



Center for Financial and
Economic Decision Making
A LABOR AND POPULATION PROGRAM

5 Steps To Planning Success : Developing and Testing New Strategies for Reaching Young Adults

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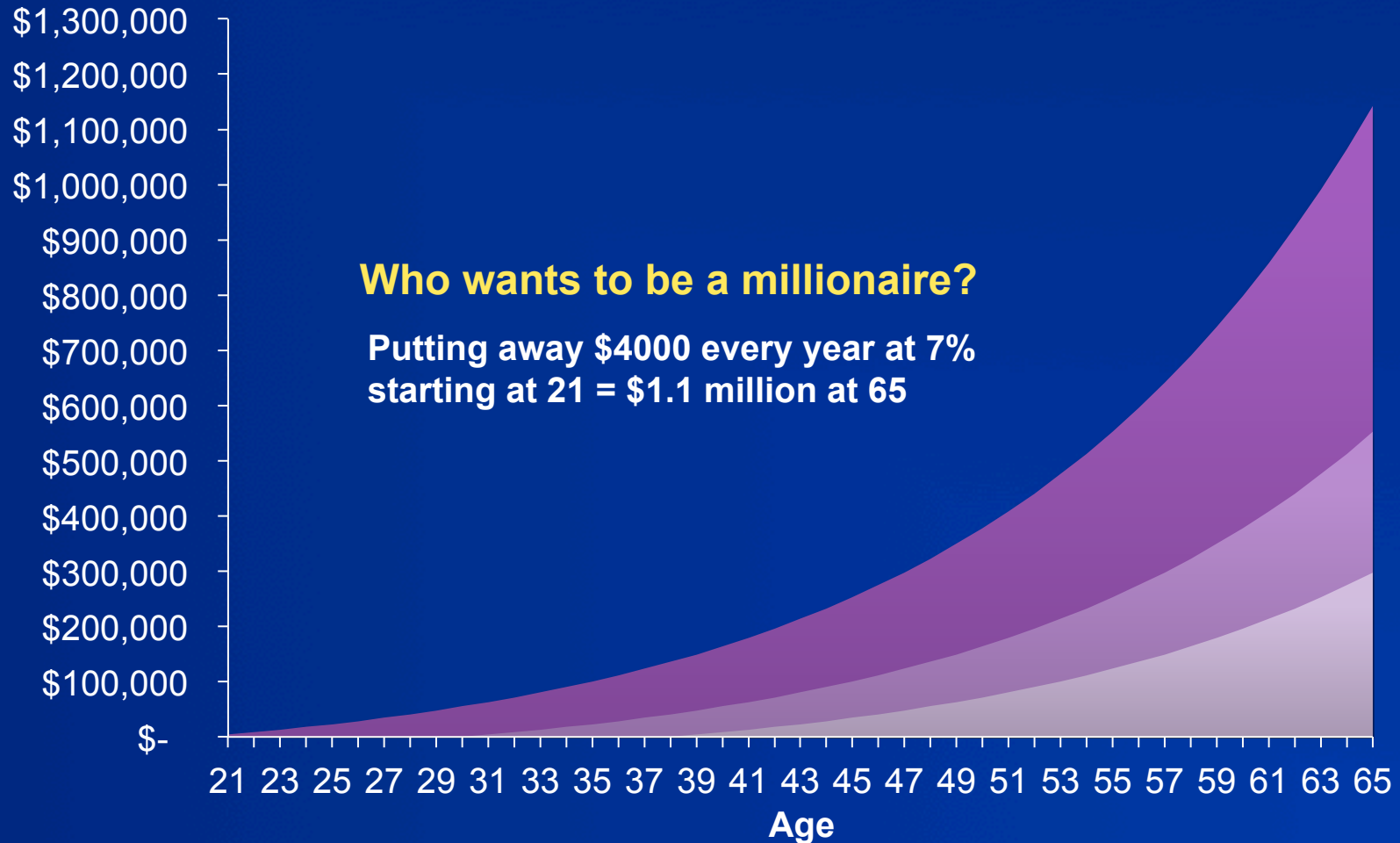
Angela Hung

