

# Does Financial Education Impact Financial Literacy and Financial Behavior?

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# Financial Literacy Around the World

Findings from Various Surveys and Studies

## A Simple Measure of Financial Literacy

### 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:

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



## Findings: The World is *flat*

### **Financial illiteracy is widespread in the population**

- Less than half of the population can answer three basic questions
- Even in countries with well developed financial markets
- People lack knowledge of fundamental financial concepts (even among «investors»)

### **Risk diversification is most difficult concept to grasp**

- Similar pattern of response across countries
- Prevalence of “do not know” answers

### **Some groups are less likely to answer correctly**

- Vulnerable groups, for example women and the young, are similar across countries

### **These findings are robust**

- Evidence from bigger surveys and different questions

## **Similar patterns across countries**

## The S&P Global FinLit Survey (GFLS)

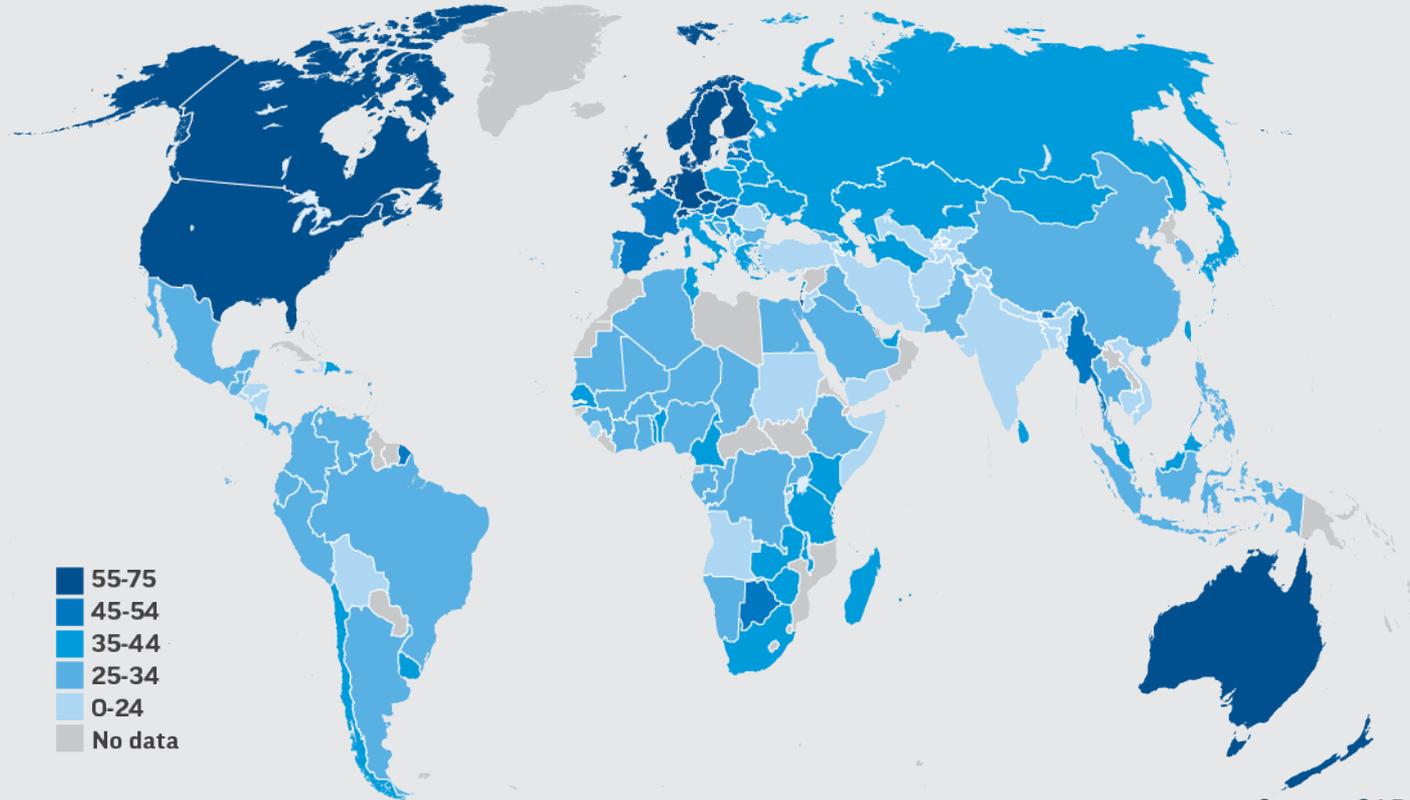
- The largest, most comprehensive, global measure of financial literacy
- Interviewed more than 150,000 adults age 15+ in 148 countries
- S&P Global partnered with Gallup, GFLEC, and the World Bank
- The measure has to be applicable to every country, irrespective of economic structure and financial market development
- The survey covers four topics:
  - Numeracy
  - Interest compounding
  - Inflation
  - Risk diversification



