CNA Roundtable Series on Reform: A Department of Defense Financial Education Strategy - March 9, 2015

Measurements and Effectiveness of Financial Literacy and Education

Annamaria Lusardi
The George Washington School of Business
Academic Director, Global Financial Literacy Excellence Center (GFLEC)

The growing importance of financial literacy

A new economic landscape

Major changes that increase individuals' responsibility for their financial well-being

- **Changes in the pension landscape**
  - More individual accounts and DC pensions

- **Changes in labor markets**
  - Divergence in wages – skills are critical
  - More flexibility – workers change job often
- **Changes in financial markets**
  - More opportunities to borrow & in large amounts
  - Greater complexity

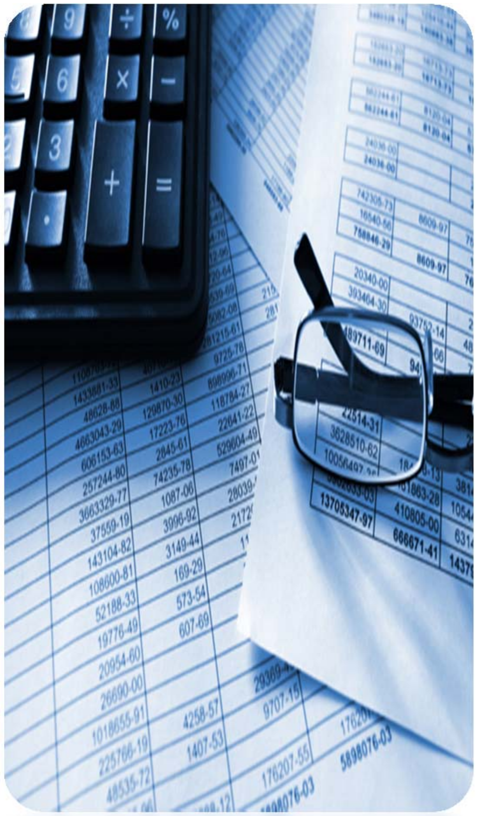
Increase in individual responsibility

More complex financial decisions

- **Individuals make many financial decisions**
  - Investment in education
  - Financial security after retirement
  - Investing in financial markets & other markets (buying a home, car, etc.)

- **Not enough to look at asset side; liability side is equally important**
  - Increase in household debt
  - Debt normally incurs higher interest rates than what is earned on assets

- **Financial decisions are complex**
  - Many more financial products than in the past

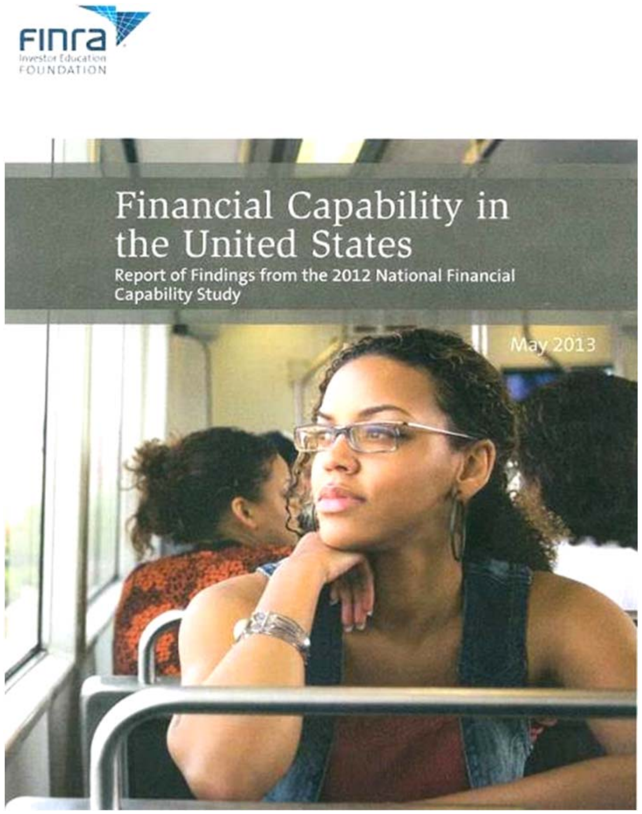


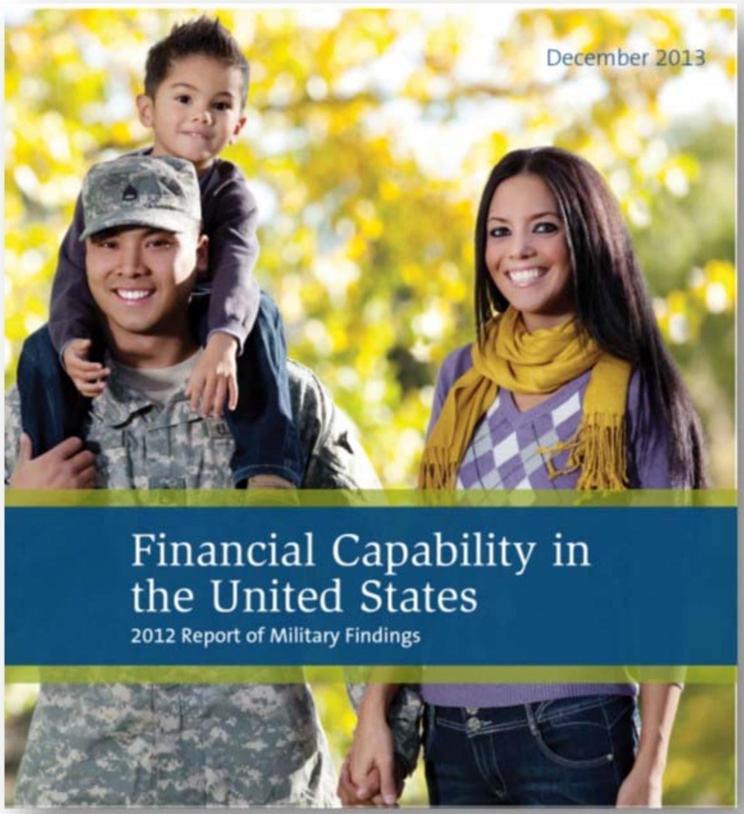
Financial literacy: A necessary skill

Why necessary

1. Decisions are inter-related
2. Decisions are made starting at a young age, ex: investment in education
3. There is a lot of heterogeneity in individual behavior
4. The final objective is well-being, not a single behavior

Data: 2012 National Financial Capability Study (NFCS)





First wave in 2009 (civilian and military data)

Data from the 2015 wave will be released in July 2016

Financial literacy:
A large amount of research in past 15 years

Some questions

1. How well-equipped are people to make financial decisions?
2. Are there vulnerable groups?
3. Does financial literacy matter?
4. What can be done to promote financial literacy and financial decision-making?

