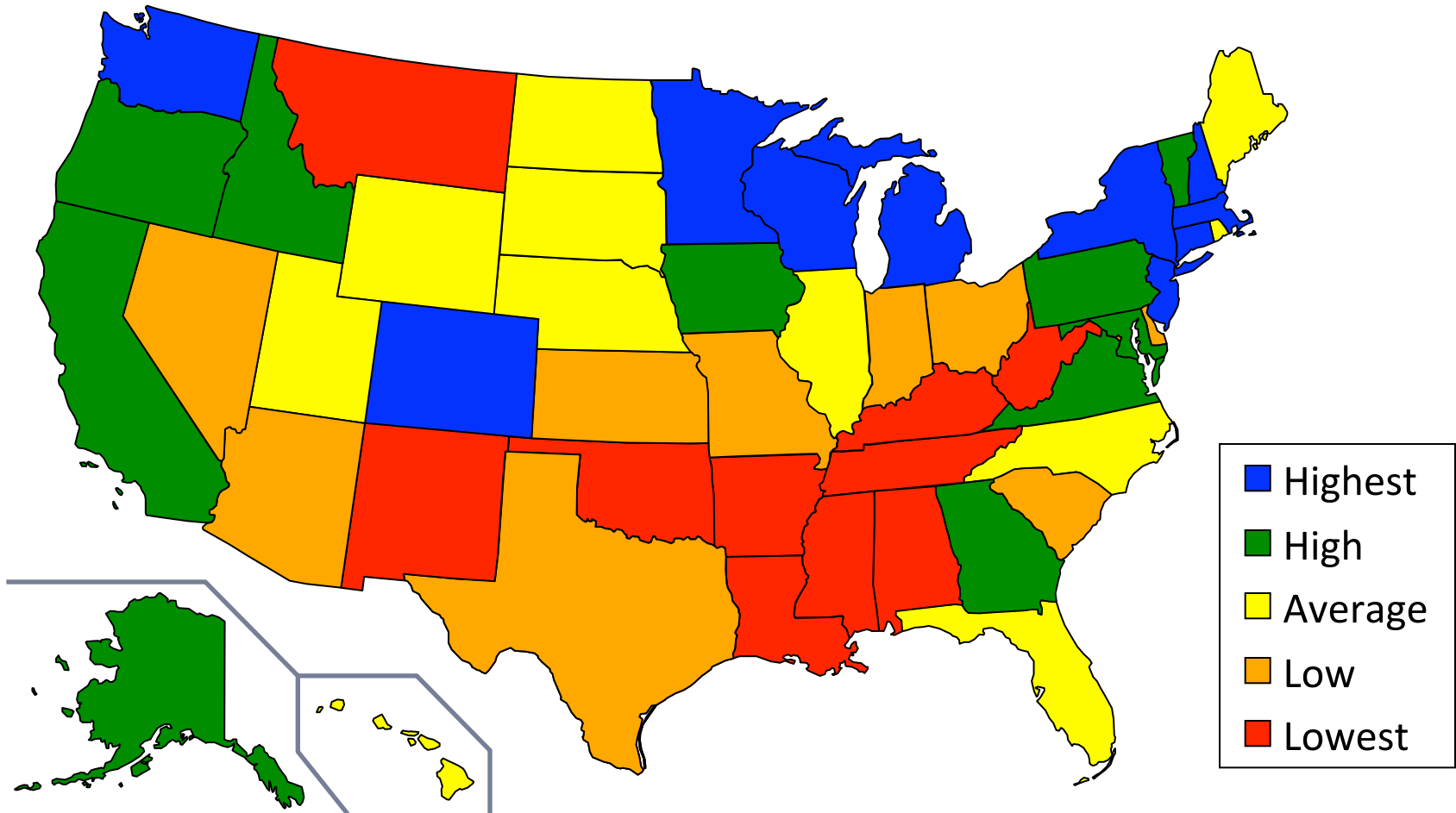


# Financial Capability Index

- Index created by summing score across the seven variables.



# Financial Capability Index by State



# External Economic Measures

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Five measures of economic well-being were obtained for each state:

- Poverty

- ✦ % population below poverty level (U.S. Census Bureau, American Community Surveys, 2008 and 2009)

- Foreclosures

- ✦ Foreclosure rates (CNN/Realty Trac, April 2009)

- Unemployment

- ✦ Unemployment rates (CNN/U.S. Bureau of Labor Statistics, April 2009)

- Bankruptcy

- ✦ 2009 bankruptcy rates (American Bankruptcy Institute)

- Public Assistance

- ✦ % population receiving public assistance (U.S. Census Bureau, American Community Surveys, 2008 and 2009)

# Correlations

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- Significant negative correlations found between both Literacy and Capability indices and **state poverty levels**.