***Being financially literate:***  
Able to answer 3 out of these 4 topics correctly

## Financial Literacy Across the Globe

% of financially literate adults

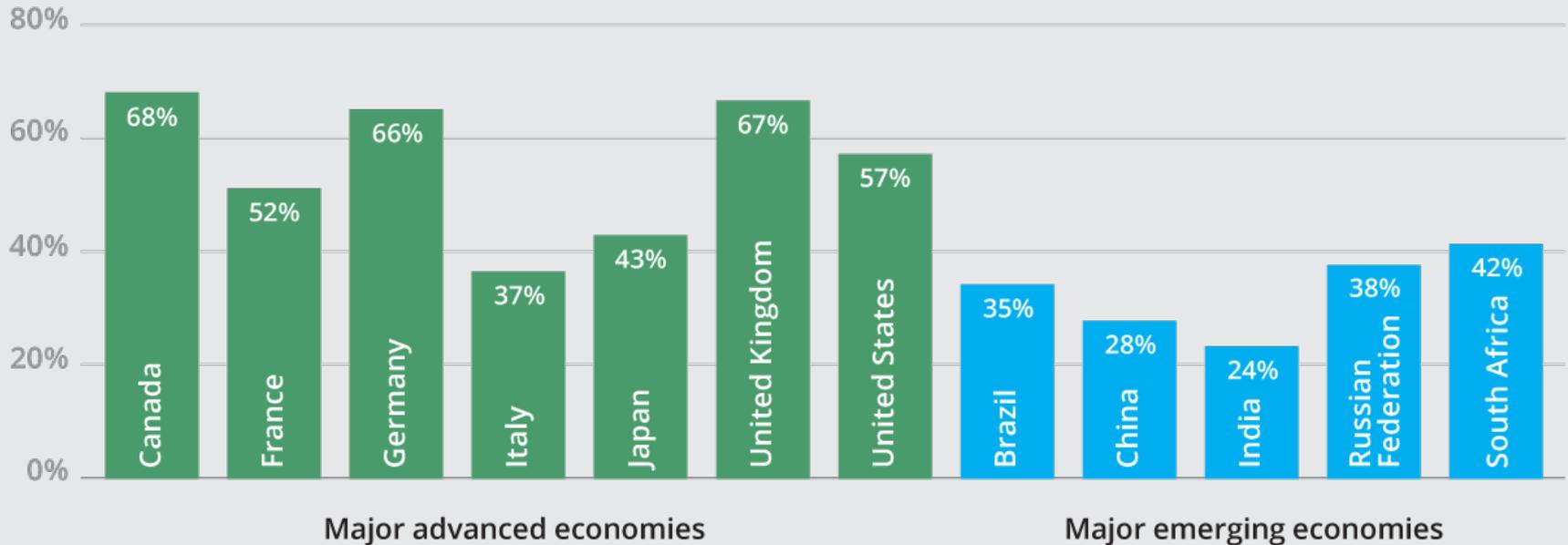


Source: S&P GFLS

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

# Financial Literacy in Advanced Countries and in Emerging Economies

% of adults who are financially literate



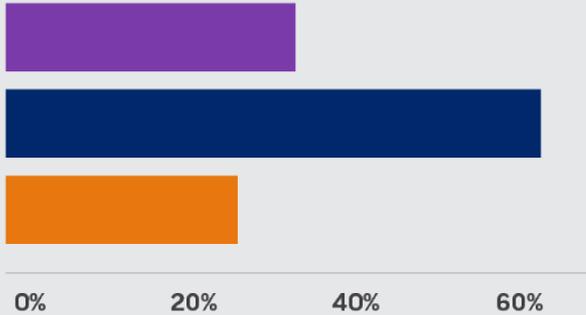
