Increasing the effectiveness of financial education: Evidence from research

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Topics I will cover

1. Data tells a story: the *P-Fin Index*
2. Financial education in high school
3. Fast track to financial education in the workplace
4. About us: Personal finance in colleges/universities
Let’s start with a video of a former undergraduate from Harvard
Data tells a story
Measuring personal finance knowledge

- The TIAA Institute-GFLEC Personal Finance Index (P-Fin Index) is an annual barometer of knowledge and understanding which enable sound financial decision-making and effective management of personal finances.

- The P-Fin Index relates to common financial situations that individuals encounter and can be viewed as a gauge of “working knowledge.”

- In addition to personal finance knowledge, it provides information on financial well-being indicators.

- Data is collected since 2016 on a representative sample of Americans (age 18+).
What is unique: 8 functional areas of personal finance

The index is based on responses to 28 questions, with three or four questions for each of the eight functional areas (from National Standards for Finlit).

The *P-Fin Index’s* 28 questions cover eight functional areas:

1. Earning
2. Saving
3. Consuming
4. Investing
5. Borrowing
6. Insuring
7. Comprehending risk
8. Go-to information sources
Anna saves $500 each year for 10 years and then stops saving additional money. At the same time, Charlie saves nothing for 10 years but then receives a $5,000 gift which he decides to save. If both Anna and Charlie earn a 5% return each year, who will have more money in savings after 20 years?

- Anna
- Charlie
- Anna and Charlie will have the same amount
- Don’t know
- Refuse to answer

Results:
Correct 52%
Incorrect 26%
Don’t Know 22%
No Answer 0%

Source: TIAA Institute-GFLEC Personal Finance Index (2022).
Financial literacy: A failing grade

% of P-Fin Index questions answered correctly

50%

Distribution of correct answers to P-Fin Index questions

- 22-28 correct (76%-100%) - 18%
- 15-21 correct (51%-75%) - 33%
- 8-14 correct (26%-50%) - 26%
- 0-7 correct (<26%) - 23%

Financial (il)literacy is holding steady: 2017-2022

Distribution of correct answers to P-Fin questions

<table>
<thead>
<tr>
<th>Year</th>
<th>0-7 correct (&lt;26%)</th>
<th>8-14 correct (26%-50%)</th>
<th>15-21 correct (51%-75%)</th>
<th>22-28 correct (76%-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>20%</td>
<td>32%</td>
<td>32%</td>
<td>16%</td>
</tr>
<tr>
<td>2018</td>
<td>21%</td>
<td>28%</td>
<td>35%</td>
<td>16%</td>
</tr>
<tr>
<td>2019</td>
<td>20%</td>
<td>27%</td>
<td>35%</td>
<td>18%</td>
</tr>
<tr>
<td>2020</td>
<td>17%</td>
<td>30%</td>
<td>33%</td>
<td>20%</td>
</tr>
<tr>
<td>2021</td>
<td>20%</td>
<td>28%</td>
<td>34%</td>
<td>18%</td>
</tr>
<tr>
<td>2022</td>
<td>23%</td>
<td>26%</td>
<td>33%</td>
<td>18%</td>
</tr>
</tbody>
</table>

What do people know the most and the least

% of P-Fin questions answered correctly

- Borrowing: 60%
- Saving: 58%
- Consuming: 52%
- Go-to info sources: 49%
- Earning: 48%
- Investing: 47%
- Insuring: 45%
- Comprehending risk: 36%

Source: TIAA Institute-GFLEC Personal Finance Index (2022).
“Calculated risk”? 

Which of the following indicates the highest probability of getting a particular disease?

