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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

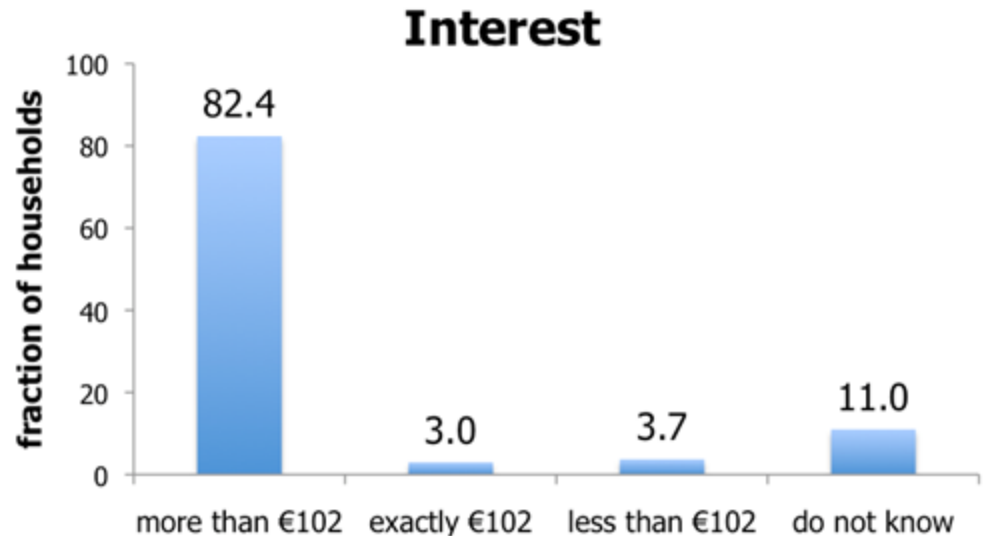
- ▶ German household panel on saving behavior
- ▶ Conducted since 2001, since 2005 yearly
- ▶ Data set 2009
- ▶ 1,117 households
- ▶ Paper and pencil
- ▶ Respondents are selected randomly within the households
- ▶ Financial Literacy:
 - ▶ In 2007 and 2008: Three basic questions
 - ▶ In 2009: Extended 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