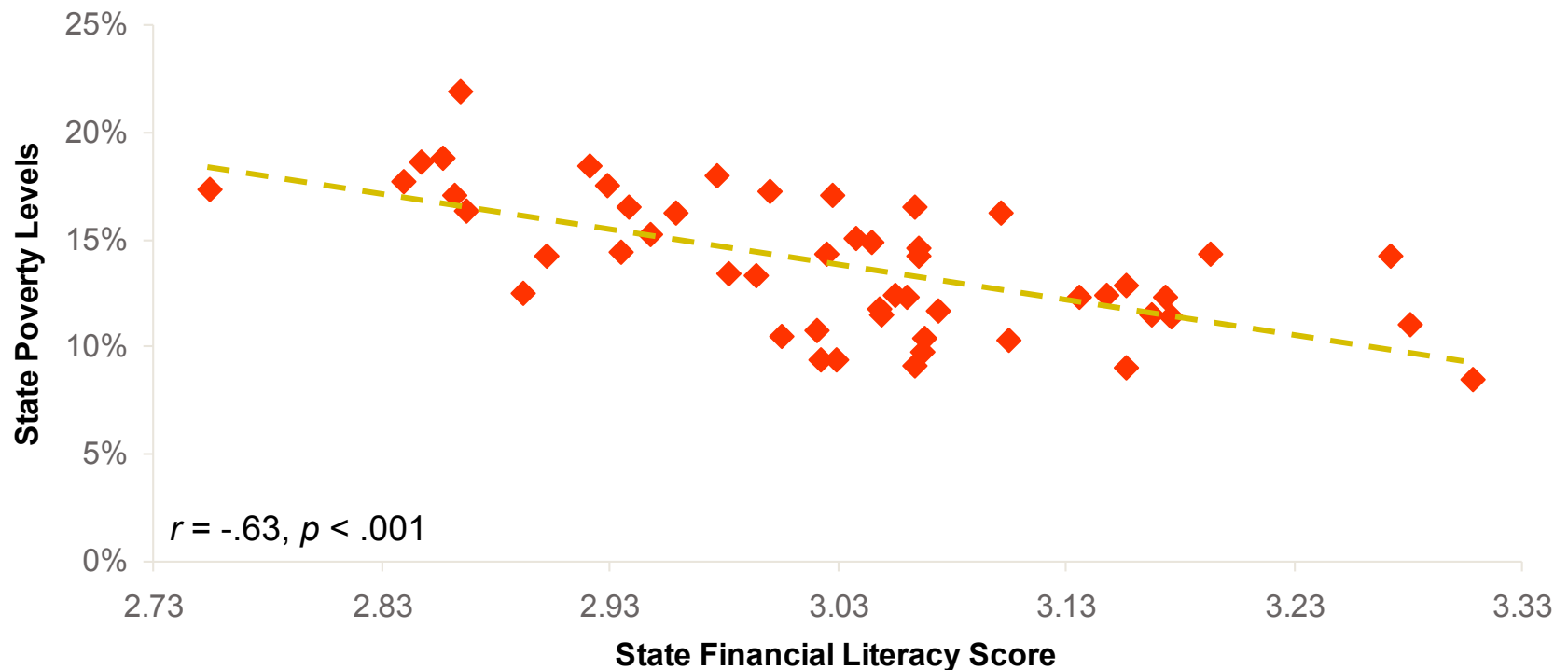
## Correlations with State Poverty Levels

	<i>r</i>	<i>p</i>
Financial Literacy Index	-.63	<.001
Financial Capability Index	-.66	<.001

- » No significant correlations with other external measures analyzed.

