

Psychology and Personal Finance

Sub Optimal Spending

First – A Question:

How much could you reduce your spending (being smarter about your purchases) without depriving yourself or limiting your happiness?

Overview

- Sub Optimal Spending
- Heuristics Used in Spending Decisions
- How to Help People Make Better Financial Decisions

Sub Optimal Spending

Tom Sawyer Trick



What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like or dislike

The Yogurt Experiment

- Subjects tasted a spoonful of plain yogurt, then immediately rated the experience
- They then predicted their rating for finishing a whole cup of the yogurt



The Yogurt Experiment Results

- Most predicted the taste and the full portion would be as enjoyable
- They did not consider that eating a much larger portion is different from a spoonful
- Even when people know what they like, they might not know what they will like

“Never Shop on an Empty Stomach”

- There is a positive correlation between over-shopping and hunger
- Projection Bias: people wrongly believe that current preferences indicate future preferences



Projection Bias



What We've Learned (So Far)

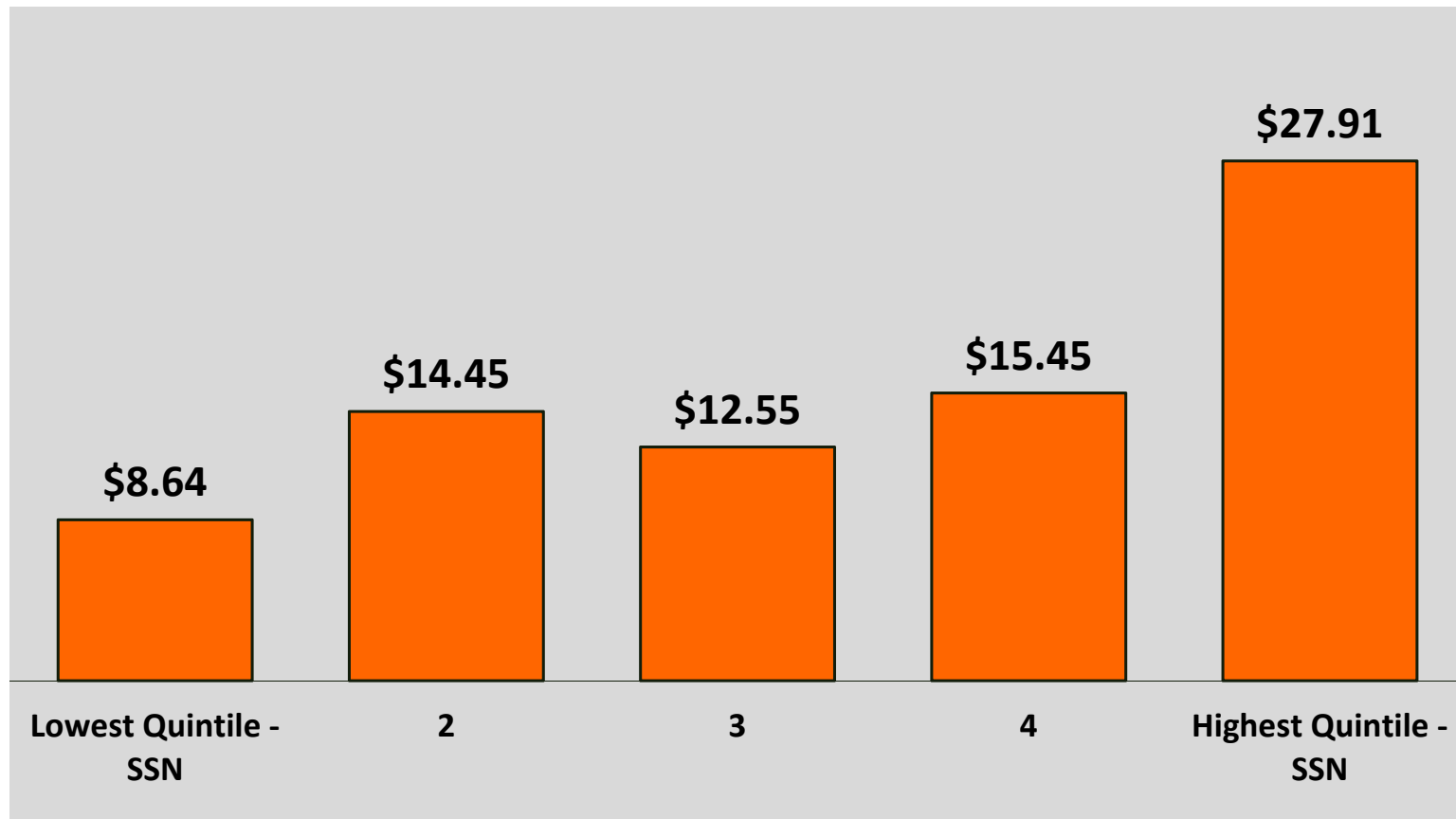
- Sub Optimal Spending
 - People do not know what they like or dislike
 - People do not know what they will like and dislike
 - Projection Bias