Measuring financial literacy

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

Measuring financial literacy

4. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

- ❑ True
- ❑ False
- ❑ Don`t know
- ❑ Refuse to answer

5. If interest rates rise, what will typically happen to bond prices?

- ❑ They will rise
- ❑ They will fall
- ❑ They will stay the same
- ❑ There is no relationship between bond prices and the interest rate
- ❑ Don`t know
- ❑ Refuse to answer

How much do Americans know?

Answers to five financial literacy questions

	% Correct	*% Don't Know*
Numeracy question	75%	11%
Inflation question	61%	20%
Risk diversification question	48%	42%
Mortgage question	75%	15%
Bond prices question	28%	37%
Answered the first three questions correctly	**34%**	**-**
Answered all five questions correctly	**14%**	**-**

Note: Respondents age 18+. Percentages calculated over the total 2012 NFCS sample.

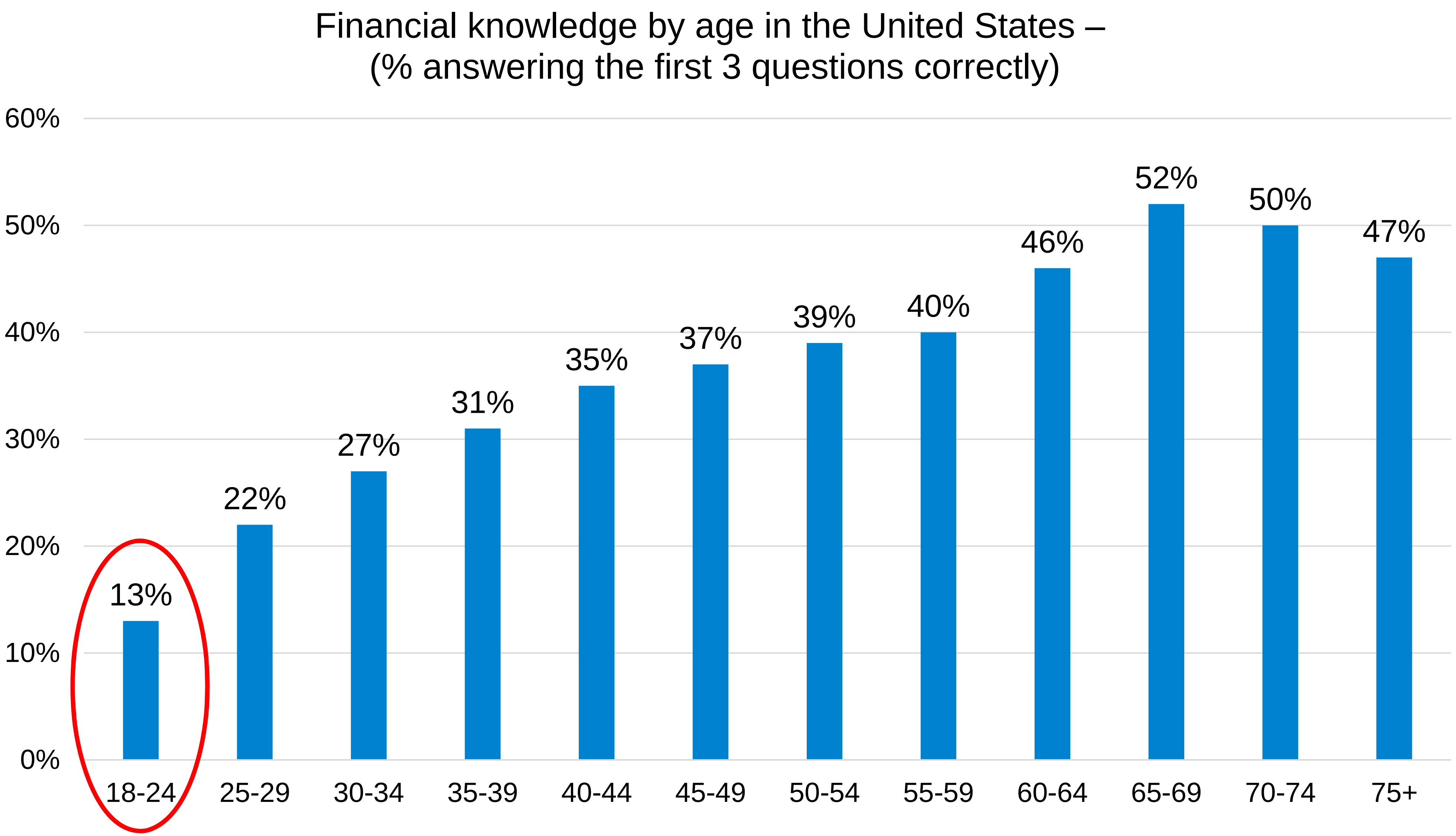
In the US, only a third of respondents demonstrated basic financial literacy, answering correctly the first three questions.

Who are the vulnerable groups?

- **Who knows the least?**
  - Those with low income/education, immigrants, those living in rural areas, the elderly, the young and women

- **The young have lower financial literacy**
  - Financial literacy is lowest among the young

Financial knowledge among the young



Note: Respondents age 18+. Percentages calculated over the total 2012 NFCS sample.

Implications: What the research suggests

- **Need to improve levels of financial literacy**
  - Levels of knowledge are low
- **Need for more targeted programs**
  - One size does not fit all
- **Millennials are especially vulnerable**
  - They have low financial literacy
- **Many employees are unlikely to participate in financial education programs**
  - Unaware that they need it

Linking financial literacy to behavior

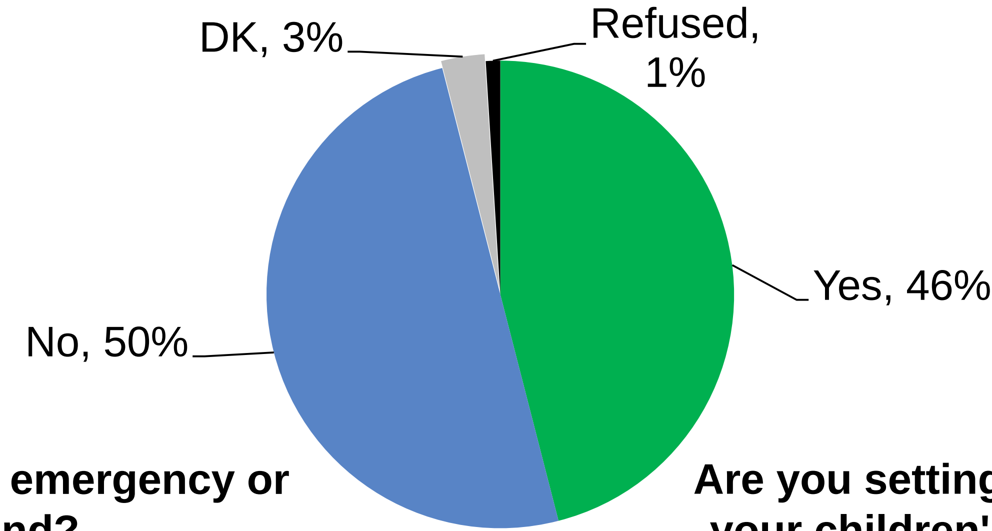
Our research has looked at several outcomes

