Financial Literacy and Retirement Planning in Germany

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FLat World Project

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1. Introduction: Increasing relevance of financial literacy

- Until 2001 monolithic pension system with strong state funded pillar
  - coverage: 85% of the German work force
  - provides for about 90% of old age income
  - 2001 pension reform – multi-pillar system:
  - reduction of state pensions for future retirees
  - introduction of a state-subsidised but voluntary funded pillar
- More individual responsibility
- Increasing variety of financial products
- Financial crisis 2007/2008

2. Data

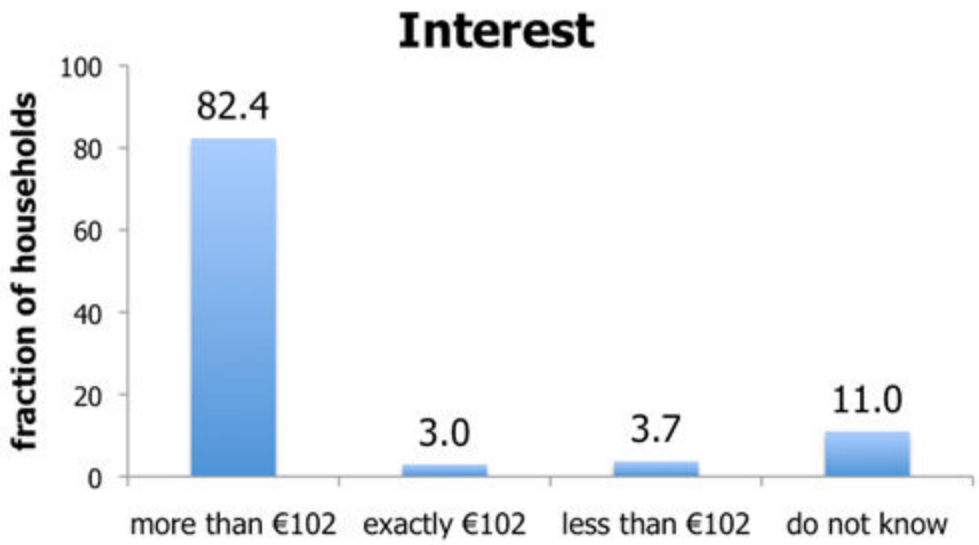
- German household panel on saving behavior
- Conducted since 2001, since 2005 yearly
- Data set 2009
- 1,117 households
- Paper and pencil
- Respondents are selected randomly within the households
- Financial Literacy:
  - In 2007 and 2008: Three basic questions
  - In 2009: Extended module (self-assessment, 11 quiz-like questions, 3 questions measuring cognitive abilities)

3. How financially literate are households in Germany?

1. Understanding of **Interest Rate (Numeracy)**

   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?

   do not know / refuse



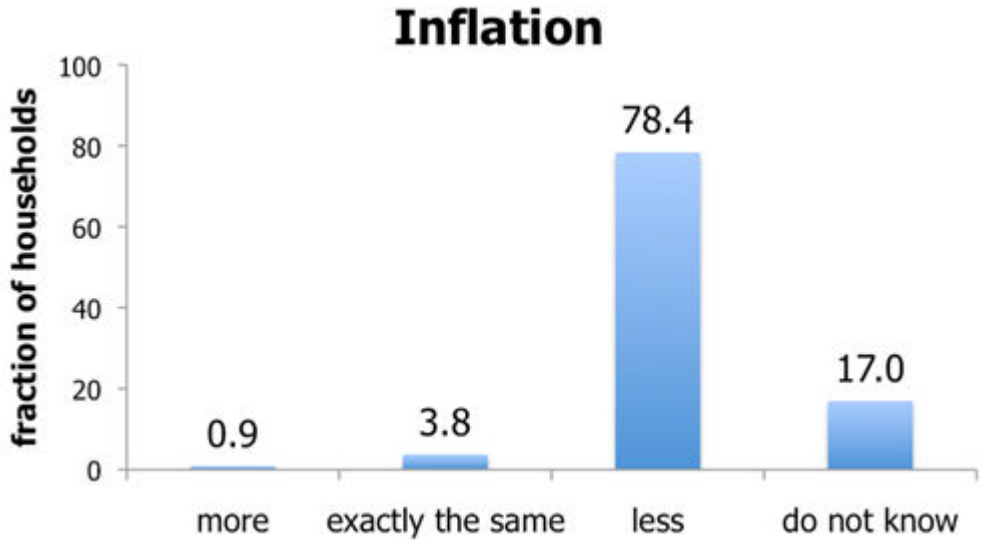
Source: own calculation on the basis of SAVE 2009, N= 1,059; data is weighted

3. How financially literate are households in Germany?

2. Understanding of **Inflation**

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?