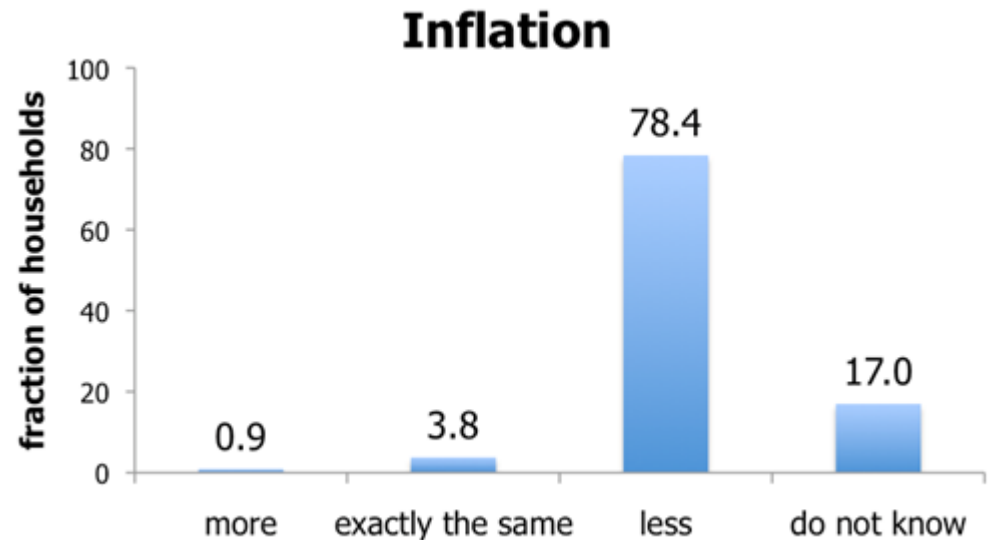


3. How financially literate are households in Germany?

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

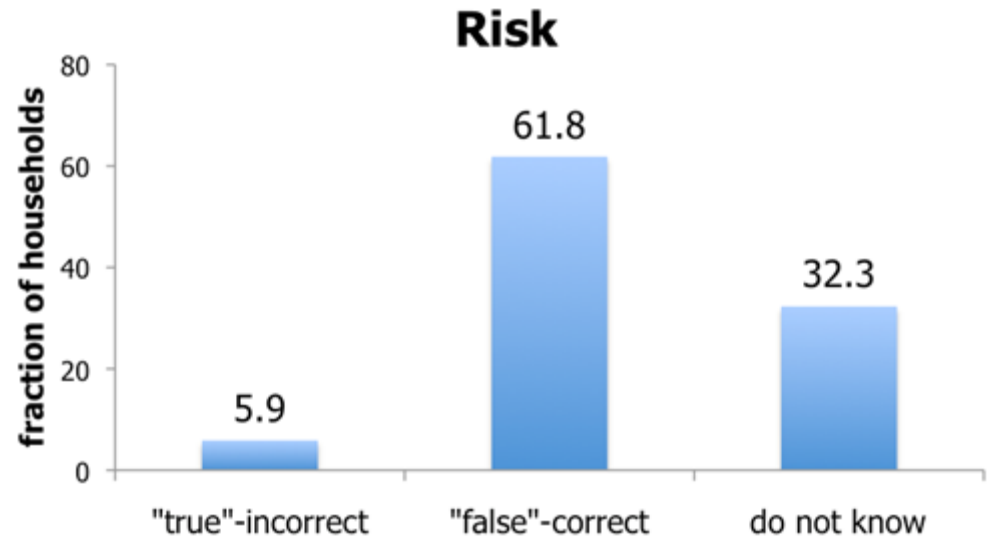


3. How financially literate are households in Germany?

