

EXAMINING EFFECTS OF NUMERIC CUES ON CONSUMER BEHAVIOR

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Brief Overview

- Organizations present people with numbers all the time...
- How are those numbers processed, and how does this change behavior
- Context we'll examine in detail:
 - Repayment of consumer debt
- Other contexts for which this is relevant: Any that involve costly long-term goal-striving
 - Other kinds of loan repayment
 - Allocations to savings
 - Trying to get people to live more healthfully
 - Various attempts to increase demand, loyalty, etc.

Numeric Cues for Consumers

Free Beauty Bag with 9 Fragrance Samples
Online only. Use code **SCENTME** [See all offers ▶](#)

SEPHORA **3 FREE SAMPLES WITH ANY PURCHASE ▶**

FRAGRANCE BATH & BODY NAILS HAIR TOOLS & BRUSHES MEN GIFTS SALE BRANDS **ADVICE | HOW-TO'S**

Choose a Free Fragrance Set

Explore 9 samples to find one true to you and receive a beauty bag

[See details ▶](#)

BEAUTY INSIDERS: Use code **SCENTME**
While supplies last.

3 FREE SAMPLES WITH ANY PURCHASE ▶

3-DAY SHIPPING FREE OVER \$50 ▶

Explore 9 samples to find one true to you and receive a beauty bag

Use code **SCENTME**

Anchoring Effects (Example)

- How much should I buy?

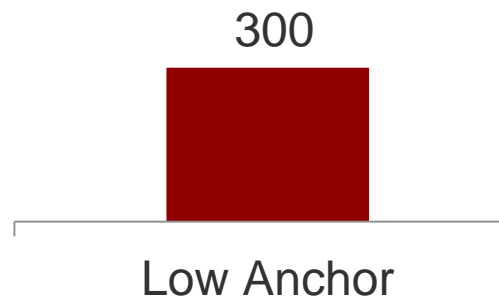
Explore **9** samples to
find one true to you and
receive a beauty bag



Anchoring Effects

Is the Mississippi River
longer or shorter than
[70/ 2,000] miles?

What is the length of the
Mississippi River (in miles)?



Goal Effects (Example)

- How much should I buy?