do not know / refuse



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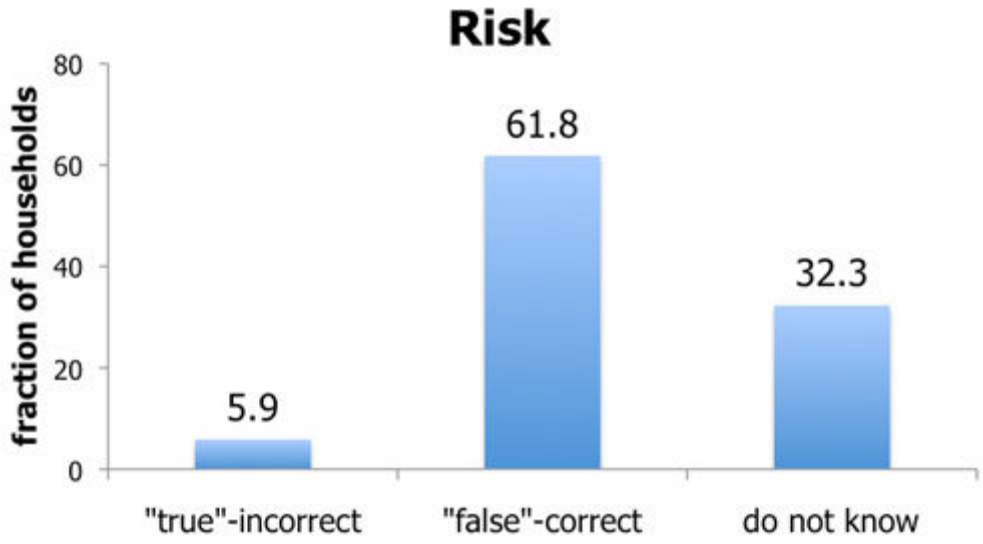
3. How financially literate are households in Germany?

3. Understanding of **Risk and Diversification**

Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.

do not know / refuse



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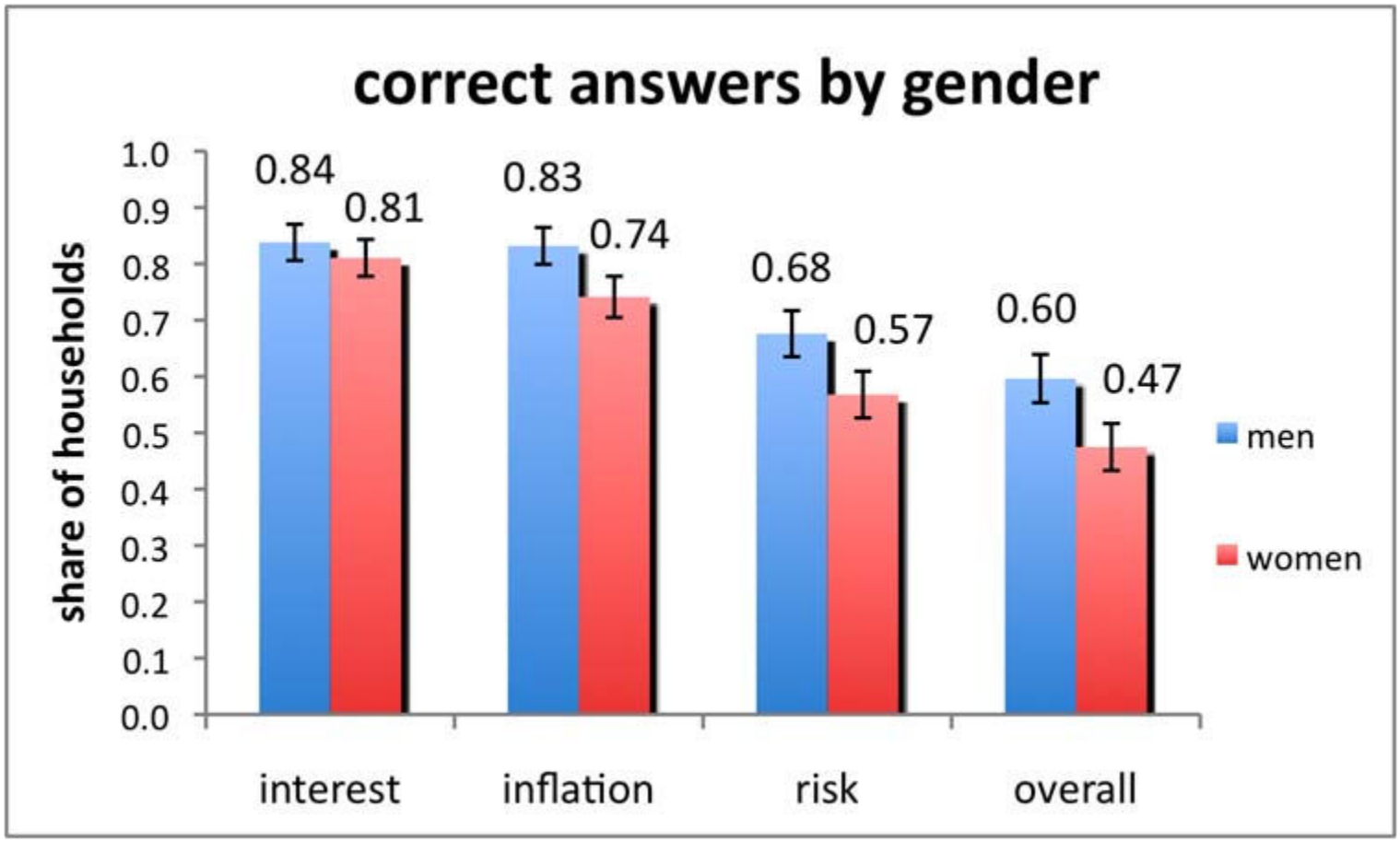
3. How financially literate are households in Germany?