Source: S&P GFLS

Financial literacy is low among the BRICS and even in advanced countries (e.g. Italy)

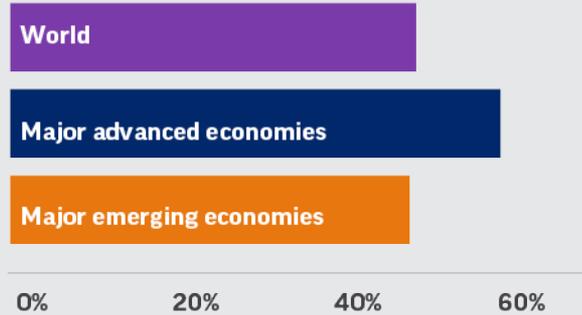
# Financial Literacy by Topic

% of adults answering correctly

## RISK DIVERSIFICATION

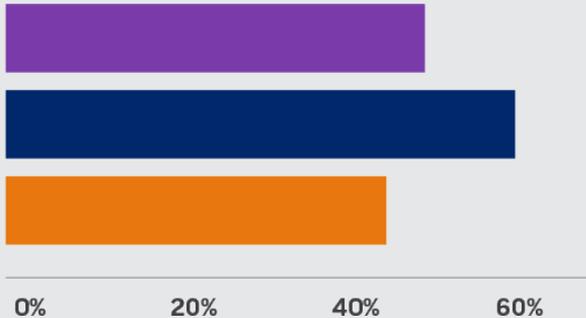


## NUMERACY (INTEREST)



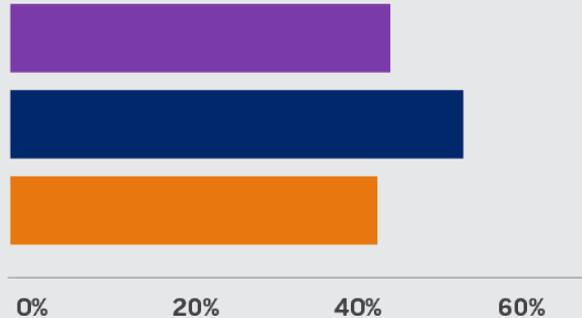
Inflation and simple interest/numeracy is what people know most across countries.

