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## Portfolios of Atlanta's Poor





# Robinson College of Business, Georgia State University

## > CEAR – Center for Economic Analysis of Risk

- Director Glenn Harrison



## > DBEL – Dean's Behavioral Economics Lab

- Director Elisabet Rutstrom



## > PAP – Portfolios of Atlanta's Poor Project

- Project Manager Ryan Brossette
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# Research Program On How People Make Choices

## > What do people choose and why?

- Skill training or work?
- Exercise or look after kids?
- Car or public transport?

## > All choices involve some risk:

- You are not sure about the outcome
- If I do skill training will that actually lead to higher earnings?
- If I exercise what is the effect on my kids from the lessened supervision?



# Four Studies at DBEL

## > Wild Fire Management

- Comparing choices by residents and forest fire experts on managing forests at risk of fire

## > Traffic Congestion Pricing

- If roads are being priced how will commuters adjust?



## > Portfolios of Atlanta's Poor

- Can we understand the constraints and opportunities facing the working poor in Atlanta?

## > Ante-natal Care in Pakistan

- Can we understand how families make health care choices during pregnancies and the consequences this has for infant and mother mortality?



# Portfolios of Atlanta's Poor

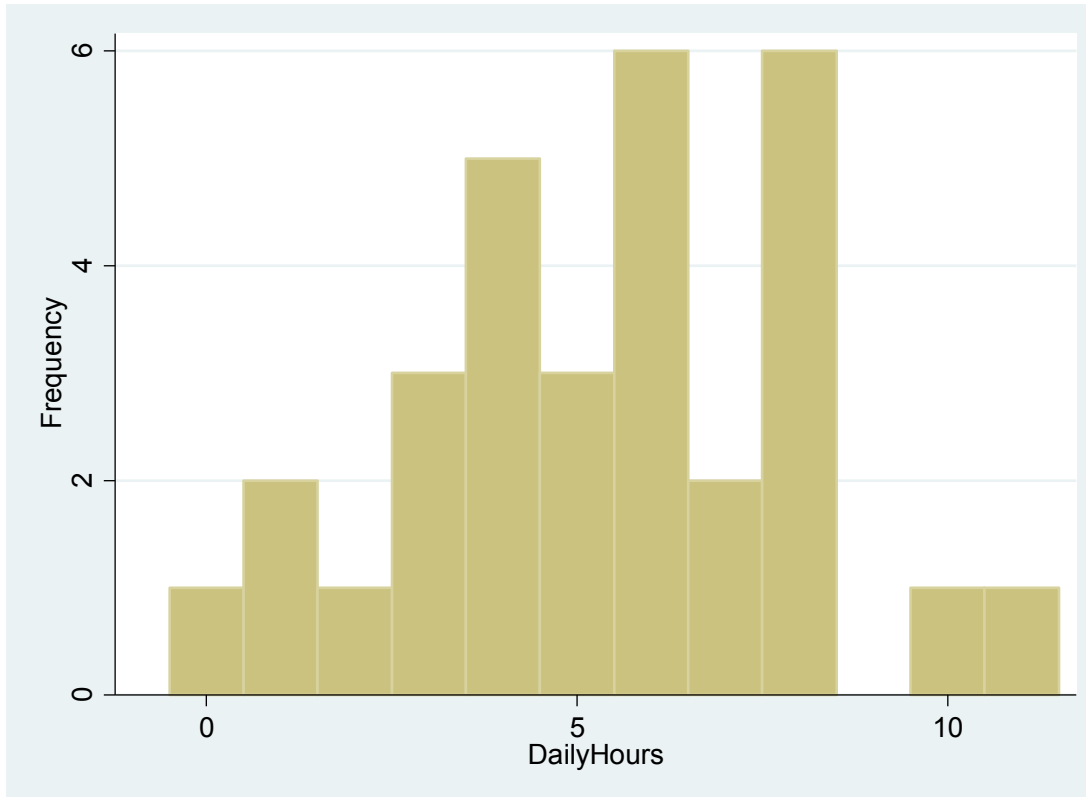
- > We have surveyed 50 residents in Atlanta who are low income and interact with non-profit organizations
  - Demographic census: size of household, education, type of residence
  - Financial survey: work and earnings history, government and NGO assistance, spending habits, bank accounts and loans
  - Risky behaviors: gambling, alcohol consumption, smoking
  - Health and nutrition: typical nutrition, exercise habits, preventive health, BMI, medical conditions
  - Time use: 24 hour day (working, sleeping, transport, etc.)