Arie Kapteyn

Annamaria Lusardi

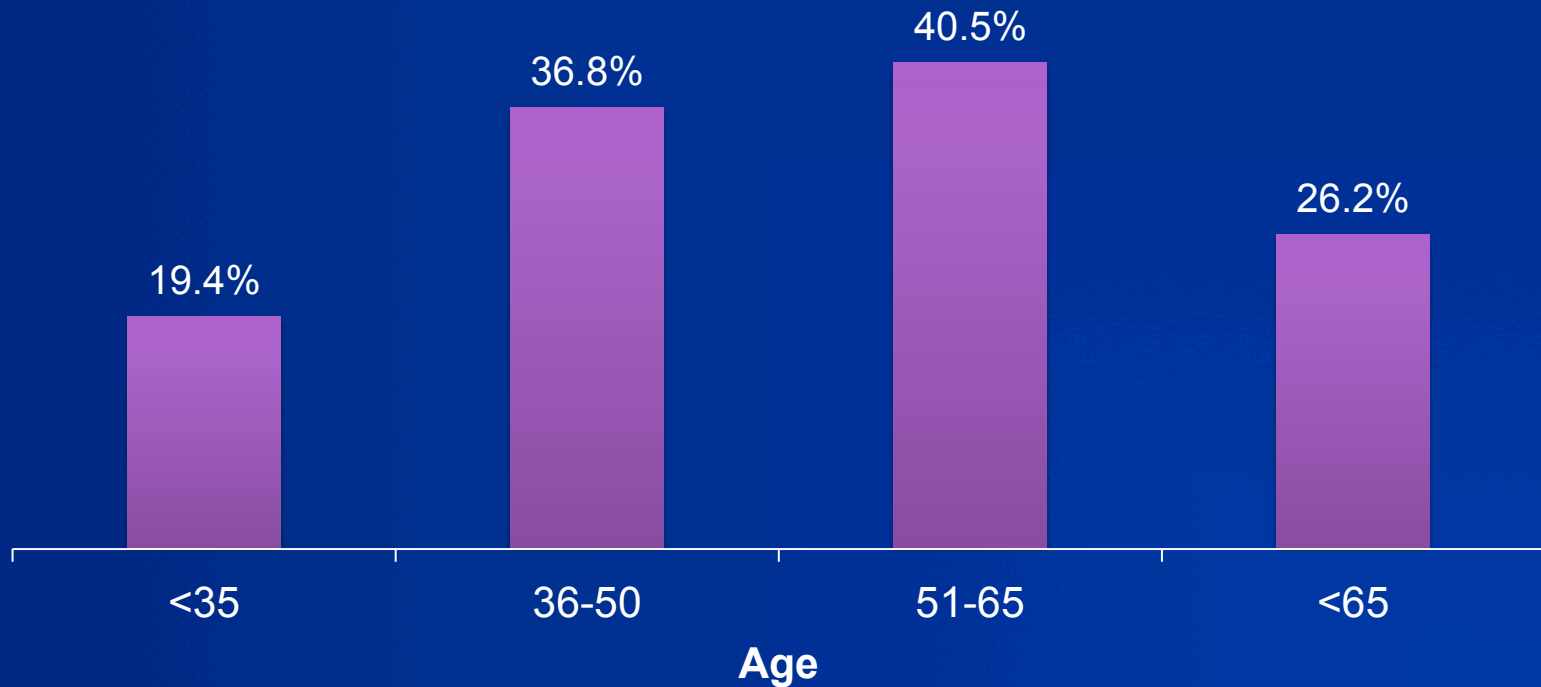
Joanne K. Yoong

With DC Plans, Starting Early Can Make A Significant Difference To Retirement Security

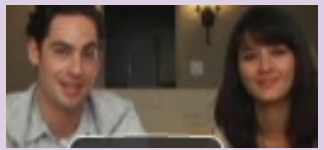


But Most Young Adults are Not Prepared To Plan Ahead

% correctly answering questions on interest, inflation and risk in 2011 US Financial Capability Survey



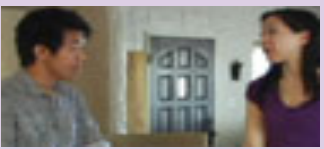
We Developed An Intervention Around Five Key Concepts for Planning Success



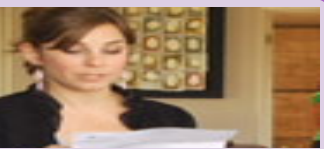
Harness the power of interest compounding