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



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

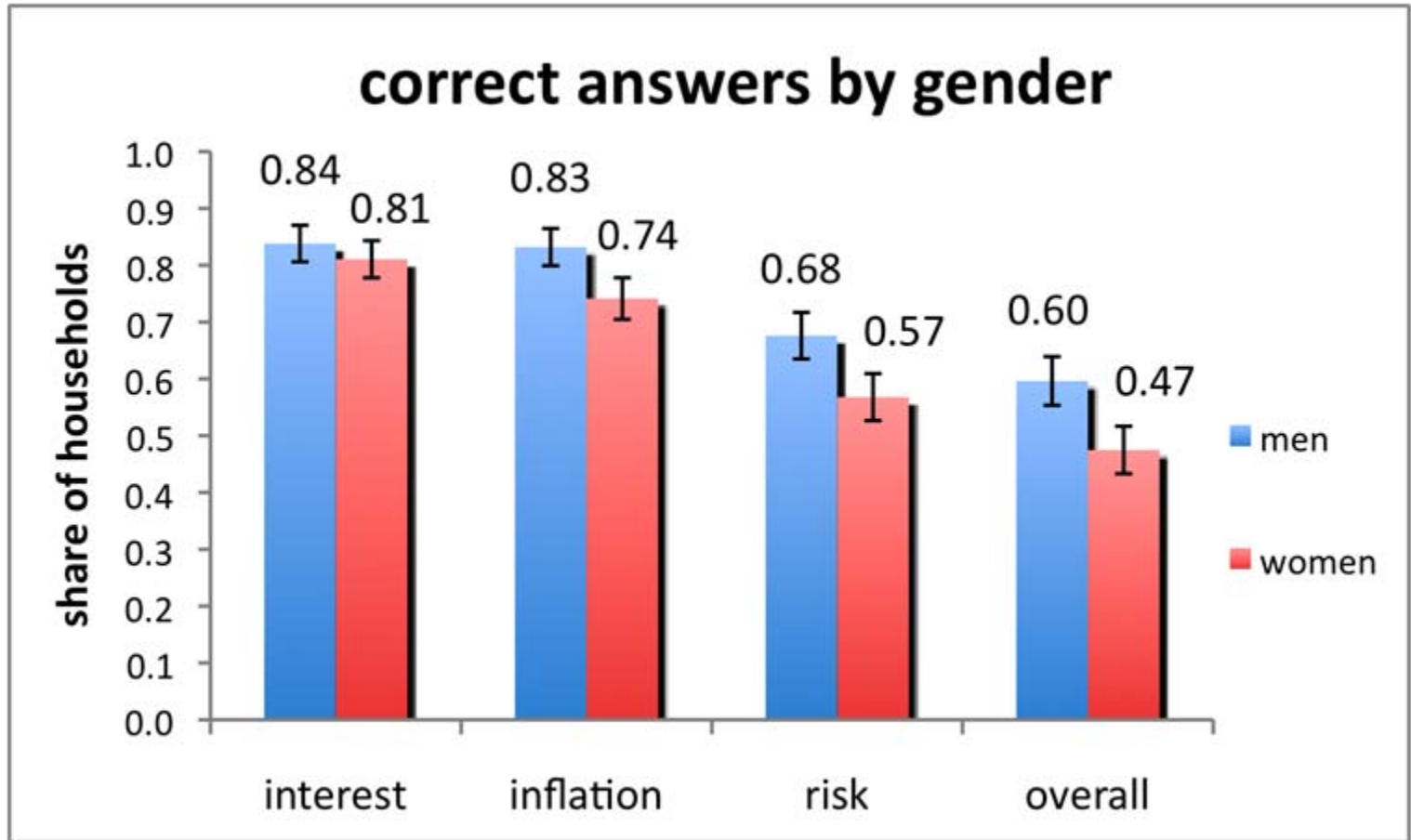
3. How financially literate are households in Germany?