Overall Performance

	In percent
Correct answer to interest and inflation	72%
All answers correct	53%
No answer correct	10%
At least one “do not know/refuse”	37%
All “do not know/ refuse”	8%

Source: own calculation on the basis of SAVE 2009, N= 1,059; data is weighted

4. Who is at risk of low literacy?



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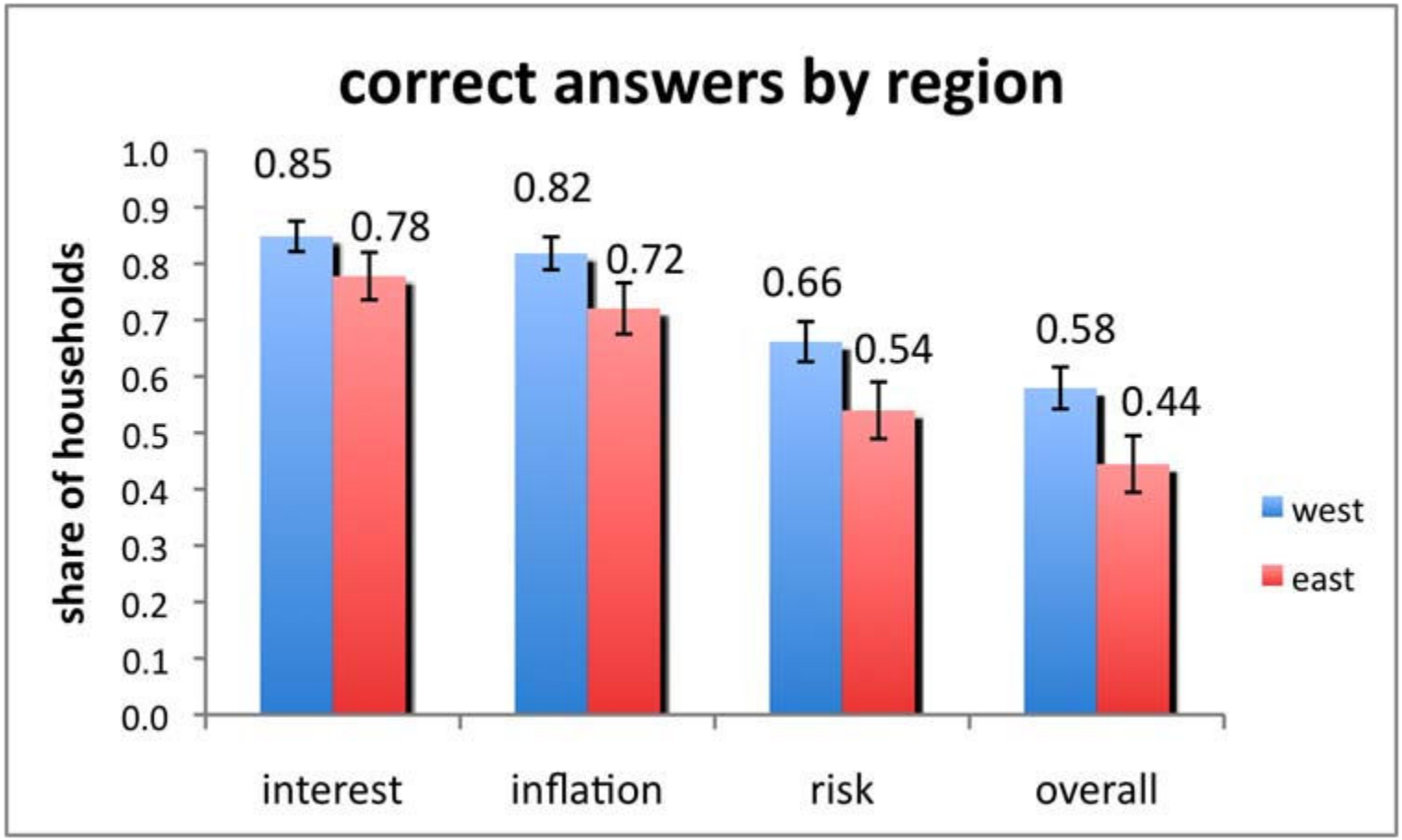