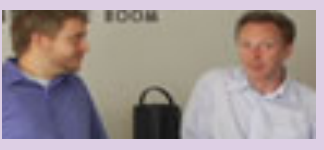
Account for the effects of inflation



Diversify portfolio



Take advantage of tax-favored assets

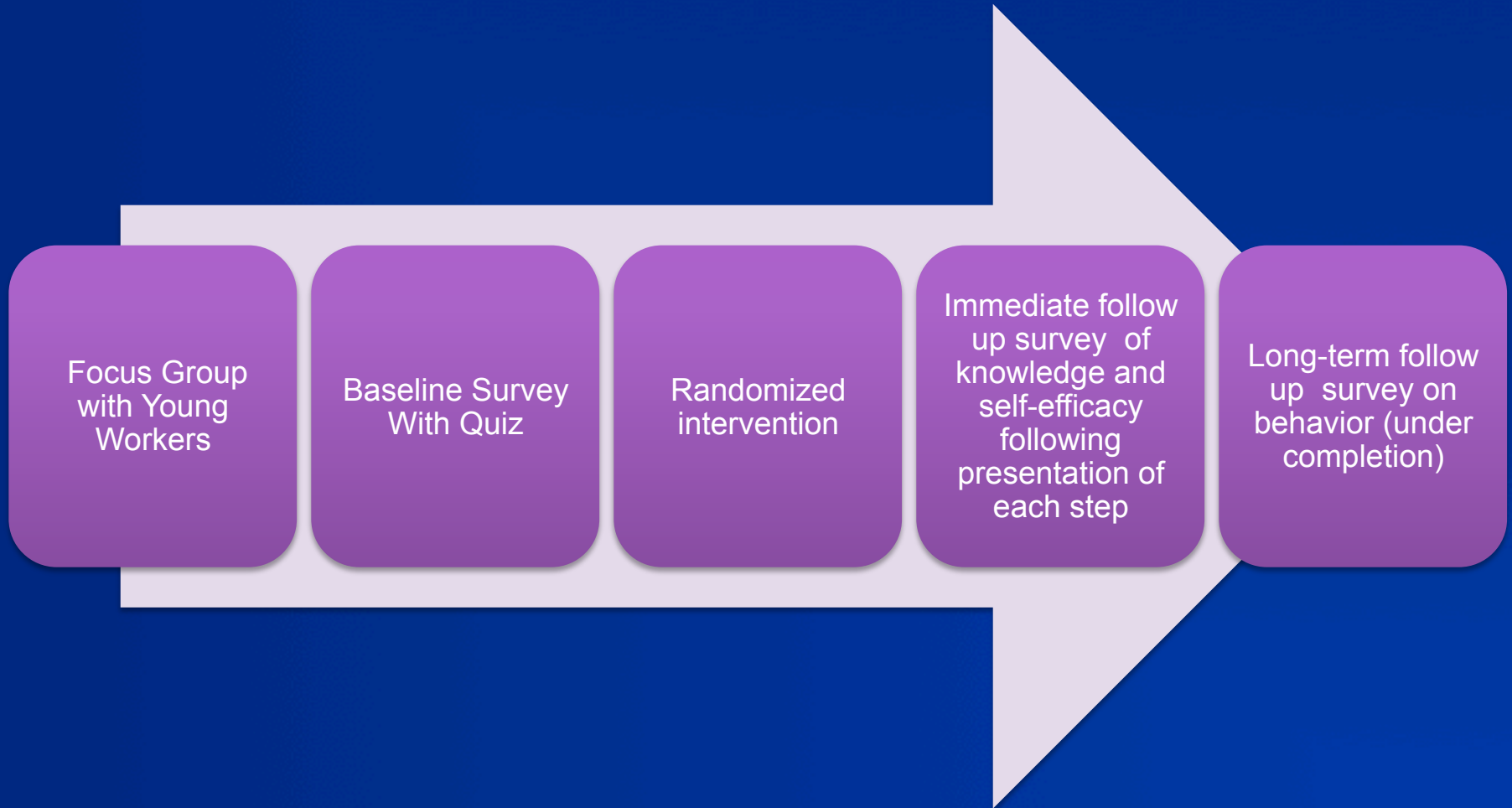


If have a 401(k) plan, take advantage of any employer matches

Developing The Delivery Model for 5 Steps

- **Goal is to overcome the mix of disinterest, anxiety, and non-comprehension associated with financial issues**
- **Key elements in process of intervention design**
 - ***Personal narratives with age-appropriate role models***
 - **Vicarious experience (behavioral modeling) can increase self-efficacy, create cognitive involvement and generate a desire to change course**
 - **Widely adopted in adult / health education with demonstrated effects on motivation, comprehension, and recall**
 - **Emphasize *teachable moments* where possible**
 - **Marriage, inheritance, new job**
 - **Experiment with online video vs. written anecdote**
 - **84% of internet users age 18-29 and 74% age 30-49 watch or download online video**
 - **Growing audience for educational videos (22% of adult internet users in 2007 and 38% in 2009)**