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%

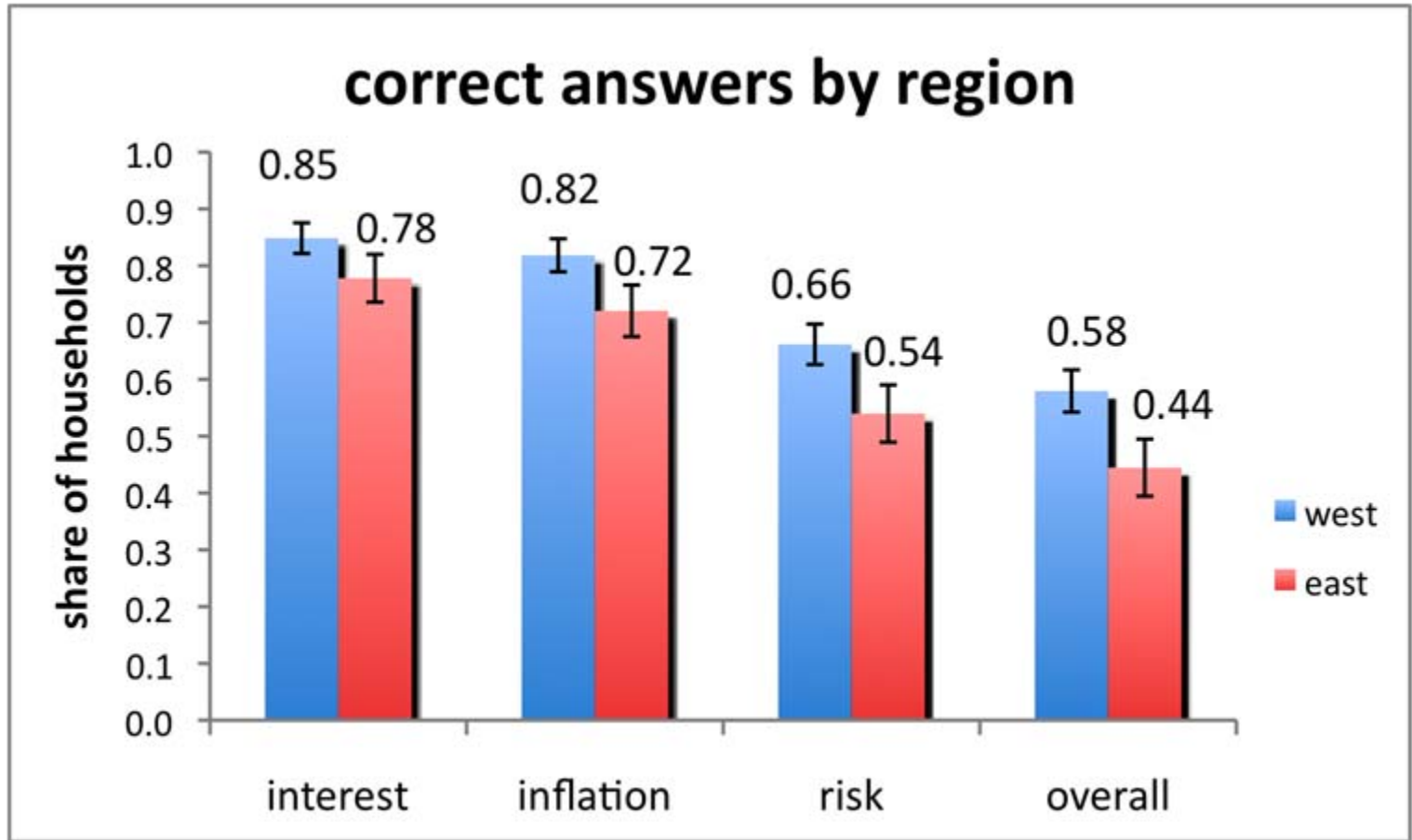
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4. Who is at risk of low literacy?