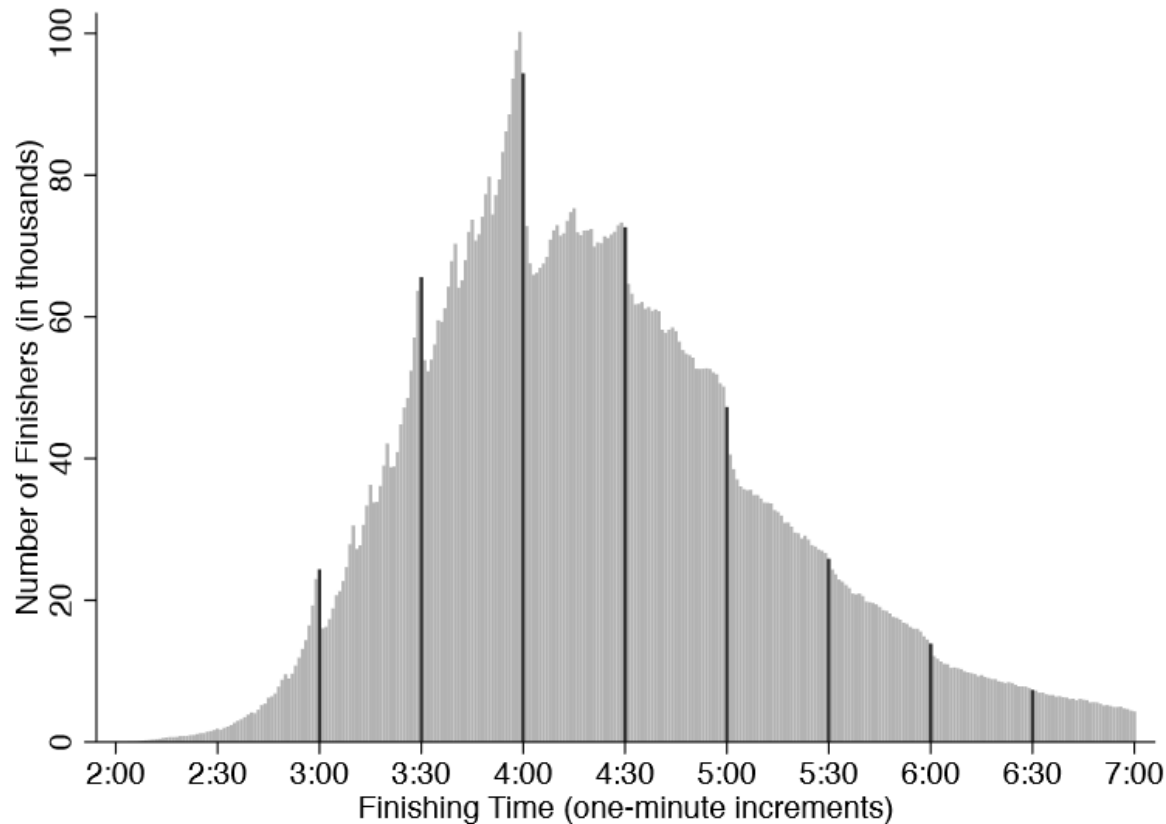
3-DAY SHIPPING
FREE OVER \$50 ▶

I should spend *at least* \$50...

Goal Effects

Distribution of Marathon Finishing Times

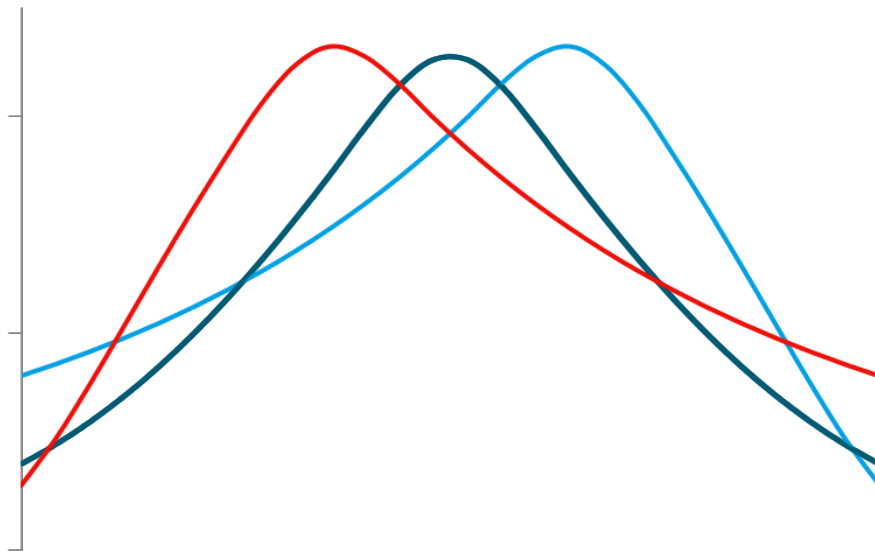
Figure 2: Distribution of marathon finishing times ($n = 9,524,071$)



NOTE: The dark bars highlight the density in the minute bin just prior to each 30 minute threshold.