# Our Participants

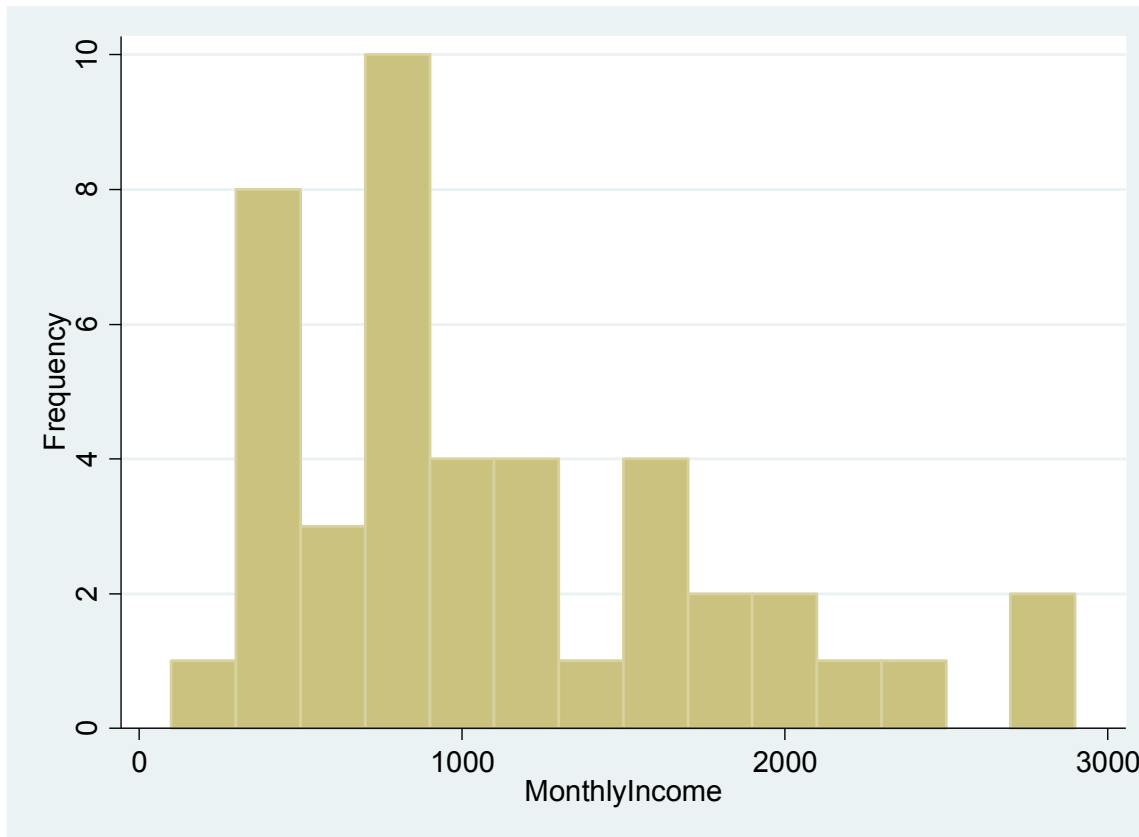
- > 50% are female
- > Average age is 48 with a range from 26 to 73.
- > 32% have not finished High School, 34% have only High School, and 34% have some education beyond High School
- > Average Household size is 4 people, maximum is 9 (3 households)
- > 13% own a home without a mortgage, 14% own a mortgaged house, and 73% rent