## INFLATION



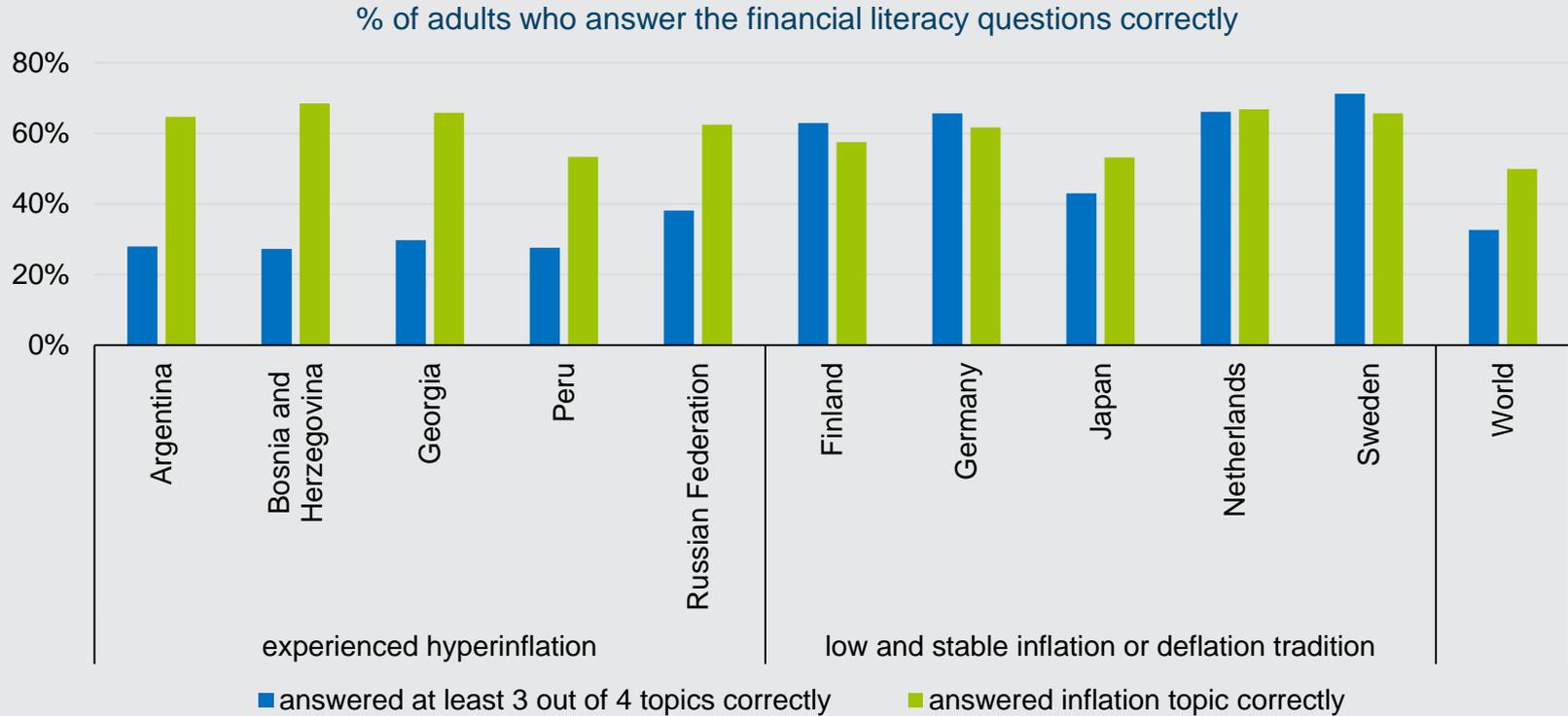
Risk diversification is what people know the least.

## COMPOUND INTEREST



Large differences across countries, but similar findings as in the FLAT World Project.

