

Gender Differences in Financial Literacy: Evidence and Implications

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Annamaria Lusardi
Global Financial Literacy Excellence Center & GWSB
Comitato Edufin

Changing financial landscape

Changes in demographics

- Longer life expectancy

Changes in pension systems

- More individual and private accounts

Changes in financial markets

- Greater complexity
- More opportunities to borrow and in large amounts

Changes in labor markets and education

- Workers change job often, gig economy
- Rising cost of education

Changes in technology

- Rise of fintech



Women and financial decisions

- Unique challenges for women relative to men
 - Longer life expectancies
 - Lower lifetime income
 - Career interruptions due to child rearing
- Specific needs
 - Greater need to plan for old age
 - Different savings needs
- Other characteristics
 - Multiplier effect because women care for others



Some questions

- 1. How well equipped are women to make financial decisions: How financially literate are they?**
- 2. What explains the gender differences in financial literacy**
- 3. What are the implications for policy and programs?**

Measuring financial literacy around the world

The Big Three

1. “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
 - Less than \$102
 - Don't know
 - Refuse to answer
2. “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, with the money in this account, would you be able to buy...”
 - More than today
 - Exactly the same as today
 - Less than today
 - Don't know
 - Refuse to answer
3. “Do you think the following statement is true or false? *Buying a single company stock usually provides a safer return than a stock mutual fund.*”
 - True
 - False
 - Don't know
 - Refuse to answer

Financial Literacy around the World (FLat World)

Evidence from 15 countries (and more):

- ❖ USA
- ❖ The Netherlands
- ❖ Germany
- ❖ Italy
- ❖ Russia
- ❖ Sweden
- ❖ New Zealand
- ❖ Japan
- ❖ Australia
- ❖ France
- ❖ Switzerland
- ❖ Romania
- ❖ Chile
- ❖ Canada
- ❖ Finland



These 3 questions are now in the 2016 US Survey of Consumer Finances (SCF) and the 2017 Federal Reserve's Survey of Household Economics and Decisionmaking (SHED)

How much do Americans know?

Distribution of responses across the U.S. population
(2009 National Financial Capability Study)

Distribution of Responses to Financial Literacy Questions (%)

	Responses			
	<i>Correct</i>	<i>Incorrect</i>	<i>DK</i>	<i>Refuse</i>
Interest rate	65%	21%	13%	1%
Inflation	64%	20%	14%	2%
Risk diversif.	52%	13%	34%	1%

NB: Only 30% correctly answer all 3 questions; less than half (46%) got the first two questions right.

How much do the Dutch know?

Distribution of responses across the Dutch population
(2010 Dutch Central Bank Household Survey)

Distribution of Responses to Financial Literacy Questions (%)

	Responses		
	<i>Correct</i>	<i>Incorrect</i>	<i>DK</i>
Interest rate	85%	5%	9%
Inflation	77%	8%	14%
Risk diversif.	52%	13%	33%

NB: Only 45% correctly answer all 3 questions; more than half (73%) got the first two questions right.

How much do Canadians know?

Distribution of responses across the Canadian population
(2012 CSA Investor Index Survey)

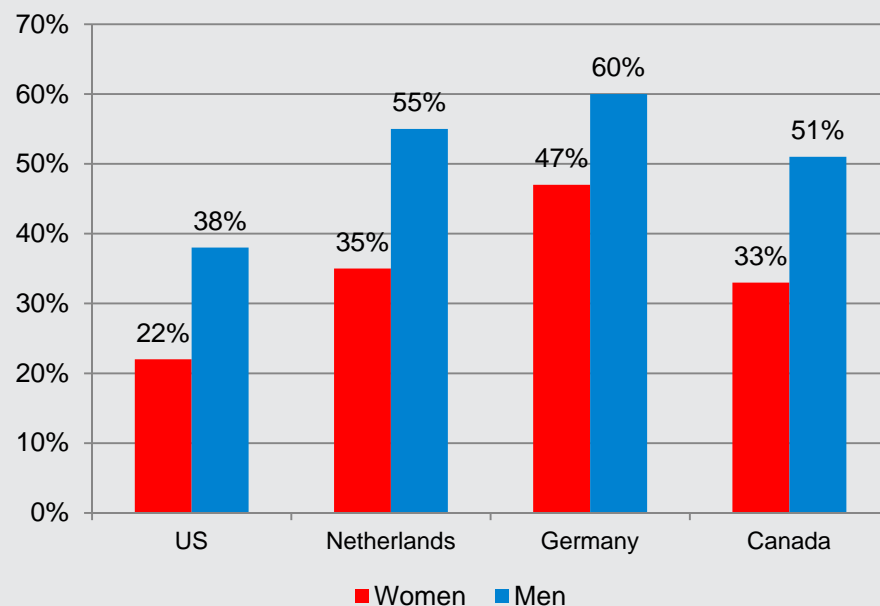
Distribution of Responses to Financial Literacy Questions (%)

	Responses		
	<i>Correct</i>	<i>Incorrect</i>	<i>DK</i>
Interest rate	78%	13%	9%
Inflation	66%	18%	16%
Risk diversif.	59%	10%	31%