- **Retirement planning, retirement saving and precautionary saving**
  - Important determinants of total net worth
- **Investing**
  - Returns on investment, accounting for risk
- **Borrowing**
  - Many types of debt

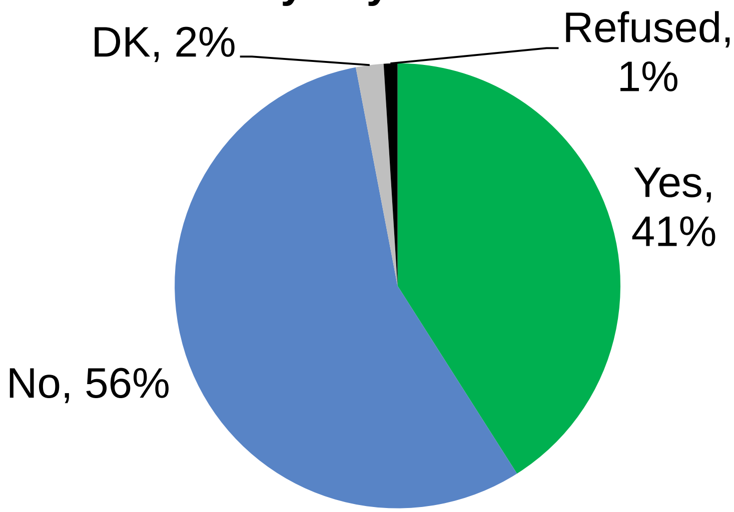
Main message: Financial literacy matters!

Planning ahead: Most workers don’t

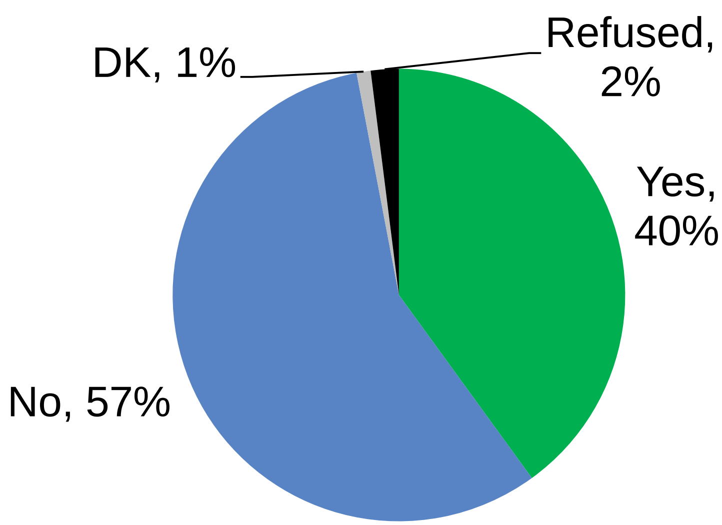
Have you ever tried to figure out how much you need to save for retirement?



Have you set aside an emergency or rainy day fund?



Are you setting aside any money for your children's college education?



Note: Respondents age 23 to 61 and employed at the time of the survey. 2012 NFCS

Why no long-run vision? Dealing with short run

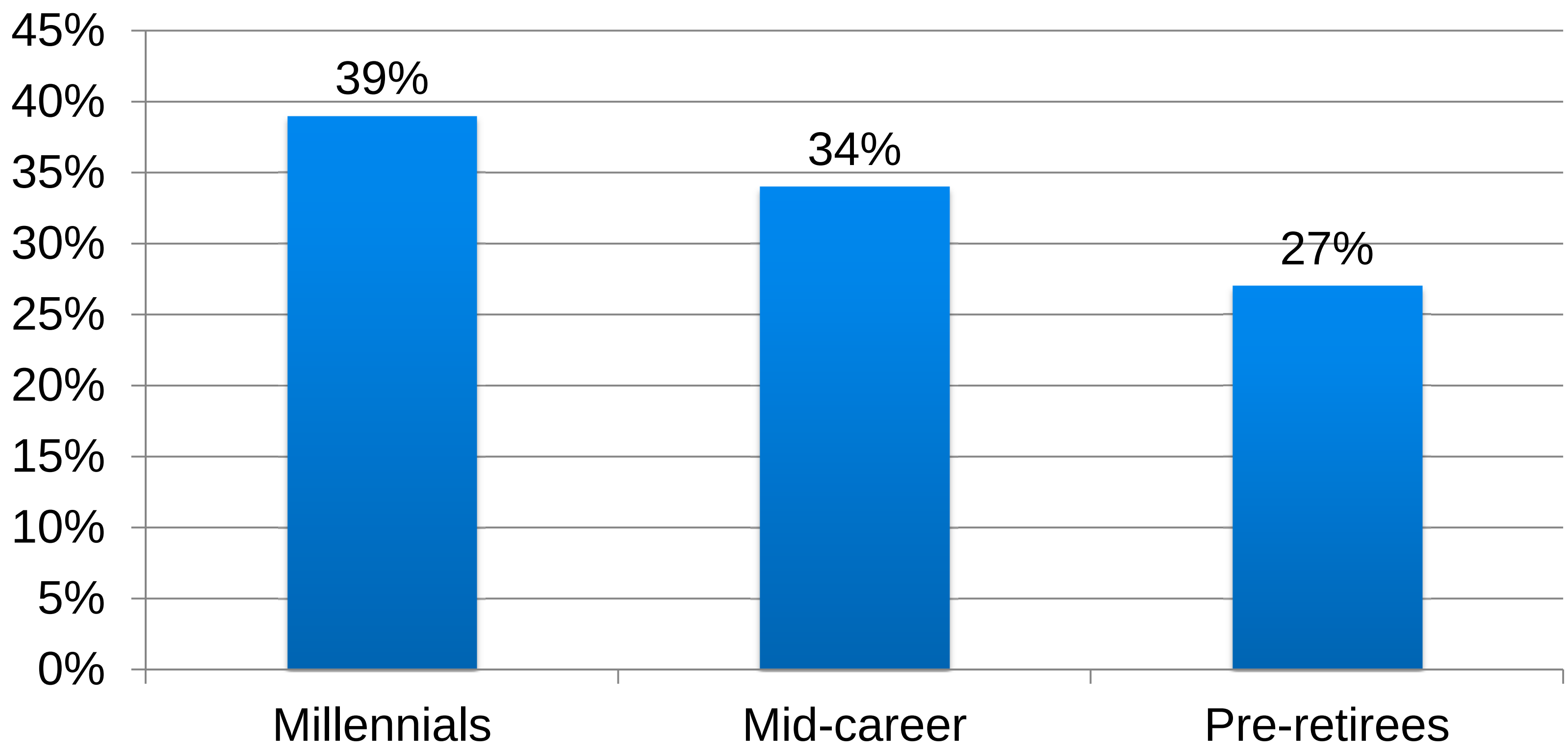
A simple measure of financial fragility developed by Lusardi, Schneider, and Tufano (2011):

