

HOUSEHOLD ANNUAL INCOME DISTRIBUTION IN THE US IN 2010 (APPROXIMATE)

Income	Percentile
\$10,000	8
\$20,000	20
\$30,000	30
\$40,000	40
\$55,000	50
\$90,000	75
\$500,000	99

A SURVEY—FOUR HYPOTHETICAL QUESTIONS

Question 1) Suppose that you had a choice between an annual income for the rest of your life of \$25,000 for sure or having an annual income of \$500,000 for the rest your life with probability p and \$10,000 for the rest of your life with probability $1 - p$. What is the smallest probability p at which you would prefer the gamble?

Question 2) Suppose that you had a choice between an annual income for the rest of your life of \$55,000 for sure or having an annual income of \$500,000 for the rest your life with probability p and \$10,000 for the rest of your life with probability $1 - p$. What is the smallest probability p at which you would prefer the gamble?

SURVEY CONTINUED

Question 3) Suppose that you had a choice between an annual income for the rest of your life of \$100,000 for sure or having an annual income of \$500,000 for the rest your life with probability p and \$10,000 for the rest of your life with probability $1 - p$. What is the smallest probability p at which you would prefer the gamble?

Question 4) Suppose that you had a choice between an annual income for the rest of your life of \$250,000 for sure or having an annual income of \$500,000 for the rest your life with probability p and \$10,000 for the rest of your life with probability $1 - p$. What is the smallest probability p at which you would prefer the gamble?

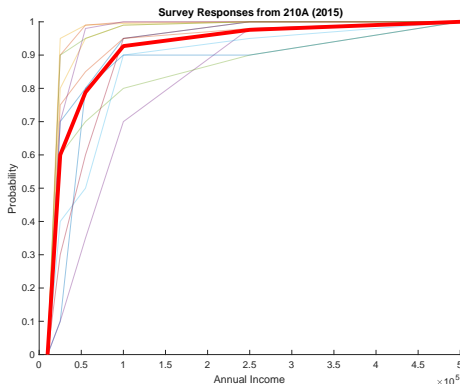
CALCULATING UTILITIES

Let us choose the scale of utility by setting $U(10,000) = 0$ and $U(500,000) = 100$. Let $p(X)$ be the probability that you chose when the proposed sure income was X . Then for $10,000 \leq X \leq \$500,000$, we define

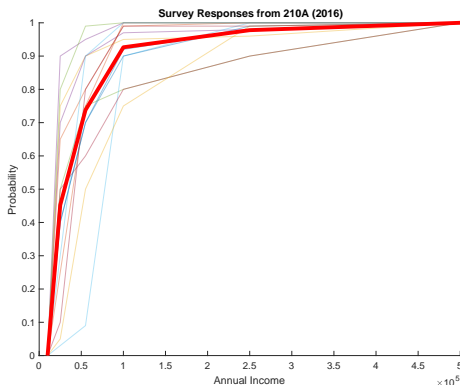
$$U(X) = p(X)U(500,000) + (1 - p(X))U(10,000) = 100p(X).$$

We will look at the graph of “average” responses from the class.

ESTIMATED VON NEUMANN MORGENSTERN UTILITY OF INCOME-2015 CLASS



ESTIMATED VON NEUMANN MORGENSTERN UTILITY OF INCOME-2016 CLASS



ESTIMATED VON NEUMANN MORGENSTERN UTILITY OF INCOME-2015 AND 2016 CLASSES