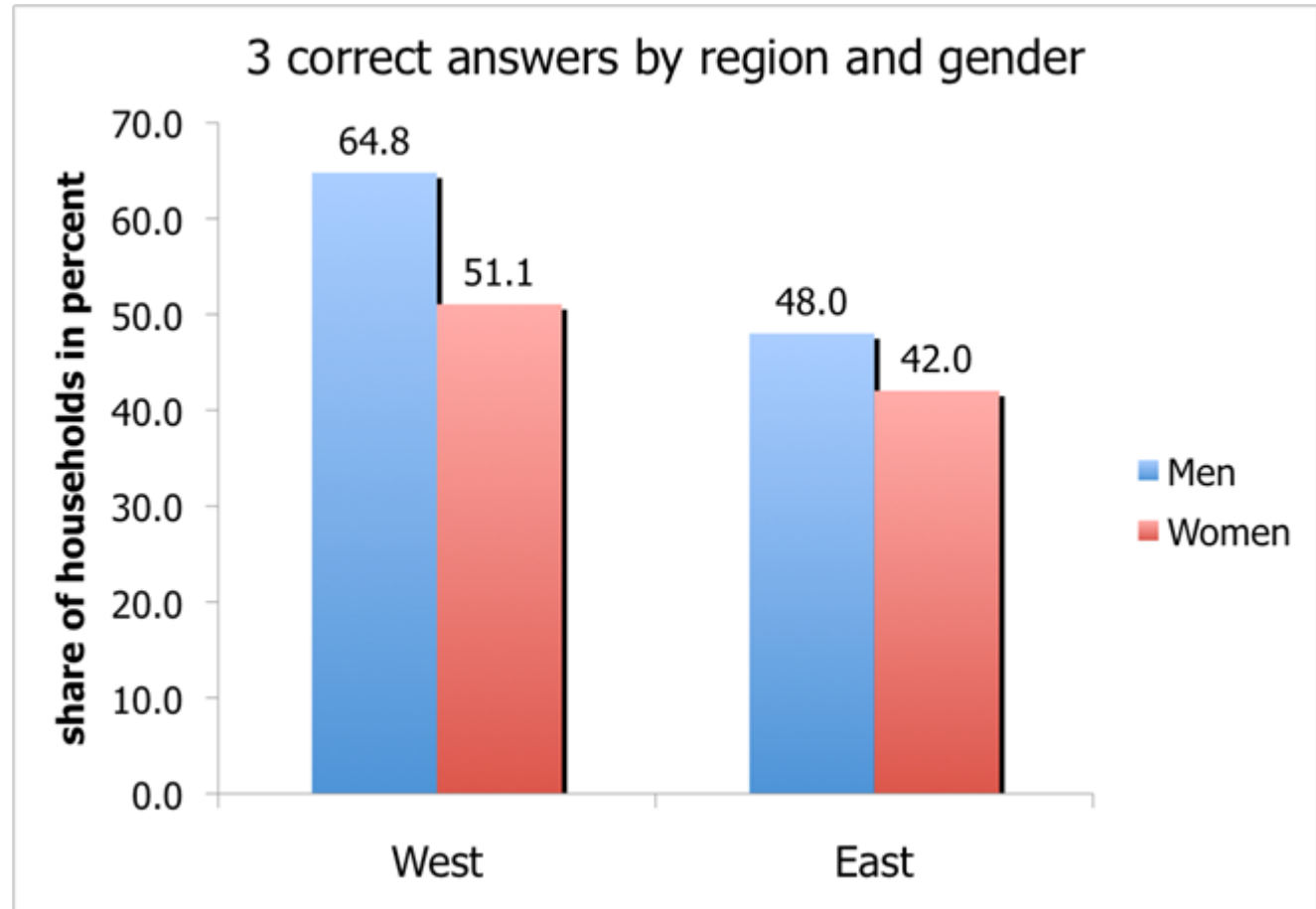
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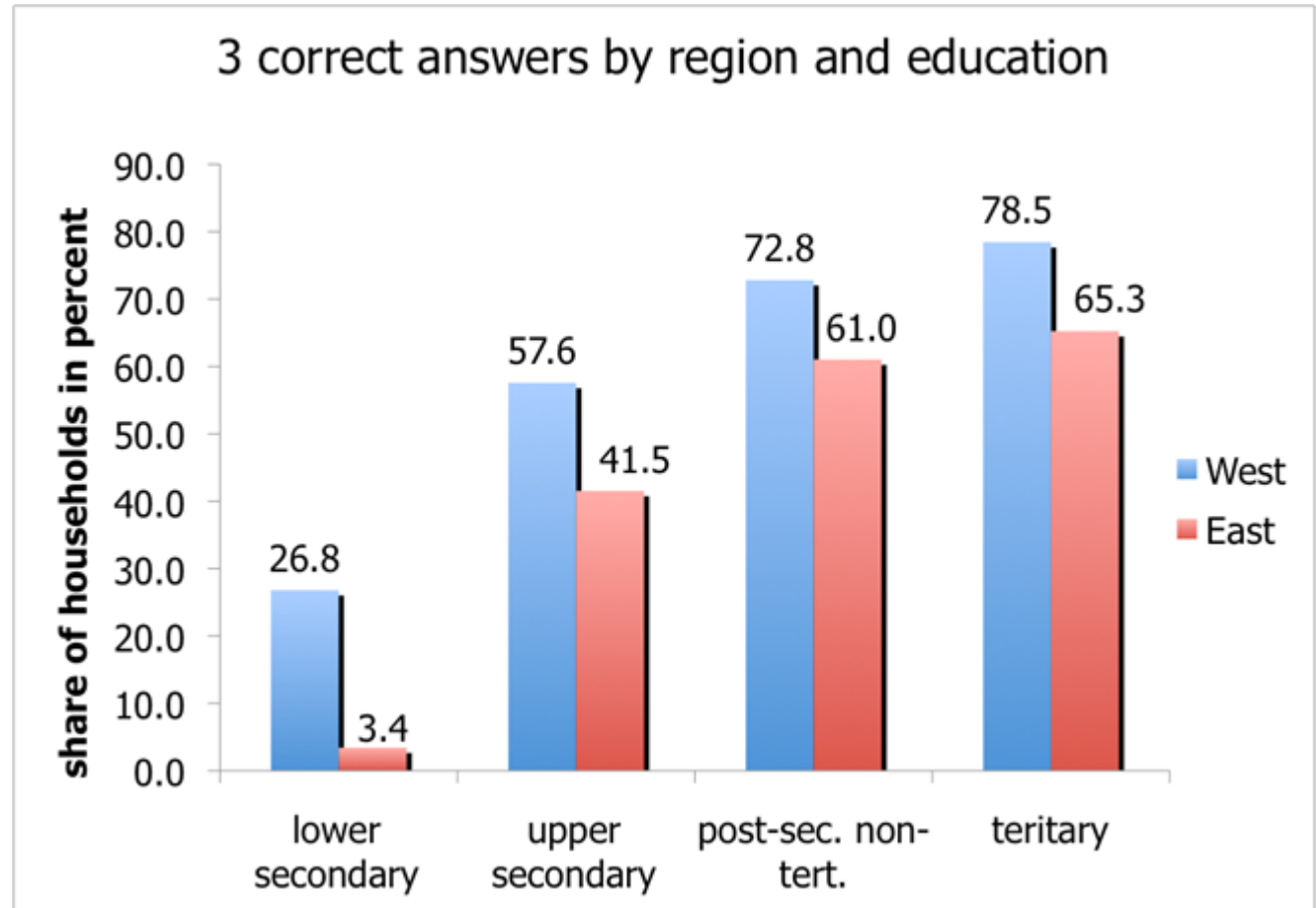