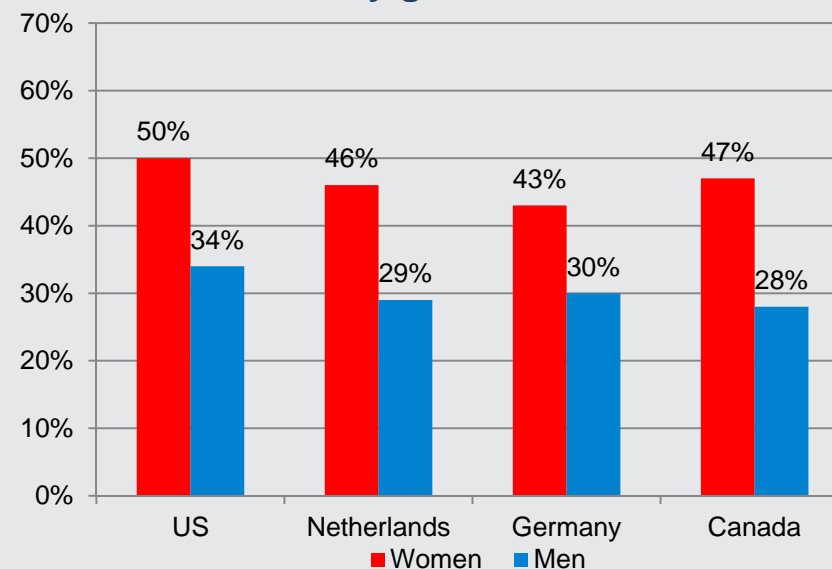
NB: Only 42% correctly answer all 3 questions; A little more than half (58%) got the first two questions right.

Gender differences in financial literacy

**Financial knowledge by gender
(% answering 3 Qs correctly)**



**At least one "don't know" answer
by gender**



- Very robust findings of large gender differences in financial knowledge
- Women are much more likely to say "I do not know"

The S&P Global Finlit Survey

- *The S&P Global Financial Literacy Survey* is the largest, most comprehensive measure of financial literacy
- Interviewed more than 150,000 adults age 15+ in 143 countries in 2014
- The survey provides key information to policy makers, regulators, the private sector, and academics



The S&P Global Finlit Survey



The survey covers four topics:

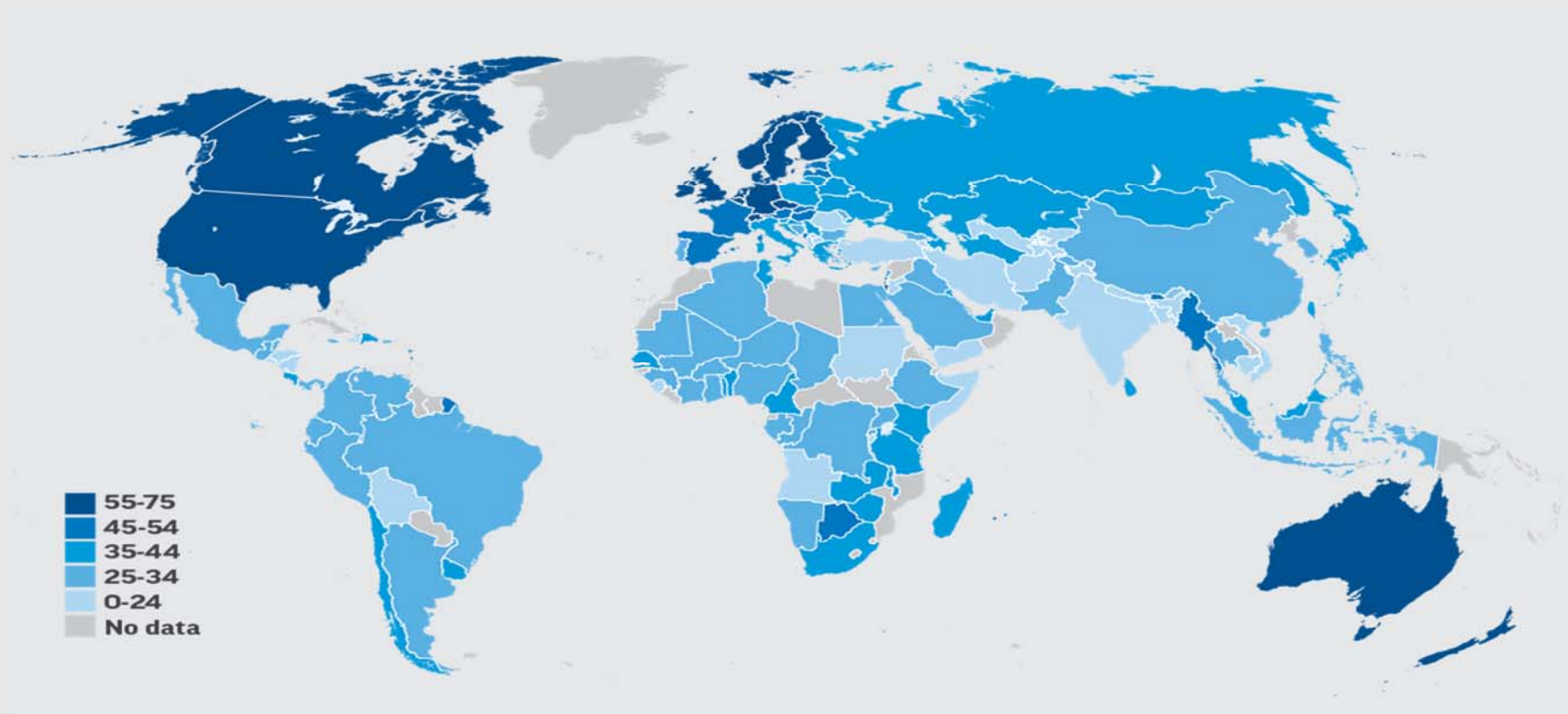
- Numeracy
- Interest compounding
- Inflation
- Risk diversification