- *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 fragility by career stage

% of respondents certainly or probably unable to come up with $2,000 in case of unexpected emergency

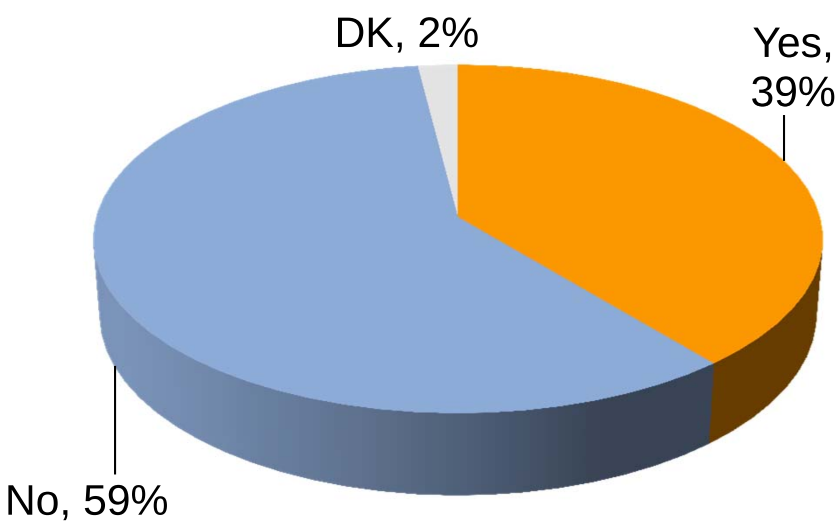


Note: Respondents age 23 to 61 and employed at the time of the survey.
Millennials: age 23-35; Mid-career: age 36-50; Pre-retirees: age 51-61. “Employed” definition includes full-time or part-time workers and the self-employed.

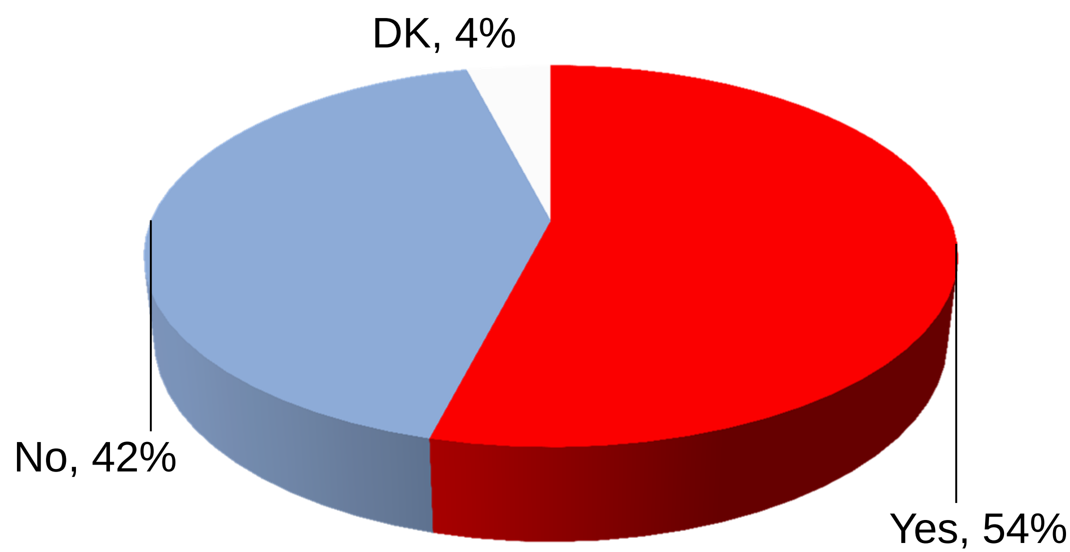
Dealing with student loans

- **38% of Millennials have a college degree**
- **Many Millennials are worried about paying off student loans**

Have a student loan



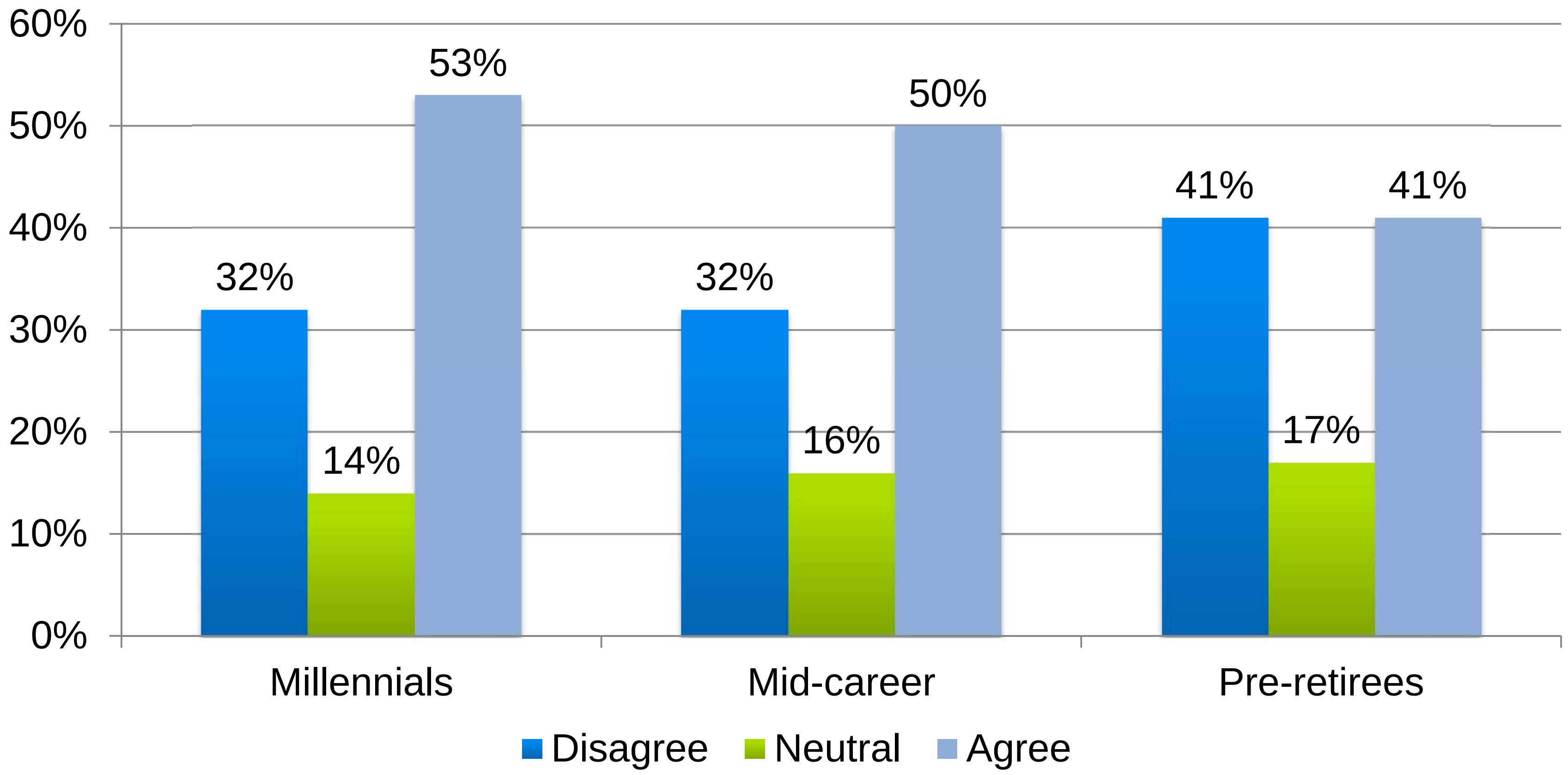
Concerned they might not be able to pay off student loan