Attention Wine Connoisseurs...

- Subjects shown an average bottle of wine, then asked if they would pay an amount equal to the last two digits of their Social Security Number
- Results: Those with the highest SSN would pay three times more than those with lowest SSN

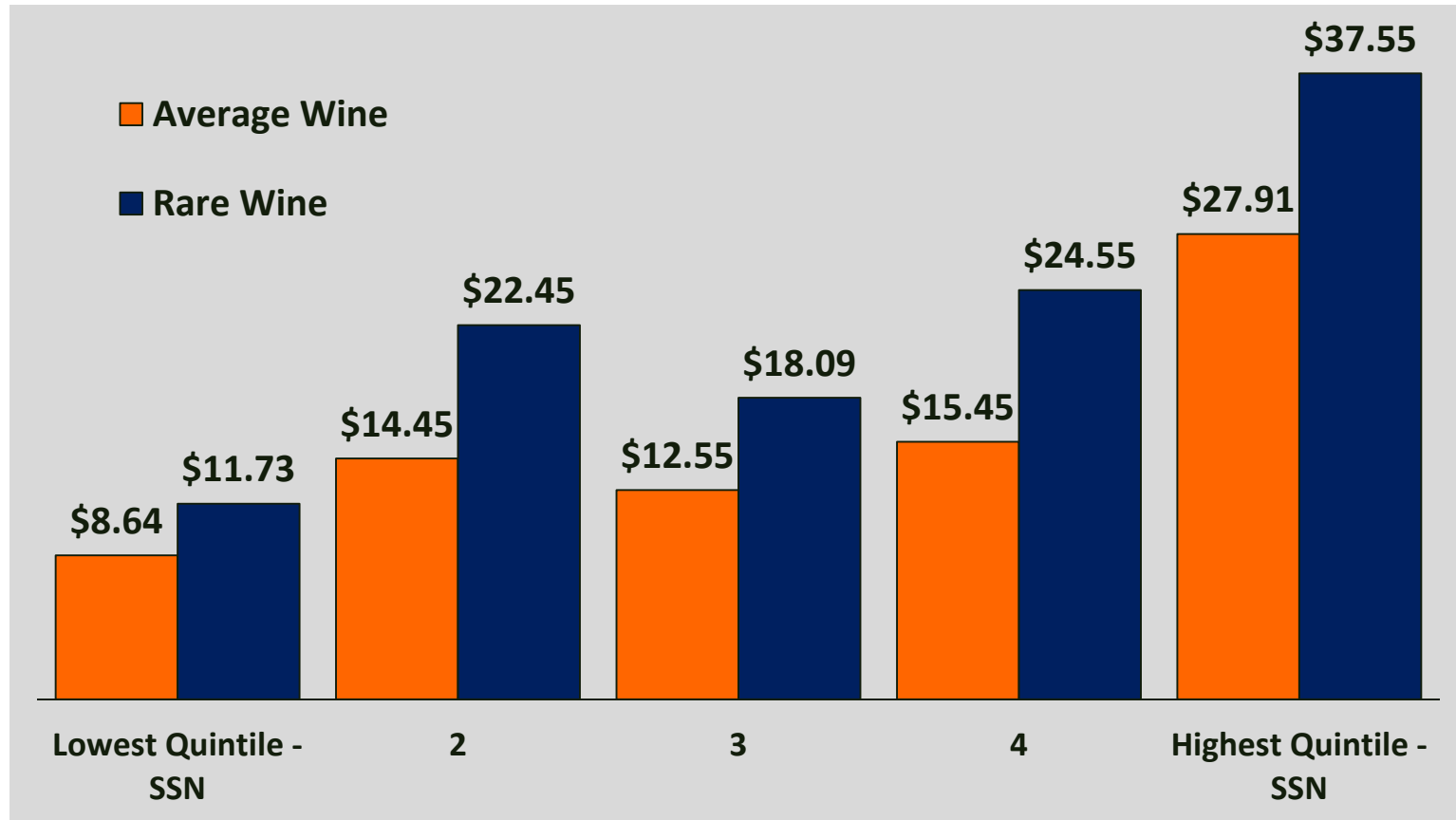
Source: Ariely et al (2003)