# Distribution of Daily Working Hours



Last 30 Days For Those Employed  
31 of 50 (62%) are employed  
Mean 3.5 hrs per day  
26 (83%) < 8 hrs, 19 (62%) < 5 hrs per day

# Distribution Income From All Sources



Last 30 Days  
Mean \$1,083 Max  
\$2,800, 10 (20%)  
<\$500 and 29 (56%)  
<\$1,000



# Unusual Expenses

- > 23 (45%) report unusual expenses during week before interview
- > Many list unusually high utility bills (light and gas)
- > Other items include:
  - Probation fees
  - Medical expenses
  - Car repairs
  - Late fees



# Health Issues

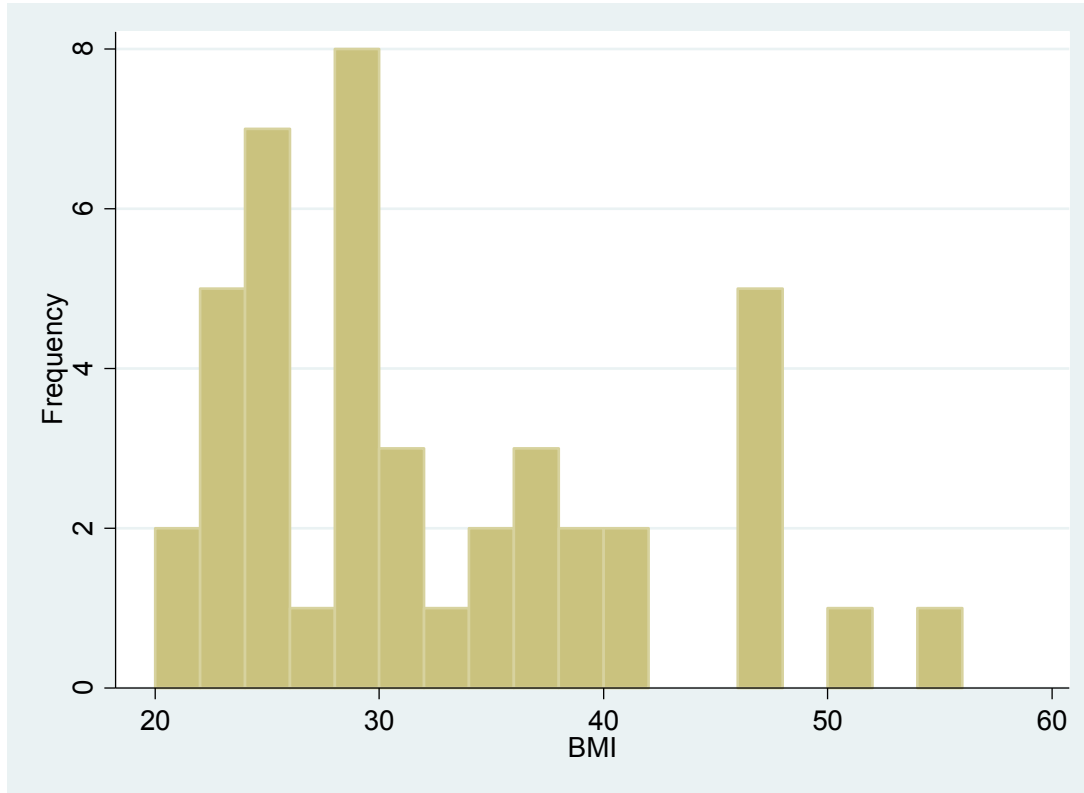


During the last 30 days:

18 of 48 respondents list health as one reason for having been constrained in working hours