Note: The statistics relative to ability to repay student loans are conditional on having a student loan.
Sample: Respondents age 23 to 35.

Debt burden across career stages

How strongly do you agree or disagree with the following statement? – I have too much debt right now.



Note: Respondents age 23 to 61 and employed at the time of the survey. Percentages do not total 100 percent because "do not know" and "prefer not to say" answers are not reported in the figure.

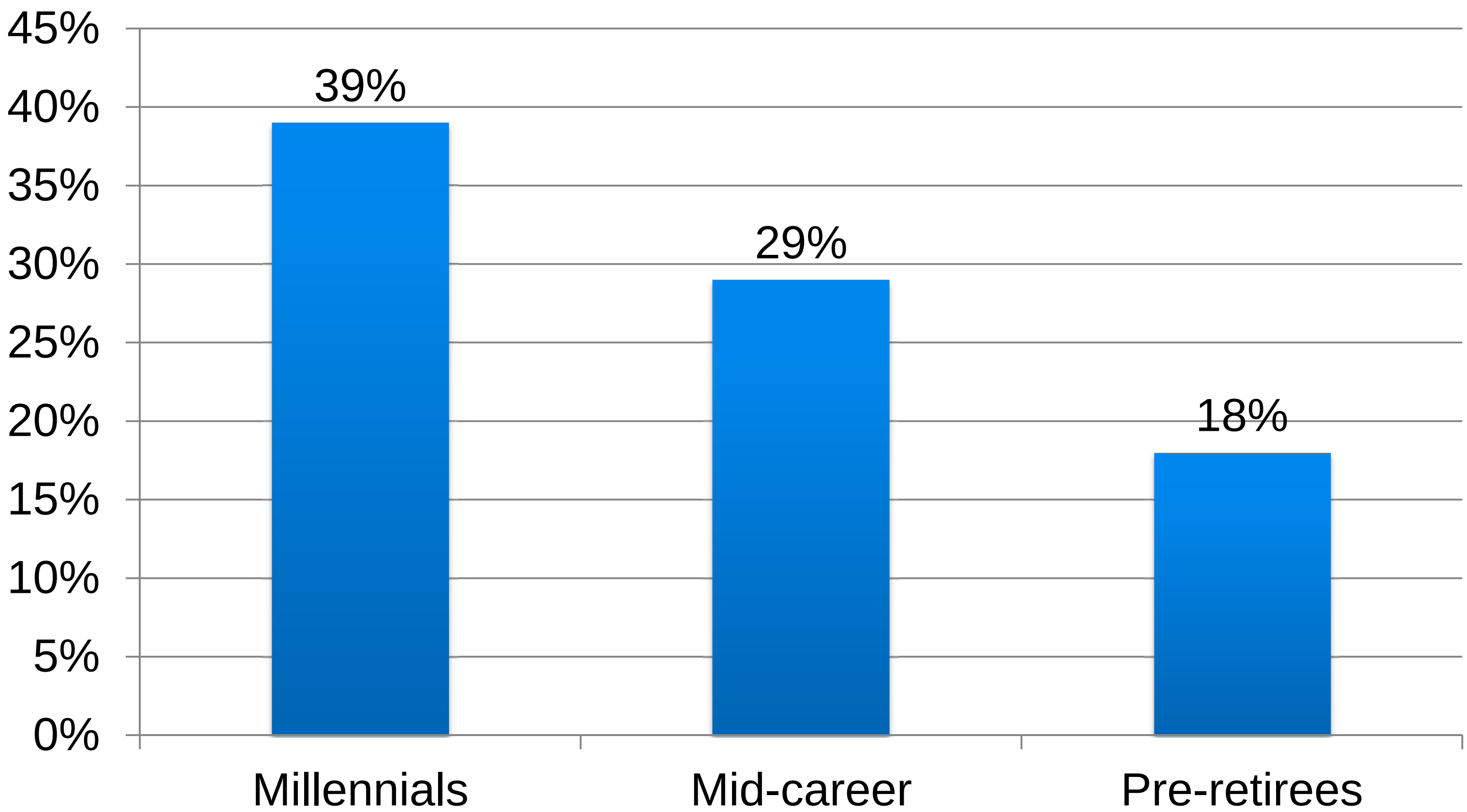
High-cost borrowing: Use of Alternative Financial Services (AFS)

Many Americans use high-cost borrowing—29% have used one of these methods in the past 5 years

- Pay-day loans (14%)
- Pawn shops (16%)
- Refund anticipation loans (8%)
- Auto title loans (10%)
- Rent-to-own stores (10%)