Willingness To Pay For A Bottle Of Wine



Source: Ariely et al (2003)

WTP for a “Rare” Bottle of Wine



Source: Ariely et al (2003)

Coherent Arbitrariness

- Suppose a subject with a SSN ending in 25 has a WTP of
 - \$5 - \$30 for an “average” bottle
 - \$10 - \$50 for a “rare” bottle
- If the subject’s WTP is \$25 for average, then the WTP for the rare bottle should be more than \$25

What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - Coherent Arbitrariness

Question: Which Would You Choose?

BMW X3



\$38,000

BMW X5



\$46,200

Opportunity Costs

- If you are like most consumers, you'd pick the BMW X5
- Is an additional \$8,200 worth it?
- Did you consider the opportunity costs?

Question (Revisited): Which Option?

**BMW X3 and
Free Gas for 3 Years**



\$46,200

BMW X5



\$46,200

What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - Coherent Arbitrariness
 - Ignoring opportunity costs

Time For A Survey

Answer the following survey questions
and keep score on your paper.

Question 1

Which of the following descriptions fits you best?

1	2	3	4	5	6	7	8	9	10	11
Difficulty Spending Money					About the Same					Difficulty Controlling Spending

Source: Loewenstein, et al (2007)

Survey

- Some people have trouble limiting their spending: they often spend money on meals, clothing, etc. when they would do better not to.
- Other people have trouble spending money, perhaps because it makes them anxious. They often don't spend money on things they should.

Source: Loewenstein, et al (2007)

Question 2

(a) Do you have trouble limiting your spending?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Always

(b) Do you have trouble spending money?

5	4	3	2	1
Never	Rarely	Sometimes	Often	Always

Source: Loewenstein, et al (2007)

Survey

Mr. A is accompanying a friend who is on a shopping spree at the mall. Mr. A sees that the department store has a “one-day-only” sale where everything is 10-60% off. He realizes he doesn’t need anything but ends up spending almost \$100 on stuff.

Source: Loewenstein, et al (2007)

Survey

Mr. B is accompanying a friend who is on a shopping spree at the mall. Mr. B sees that the department store has a “one-day-only” sale where everything is 10-60% off. He figures he can get great deals on many items he needs, yet the thought of spending the money keeps him from buying the stuff.

Source: Loewenstein, et al (2007)

Question 3

In terms of your own behavior, are you more similar to Mr. A or Mr. B?

1

Mr. B

2

3

Same / Neither

4

5

Mr. A

Source: Loewenstein, et al (2007)