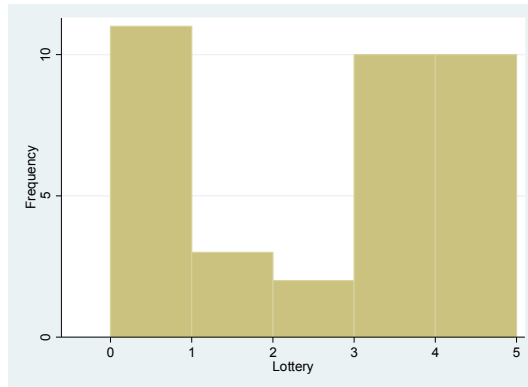
41% report being sick at least once

# BMI Measure



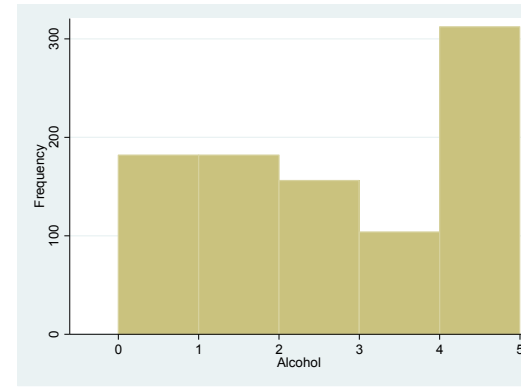
Based on Self-reported  
Height and weight  
Mean BMI 33, Min 22,  
Max 56  
21% < 25 i.e. normal  
weight,  
30% are overweight (25 –  
30),  
49% are obese (>30)

# Risky Behaviors: Lottery, Alcohol, Smoking

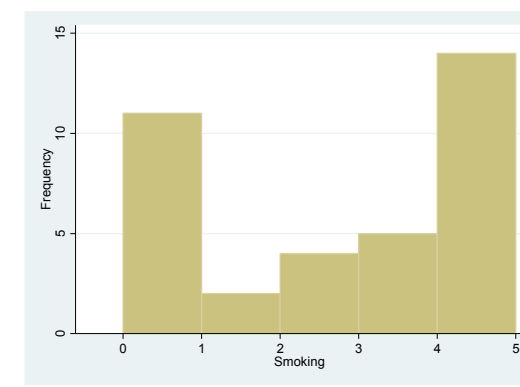


Lottery

0=Never, 1=Seldom, 2=Less than monthly, 3=Less than weekly, 4=More than once per week



Alcohol



Smoking

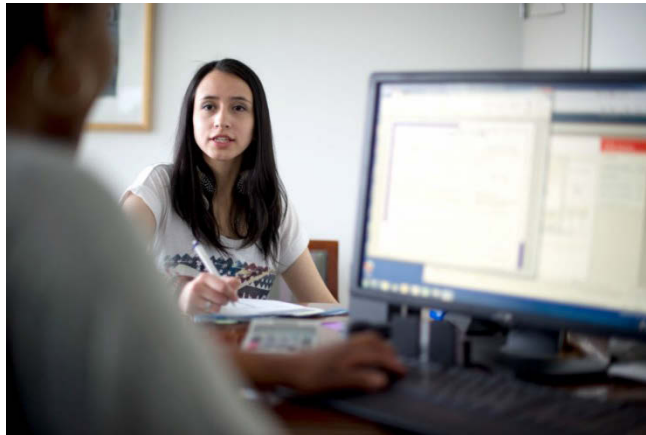
The average person buys lottery tickets less than monthly, consumes alcohol seldom, and smokes less than weekly

All risky behaviors are positively correlated

Those who engage in any one risky behavior is also more likely to engage in other risky behaviors