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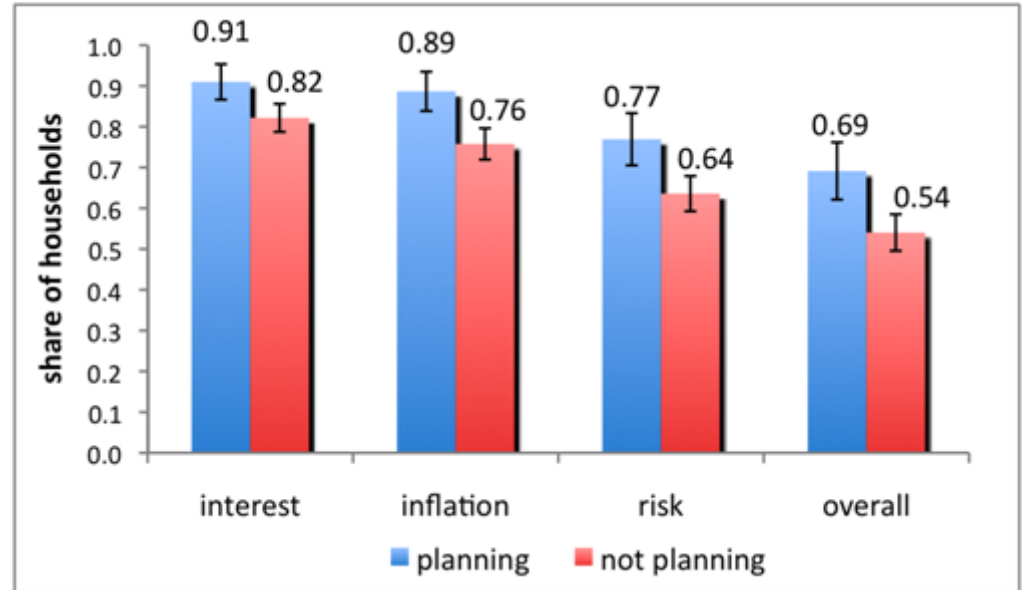
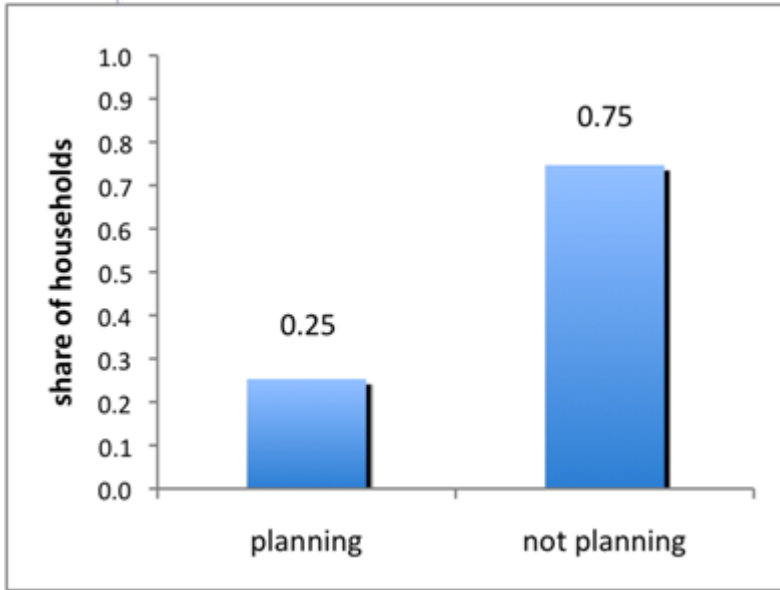