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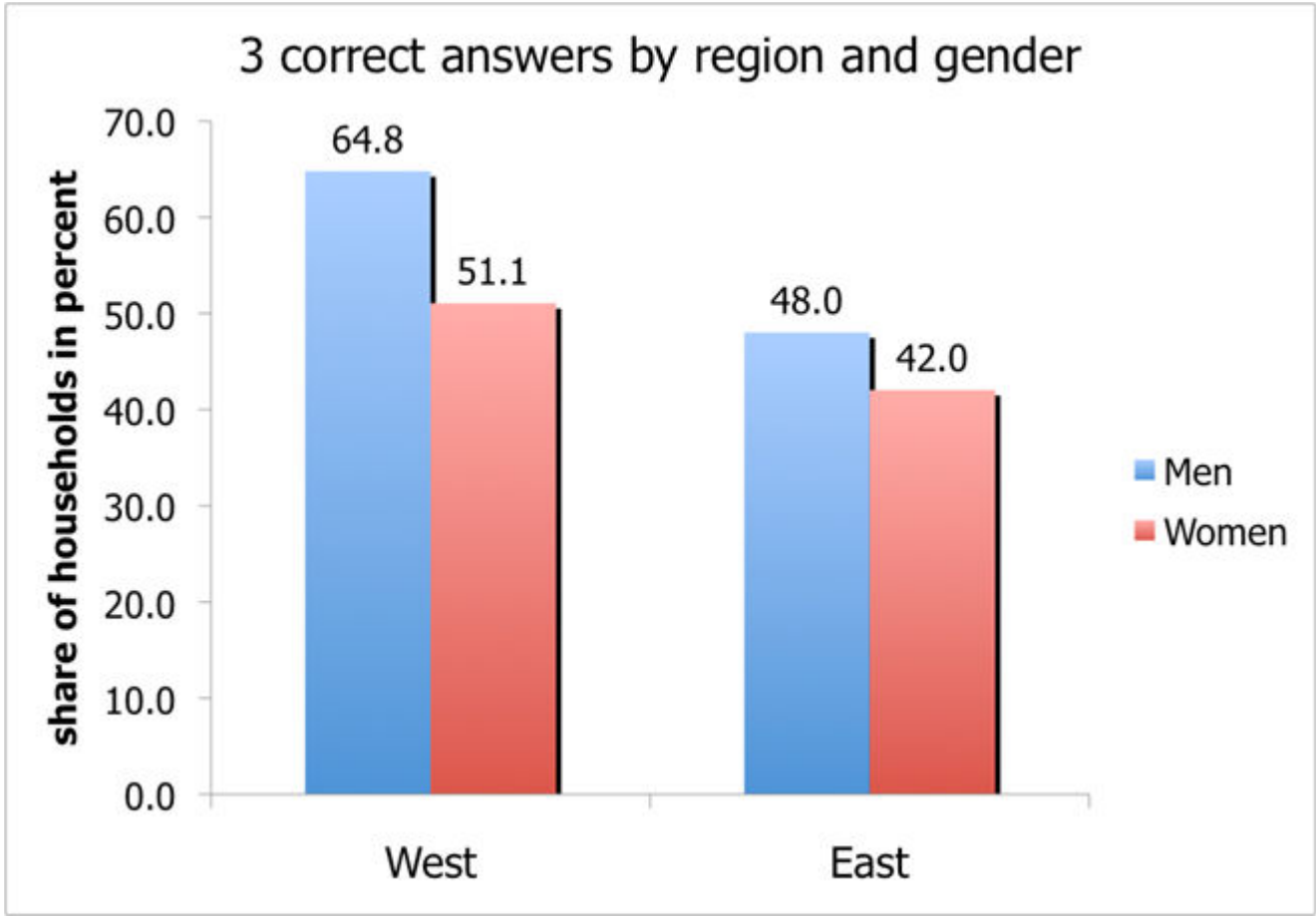

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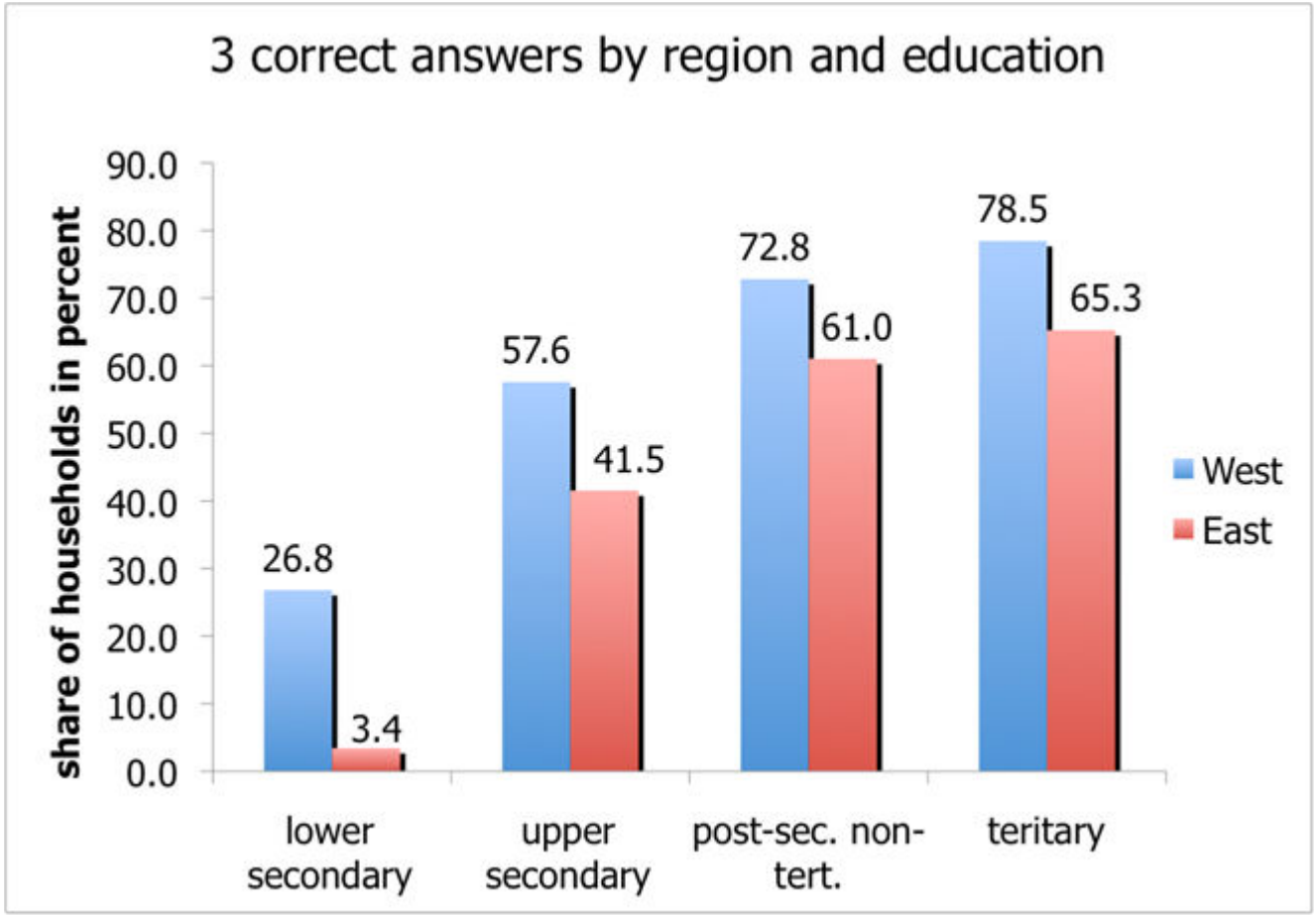