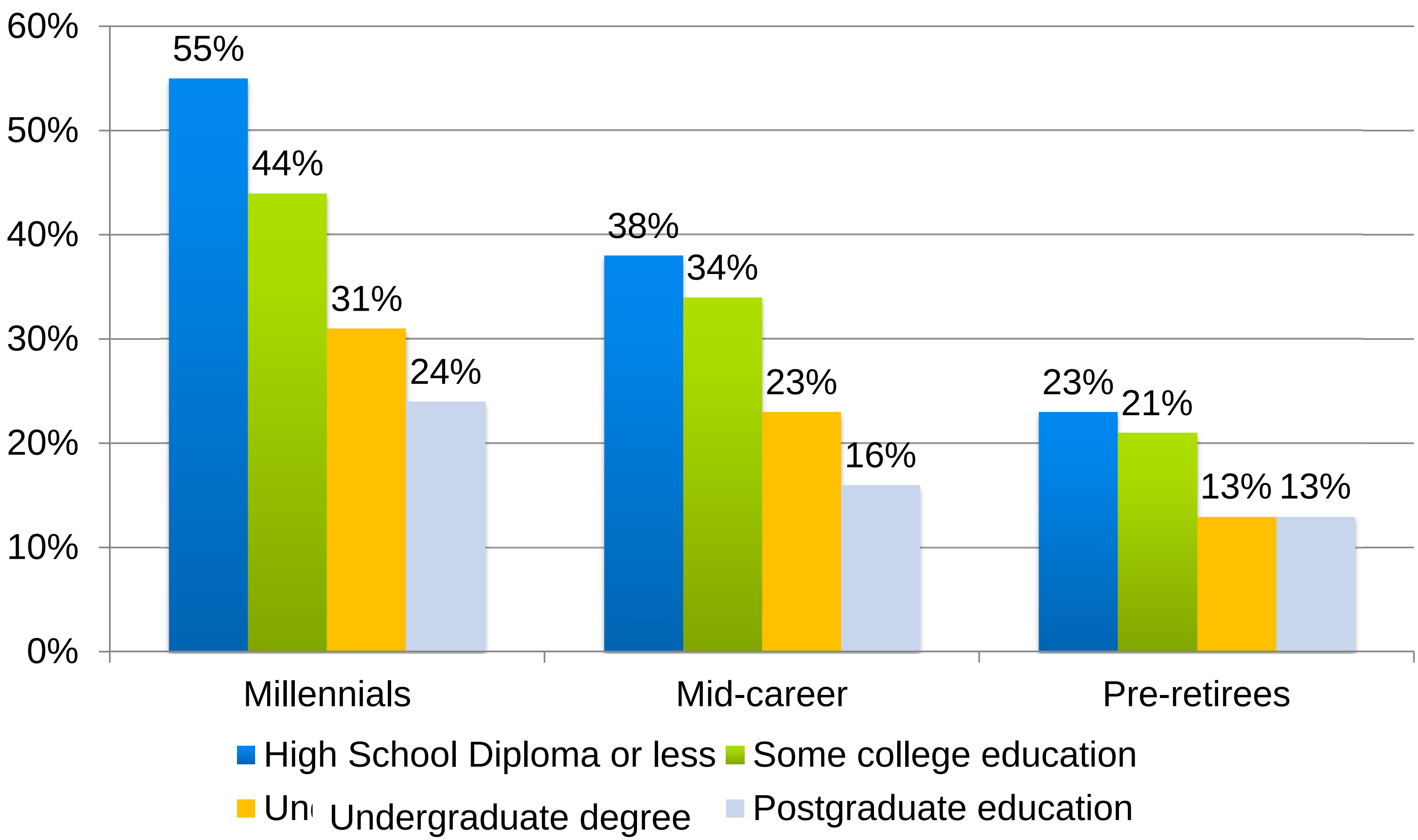
Note: Respondents age 23 to 61 and employed at the time of the survey.

Who borrows high-cost? AFS use by career stage



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

AFS use by education



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

Financial Literacy is linked to financial decisions

Debt and debt management

Investments

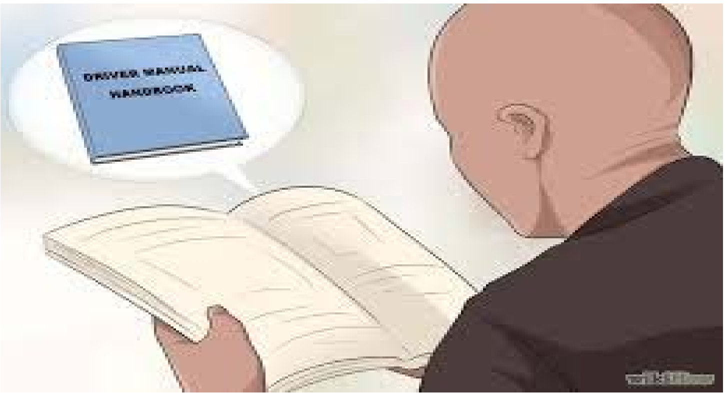
Planning and wealth accumulation

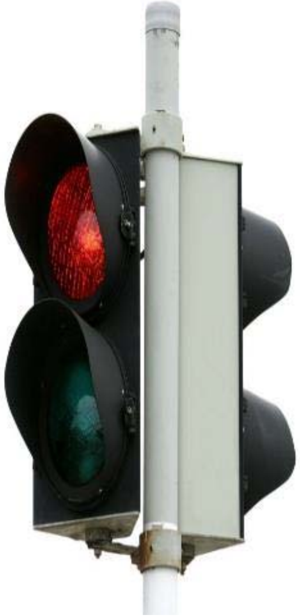
How to improve financial decision-making

What the research suggests

- Targeted programs
- Start with the individual and his/her needs
- Simplification
- Teachable moments
- Address lack of knowledge and information

A simple analogy





Our programs for the young

1. A pilot program to train high-school educators teaching financial education

➢ Program in the US in collaboration with Digital Promise

➢ Goal: enable educators to strengthen their pedagogy and better use personal finance professional development resources

DP

2. Our new personal finance course at the George Washington University

➢ Using a rigorous quantitative approach
➢ Integrating macro, accounting, and risk management
➢ Paying attention to gender differences in fin literacy

Targeting Millennials

Five steps to planning success

- Program targeted to young workers
- Used new methods of communication
- Kept the message free of economic/ finance jargon
- Covered concepts that people know the least, such as risk diversification, in a simple story

Short video about risk: don’t put all your eggs in one basket

- After being exposed to videos, the performance on financial literacy questions improved
- While young were targeted, the videos affected all age groups

How to help employees make financial decisions

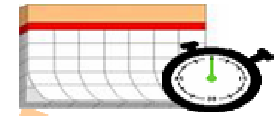
The Dartmouth Project

- Simplify financial decisions
- Provide information when needed by individuals
- Target specific groups
- Use communication that does not rely on figures and numeracy

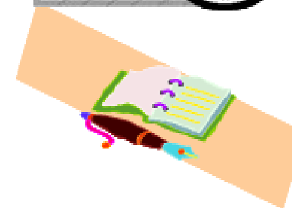
A Planning aid

Together with a marketing professor, I designed a planning aid intended to help Dartmouth College employees enroll in supplementary retirement accounts (SRA)

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.

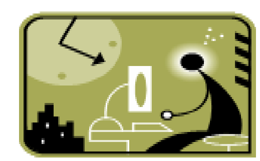


2. 3 minutes. **Check to see if you have the following materials**: a) worksheet in your benefits packet _√_, and b) the name and social security number of a beneficiary _√_.