Source: own calculation on the basis of SAVE 2009, N= 1,059; data is weighted

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,

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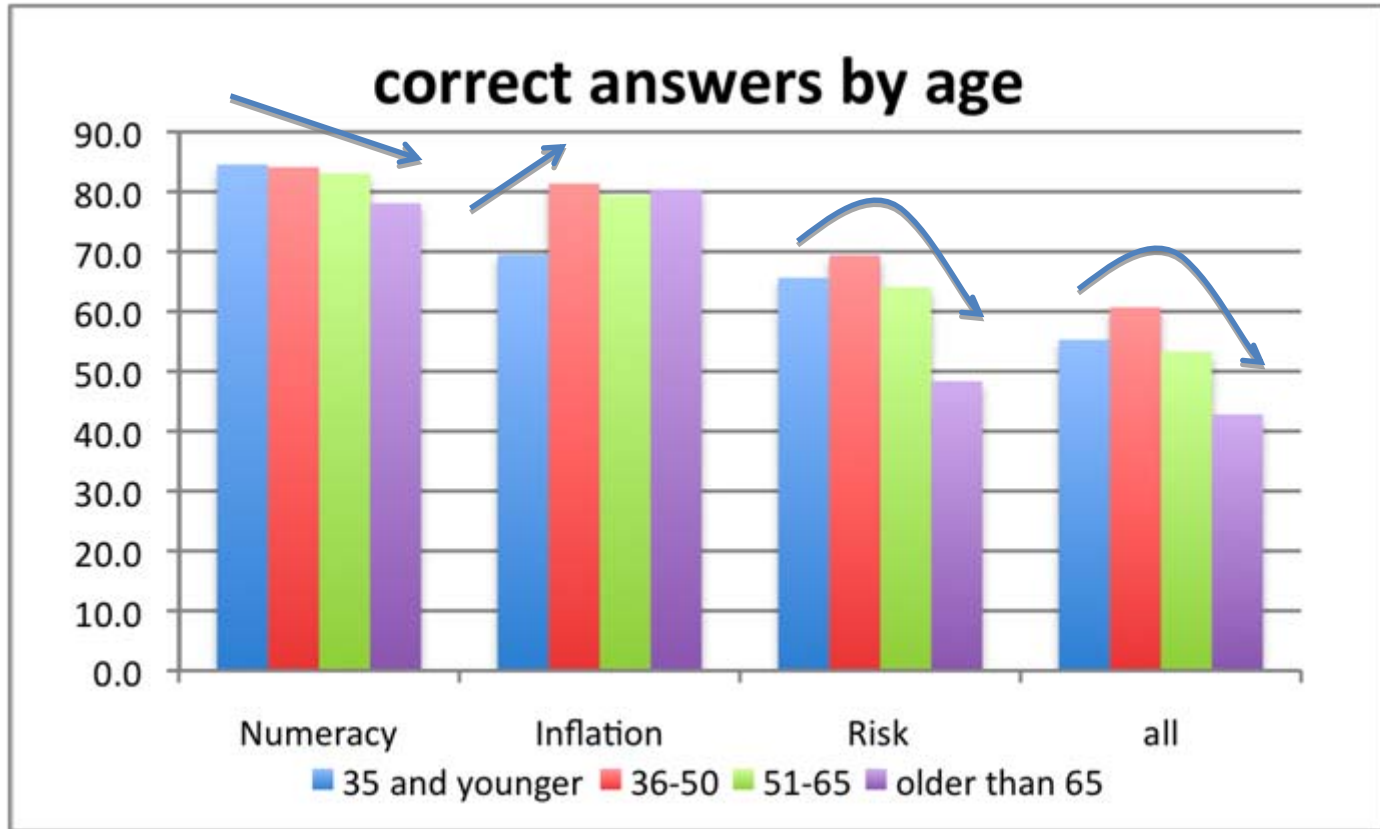
6. Discussion and Conclusions