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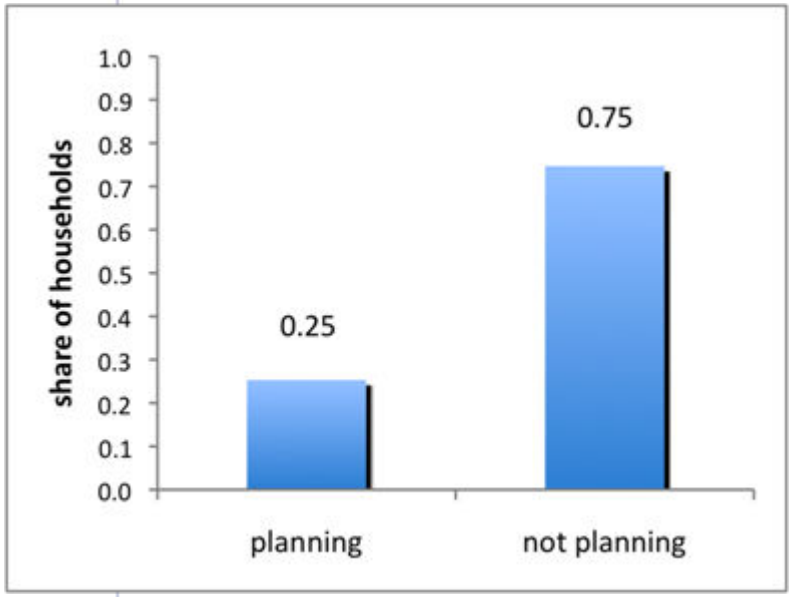
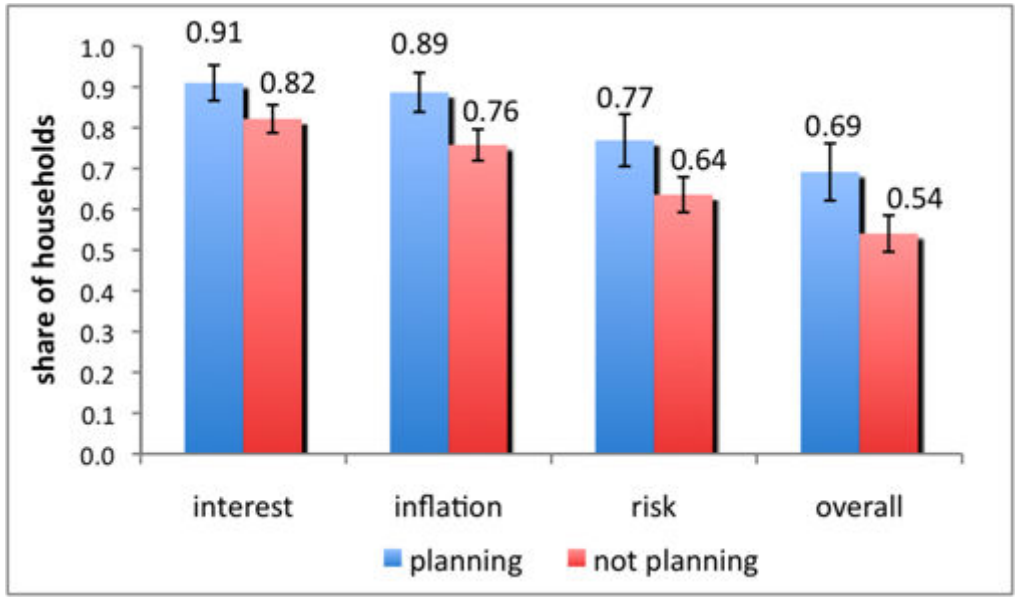
5. Does financial literacy matter for retirement planning?

Retirement planning

Have you and your partner ever tried to find out, how much you would have to save today, to reach a certain standard of living at old age? Yes/No





Source: own calculation on the basis of SAVE 2009, N= 647; data is weighted.

5. Does financial literacy matter for retirement planning?

OLS

	Retirement planning	Retirement planning
Financial Literacy - dummy 3 correct	0.07* (0.04)	0.06 (0.04)
Men, east, partner, no. of children, age, education	Yes	Yes
Income	No	Yes
N	647	647

Source: SAVE 2009, OLS regression, Robust se in brackets, * significant at 10%.

5. Does financial literacy matter for retirement planning?

Determining a causal effect: INSTRUMENTAL VARIABLE

Peer effects: Variation of financial literacy in the region

- Kaustia and Torstila (2010): leftwing voters are less likely to invest in equity
- Voting shares for certain parties in the national election in 2005
  - FDP: higher stock market participation
    => high financial knowledge
  - PDS/Linke: low stock market participation
    => low financial knowledge

5. Does financial literacy matter for retirement planning?

First stage: Financial Literacy Dummy

	I.	II.
Share FDP voters	2.84	2.85
	(0.97)***	(0.97)***
Share PDS/Linke voters	0.06	0.04
	(0.55)	(0.58)
Average regional income		0
		(0.00)
N	647	647
F-value instruments	4.38	4.37
Prob > F	0.0125	0.0127

Additional controls: Men, east, partner, no. of children, age, education, income.