Being financially literate:

How many can answer 3 out of these 4 topics correctly (a passing grade)

Financial literacy globally

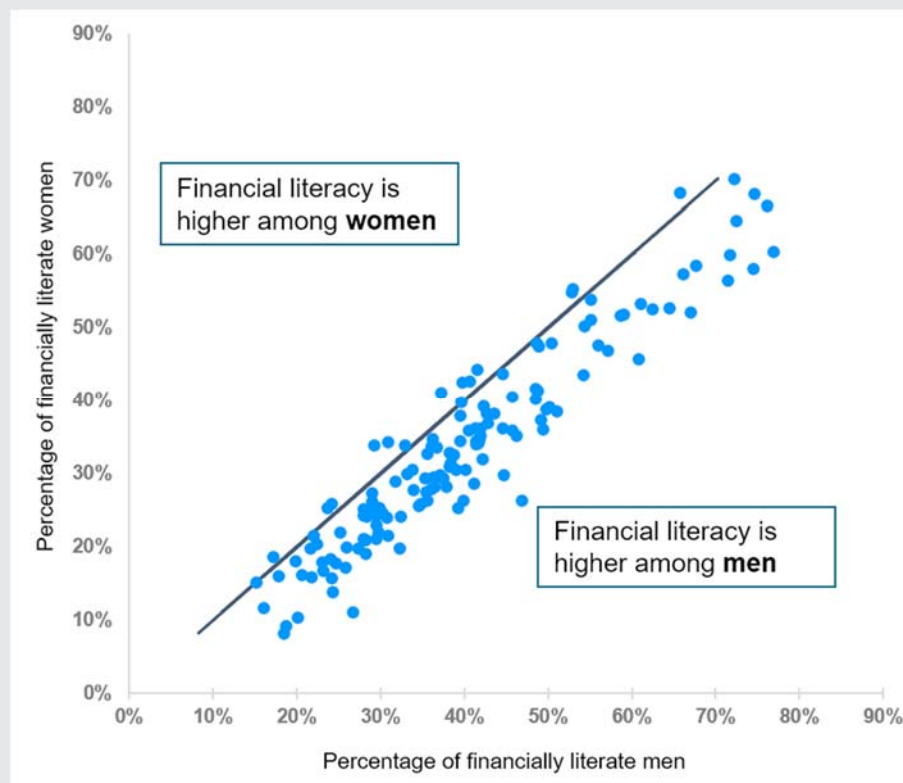
% of adults who are financially literate



Only 1 in 3 adults worldwide responded correctly to three out of four topics.

Gender gap in financial literacy around the world

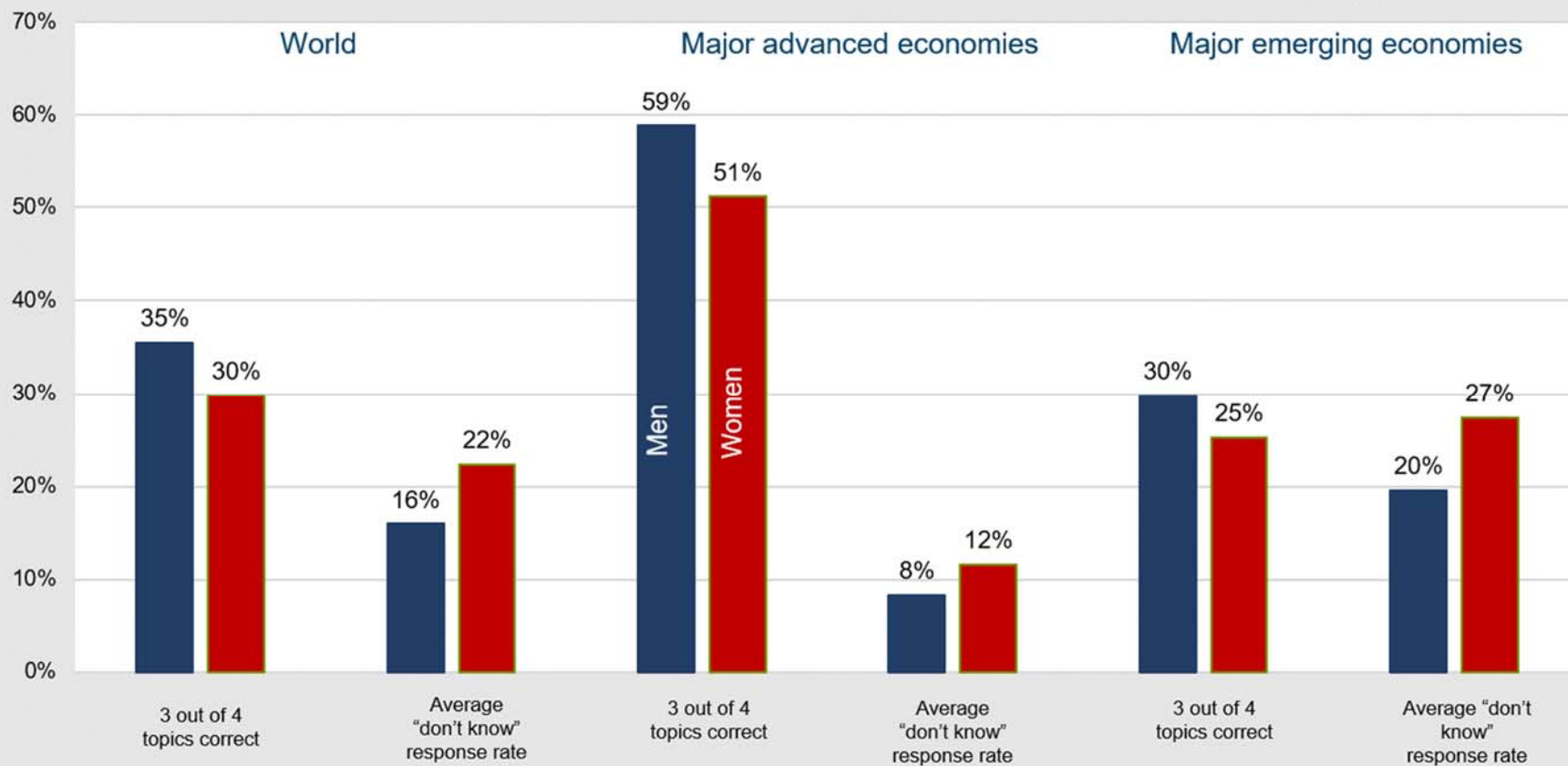
In most economies around the world, men have a better understanding of basic financial concepts than women