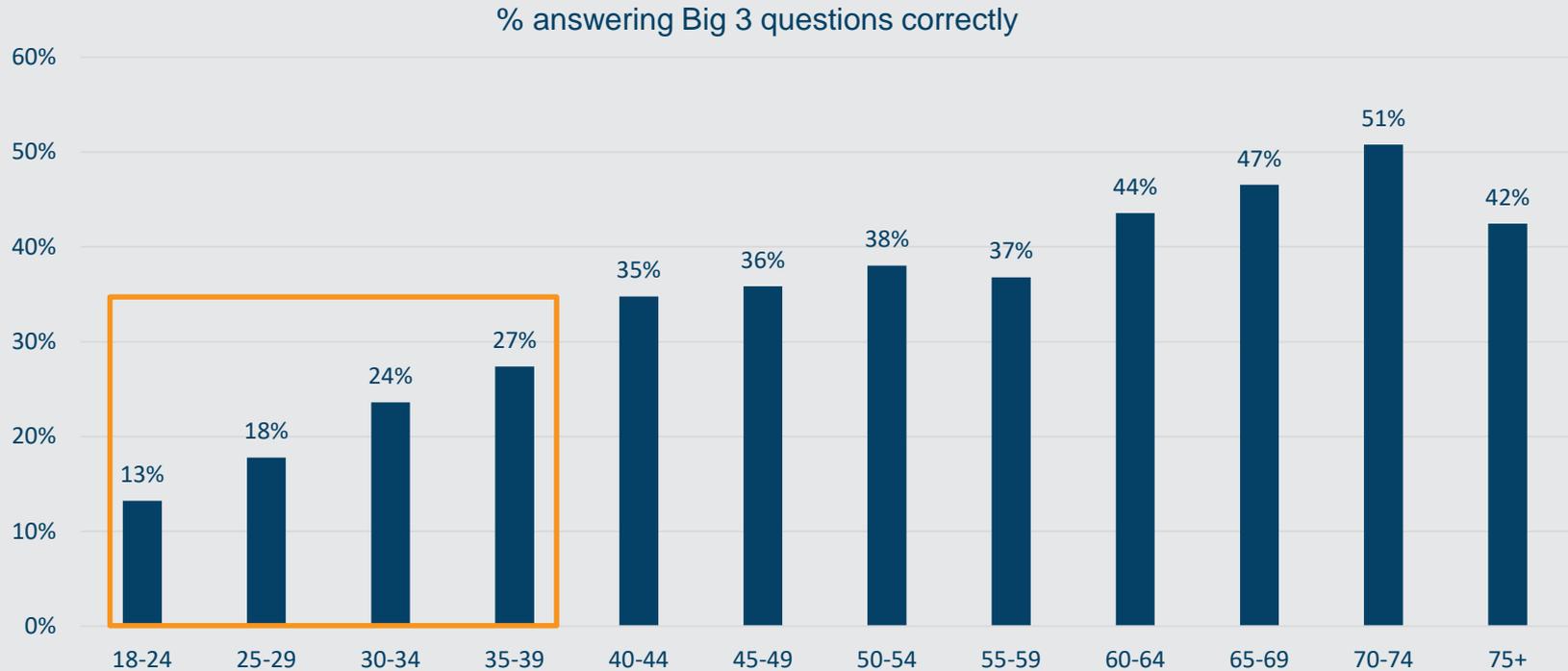
## Evidence of Learning by Experience



Source: S&P GFLS

Respondents in countries that experience hyperinflation know more about inflation