Source: SAVE 2009, robust se in brackets,
* significant at 10%; ** significant at 5%; *** significant at 1%.

5. Does financial literacy matter for retirement planning?

Second stage: Retirement Planning

	I.	II.
Financial Literacy Dummy	0.88 (0.35)**	0.86 (0.36)**
Average regional income		0 (0.00)
Controls	Yes	Yes
N	647	647

Additional controls: Men, east, partner, no. of children, age, education, income.

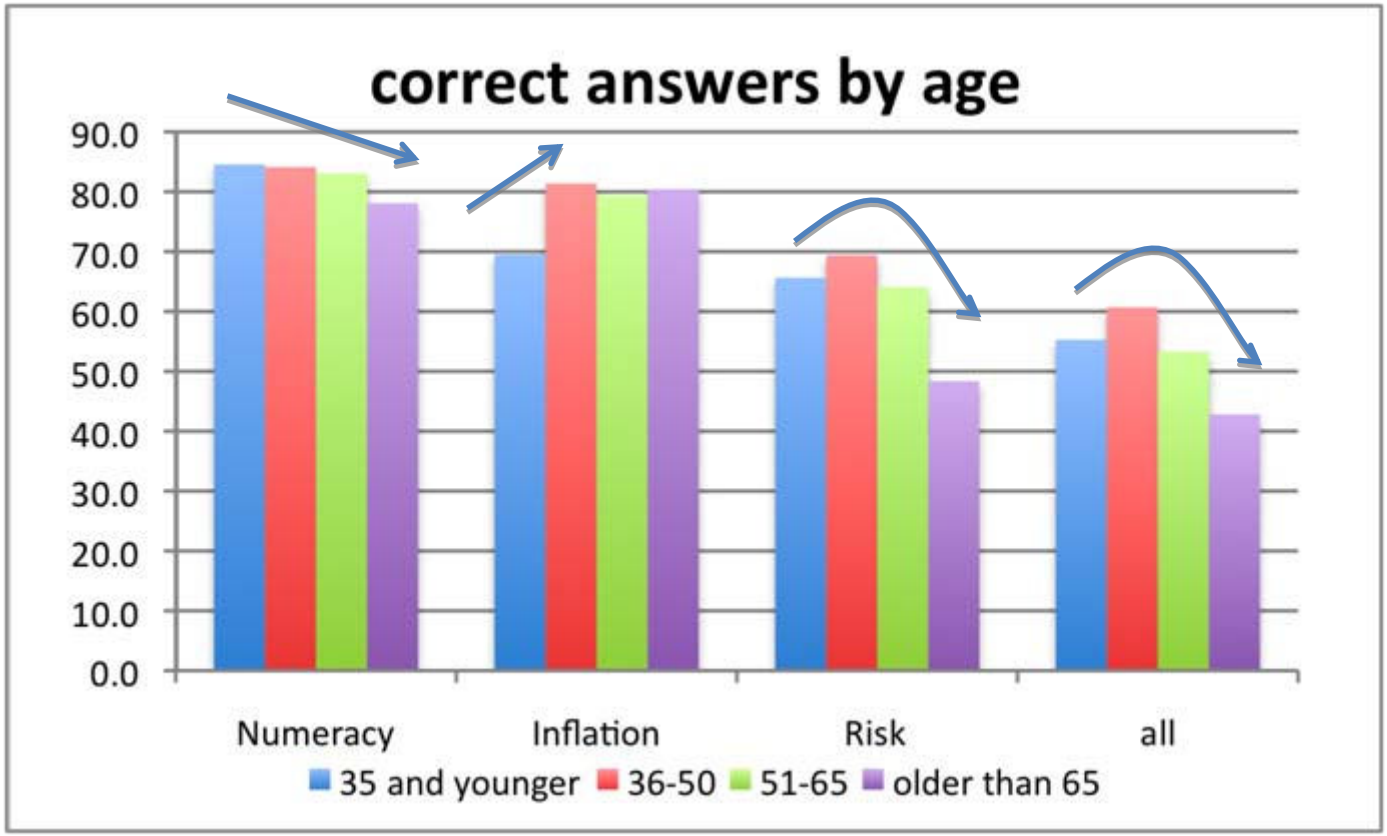
Source: SAVE 2009, Clustered se in brackets,
* significant at 10%; ** significant at 5%; *** significant at 1%

6. Discussion and Conclusions

- Financial literacy:
  - 53% of the respondents can answer the three questions
  - 37% report “do not know” at least once
- Level of financial literacy is lower among women, less educated and those living in east Germany
- Only about 25% plan for retirement.
- We find a positive and significant relation between financial literacy and retirement planning.
- IV estimation indicates that there is a positive and significant effect of financial literacy on retirement planning.

