Financial Literacy and 401(k) Loans

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Motivation

- Loans are a unique feature of U.S. 401(k) plans
  - Loans available subject to plan and IRS rules (max [50%, $50,000])
  - Per EBRI/ICI: 18% of participants had loan outstanding year-end 2008, with 16% of average portfolio borrowed (mean value $7,191)

- Unique “credit” instrument in that participant is borrowing from self, hence no underwriting; occurs in neutral non-commercial setting; attendant to broader retirement savings program

- Main risk: p/t fails to pay off loan when changing jobs -> taxable distribution and thus “permanent” reduction in retirement savings
  - DOL: “deemed distributions” small. $600MM in 2006, < 1% of total DC assets of $3.7tr
  - However, risk may be higher for certain populations (e.g., young, less wealthy, less literate)

- 401(k) loans do offer benefits
  - Enhanced participation, contributions (GAO, 1997; Munnel and Sunden, 2003; Mottola and Utkus, 2005; Mitchell, Utkus and Yang, 2007)
  - Low-cost source of borrowing, which many don’t take advantage of (Li and Smith, 2008)

Our current project

- Question: To what extent is 401(k) loan-taking related to financial literacy?

- Data:
  - Survey, administered August/September 2008, with nearly 900 respondents
  - Administrative records on demographics, 401(k) holdings, other attributes

- Within survey, a four-question general literacy quiz:

(Compounding.) If you are saving for a future goal, it's better to start early so that your money earns more and builds up faster or time. <u>True</u> or false.

(Credit card debt.) Keeping a balance on your credit cards is okay as long as you can make the minimum payments each month. True or <u>false.</u>

(Stock market risk.) If you were to invest $1,000 in a stock mutual fund, it would be possible to have less than $1,000 when you withdraw the money. <u>True</u> or false.

(Investment returns.) In which ONE of the following products would you choose to invest your money for the highest expected long-term growth? A savings account, a certificate of deposit, an insurance policy, <u>a stock mutual fund.</u>

Literacy scores

Table 3. Financial Literacy Score

	Loan outstanding	**No loan outstanding**	**All respondents**
n (unweighted)	*308*	*587*	*895*
n (weighted)	*190*	*667*	*857*
Summary of responses			
Zero correct	1%	0%	0%
1 correct	6%	2%	3%
2 correct	19%	15%	16%
3 correct	33%	27%	29%
All 4 correct ("high" literacy)	41%	56%	52%
	100%	100%	100%