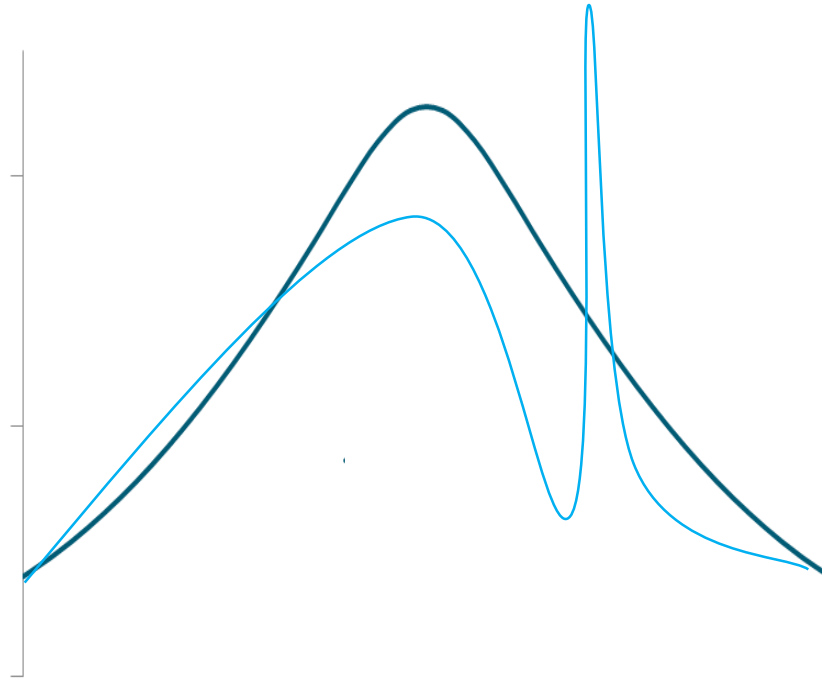
Values as Anchors

Expect symmetric shift in distribution towards anchor



Values as Goals

Expect asymmetric shift with mass just above goal



Properties of Goals (vs. Anchors)

Factors increasing consumer effort

- Financial benefits: Free shipping, gifts, rewards
- Psychological benefits: Motivational importance, satisfaction from goal achievement

Factors decreasing consumer effort

- Goals too high: Why bother? Backfire
- Goals too low: Lack of motivation after goal achievement

**Often we don't know if a value
is a goal or an anchor!**

Research on Credit Card Statements

- Minimum payment: Acts as ***anchor*** - removing this value increases payment amount (Stewart, 2009)

PSYCHOLOGICAL SCIENCE

Short Report

The Cost of Anchoring on Credit-Card Minimum Repayments

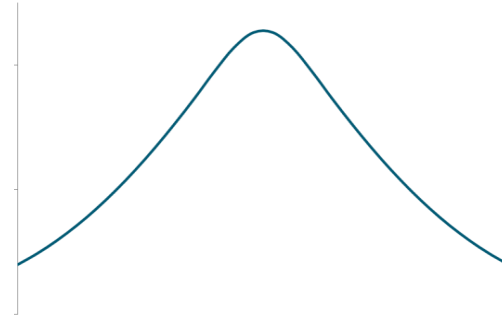
Neil Stewart

University of Warwick

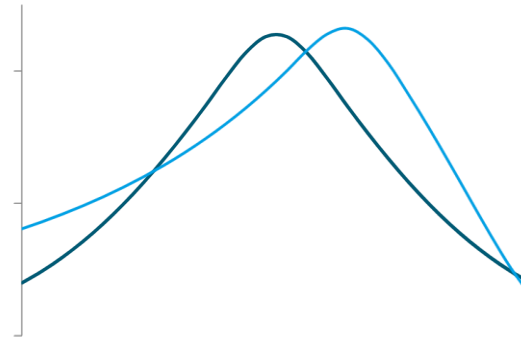
- How do the numbers a person sees on her credit card statement affect repayment decisions?
- Do they act as anchors or target values?