Source: Global FinLit Survey

Financial literacy around the world, by gender

Women are disproportionately more likely than men to respond to a question with “I do not know.”



What explains the gender differences?

Gender gap distribution by country income levels

The gender gap in financial literacy is large and persistent across countries, and there is no evidence that income helps explain it.



Source: S&P Global FinLit Survey

Other determinants

- Education system does not seem to explain it
 - There is a gender difference even in countries with strong education systems and more equal societies (ex: Finland)
- In some countries gender differences are present very early in life
 - According to PISA data, gender differences are present among 15 year old students in Italy
- How about confidence?
 - Looking closer at the “do not know” responses

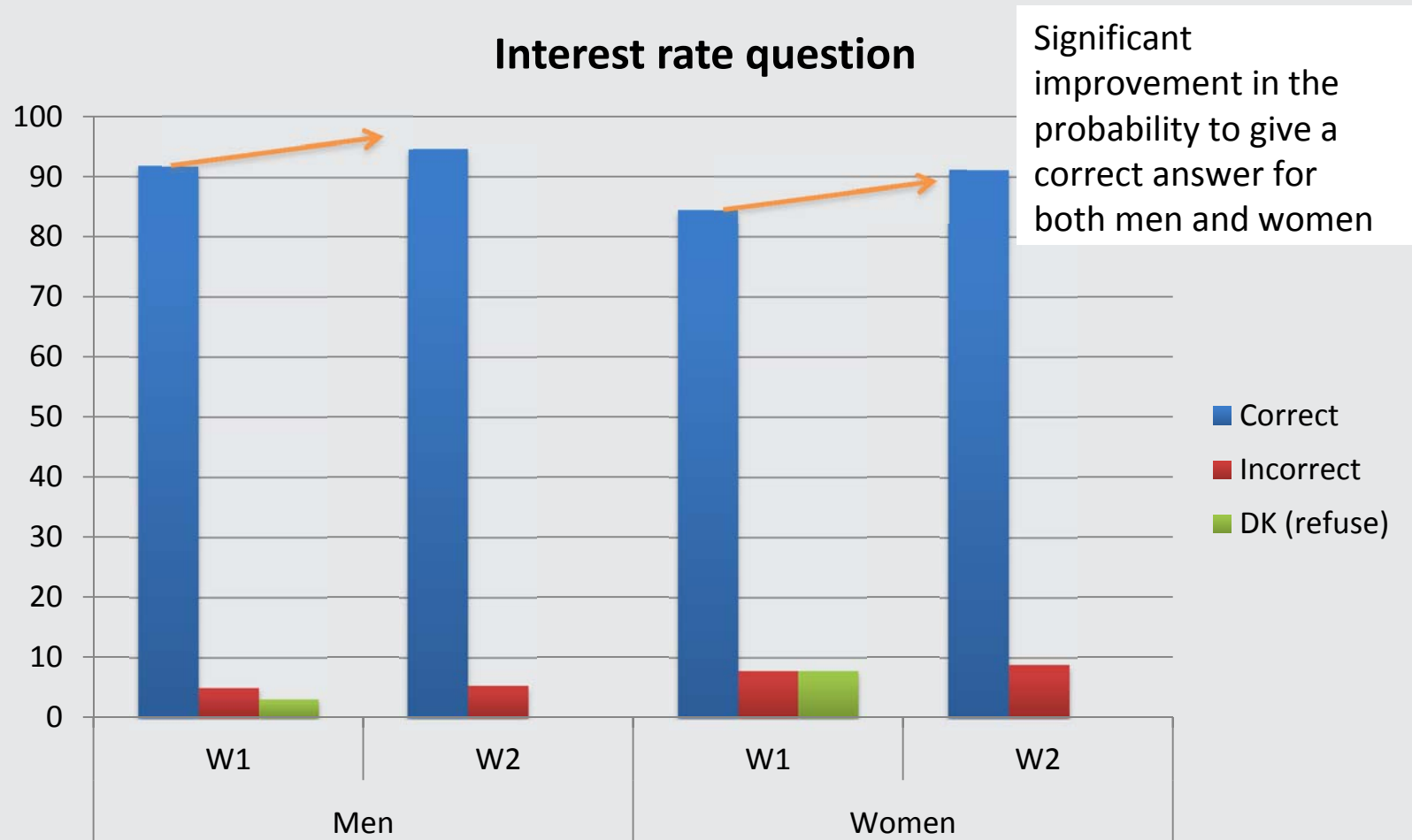


Other determinants: Confidence

- Work with data from the Dutch Central Bank Household Survey
- Ask the Big Three questions in 2 waves (w1 and w2) with and without the “do not know” option
- We also asked how confident respondents were about their answer
- We find that responses are a mix of knowledge and confidence