## Financial Literacy across Age in the U.S.

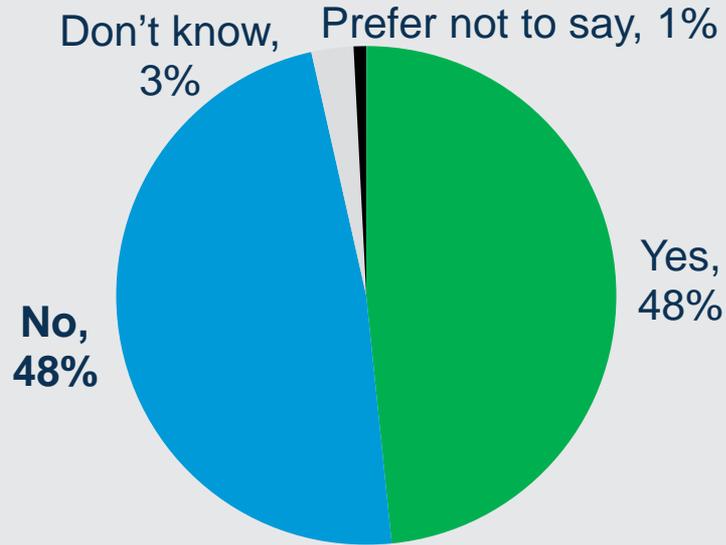


Source: 2015 NFCS

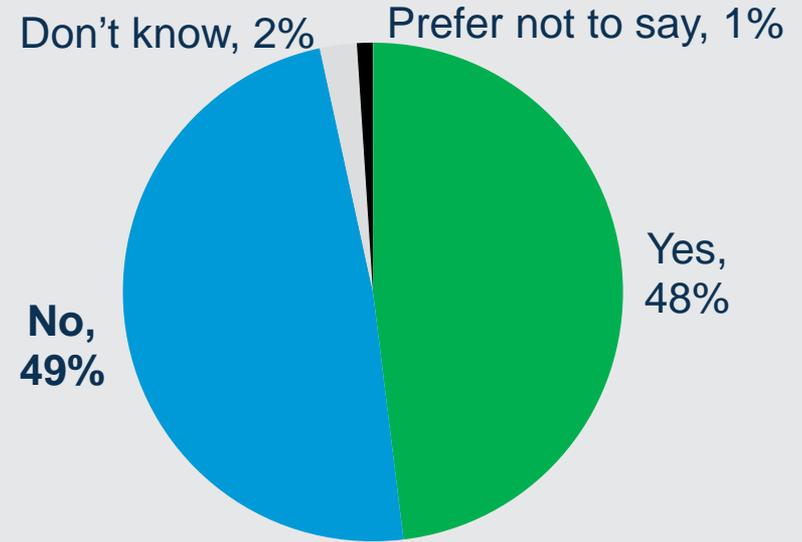
- Financial knowledge increases very slowly with age/cohort
- Less than 1/3 know the 3 basic concepts by age 40 even though most important decisions are made well before that age

## Planning Ahead: Most Workers Don't

**Have you ever tried to figure out how much you need to save for retirement?**



**Have you set aside an emergency or rainy day fund?**



Note: Respondents age 23 to 61 and employed at the time of the survey. 2015 NFCS.

# The Link to Financial Behavior

The Effects of Low Financial Literacy Levels

## FLAT World project

- Those who are more financially literate are more likely to plan for retirement
- Hence, financial literacy is critical to retirement security around the world

## Federal Reserve Case Study

- Participation and contribution
  - Financially literate employees are most likely to participate in and contribute to their employer-sponsored defined contribution (DC) retirement plans
  - Higher levels of financial literacy is found to have a beneficial impact on retirement saving patterns
- Portfolio composition
  - Financially knowledgeable investors hold more equity in their pension accounts, earn higher excess returns (adjusted for risk), have a higher portfolio volatility, and hold more diversified portfolios
  - Portfolios change significantly with differences in financial literacy levels

## Financial Behavior: Debt and Debt Management

- **Low levels of financial literacy are correlated with higher use of Alternative Financial Services (AFS)**
  - 26% of Americans have used at least one of these methods within the past 5 years: Pay-day loan, pawn shop, auto title loan, rent-to-own store (2015 NFCS)
  - Highest use among Millennials (18-34 year olds), those with low income, and individuals with high school or less than high school education
  - Financial literacy can account for almost 20% of the reduction in the use of high-cost borrowing
- **Individuals with lower financial literacy also report that their debt loads are excessive or that they are unable to judge their debt position**
- **Those who are more financially literate are less likely to make financial choices that incur high fees and charges**
  - Such as paying only the minimum balance on credit cards, having to pay late payment charges, incurring over-the-limit fees, or using cards for cash advances

**Financial literacy helps to avoid higher fees and high-cost borrowing methods**

## Financial Behavior: Wealth Accumulation

- Financial literacy is an important determinant of wealth inequality
- Better planning often leads to higher wealth accumulation during retirement
- Thus, more financially literate individuals are able to gather more wealth by virtue of planning better
- Important finding: **30-40%** of U.S. retirement wealth inequality can potentially be attributed to difference in financial knowledge