Now, Add Up Your Score



**4 - 11 =
Tightwad**

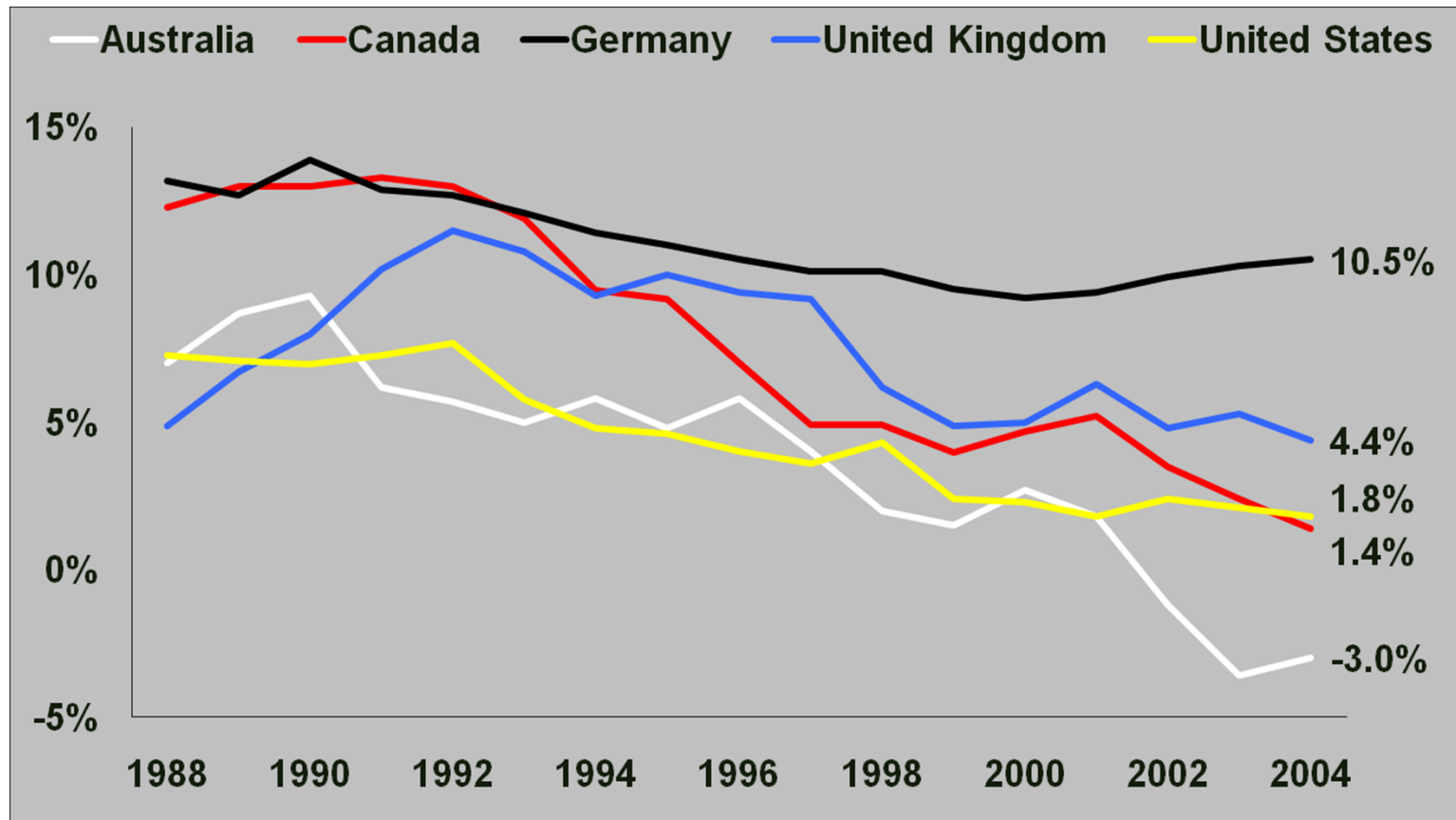


**12 - 18 =
Unconflicted**



**19 - 26 =
Spendthrift**

Low Household Saving Rates



Source: OECD 2006

Shlomi and Lesli Migrate to China



People Spend Too Much

In China, some men were spending 40% of their income on Starbucks coffee...



...just to look cool!