- There is a one-in-twenty chance of getting the disease
- 2% of the population will get the disease
- 25 out of every 1,000 people will get the disease
- Don’t know
- Refuse to answer

Results:
- Correct: 28%
- Incorrect: 19%
- Don’t Know: 53%
- No Answer: 0%

Large variation in financial literacy across demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>% of P-Fin questions answered correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than HS</td>
<td>31%</td>
</tr>
<tr>
<td>High school</td>
<td>38%</td>
</tr>
<tr>
<td>Some college</td>
<td>49%</td>
</tr>
<tr>
<td>College degree</td>
<td>65%</td>
</tr>
<tr>
<td>HH income</td>
<td></td>
</tr>
<tr>
<td>&lt; $25k</td>
<td>30%</td>
</tr>
<tr>
<td>$25k-$49k</td>
<td>38%</td>
</tr>
<tr>
<td>$50k-$99k</td>
<td>51%</td>
</tr>
<tr>
<td>$100k-plus</td>
<td>60%</td>
</tr>
<tr>
<td>Employed</td>
<td>53%</td>
</tr>
<tr>
<td>Retired</td>
<td>52%</td>
</tr>
<tr>
<td>Unemployed/disabled</td>
<td>37%</td>
</tr>
</tbody>
</table>

Source: TIAA Institute-GFLEC Personal Finance Index (2022).
Where changes happened over time: Toward an unequal path

% point change in P-Fin questions answered correctly, 2017 to 2022

- Males: +4
- Females: -3
- Age:
  - 18-29: +4
  - 30-44: +5
  - 45-59: -1
  - 60-plus: -3
- HH income:
  - < $25k: -4
  - $25k-$49k: -7
  - $50k-$99k: 0
  - $100k-plus: +1

Financial literacy matters: It affects behavior
Financial literacy and financial fragility

Those with greater financial literacy are less likely to be financially fragile.

% who could certainly come up with $2,000 if an unexpected need arose within the next month

% of P-Fin questions answered correctly

Source: TIAA Institute-GFLEC Personal Finance Index (2022).
What we learn from data and research

- Very low levels of financial literacy
  - Do not take financial literacy for granted
  - We need to improve basic knowledge, the ABC of personal finance

- Financial illiteracy is widespread
  - Need interventions that can be scaled up to see changes at the aggregate level
  - Changing behavior requires more than small interventions

- Large heterogeneity across demographic subpopulations
  - One size does not fit all
Making financial education effective

We need large and scalable programs

1. Financial education in school (for the young)

2. Financial education in the workplace (for the adults)

3. Financial education where people go to learn (libraries, museums, theaters, and online)
Research says that financial education works

Financial education affects financial knowledge and downstream behaviors

Tom Kaiser, Anna Maria Lusardi, A. A., Lukas Menkhoff, Carly Urban

Abstract

We study the rapidly growing literature on the causal effects of financial education programs in a meta-analysis of 76 randomized experiments with a total sample size of over 160,000 individuals. Many of these experiments are published in top economics and finance journals. The evidence shows that financial education programs have, on average, positive causal treatment effects on financial knowledge and downstream financial behaviors. Treatment effects are economically meaningful in size, similar to those realized by educational interventions in other domains, and robust to accounting for publication bias in the literature. We also discuss the cost-effectiveness of financial education interventions.
Financial education in school
Financial education in high school

Many states are increasingly mandating financial education in high school

As of 2022, 23 states require high school students to take a course in personal finance, an increase of 2 states since 2020, but more is underway.
The effects of financial education in high school

- A study investigates the effects of mandatory financial education in high school in two states: Georgia and Texas.

- Using data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP) they track young people (age 18-21).

- Financial education exposure is associated with
  - fewer defaults
  - higher credit scores

How to make it more effective

- Have a one-semester course

- Rigorous curriculum

- Train the teachers

- Standardized evaluation

Fast Lane: Promote financial education in high school

- Provides research-based guidance and support for (1) students, (2) teachers, (3) school administrators, (4) parents/guardians, (5) policymakers, and (6) community members
- A resource center with tailored toolkits
- Making sure young people are on the fast lane to financial prosperity
Fast track to financial education in the workplace
A simple measure of the cost of financial illiteracy

Average hours per week spent thinking about and dealing with issues and problems related to personal finances

<table>
<thead>
<tr>
<th>All adults</th>
<th>Workers while on the job</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 26%</td>
<td>7</td>
</tr>
<tr>
<td>26%-50%</td>
<td>4</td>
</tr>
<tr>
<td>51%-75%</td>
<td>2</td>
</tr>
<tr>
<td>76%-100%</td>
<td>1</td>
</tr>
</tbody>
</table>

% of P-Fin questions answered correctly

People spend an average of 7h per week thinking about and dealing with financial issues and problems. An average of 3h per week occur at work.