Possible Predictions

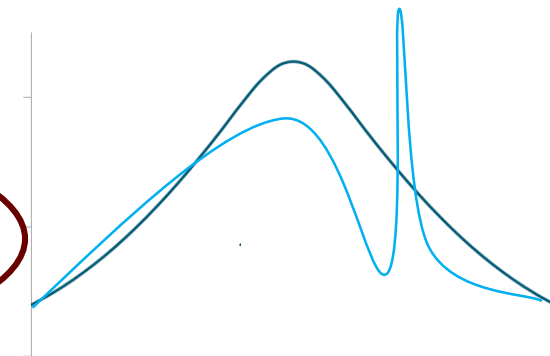
Additional values are ignored



Additional values act as anchors



Additional values act as goals*
*(if achievable)



The Intuition: Meeting or Not Meeting Suggested Amount Matters

Kerry and Mary both have the credit card described above. Each of them has a total account balance of \$5,596.12.

This month, Kerry's suggested payment is \$335.77, and she is able to pay \$671.54.

This month, Mary's suggested payment is \$1,007.30, and she is able to pay \$671.54.

Kerry = 5.00

Mary = 2.59

DV: How do you think each of these cardholders feels about her payment? (1 = very disappointed; 6 = very happy)

paired- $t(45) = 11.90, p < .001, \eta_p^2 = .76$
41 of 46 participants express this difference

Practical Consequences

- Introducing additional values could encourage consumers to pay more each month

Key Questions

For people who are motivated to repay (i.e., opt in), who set their own goals...

- Can values alter the distribution of payments?
- Are people able to meet the targets they set for themselves?
- Does success vary as a function of the their target?
 - Short answer: Not in our data... but likely a restriction of range effect—people probably aren't setting astronomically high targets for themselves

Data from a large bank: Consumer Credit Plans Overview

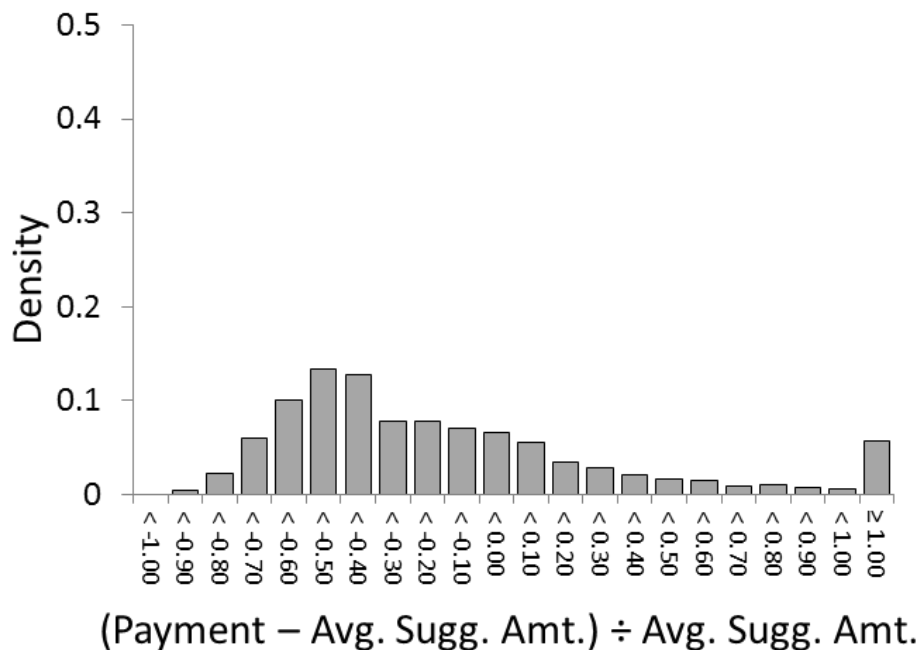
- Each consumer sees, on her statement:
 1. Her total outstanding balance
 2. Her minimum payment due
 3. A “goal” amount, based on enrollment in one of these two programs
- 1. Debt Decumulation (“Finish It”)
 - Set an amount you wish to pay and a time period over which you wish to pay it off
 - Goal amount $\approx f$ (remaining amount \div remaining time)
- 2. Spending Categories (“Full Pay”)
 - Pick categories for which you never want to pay revolving interest
 - Goal amount $\approx f$ (spending categories + min payment)