THANK YOU

3.2 Who knows the least?



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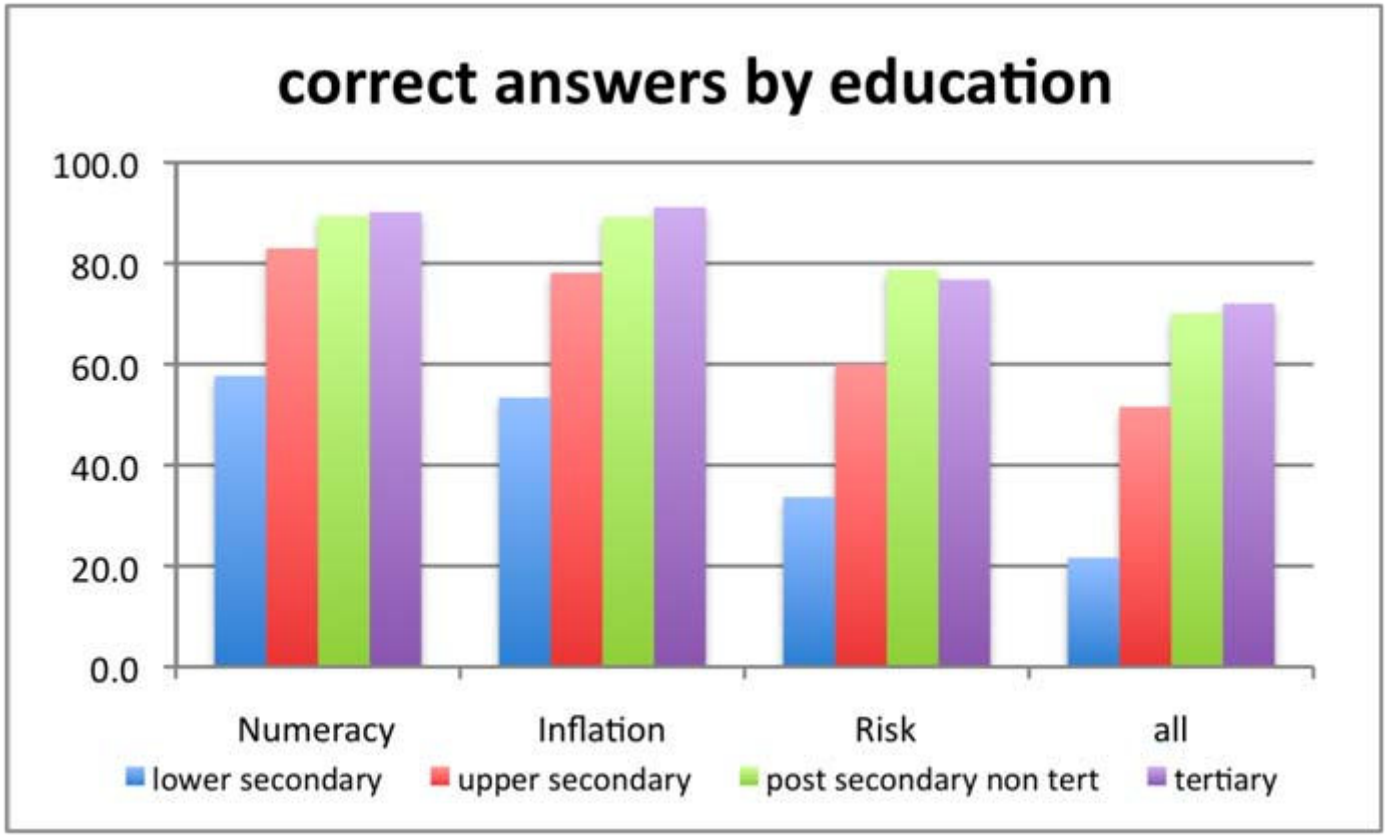