- ▶ 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.

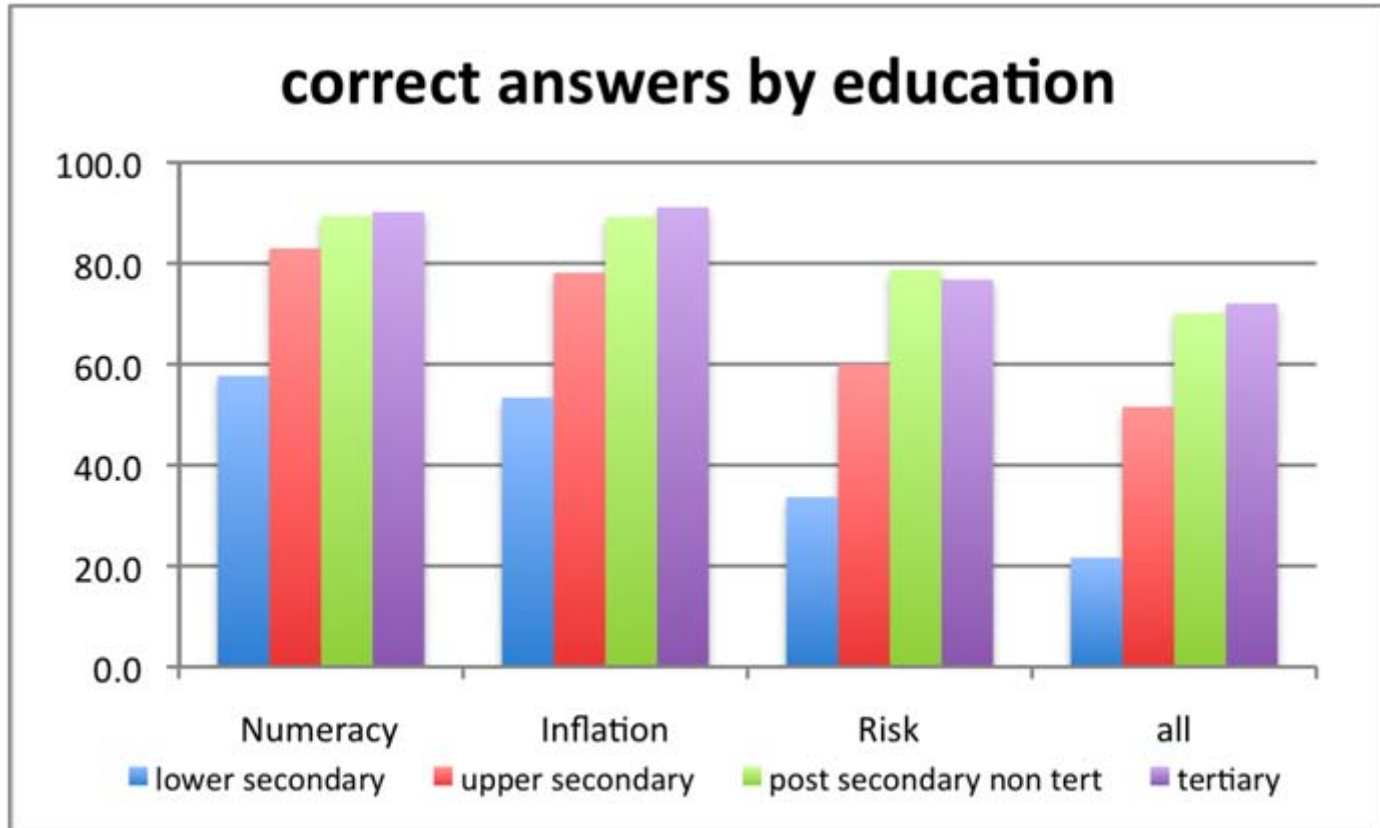


THANK YOU

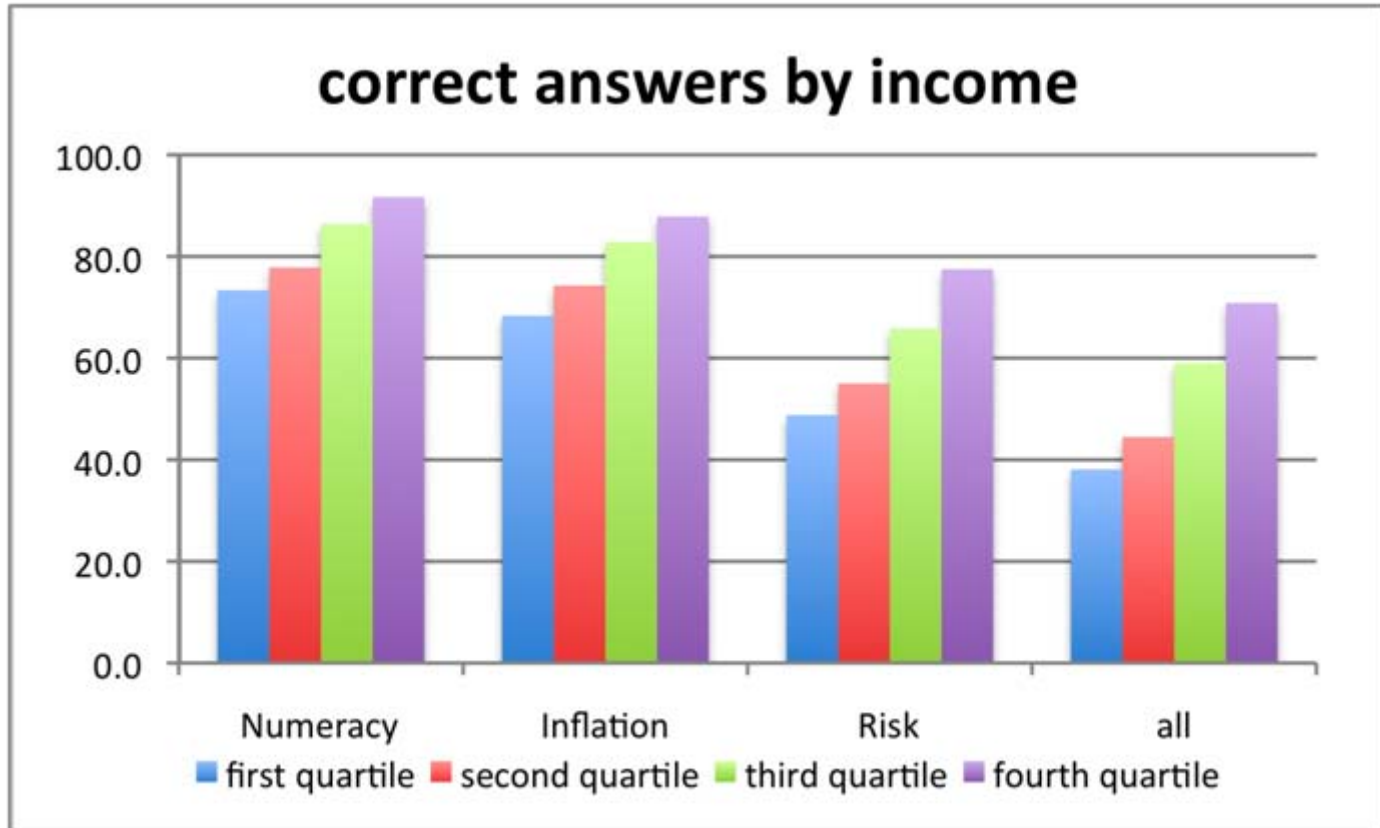
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