Data Overview

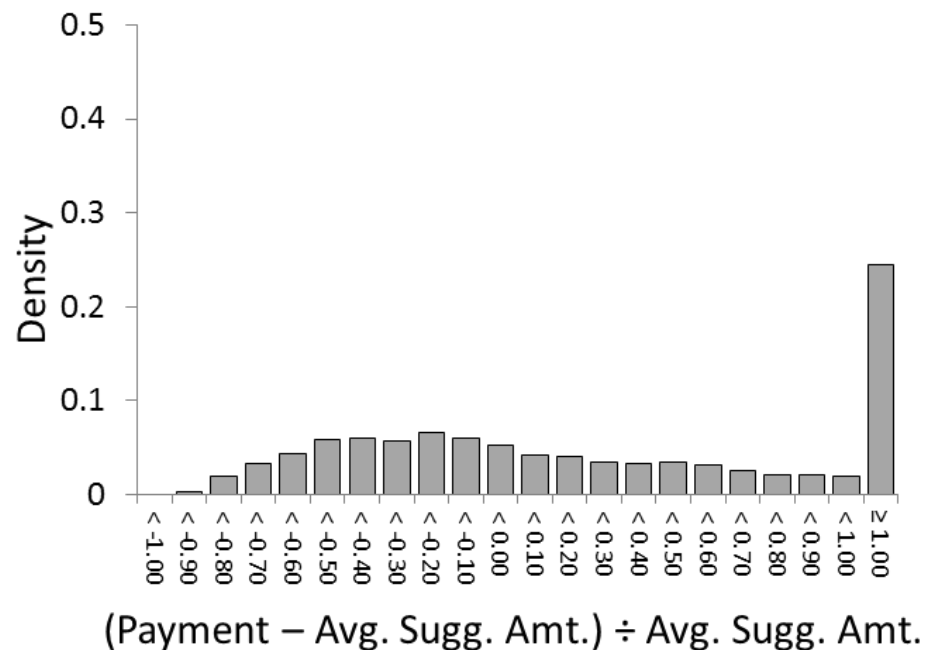
	Debt Decumulation	Spending Categories
Unique accounts	2,041	1,595
Mean Balance	\$3,250	\$2,510
Mean Target Amount	\$202	\$155
Mean Age	44	53
Mean Income	\$52,201	\$51,749
Mean Credit score	703	738
Percent Male	39%	41%

Does payment behavior change with introduction of suggested payment?