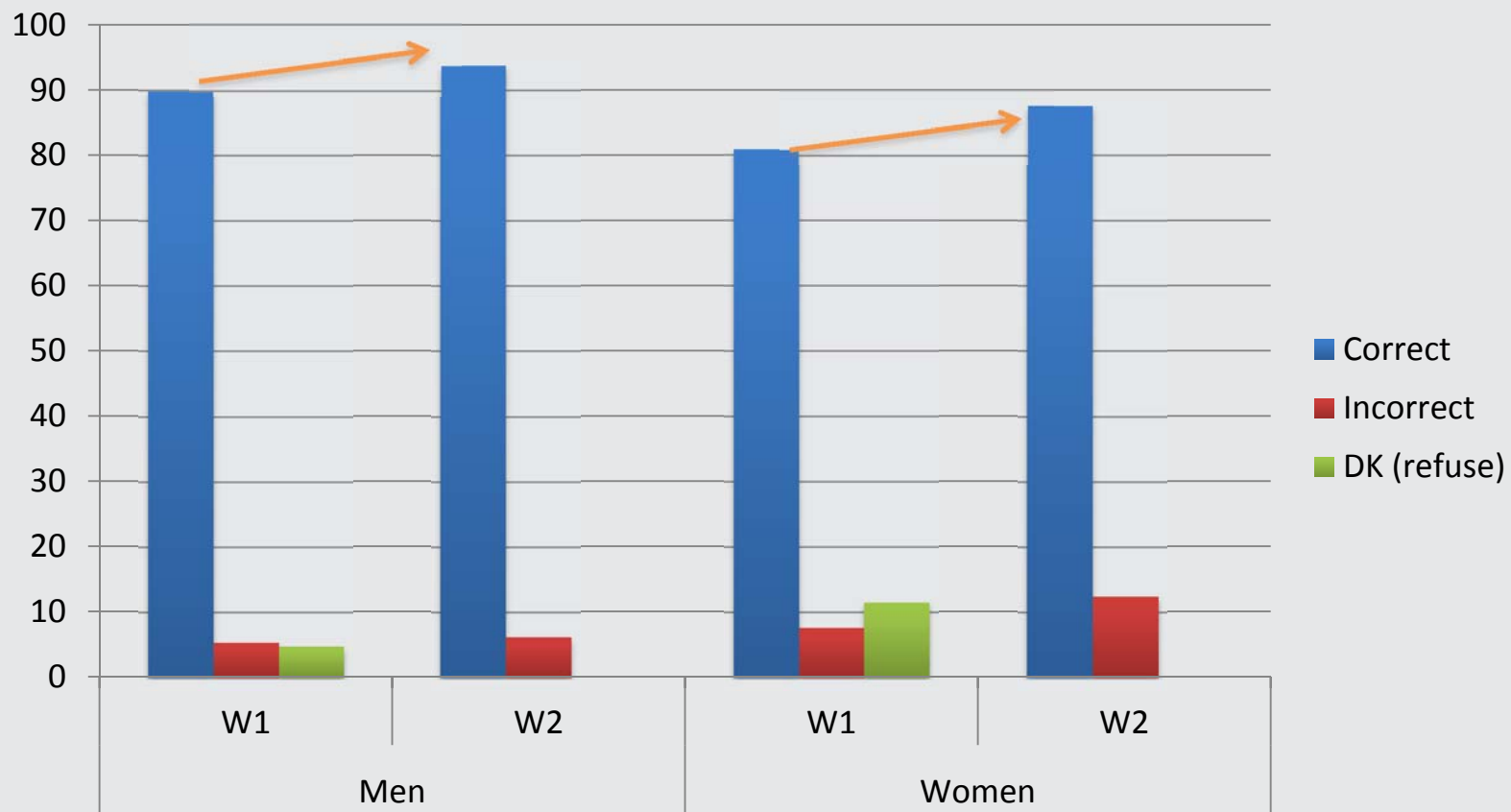


Taking away the “do not know” option



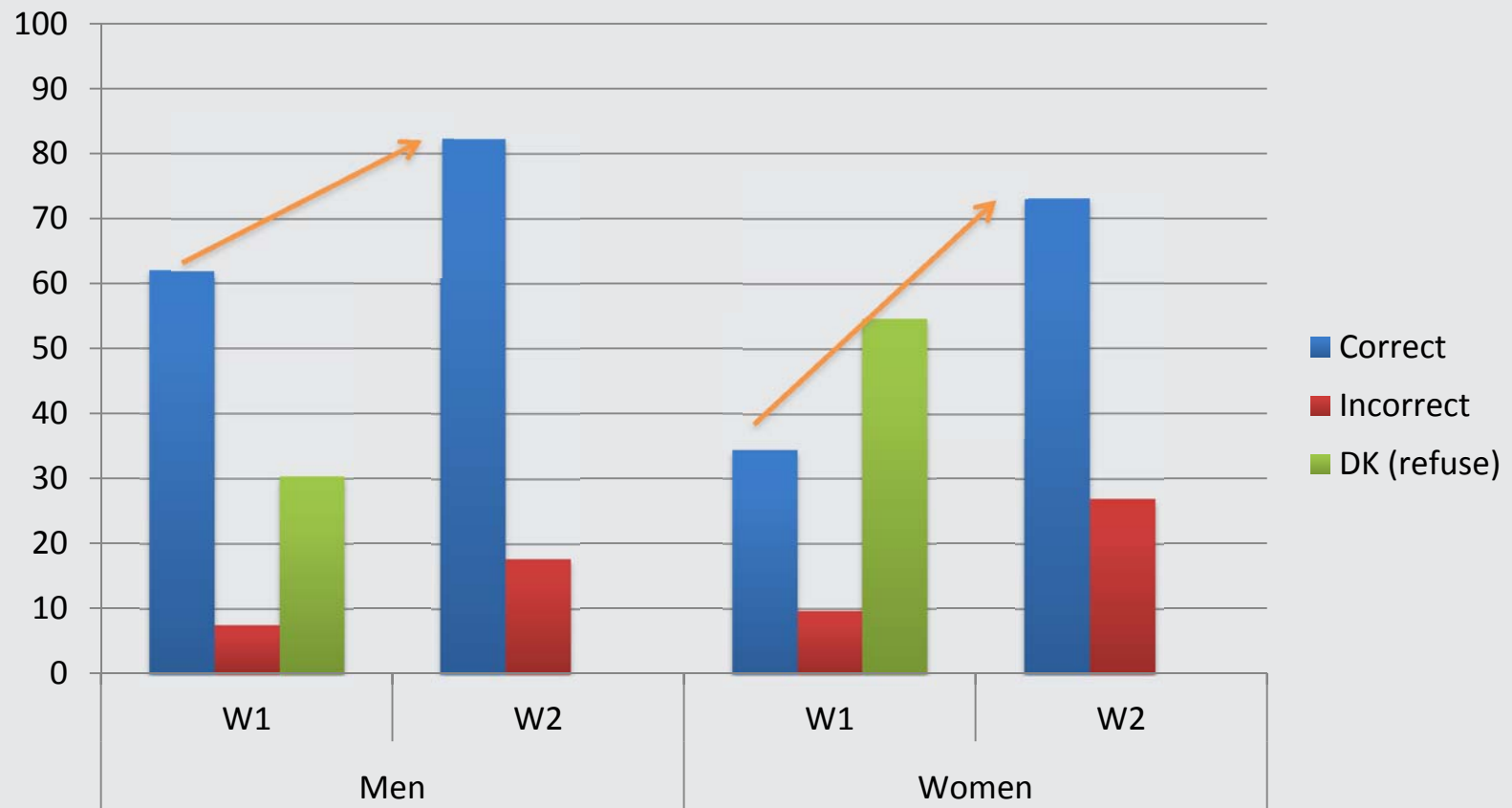
Taking away the “do not know” option

Inflation question



Taking away the “do not know” option