Source: Authors' tabulations

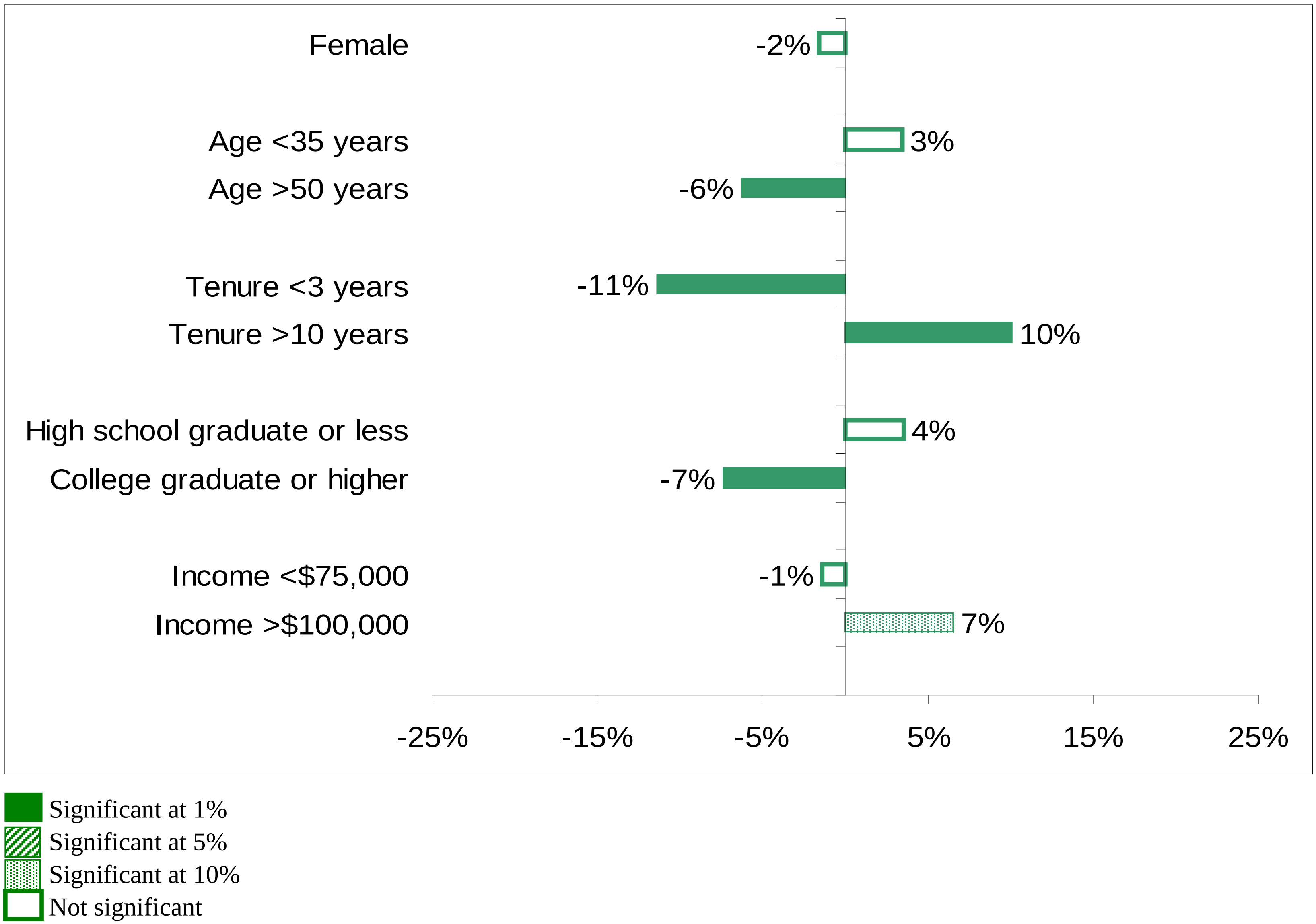
Methodology

- Multivariate regression: having a loan outstanding in June 2008 as a function of
  - Employee characteristics
  - Financial literacy score (“high” – all 4 right – v. “low” – any wrong)
  - Other financial behaviors (401(k) contributions, 401(k) wealth, non-retirement wealth, carrying a credit card balance)

- Some top-line results
  - Demographics: long tenured or highly paid more likely to borrow
  - Literacy: low literacy means higher loan-taking (relative increase of some 20%)
  - Other behaviors: 401(k) loans associated with low savings in plan, low wealth (and implicitly savings) outside plan, credit card debt