Debt Decumulation

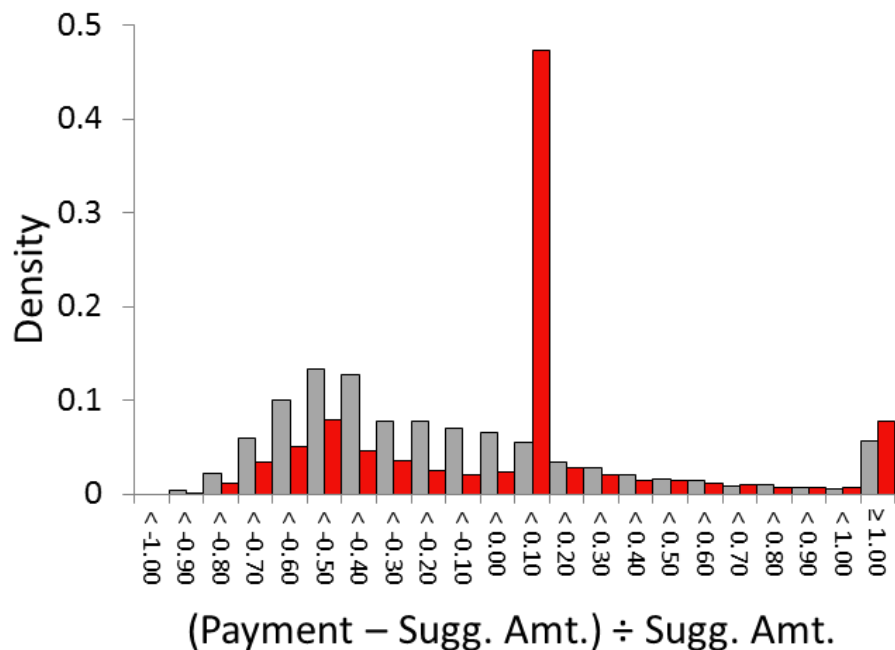


Spending Categories

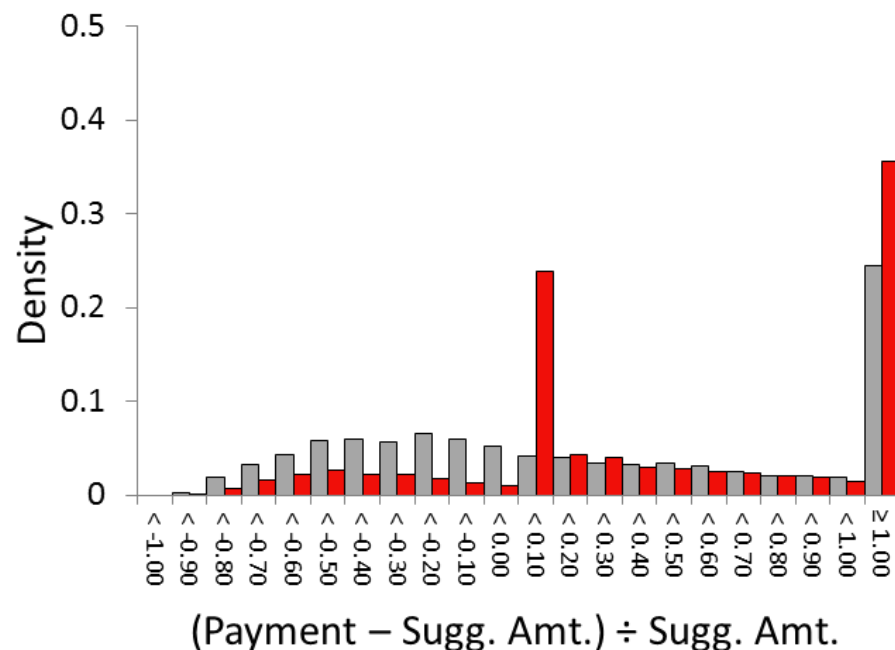


Does payment behavior change with introduction of suggested payment?