# Conclusion From Survey Data

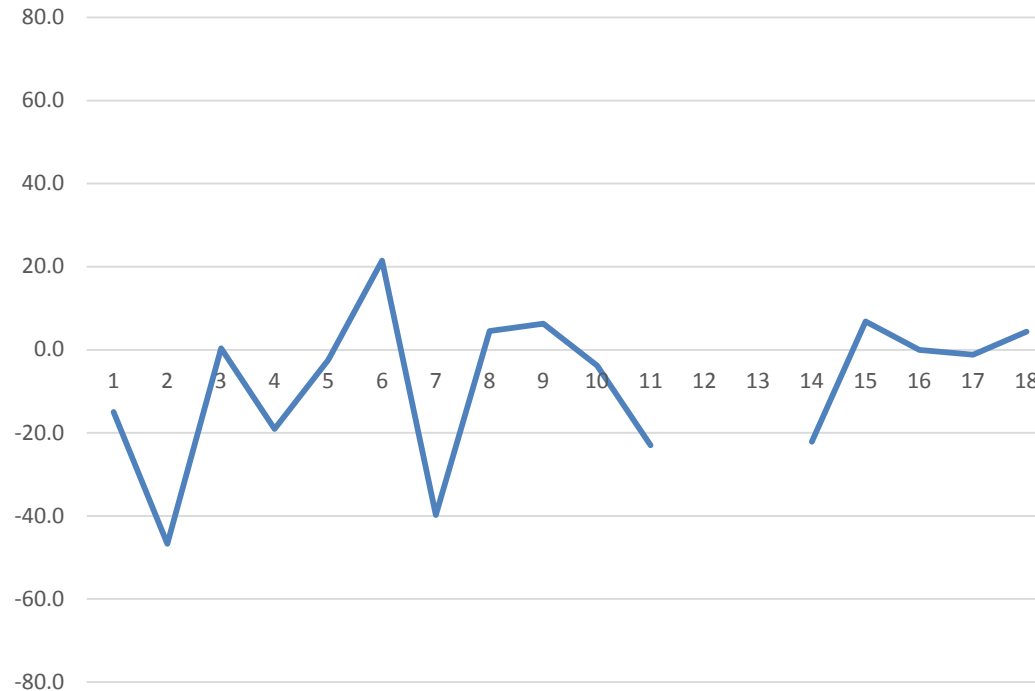
- > Our study sample comes from a population that is economically vulnerable and has serious health risks
- > We invited 14 of these households to meet with us for weekly interviews during a 4 month period (16 meetings)



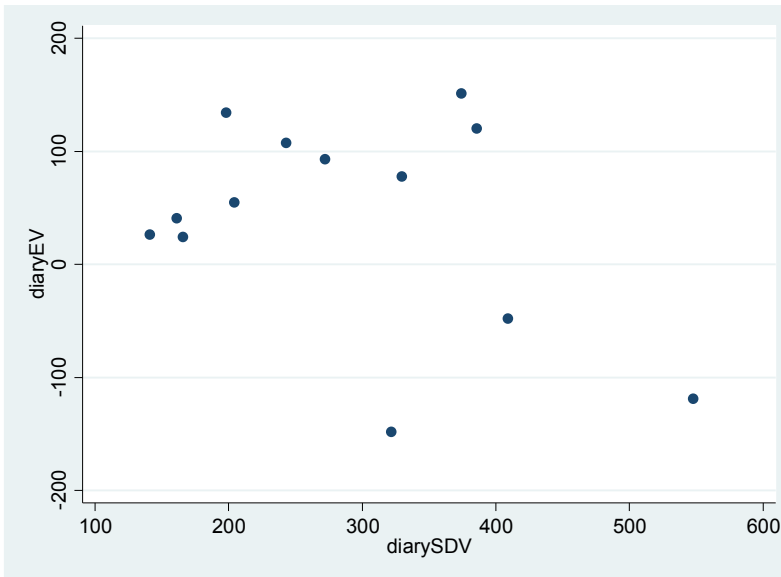
# Financial Vulnerability – Need for Borrowing or Saving

## > Weekly variations in net earnings for one household

Average Net  
Earnings: -\$148  
Standard Deviation:  
\$322



# Correlation Between Mean and Variability of Net Earnings



For those with positive mean net earnings we see a positive correlation between the mean and variability of net earnings, but those with negative mean also have high standard deviation

# Financial Vulnerability Index of Diary Subjects

Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	13.
Index	13	18	22	25	26	29	29	30	31	37	40	101	112	174