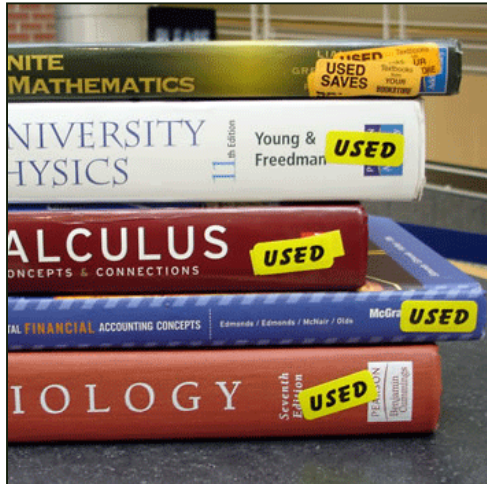
People Spend Too Much

In China, some women were spending 50% of their income on imported perfumes...



... which they couldn't distinguish from wet towels!

Do MBAs Spend Too Little?



Permanent Income Hypothesis

- Consumption should be dictated by long-term income expectations, not just current income
- MBA students, and others who expect a prosperous future, should borrow and enjoy themselves today 😊

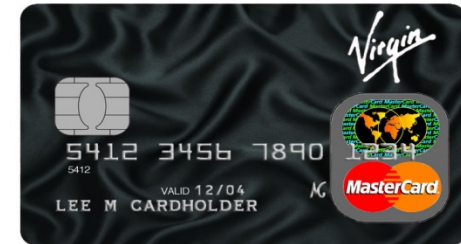
What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much (though some spend too little)

Borrowing Too Much

- Average of 13 credit cards per household in 2005
- Average of \$8,200 credit card debt per household in 2008
- Average of 14.3% interest rate on reward credit cards in 2008

Purchasing Behavior



CASH	CHECK	CREDIT CARD
High Transparency	Medium Transparency	Low Transparency
Can see how much you are spending outright	Have to write out the amount on a check	Don't see money changing hands

Source: Soman, (2003)

Credit Card Spending

People tend to tip more if they are putting it on a credit card versus giving cash



Source: Feinberg, (1986)

Credit Card Spending

People who own more credit cards make larger purchases per department store visit



Source: Hirschman (1979)

Credit Card Spending

Credit card users are more likely to underestimate or forget the amount of recent purchases



Source: Soman (1999)

The Power of Credit Cards

If credit card ads are visible (even though they're not mentioned and supposedly unrelated to the experiment) subjects give a higher willingness-to-pay estimate for an item

Price Estimates from Experiment



NO VISIBLE CREDIT CARD AD	VISIBLE CREDIT CARD AD
\$21.50	\$67.33
\$67.00	\$136.92
\$157.42	\$191.17
\$25.42	\$49.42
\$33.42	\$67.33

Source: Feinberg, (1986)

What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much and borrow too much

Heuristics Used in Spending Decisions

Extremeness Aversion

When two options with similar attributes are presented ...



\$250



\$300

... people pick the less expensive option

Extremeness Aversion

When a more expensive third option is available ...



\$250



\$300



\$400

... people tend to go for the middle of the road

What We've Learned (So Far)