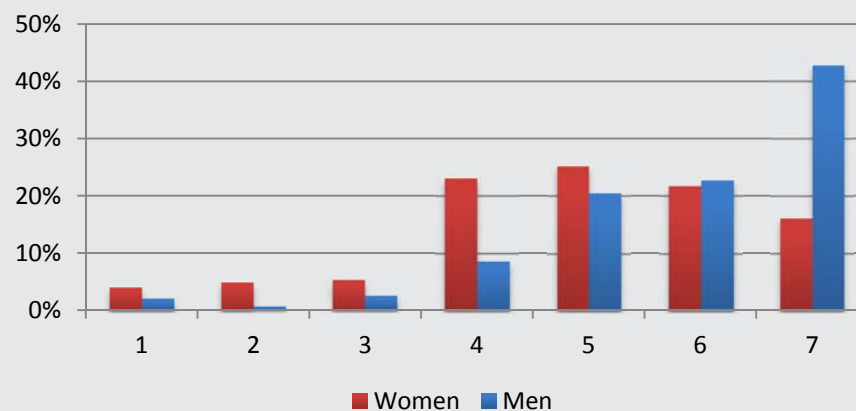
Risk diversification question



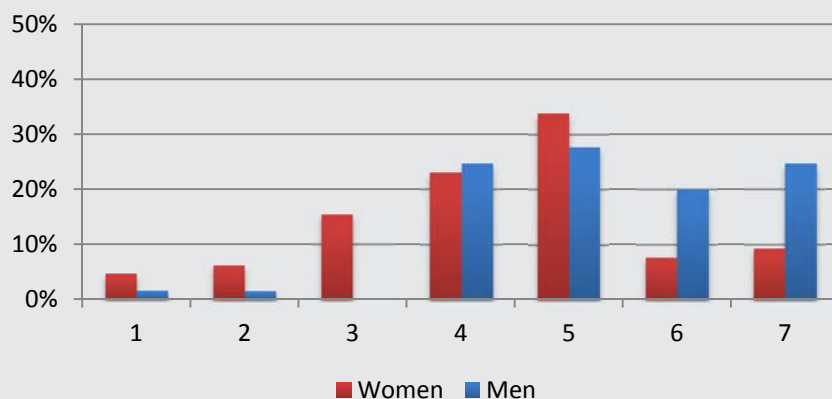
Gender differences and confidence

Confidence conditional on being correct, incorrect, and “do not know.”
Risk diversification question