Evaluation Process for Five Steps Qualitative Research + Online Experiment



Lessons Learnt from Qualitative Research: Lack Of Knowledge Is Not the Only Barrier

20/40 years sounds like a really long way away. It looks so dinky now.

It's too hard to connect with today, to decide to set aside x percent for such an abstract concept

Savings is really hard ... I'm taking it one day at a time. I try to think ahead, but get defeated by emergencies.

It doesn't make any sense to save while you're still in debt

Other Lessons Learnt During Focus Groups

- **A fine balance needs to be achieved in all material**
 - **Content level should be appropriate, not too difficult to understand but not juvenile or “dumbed down”**
 - **Tone should be aspirational but not “condescending”**
- **For videos, several factors matter**
 - **Relatability of individual actors**
 - **Cultural diversity**
 - **Realism**
- **Videos are persistently reported to be more motivating**

A Narrative Sample Extract

Dave and Michelle met in college, five years ago. Theirs isn't a romantic story of love at first sight; instead they slowly built the foundation for a strong relationship. Dave asked Michelle out for a coffee, then another, and another. Their relationship continued to grow stronger, and they recently got married.

When they got \$5000 in cash as wedding presents, Michelle and Dave had to decide what to do with the money. The answer didn't seem obvious. Looking over their finances didn't take long because they didn't have much money, especially since Michelle's job at the time paid more like an internship. The two of them don't generally consider themselves big planners and, at first, it seemed pointless to even think about investing for the long term. Dave suggested not investing right away, but instead waiting until they had better jobs and made more money.

But Michelle told Dave about the 7 and 10 rule. The rule describes how long it takes for an investment to double. At a 7% rate of return, it takes about 10 years for an investment to grow twice as large. At a 10% rate of return, it takes only about 7 years to double your money.

7 and 10 Rule At a 7% rate of return, it takes about 10 years to double your money. At a 10% rate of return, it takes about 7 years to double your money.

At first, Dave wondered whether they could get such a high return: 10% is a lot! Michelle pointed out that a 7% return might be more realistic. After all, they would be investing for the long term. Dave realized that over the long term a diversified portfolio of stocks can yield returns in that range, though both he and Michelle understand that it always varies.

The simple 7 and 10 rule helped Michelle figure out that even at a 7% rate of return, the original \$5000 would grow to a whopping \$160,000 by the time she and Dave turn 75. When Michelle first pointed this out to Dave, he thought something had to be wrong with Michelle's calculation. But, as Michelle explained to him, the money grows that much because the returns compound over time. In other words, all of the money, including the earned interest, gets reinvested every year so that over the long term, there's some serious build-up!

And now, time for a short break...



Hope this works

Experiment Design

- **Study sample of 3000 adults of all ages drawn from the RAND American Life Panel, an online panel of (now 5000+) households established in 2006**
- **Data on demographics and other financial information already available for matching**
- **A natural environment for testing interventions that are likely to be web-based**
- **Easy, transparent randomization, even complex design**
 - **3 waves, at least 2 weeks apart**
 - **Each respondent saw all five steps**
 - **2 steps as video only, 2 narrative only, 1 video & narrative (to enable within-person comparison)**

2 Types of Outcomes Assessed: Knowledge vs Self-efficacy

Knowledge about Interest Rates

- Suppose you invest \$2,500 and earn 7% per year on this investment. How many years will it take for your total investment to be worth \$5,000?
 - 1 Between 0 and 5 years
 - 2 Between 5 and 15 years
 - 3 Between 15 and 45 years
 - 4 More than 45 years

Self-efficacy about interest rates

- When making decisions about personal finances, how likely is it that you would be able to effectively take into account the impact of interest compounding?
 - 1 Extremely likely
 - 2 Very likely
 - 3 Somewhat likely
 - 4 Very unlikely
 - 5 Extremely unlikely