Source: TIAA Institute-GFLEC Personal Finance Index (2022).
What we have learned from our projects

Online program - SSA

FINRA Investor Education Foundation

European Investment Bank Institute

Dartmouth College

Federal Reserve Office of Employee Benefits

New York Stock Exchange
Five steps to planning success

Program:

● Covered 5 basic concepts for financial planning
● Targeted to young workers
● It is a story (narrative or video)

- We put together a team of researchers from different fields: Economics, psychology, and linguistics
- We evaluated its effectiveness

Five steps to financial success: topics

The five topics

● **Compound interest**
  ○ How to grow your wealth

● **Inflation**
  ○ The erosion of purchasing power over time

● **Risk diversification**
  ○ Do not put all your eggs in one basket

● **Tax treatment of retirement savings vehicles**
  ○ Taxes advantages; 401(K) and IRAs

● **Employer matches in defined contribution saving plans**
  ○ Don’t leave money on the table
Five steps to financial success: effectiveness

- After being exposed to videos, financial literacy improved among participants
- While young were targeted, the videos affected all age groups
- 25-33% of the knowledge gain is still observable after 8 months
- People learned even difficult topics, such as risk diversification

Even short interventions can affect knowledge
Financial education in the workplace: main components

- A financial check-up
- Relevant topics
- Evaluation and review to improve
- Engagement
- Timing
1. A financial check-up

As going to the doctor for a regular check-up, a financial check-up can help assess financial health.

- It should look at several indicators (not just one variable, such as retirement savings).
- It provides a way to then segment and better target employees’ needs.
- It allows to track progress over time if measured on a regular basis.
2. Relevant topics

The building blocks of financial security
- Cover beyond retirement savings (below are some topics)
- Most effective if tailored to the specific needs and financial circumstances of the participants.

Planning for the future (retirement planning and more)
Debt and debt management
Precautionary savings
Basic financial literacy
3. Timing is important

- Make it timely

- Programs can use critical moments when financial decisions are made: orientation, end of the year, tax time, birth of children, etc.

- The current crisis is a “teachable moment”
4. Boost engagement

- Simplify financial decisions (step-by-step action plan)
- Make it easy to understand and participate
- Provide incentives to participate
- Personalize as much as possible and make it relevant
5. Evaluation

Evaluate to show impact and adjust to increase effectiveness

• Repeat on a regular basis

• Continually evaluate and assess impact

• Adjust programs to increase effectiveness
An example: the Dartmouth Project

Dartmouth project:

- We designed a 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. Reducing enrollment process into small manageable steps.

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.
Impacting business: our research reaches the New York Stock Exchange

We built a toolkit for NYSE to promote financial wellness in the workplace.
Research–based workplace financial education programs

Our workplace financial wellness webpage describes the financial wellness programs we have designed based on our research.
Museum of saving in Italy
A national strategy for financial literacy

I chair the Italian Committee for Financial Education in charge of designing a national strategy for financial literacy

We built a website to provide financial education to the Italian population

We are evaluating our national campaign
How about us?
Personal finance course at Harvard
Personal finance course at GW since 2013

- Personal Finance courses for undergraduate and graduate students
- Extensive coverage of risk and risk management
- Paying attention to gender and other differences in financial literacy
- Material available on our website
It’s time to teach personal finance in every college/university
“An investment in knowledge pays the best interest”

- Benjamin Franklin
Thank you!

More info at www.gflec.org or send me questions at alusardi@gwu.edu.