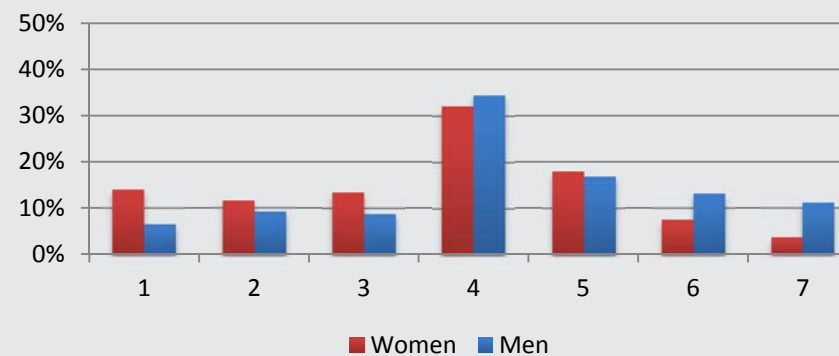
Confidence cond. Correct

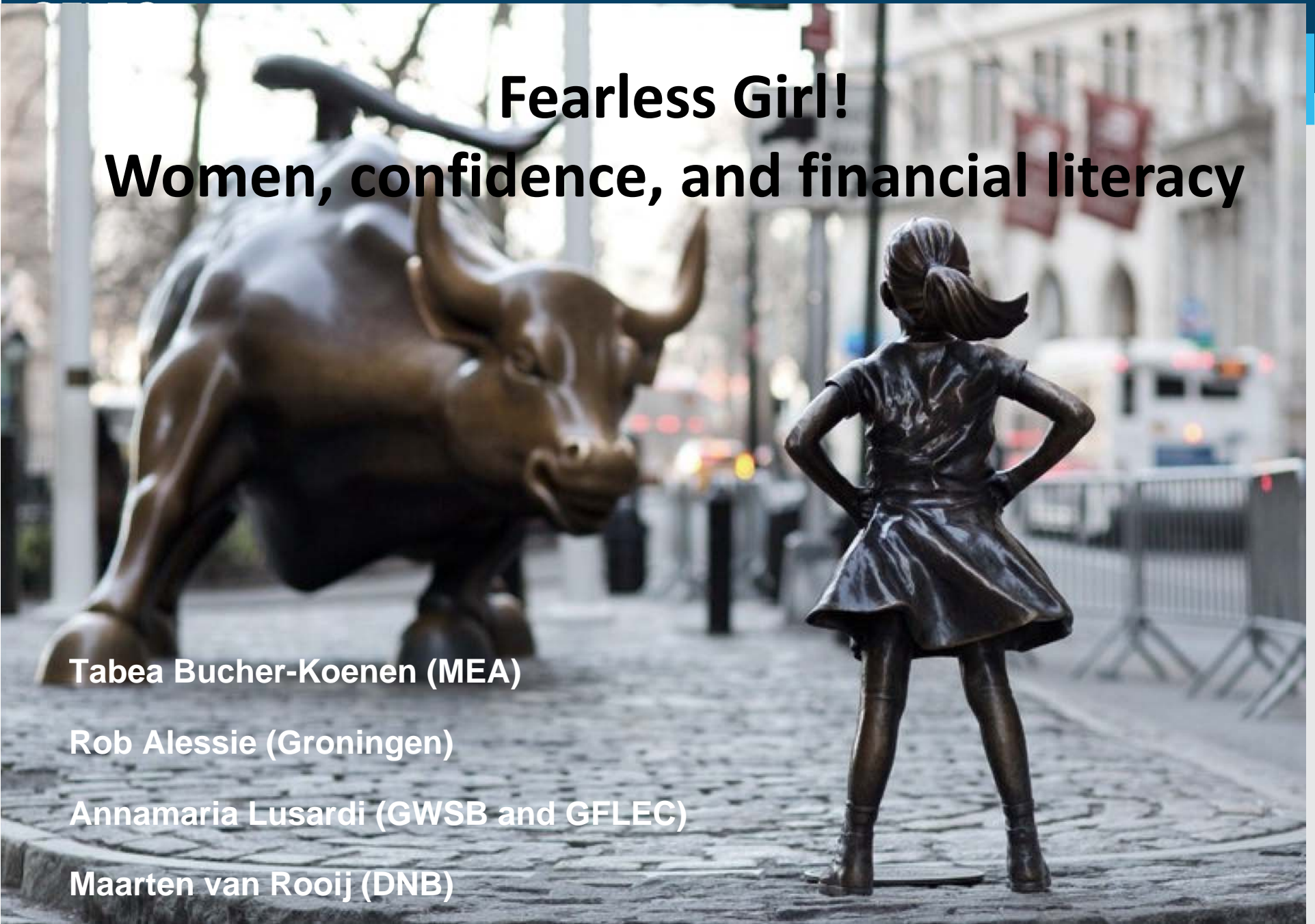


Confidence cond. Incorrect



Confidence cond. Do not know





Fearless Girl!