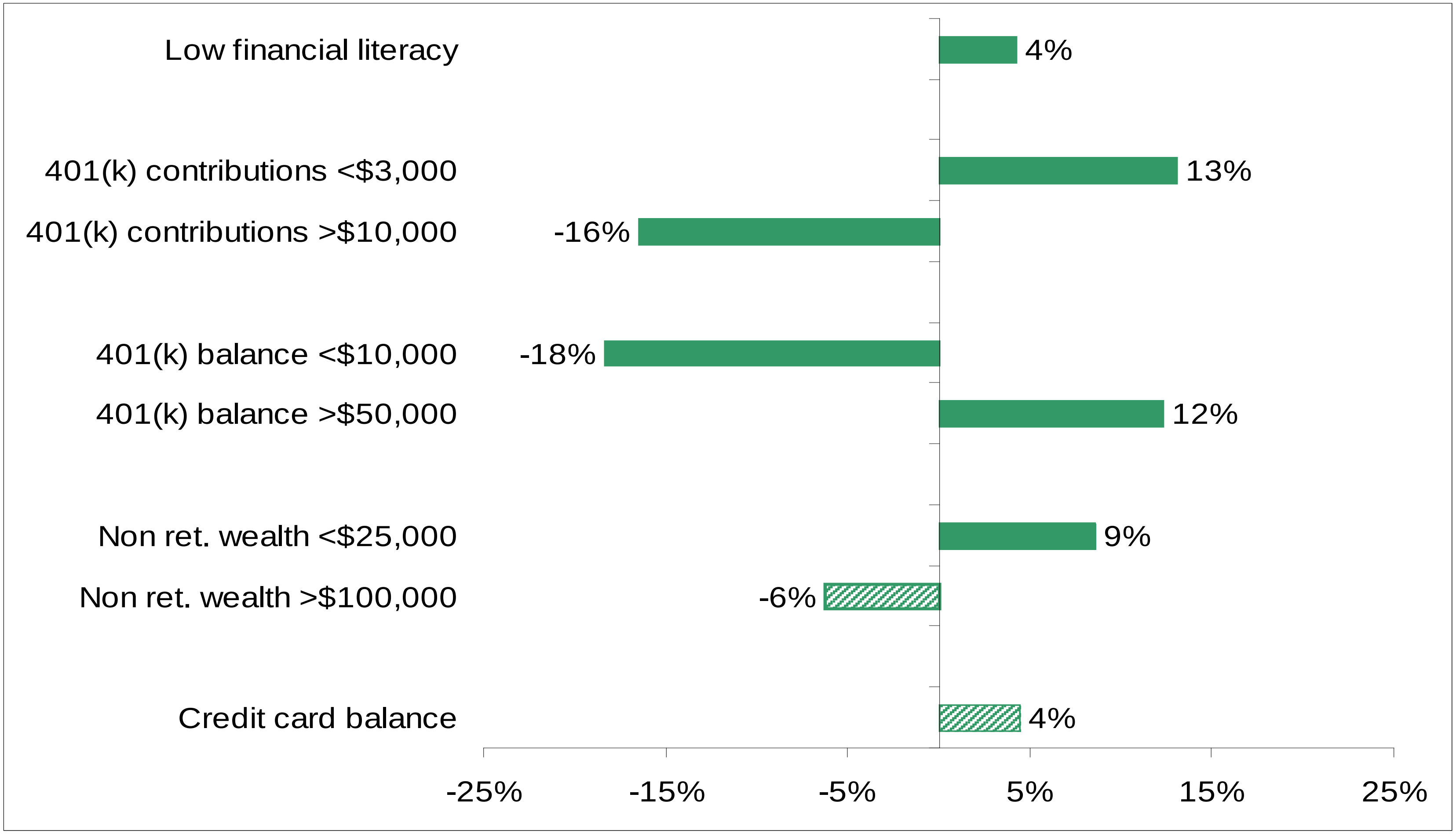
Marginal effects – demographics

Dependent variable: has a 401(k) loan (22%)



Marginal effects – literacy and other behaviors

Dependent variable: has a 401(k) loan (22%)



Significant at 1%
Significant at 5%
Significant at 10%
Not significant

Conclusions

- Low literacy is linked to 401(k) loan-taking (relative effect of some 20%)

- 401(k) loan behavior seems related to common unobserved factors, namely high-discounting behaviors or financial "impatience", influencing both in-plan and beyond-the-plan behaviors
  - High savers, more financially literate, non-borrowers *v.*
  - Low savers, less financially literate, borrowers

- Efforts to educate about risks of 401(k) borrowing:
  - Need to address this underlying common factor, influencing all of the household's saving, spending and borrowing needs
  - Must be more comprehensive than previously imagined – and thus more challenging