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.

A Planning aid

Don’t give up! Contact the Benefits Office (6-3588) if for any reason you could not complete the online application.

It takes no time to prepare for your lifetime!

Most people plan on electing a supplemental retirement account, but feel they don’t have the time or information right now. We have outlined 7 simple steps to help you complete the election process. It will take between 15 – 30 minutes, from start to finish. It will take less time for you to start to insure your future than it takes you to unload your dishwasher!

Program effectiveness

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

Most recent project

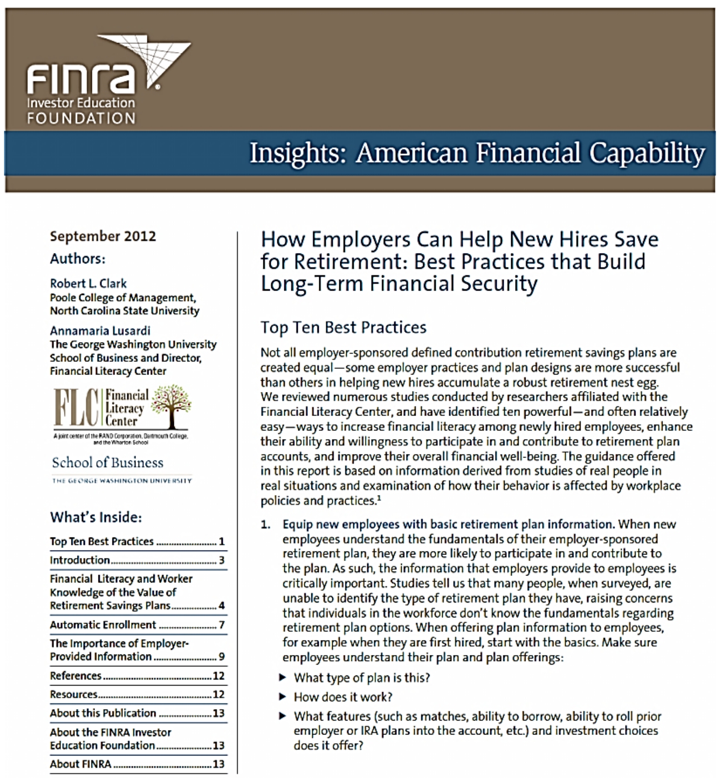
Financial knowledge & 401(k) investment performance

- **Use administrative data from the Federal Reserve Board**
  - High quality data
- **Designed survey that had the 3 financial literacy questions + questions on pension literacy**
  - High financial literacy but low knowledge about pensions
- **Linked financial literacy to return on 401(k) investments**
  - Have data on portfolio allocation
- **Those who are more financially literate earn a lot more on their portfolio (adjusted for risk)**
  - Similar evidence is emerging in other papers

Building long-term financial security

Best practices

How employers can help new hires save for retirement: *Best practices that build long-term financial security*


FINRA Investor Education FOUNDATION

Insights: American Financial Capability

September 2012

Authors:

Robert L. Clark
Poole College of Management, North Carolina State University

Annamaria Lusardi
The George Washington University School of Business and Director, Financial Literacy Center

FLC Financial Literacy Center
A joint center of the RAND Corporation, Dartmouth College, and the Wharton School

School of Business
THE GEORGE WASHINGTON UNIVERSITY

What's Inside:

How Employers Can Help New Hires Save for Retirement: Best Practices that Build Long-Term Financial Security

Top Ten Best Practices

Not all employer-sponsored defined contribution retirement savings plans are created equal—some employer practices and plan designs are more successful than others in helping new hires accumulate a robust retirement nest egg. We reviewed numerous studies conducted by researchers affiliated with the Financial Literacy Center, and have identified ten powerful—and often relatively easy—ways to increase financial literacy among newly hired employees, enhance their ability and willingness to participate in and contribute to retirement plan accounts, and improve their overall financial well-being. The guidance offered in this report is based on information derived from studies of real people in real situations and examination of how their behavior is affected by workplace policies and practices.[1]

1. **Equip new employees with basic retirement plan information.** When new employees understand the fundamentals of their employer-sponsored retirement plan, they are more likely to participate in and contribute to the plan. As such, the information that employers provide to employees is critically important. Studies tell us that many people, when surveyed, are unable to identify the type of retirement plan they have, raising concerns that individuals in the workforce don't know the fundamentals regarding retirement plan options. When offering plan information to employees, for example when they are first hired, start with the basics. Make sure employees understand their plan and plan offerings:
   - What type of plan is this?
   - How does it work?
   - What features (such as matches, ability to borrow, ability to roll prior employer or IRA plans into the account, etc.) and investment choices does it offer?

We prepared a report documenting best practices for improving financial decision making in the workplace.

- Based on studies of many employer-provided financial education programs
- Goal of the report is to help employers improve retirement saving choices of newly hired workers

Building a tool for financial decision-making (FinVis)