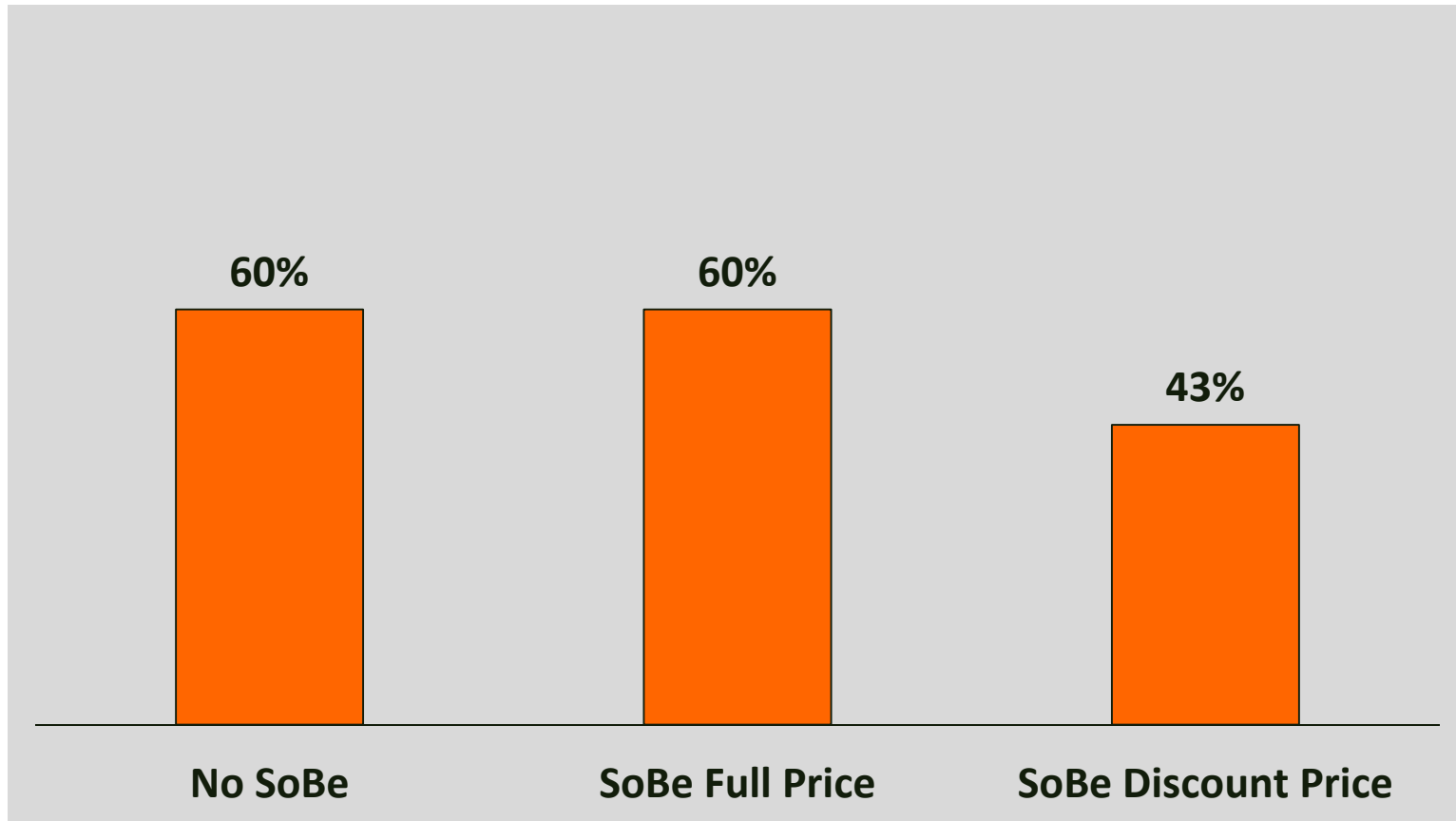
- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much and borrow too much
- Heuristics Used in Spending Decisions
 - Extremeness Aversion

An Experiment: Buying SoBe Drinks

- One group purchased at the regular price
- Another group purchased at a discounted price
- There were all given the same test - to complete as many of 15 total puzzles as possible in 30 min



Puzzles Answered Correctly



SoBe : “Energy for the Mind”

Source: Ariely, et. al (2006)

Another Example of “Price = Quality”

- Consumers told one wine costs \$5 and the other costs \$45, when in fact they are the same wine
- Pleasure sensors in the brain more active when drinking the seemingly more expensive wine



What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much and borrow too much
- Heuristics Used in Spending Decisions
 - Extremeness Aversion
 - Price = Quality

You Give What You Get

People tend to spend exactly what they earn –
especially students

What We've Learned (So Far)

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much and borrow too much
- Heuristics Used in Spending Decisions
 - Extremeness Aversion
 - Price = Quality
 - Spending exactly as much as you earn

How to Help People Make Better Financial Decisions

Can We Help People...

- A. Determine their preferences,
- B. Assign values to their preferences, and
- C. Live within their means?

What We've Learned

- Sub Optimal Spending
 - People do not know what they like (or will like)
 - People do not know how much to pay
 - People spend too much and borrow too much
- Heuristics Used in Spending Decisions
 - Extremeness Aversion
 - Price = Quality
 - Spend exactly as much as you earn
- Helping People Make Better Decisions