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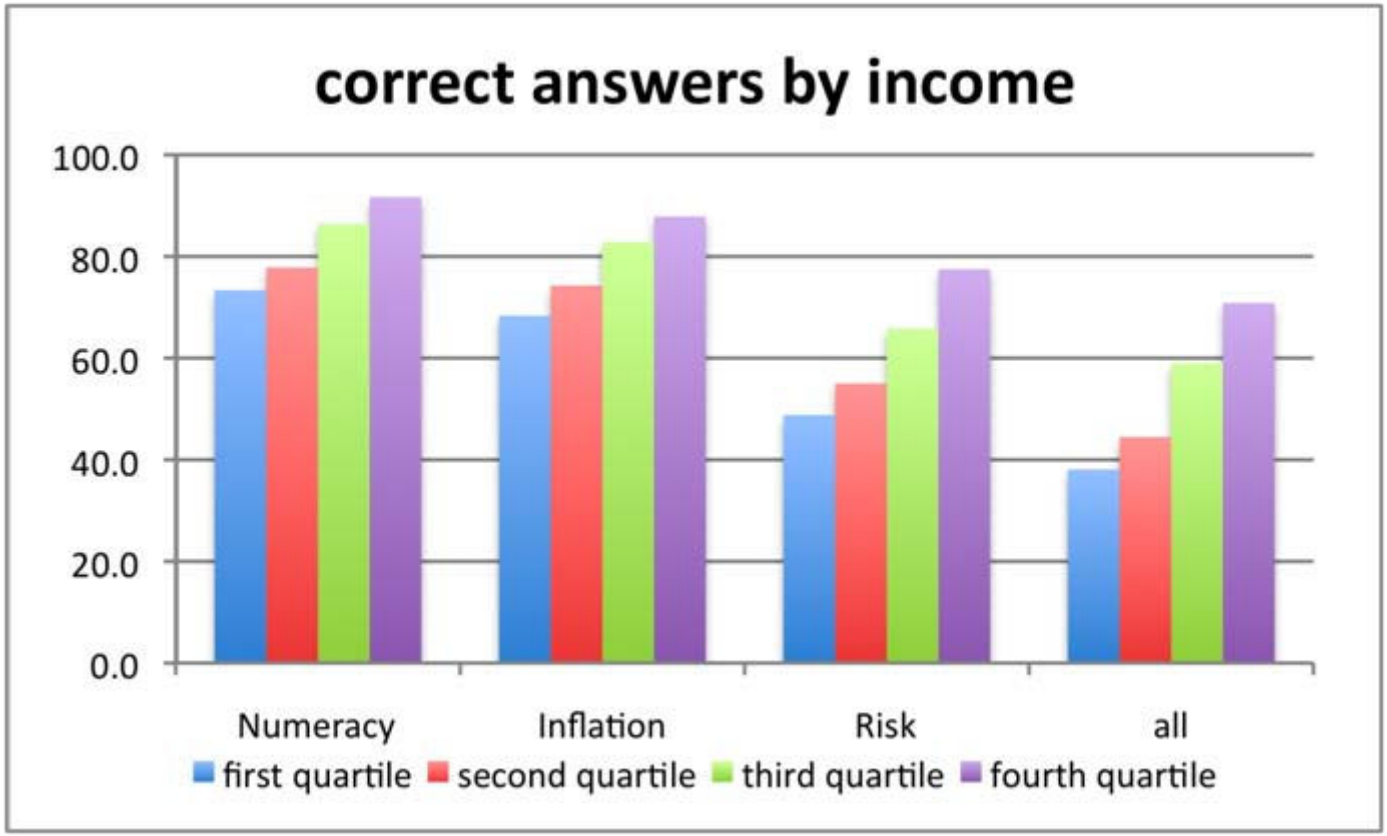
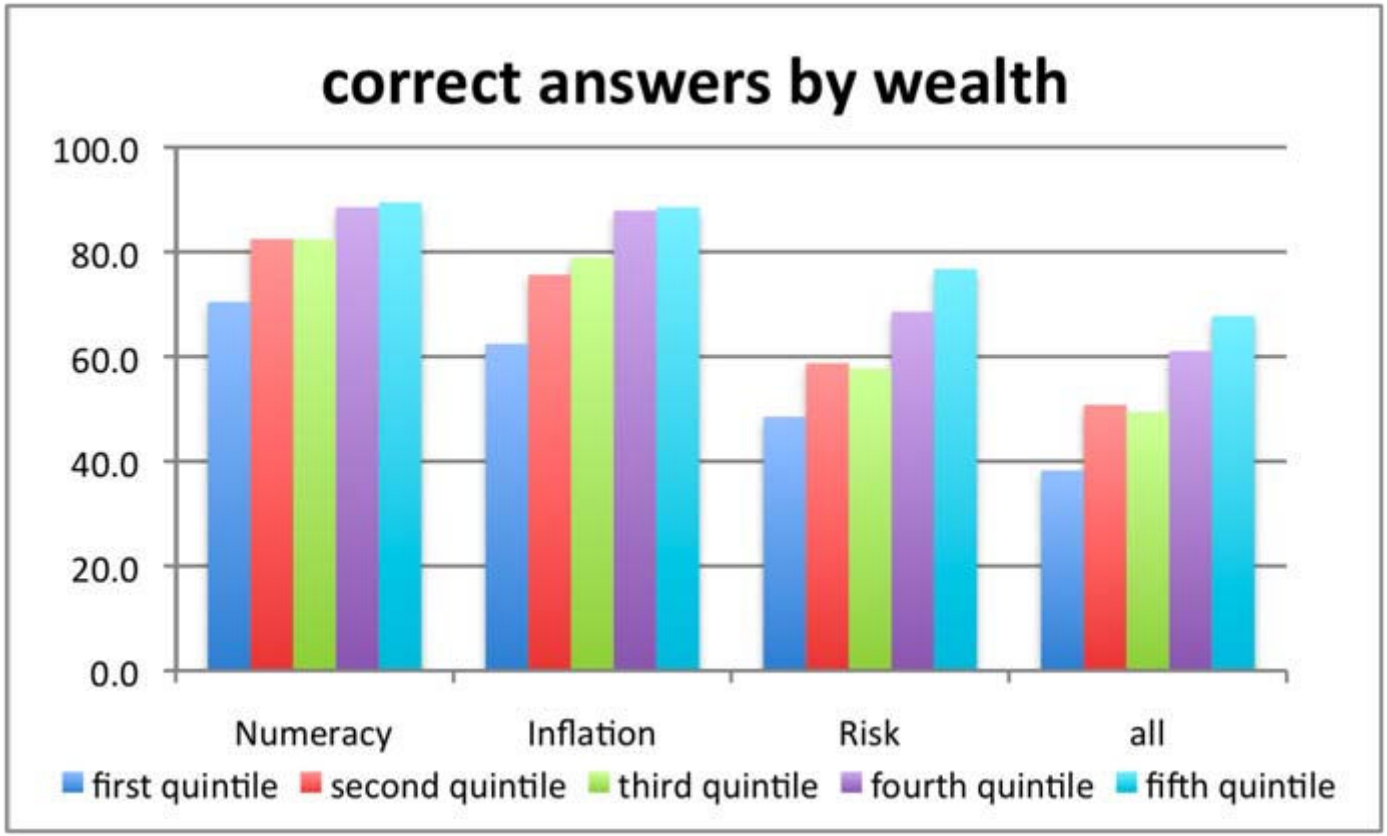
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