Results I: Treatment Effects on Changes in Knowledge, Regression With Controls

Change in Proportion Answers Correct	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	0.106 (0.019)**	0.055 (0.026)*	0.089 (0.021)**	0.136 (0.022)**	0.037 (0.020)
Narrative	0.070 (0.018)**	-0.031 (0.026)	0.092 (0.021)**	0.135 (0.022)**	0.063 (0.020)**
Both	0.082 (0.024)**	0.005 (0.032)	0.065 (0.025)**	0.167 (0.026)**	0.059 (0.025)*
Both, 18-40	0.028 (0.041)	0.015 (0.056)	0.183 (0.043)**	0.002 (0.045)	0.096 (0.044)*
Both, 65+	0.018 (0.050)	0.049 (0.070)	-0.060 (0.053)	-0.058 (0.055)	-0.043 (0.052)
Narrative, 18-40	0.020 (0.032)	0.044 (0.045)	0.087 (0.037)*	-0.008 (0.039)	0.032 (0.035)
Narrative, 65+	-0.006 (0.041)	0.051 (0.056)	-0.087 (0.045)	0.034 (0.047)	-0.035 (0.044)
Video, 18-40	0.001 (0.033)	-0.045 (0.046)	0.083 (0.036)*	0.055 (0.039)	0.082 (0.036)*
Video, 65+	-0.048 (0.040)	0.009 (0.057)	-0.075 (0.045)	-0.006 (0.048)	0.019 (0.045)

Five Steps Increases Some Knowledge For All Ages Across All Domains

	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	0.106	0.055	0.089	0.136	0.037
	(0.019)**	(0.026)*	(0.021)**	(0.022)**	(0.020)
Narrative	0.070	-0.031	0.092	0.135	0.063
	(0.018)**	(0.026)	(0.021)**	(0.022)**	(0.020)**
Both	0.082	0.005	0.065	0.167	0.059
	(0.024)**	(0.032)	(0.025)**	(0.026)**	(0.025)*
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	(0.041)	(0.056)	(0.043)**	(0.045)	(0.044)*
Both, 65+	0.018	0.049	-0.060	-0.058	-0.043
	(0.050)	(0.070)	(0.053)	(0.055)	(0.052)
Narrative, 18-40	0.020	0.044	0.087	-0.008	0.032
	(0.032)	(0.045)	(0.037)*	(0.039)	(0.035)
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	(0.041)	(0.056)	(0.045)	(0.047)	(0.044)
Video, 18-40	0.001	-0.045	0.083	0.055	0.082
	(0.033)	(0.046)	(0.036)*	(0.039)	(0.036)*
Video, 65+	-0.048	0.009	-0.075	-0.006	0.019
	(0.040)	(0.057)	(0.045)	(0.048)	(0.045)

...But Has More Impact on the Young (In Some Domains)

	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	0.106	0.055	0.089	0.136	0.037
	(0.019)**	(0.026)*	(0.021)**	(0.022)**	(0.020)
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Video, 65+	-0.048	0.009	-0.075	-0.006	0.019
	(0.040)	(0.057)	(0.045)	(0.048)	(0.045)

Format Differences Are Not Consistent

	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	0.106 (0.019)**	0.055 (0.026)*	0.089 (0.021)**	0.136 (0.022)**	0.037 (0.020)
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Video, 65+	-0.048 (0.040)	0.009 (0.057)	-0.075 (0.045)	-0.006 (0.048)	0.019 (0.045)

Results II: Treatment Effects on Changes in Self-Efficacy, Regression With Controls