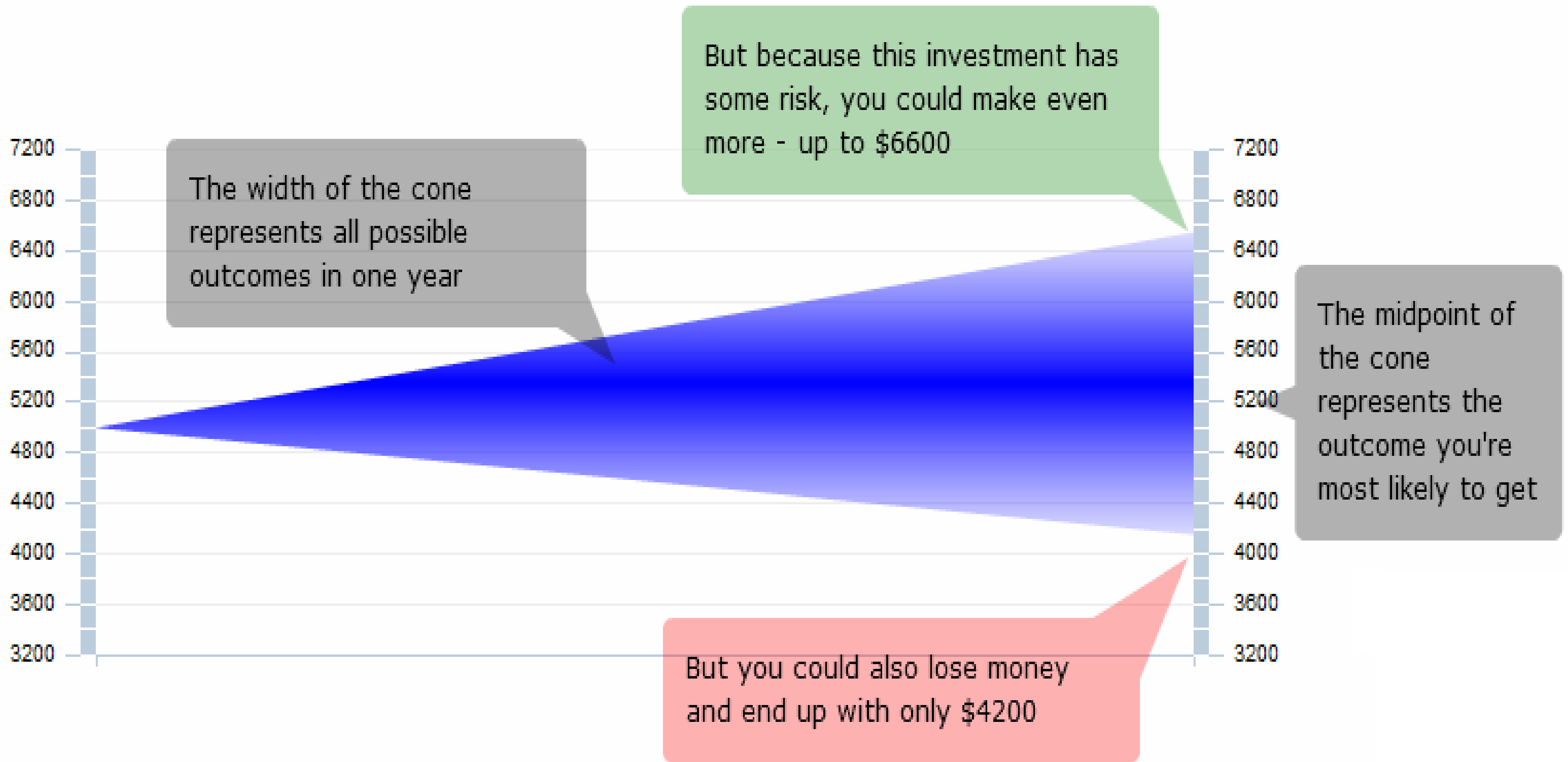
Addressing lack of risk literacy through visualization

Goals of FinVis:

Help the user to:

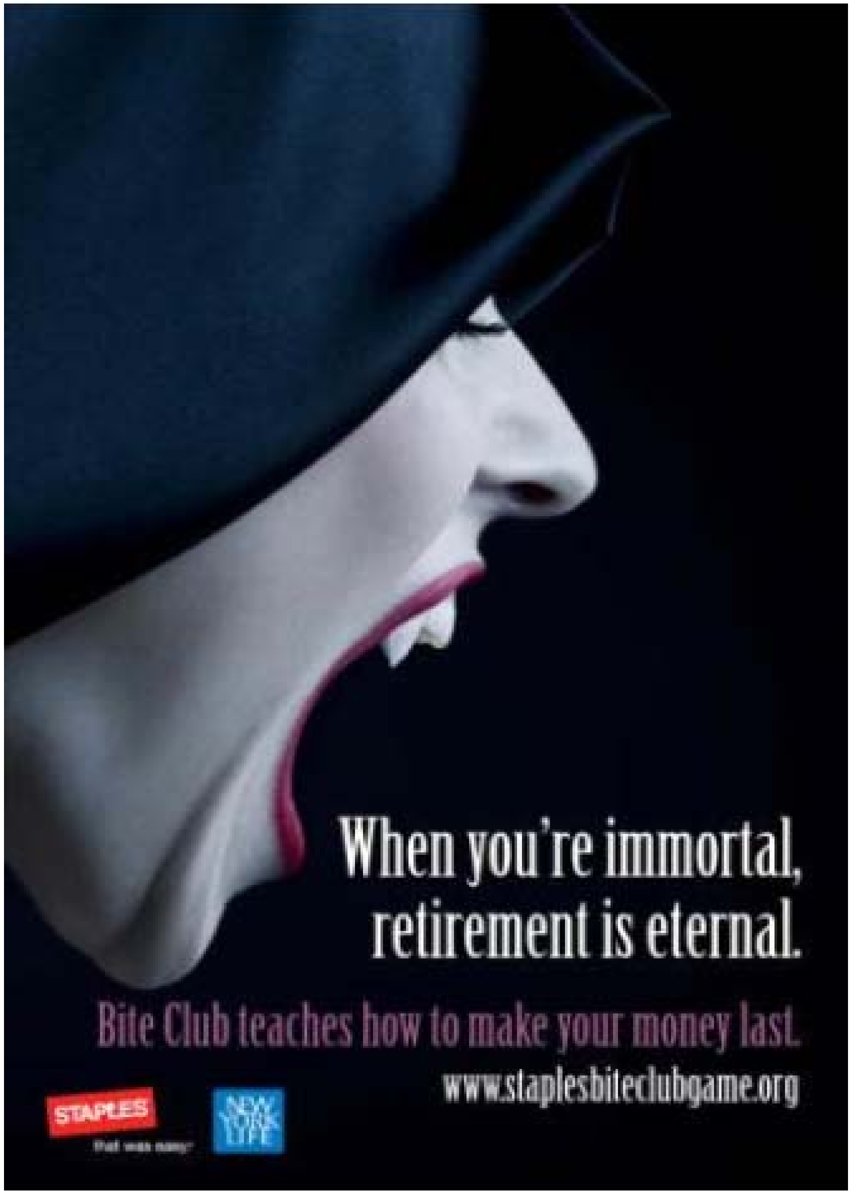
1. understand risk profiles of different types of stocks
2. understand the impact of different rates of return, different standard deviations and correlations of assets
3. learn why it is important to diversify *across stocks*
4. learn why it is important to diversify *across asset classes*

FinVis



FinVis: Don`t put all your savings in one basket

Thinking outside the box: Financial literacy games



Concluding remarks

Shifting paradigm

- **Equipping people to make savvy financial decisions**
  - Financial literacy is a necessary skill
- **Need to start early**
  - The importance of financial literacy in school. These are not separate topics. Need to collaborate with Department of Education
- **Need targeted approach**
  - Workers are very different
- **Cannot focus on one behavior only (example retirement saving)**
  - Decisions are interrelated

Financial Literacy: The best line of defense

"Well-informed consumers, who can serve as their own advocates, are one of the best lines of defense against the proliferation of financial products and services that are unsuitable, unnecessarily costly, or abusive.”

Ben Bernanke, Former Chairman of the Fed

Contact and sources of information

Annamaria Lusardi
Global Financial Literacy Excellence Center (GFLEC)
E-mail: alusardi@gwu.edu
Blog: http://annalusardi.blogspot.com/
Twitter: @A_Lusardi
Facebook: https://www.facebook.com/gflec

All research papers are posted on our web page : http://www.gflec.org/

GFLEC
GLOBAL FINANCIAL LITERACY
EXCELLENCE CENTER