**Financial literacy is a strong determinant of financial behavior**



# Initiatives and Effectiveness

From Research Results to Education Programs

# How to Improve Financial Decision-Making

## **Need to improve levels of financial literacy**

- Research shows levels of knowledge are low and financial literacy is strongly linked to financial behavior
- Address lack of knowledge and information

## **Need for more targeted programs**

- Start with the individual and his/her needs
- One size does not fit all
- Particularly addressing vulnerable groups (Millennials, women)

## **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)

**Widespread financial illiteracy requires robust interventions**

## Overview of Our Education Programs and Initiatives

Besides research, GFLEC develops personal finance education material for schools and the workplace, and builds initiatives to advance financial literacy

- Financial Literacy Micro-Credentials
- College Personal Finance Course
- Financial Literacy Curriculum for Girl Rising
- International Federation of Finance Museums (IFFM)
- Workplace financial wellness programs



# Employee Financial Literacy and Retirement Plan Behavior: A Case Study

## Set-up:

- Administrative data from the Federal Reserve System
- Study of the participation in and contribution to the DC plan (Thrift Saving Plan)
- Learning module about retirement planning
- Comparing employee plan behavior one year after the intervention

## Findings:

- Most financially knowledgeable employees
  - are more likely to participate
  - contribute 3 percentage points more of their earnings to the DC plan
  - hold more equity in their pension accounts
- Higher levels of financial literacy levels are linked to greater retirement readiness
- Employees who completed the learning module were
  - more likely to start contributing to their DC plan
  - less likely to have stopped contributing post-survey
  - More likely to boost contributions and equity allocations after the intervention

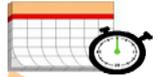
**Evidence that  
employer-provided  
educational  
programs do have  
positive effects on  
employees'  
behavior**

# New Ways to Make People Save: The Dartmouth Project

- A social marketing program that targeted individuals who wanted to save but were limited by a lack of knowledge
- Development of a comprehensive, cost-effective plan to improve participation in and contribution to Supplementary Retirement Accounts (SRAs)
- Step-by-step planning aid
- The planning aid enhanced enrollment in supplementary pensions: Retirement plan election rates more than tripled in the 30-day period and doubled in the 60-day period
- Guiding principles for “best practice”:
  - simplify financial decisions
  - provide information when needed by individuals (“teachable moments”)
  - target specific subgroups
  - planning aids to complement other saving programs

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**

**TIAA CREF** **Calvert**



**FlexOnline**  
With Smart People Embracing

# Five Steps to Planning Success: Experimental Evidence from US Households

## Set-up:

- Design of a low-cost, easily-replicable financial education program called «Five Steps»
- Covering five basic financial planning concepts that relate to retirement
- Delivery models: written narratives and online videos
- Field experiment to evaluate the overall impact
- Follow-up tests 8 months after the intervention

## Program:

- Targeted to young workers
- Kept the message free of economic/ finance jargon
- Covered concepts that people know the least in a simple story

## Findings:

- Short videos and narratives have sizeable short-run effects on financial knowledge
- Format has significant effects (keeping informational content relatively constant)
- After being exposed to videos, the performance on financial literacy questions improved
- While young were targeted, the videos affected all age groups
- 25-33% of the knowledge gain is still observable 8 months after the intervention
- Simple program has effects both in the short and medium run



## Concluding Remarks

Financial literacy is like reading and writing

- It is an essential skill for the 21st century
- As it was not possible in the past to participate in society without being able to read and write, so it is not possible to thrive in today's society without being financially literate
- Everyone deals with finance, and finance is sufficiently complex that we cannot leave it to the individual to learn by himself/herself

It is very important to be financially literate as early as possible

**What is the future we want to build?**

**Thank you!**

Questions? Contact us at [gflec@gwu.edu](mailto:gflec@gwu.edu)

# GFLEC

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GLOBAL FINANCIAL LITERACY  
EXCELLENCE CENTER

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