Vulnerability Index is higher the lower is mean net earnings and the higher is the variability in net earnings

$(200 - \text{mean}) * \text{St.Dev.}$



# Vulnerability and Health



- > Vulnerability is **increasing in BMI** but decreasing in recent Health related work constraint and recent sickness
  - Those with higher health risks due to higher BMI are also more vulnerable financially
  - Recent Health related work constraints is spread more evenly across all vulnerability levels



# Unique data from this study

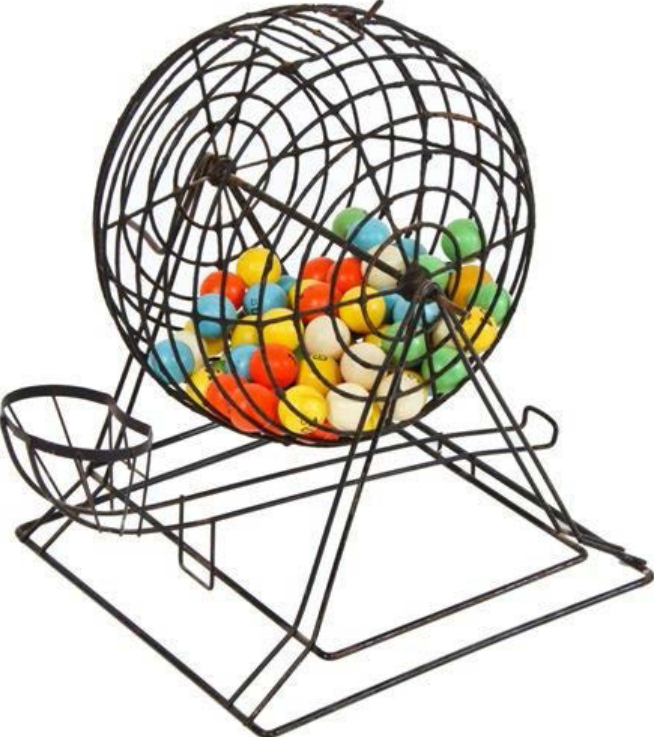
## > Behavioral economics experiments

- Observe choices over risky outcomes directly

## > We present people with choices between lotteries

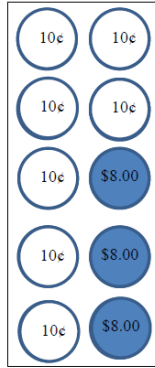
- Some have less variability in payments but mean payments are low
- Others have more variability in payments but mean payments are higher

## > How willing are people to take the more variable option? How willing are they to take on risk?



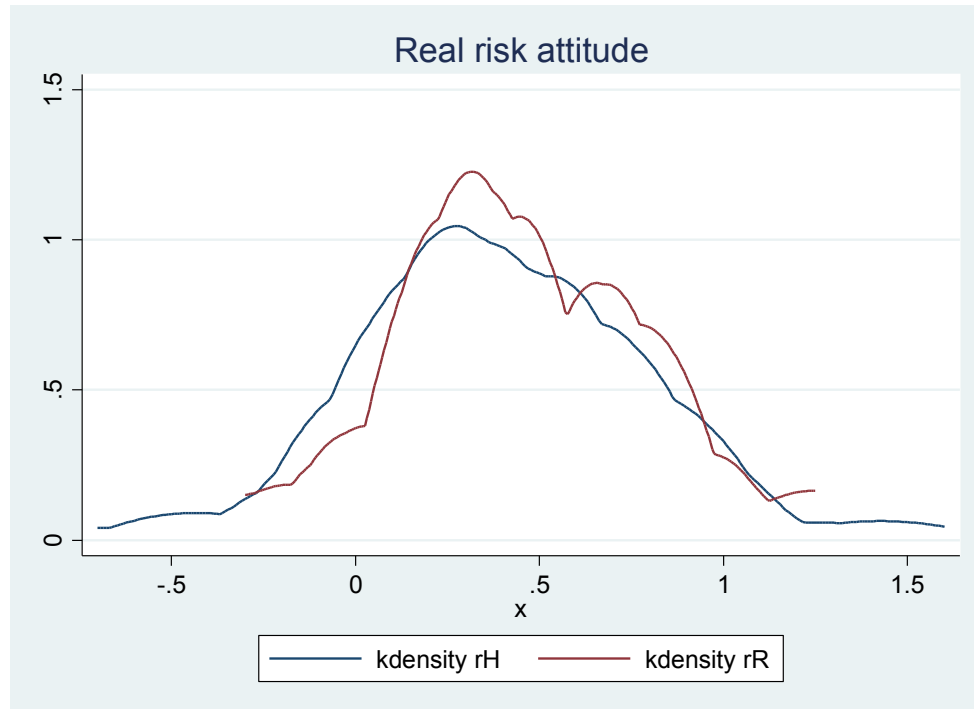
# Experiment: Binary Lottery choice task