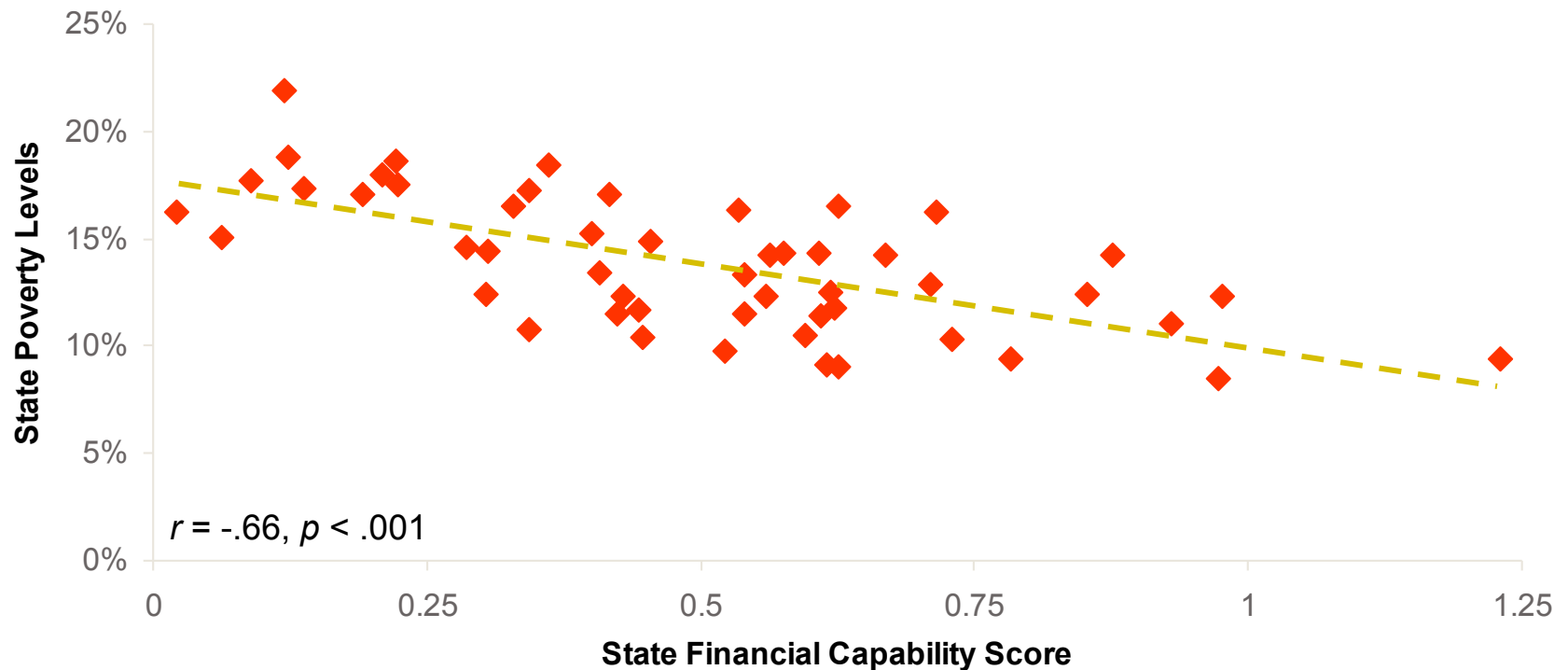
# Financial Literacy and Poverty Levels

- States with higher Financial Literacy scores tend to have lower poverty levels.



# Financial Capability and Poverty Levels

- Similarly, states with higher Financial Capability scores also tend to have lower poverty levels.



# Isolating Geographic Effects

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- Hierarchical regressions were conducted to assess the magnitude of geographic effects on Financial Literacy and Financial Capability while controlling for differences in state demographics.
  - In each model, demographic variables – age, gender, ethnicity, income, education, marital status – were entered in the first block, and state in the second block.
    - ✦ Dummy variables were created for gender, ethnicity, education, marital status, and state of residence. Age and income were recoded into continuous variables.

# Magnitude of Geographic Effects

- In both models, geography appears to contribute little predictive power over demographics.
  - Demographics alone account for 20% of the variation observed in Financial Literacy and 29% in Financial Capability.
  - The addition of state variables adds 0.4% and 0.3% respectively, to each of the models.

## Financial Literacy

## Financial Capability

<i>Vars. added</i>	$R^2\Delta$	$F$	$p$
Demographic	20.3%	796.87	<.001
Geographic	0.4%	2.92	<.001

<i>Vars. added</i>	$R^2\Delta$	$F$	$p$
Demographic	28.9%	1270.04	<.001
Geographic	0.3%	2.55	<.001



# Geographic Effects on Financial Literacy

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- States with significant impact on Financial Literacy

<i>State</i>	<i>B</i>	<i>t value</i>	<i>p value</i>
South Dakota	0.250	2.920	0.004
Idaho	0.164	2.030	0.042
Connecticut	-0.165	-2.024	0.043
New Jersey	-0.165	-2.044	0.041
New York	-0.169	-2.083	0.037
Pennsylvania	-0.172	-2.120	0.034

# Geographic Effects on Financial Capability

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- States with significant impact on Financial Capability

<i>State</i>	<i>B</i>	<i>t value</i>	<i>p value</i>
Georgia	0.324	2.074	0.038
Hawaii	-0.402	-2.300	0.021

# Next Steps

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- **The 2012 National Financial Capability Study**
  - Recommended by President's Advisory Council
  - Funded by FINRA Investor Education Foundation
  - Consultation with Treasury, DoD, CFPB and others
  
- **In 2013, the FLC would like to:**
  - Update the geographic indices and analyze changes since '09
  - Develop a more sophisticated Financial Capability Index
  - Determine if changes in state-by-state economic indicators correlate with changes in literacy and/or capability