Women, confidence, and financial literacy

Tabea Bucher-Koenen (MEA)

Rob Alessie (Groningen)

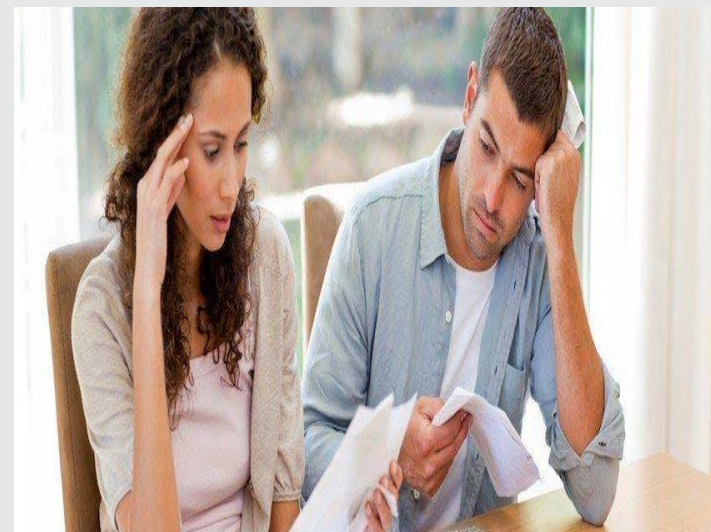
Annamaria Lusardi (GWSB and GFLEC)

Maarten van Rooij (DNB)

Financial literacy and personal finance outcomes

Individuals/women who are financially literate are also more likely to:

- Cope with emergency expenses/less likely to be financially fragile
 - Can come up with \$2,000 in 30 days
- Manage their debt well
 - Less likely to have “too much debt.”
- Have long-term savings:
 - More likely to plan for retirement
 - More likely to have financial investments, aside from retirement accounts.



New research released in April 2018

Measuring financial fragility:

How confident are you that you could come up with \$2,000 if an unexpected need arose within the next month?

- I am certain I could come up with the full \$2,000
- I could probably come up with \$2,000
- I could probably not come up with \$2,000
- I am certain I could not come up with \$2,000
- Don’t know
- Prefer not to say



Financial literacy and wealth inequality



- Consider a life cycle model of saving with financial literacy
- Financial literacy affects the return on savings
- Financial literacy is an important determinant of wealth and wealth inequality
- Important finding: **30-40%** of U.S. retirement wealth inequality can be attributed to difference in financial knowledge

Implications for policies and programs

What we learn from the data

- **Need to improve levels of financial literacy**
 - Levels of knowledge are critically low globally
 - Even in countries with high income and well developed markets

- **Gender difference in finlit in most countries**
 - Need programs targeted to women
 - Role of confidence

- **Some topics are particularly hard**
 - Risk and risk diversification



Given widespread financial illiteracy

Need for large and scalable programs

- Financial education in school
- Financial education in the workplace
- Financial education in the community (libraries, museums, other places where people go to learn)



Personal finance courses for college students

- Use a rigorous quantitative approach
- Cover the basics, in particular risk and risk diversification
- Cover personal finance topics, such as saving and investing, retirement planning, insurance, etc.
- Material available for free on our website
- Pay attention to gender differences



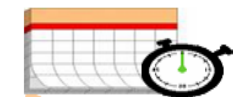
Financial education in the workplace: The Dartmouth project

- We designed a program that targeted individuals who wanted to save but were limited by a lack of knowledge
- The aim of the program was to
 - Simplify financial decisions
 - Provide information when needed by individuals
 - Target specific groups: women and low income workers



We have outlined 7 simple steps to help you complete the application.

1. **Select a 30 minute time slot** right now to complete the online contribution to your Supplemental Retirement Account (SRA) during the next week.
2. **3 minutes. Check to see if you have the following materials:** a) worksheet in your benefits packet _√_, and b) the name and social security number of a beneficiary _√_.
3. **Select the amount you want to invest for 2006** (minimum: \$16/month, maximum: \$1,666.67/ month), even if you don't know your take-home pay in your first month. If you want, you can change this amount at a later date. This voluntary contribution is tax-deferred, you will not pay taxes on it until you withdraw the funds.
4. **5 minutes. Select a carrier.** if you do not select a carrier, Dartmouth will invest the non-voluntary portion of your college funds in a Fidelity Freedom Fund, a fund that automatically changes asset allocation as people age.
5. **5 minutes. Now you are ready to complete your worksheet.** Complete the worksheet even though you may be unsure of some options. You can change the options in the future.
6. **Take your completed worksheet to a computer** that is available for 20 minutes. If you like, you can use the one in the Human Resources office at 7 Lebanon Street, Suite 203.
7. **15-20 minutes. Log on to Flex Online and complete your online SRA registration** within the 20 assigned minutes. Be sure to click on the investment company (TIAA-CREF, Fidelity, or Calvert) to complete the application. You need to set up your account – otherwise your savings will not reach the carrier.



Fidelity.com



Development of a comprehensive, cost-effective planning aid to improve participation in and contribution to Supplementary Retirement Accounts (SRAs)

In their own words: four videos



Topics discussed:

Hopes for retirement

Why they save

How they save

Planning for the future

Their recommendations

Results from the Dartmouth project

- There was a large increase in savings enrollment within 30 and 60 days of hiring among participants who received the brochure.

	30 days After Hire	60 days After Hire	Number of Observations
Control Group	7.3%	28.9%	210
Planning aid	21.7%	44.7%	166

- Videos generated an increase in enrollment of 56%.

Financial literacy is like reading and writing

- It is an essential skill for the 21st century
- We need to empower women so they can be financially secure

GFLEC

GLOBAL FINANCIAL LITERACY
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(202) 994-7148 | gfllec@gwu.edu | www.gflec.org