> A series of 10 binary lottery choice tasks



- Two boxes with ping-pong balls of different colors
- Box with red/yellow is less risky than box with white/blue
- Yellow and white are low payoffs
- Red and blue are high payoffs
- **CHOOSE ONE BOX AND PLACE IN BINGO CAGE**

# Risk Attitudes from Lottery Experiment



Variation across people in their willingness to take on risk

It can be important to use actual money in these tasks

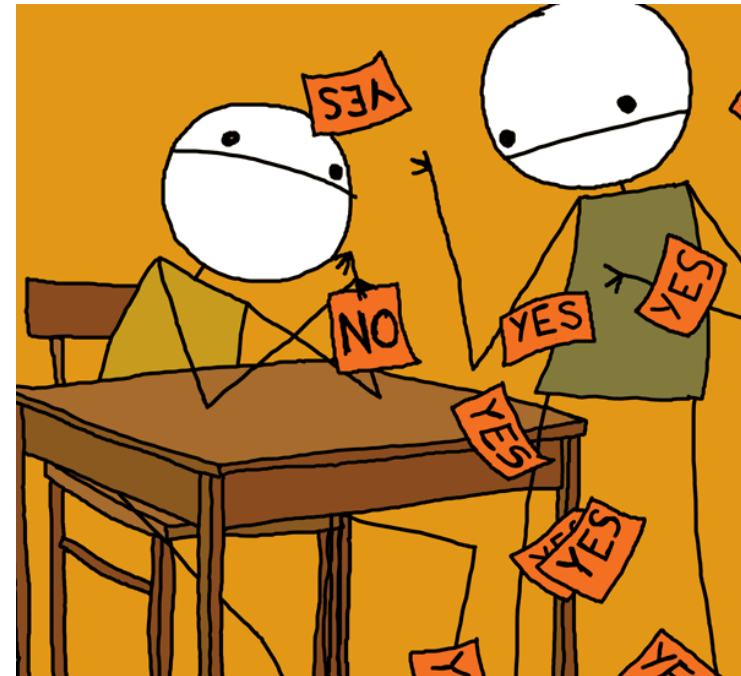
Behavioral errors are twice the size in hypothetical compared to real

Hypothetical mean = 0.40  
sdev=0.39

Real mean = 0.46 sdev=0.35

# Risk Attitudes and Other Behaviors

- > People who are more risk averse are also more vulnerable
- > People who are more risk averse are less likely to have high BMI but more likely to have recent bad health and other recent needs for money
- > People who are more risk averse are less likely to engage in risky behaviors such as gambling, alcohol consumption, and smoking





# Concluding Thoughts

- > We are able to access a population that is vulnerable in both finances and health
- > We are able to relate behavioral factors such as their willingness to take on risk to their health and financial status and to their choices over health and finances
- > We are unique in that we make direct observations on their choices over risky options with real consequences
- > These data are useful for understanding and predicting what type of interventions and policies that can have positive impacts
- > Augmented Randomized Controlled Trials