Change in SE on scale of 1-5 (high to low)	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	-0.605 (0.081)**	-0.700 (0.075)**	-0.657 (0.076)**	-0.966 (0.083)**	-0.955 (0.087)**
Narrative	-0.310 (0.080)**	-0.292 (0.074)**	-0.415 (0.077)**	-0.682 (0.084)**	-0.859 (0.087)**
Both	-0.823 (0.104)**	-0.428 (0.092)**	-0.612 (0.090)**	-1.172 (0.097)**	-1.007 (0.105)**
Both, 18-40	0.215 (0.175)	-0.219 (0.160)	-0.188 (0.159)	0.330 (0.171)	0.022 (0.187)
Both, 65+	0.502 (0.216)*	-0.080 (0.201)	0.089 (0.194)	0.466 (0.209)*	-0.349 (0.222)
Narrative, 18-40	-0.045 (0.141)	-0.188 (0.129)	-0.141 (0.134)	0.096 (0.145)	0.077 (0.151)
Narrative, 65+	0.175 (0.177)	0.054 (0.159)	0.005 (0.164)	-0.153 (0.178)	-0.221 (0.189)
Video, 18-40	-0.031 (0.144)	-0.083 (0.133)	0.095 (0.132)	0.153 (0.146)	-0.023 (0.153)
Video, 65+	-0.005 (0.173)	0.178 (0.162)	0.280 (0.164)	0.348 (0.182)	-0.184 (0.193)

Self-Efficacy Increases In All Domains

	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
Video	-0.605 (0.081)**	-0.700 (0.075)**	-0.657 (0.076)**	-0.966 (0.083)**	-0.955 (0.087)**
Narrative	-0.310 (0.080)**	-0.292 (0.074)**	-0.415 (0.077)**	-0.682 (0.084)**	-0.859 (0.087)**
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And self-efficacy decreases for those 65+

	Compound Interest	Inflation	Risk Diversification	Tax-Favored Assets	Employer Match
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Video, 65+	-0.005 (0.173)	0.178 (0.162)	0.280 (0.164)	0.348 (0.182)	-0.184 (0.193)

Conclusions

- **To be successful intervention needs to be informative, accessible and motivational**
- **Proof of concept results are encouraging**
 - **Across all ages and both formats, Five Steps increased knowledge**
 - **In general, knowledge gain was highest among the young (where baseline knowledge was also lowest)**
 - **Videos and narratives are both effective with respect to knowledge questions**
 - **Videos consistently are more effective at increasing self-efficacy for younger workers**
- **Videos cost only few thousand dollars to produce: this delivery model can be cost effective**
- **Results on long-term effects and impacts on behavior are forthcoming**

Where can I see all Five Steps?

The screenshot shows the Financial Literacy Center website. At the top, the browser address bar displays the URL <http://www.rand.org/labor/centers/financial-literacy.html>. The website header includes the RAND logo and the text "Financial Literacy Center A JOINT CENTER OF RAND, DARTMOUTH COLLEGE, AND THE WHARTON SCHOOL". A navigation menu below the header lists "About RAND", "Research Areas", "Reports & Bookstore", "RAND Divisions", "Graduate School", and "News & Events".

The main content area is titled "Financial Literacy Center" and includes a "Save to My RAND" button, "Email", "Print", and "Share" options. The mission statement reads: "The mission of the Financial Literacy Center is to develop and test innovative programs to improve financial literacy and promote informed financial decisionmaking. With support from the Social Security Administration, the Center was established in October 2009 by the RAND Corporation, Dartmouth College, and the Wharton School of the University of Pennsylvania in order to develop educational tools and programs that help individuals prepare for their long-term financial stability." Logos for RAND, Dartmouth, and Wharton are displayed below the text.

A section titled "Featured Videos: Fundamental Concepts Behind Financial Planning for Young Adults" features a large video player and four smaller video thumbnails. The main video player shows a man and a woman sitting on a couch, with a progress bar at 1:24 / 3:18. Below the video player, the text states: "The Financial Literacy Center developed these videos to illustrate the five fundamental concepts behind financial planning for young adults."

The left sidebar contains a "LABOR AND POPULATION" section with links for "FLC Home", "About the Center", "Center Partners", "Staff", and "Contact Us". Below this are sections for "Research Projects", "Related Publications", "FLC Staff in the News", and "Financial Literacy in the Media". The "Stay Informed" section includes links for "Blog", "Alerts and Newsletters", "RSS Feeds", "Multimedia", and "Mobile Site". At the bottom of the sidebar, there is a "Follow RAND..." section with social media icons.

The right sidebar features a "My RAND" section with "Saved Items" and "Recommended" tabs, a "Log In" prompt, and a "Create a My RAND Profile" button. Below this is a "Financial Literacy Center" logo and a "FLC Newsletter" sign-up section for the March 2011 issue, which explores the issue of "Deepening the Public's Understanding of Social Security."

www.rand.org/labor/centers/financial-literacy.html

60 years



AHEAD OF THE CURVE