Subjective Beliefs, Saving, and Spending for Retirement

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How do people think they will die?

How many people die each year because of killer sharks?

How about killer cows?
The deadliest animals.
Average annual animal-caused fatalities in the U.S., 2001 to 2013

- **Sharks** kill 1 person per year.
- **Alligators** kill 1 person per year.
- **Bears** kill 1 person per year.
- **Venomous snakes and lizards** kill 6 people per year.
- **Spiders** kill 7 people per year.
- **Non-venomous arthropods** kill 9 people per year.
- **Cows** kill 20 people per year.
- **Bees, wasps and hornets** kill 58 people per year.
- **Other mammals** kill 52 people per year.

Sources: CDC reports, CDC WONDER database, Wikipedia, Florida Museum of Natural History
How old do you expect to live?

Prudential Financial survey of 400 people
“What is the age of the oldest person they’ve known?”
Subjective beliefs and financial decisions over the life cycle

Financial decisions involve trade-offs between **costs today** vs. **expected benefits**

- Expected asset returns
- Future tax rates
- Expected retirement age

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*YOLO: Mortality Beliefs and Household Finance Puzzles.*
The Journal of Finance 74.6: 2957-2996.

Highlight role of **mortality beliefs** and **key findings**:

1. Mortality beliefs flip from underestimation to overestimation as people age
2. Salience of risk factors explains miscalibration
3. Affects life cycle financial decisions:
   - Undersaving for retirement
   - Slow draw down post-retirement
   - Portfolio allocation at all ages
Mortality beliefs over the life cycle

- Mortality beliefs flip over course of life cycle
- Robust finding, many other papers (at least back to Hamermesh 1985)
Salient risk factors and mortality beliefs

Risk weights are different for young vs. old

 normalized risk factor weights

Natural course of aging | Traffic accidents | Physical violence | Natural disasters | Animal attacks | Risky lifestyle | Freak events | Medical conditions | Dietary habits
---|---|---|---|---|---|---|---|---
28 | 38 | 48 | 58 | 68 | 78

Rare event risks | Health risks
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Age
Salient risk factors and mortality beliefs

Risk weights predict mortality belief miscalibration
Subjective mortality beliefs and life cycle financial decisions

Results from a calibrated life-cycle model

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**Consumption (1,000s of 2010 dollars)**

**Change in net worth (1,000s of 2010 dollars)**

**Cash on hand (100,000s of 2010 dollars)**

**Share of risky assets**

- --- Actuarial prob.
- ---- Subj. beliefs
Subjective expectations of key economic variables

Life cycle financial planning requires forecasting many variables

- People underestimate retirement ages (An and Sachdeva 2024)
- Forecasts about economic variables
  - housing prices (Kuchler and Zafar 2019)
  - stock market returns
  - employment (Das, Kuhnen, and Nagel 2020)
- Inheritance planning (Heimer and Li 2024)
Subjective forecasts of bequests

People overestimate value of bequests they will leave (HRS; Heimer and Li 2024)

![Bar chart showing percentage of respondents estimating various amounts for bequests.

- Any: Leaves inheritance (0.6), Chances of leaving inheritance (0.55)
- More than 10k: Leaves inheritance (0.4), Chances of leaving inheritance (0.41)
- More than 100k: Leaves inheritance (0.2), Chances of leaving inheritance (0.26)
- More than 500k: Leaves inheritance (0.1), Chances of leaving inheritance (0.13)
Life cycle financial planning requires forecasting many variables

- People make large errors when forecasting mortality
  - under-saving for retirement
  - slow drawn down post-retirement
  - portfolio allocation over life-cycle
- Other variables are subject to errors
  - e.g., overestimate bequests

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