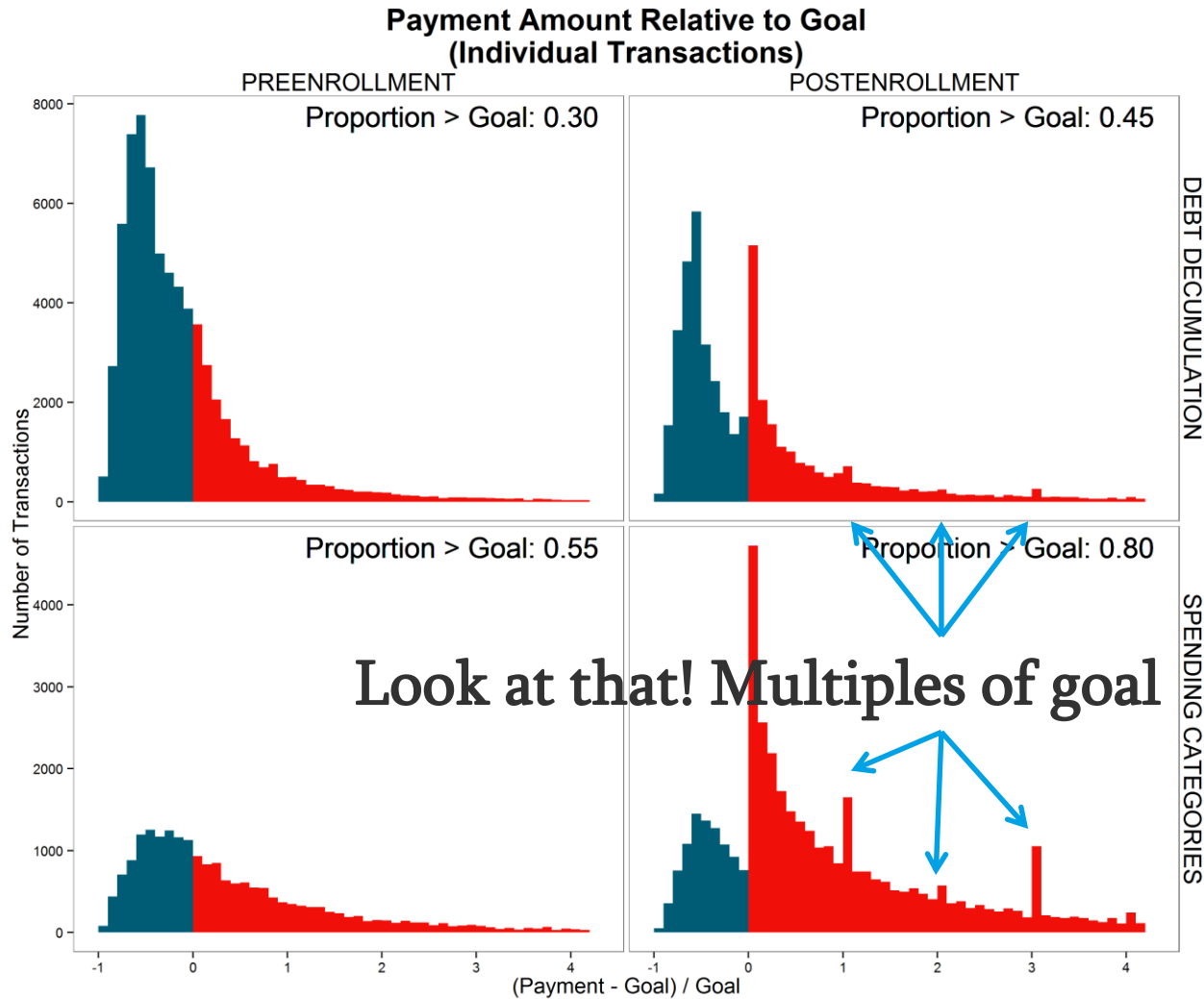
Debt Decumulation



Spending Categories



Anchor or Goal? Consequences?

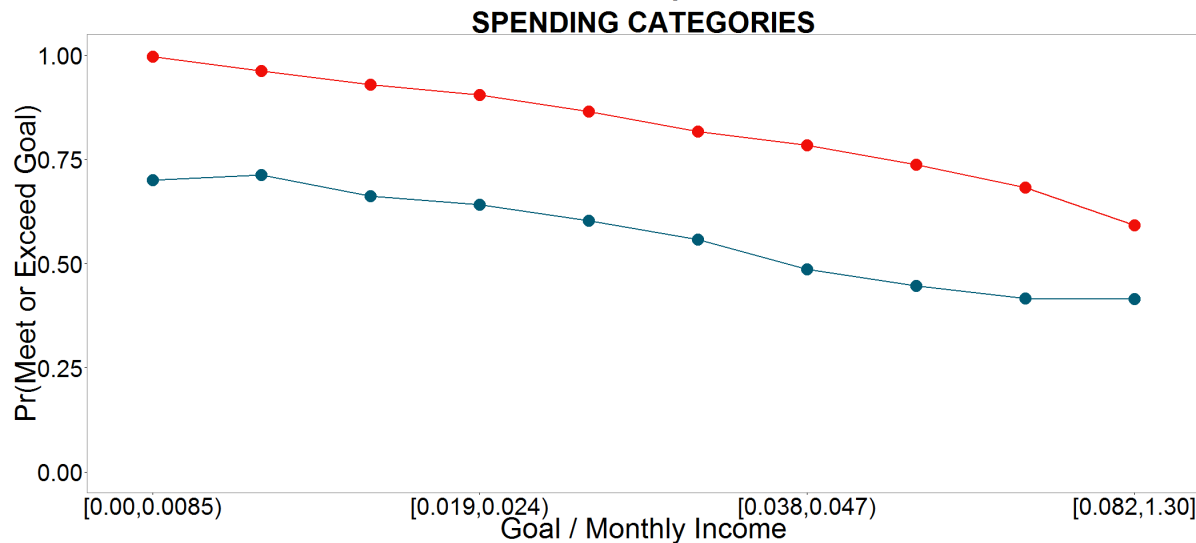
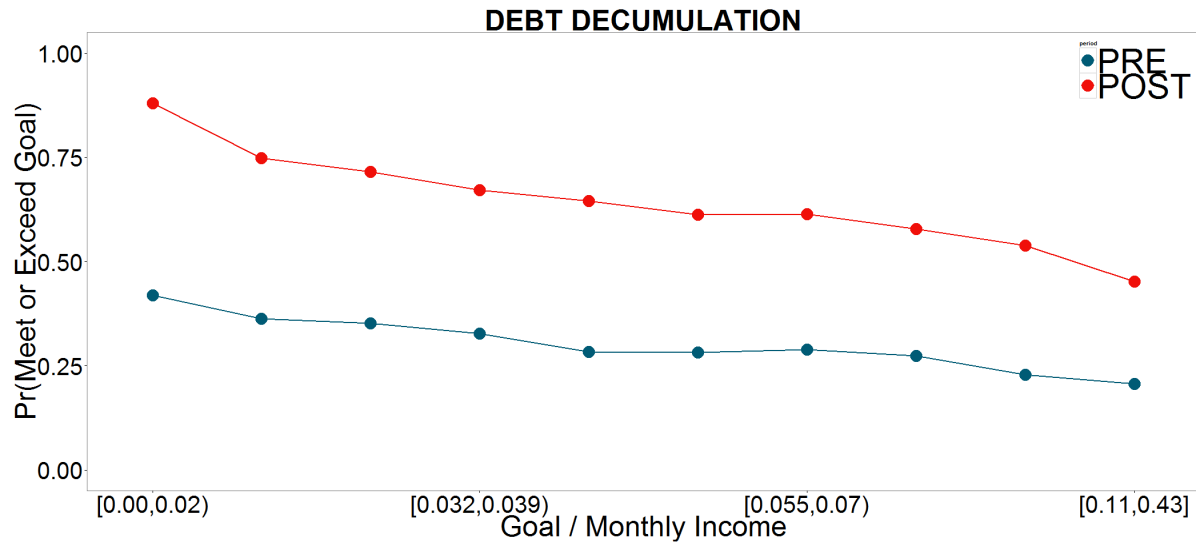


Excluding transactions of exactly the goal amount

Does the Ambition of the Goal Amount Matter?

Goal “ambition”: The ratio of an account’s average goal amount to the account holder’s monthly income

Goal Amount as a Function of Monthly Income (by decile)



Conclusions

- Anchor vs. goal: People treat suggested values on statements as goals, and these goals alter payment amounts
- Self-selected goals:
 - People are successful at achieving goals they set for themselves
 - No evidence that high goals backfire and demotivate action
 - Evidence that motivated consumers can leverage low goals to encourage themselves to make higher payments
- Consideration of self-selected goals in other contexts
 - E.g., loyalty programs with different levels of rewards at different levels of achievement

THANK YOU

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