

ANCHORS, TARGET VALUES, AND CREDIT CARD PAYMENTS

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Credit Card Debt

- Primary source of liquidity for households in US
- \$880 billion revolving debt in US; mean of \$6,000 per hh
- Roughly 1/3 of borrowers
 - Pay in full
 - Pay close to the minimum
 - Pay a mixture
- FICO (*not* income) correlates strongly with payments
 - 10% with FICO <620 pay in full
 - 25% with FICO = 720 pay in full
 - 75% with FICO > 800 pay in full

(Agarwal et al., 2015; Federal Reserve, 2014; Keys and Wang, 2014)

The CARD Act (2009)

- Credit card statements must include
 - Total time and cost to pay off balance, paying only minimum
 - Monthly payment needed to pay off the total loan in 3 years

If you make no additional charges using this card and each month you only pay...	You will pay off the balance shown on this statement in about...	And you will end up paying an estimated total of...
Only the minimum payment	9 years	\$2,950.00
\$61.00	3 years.	\$2,188.00 (Savings=\$762.00)

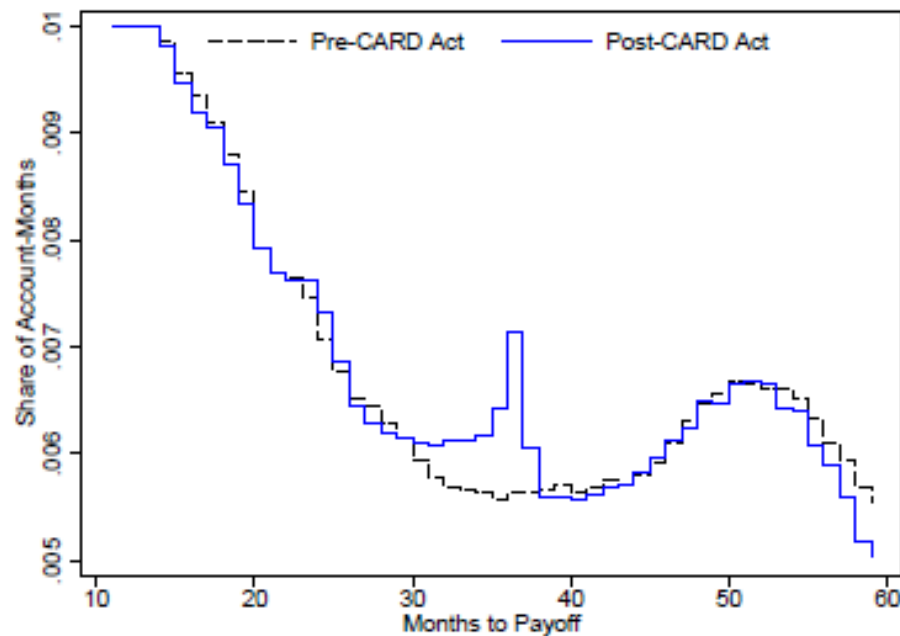
- How do the numbers a person sees on her credit card statement affect repayment decisions?

Research on Minimum Payments on Credit Card Statements

- Removing minimum payment value increases payment amount (Stewart, 2009)
- Borrowers are more likely to pay the minimum amount as this value rises (Navarro-Martinez et al., 2011; Wang & Keys, 2014)
- Including 3 year figure increased the number paying ***that amount***
 - But led to negative effect overall by decreasing likelihood of paying ***more than that amount*** (Salisbury, 2014)
 - But did not change overall payment amounts (Agarwal et al., 2015)

Agarwal et al. (2015) on effects of CARD

(A) Months-to-Payoff: Consumer Accounts



36-month payoff value increased share of account holders paying close to 36 month value (from 30-38 months) by 0.4% on a base of 5.3%

Research on Credit Card Statements

PSYCHOLOGICAL SCIENCE

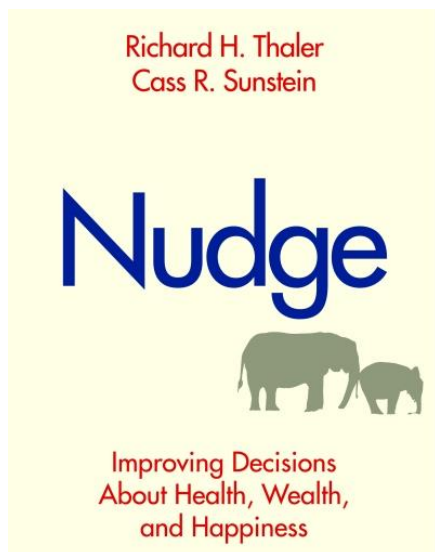
- Minimum payment: Acts as **anchor**
- Removing this value increases payment amount (Stewart, 2009)

Short Report

The Cost of Anchoring on Credit-Card Minimum Repayments

Neil Stewart

University of Warwick



“Credit cards minimum payment... this can serve as an anchor and as a nudge that this minimum payment is an appropriate amount” (Thaler & Sunstein, 2008, p. 149)

(See also, e.g., Stewart, 2009; Navarro-Martinez et al., 2011; Salisbury, 2014; Agarwal et al., 2015; McHugh & Ranyard, forthcoming)

Often we don't know if a value acts as a target or an anchor.

Anchor: "I want to pay in that general range"

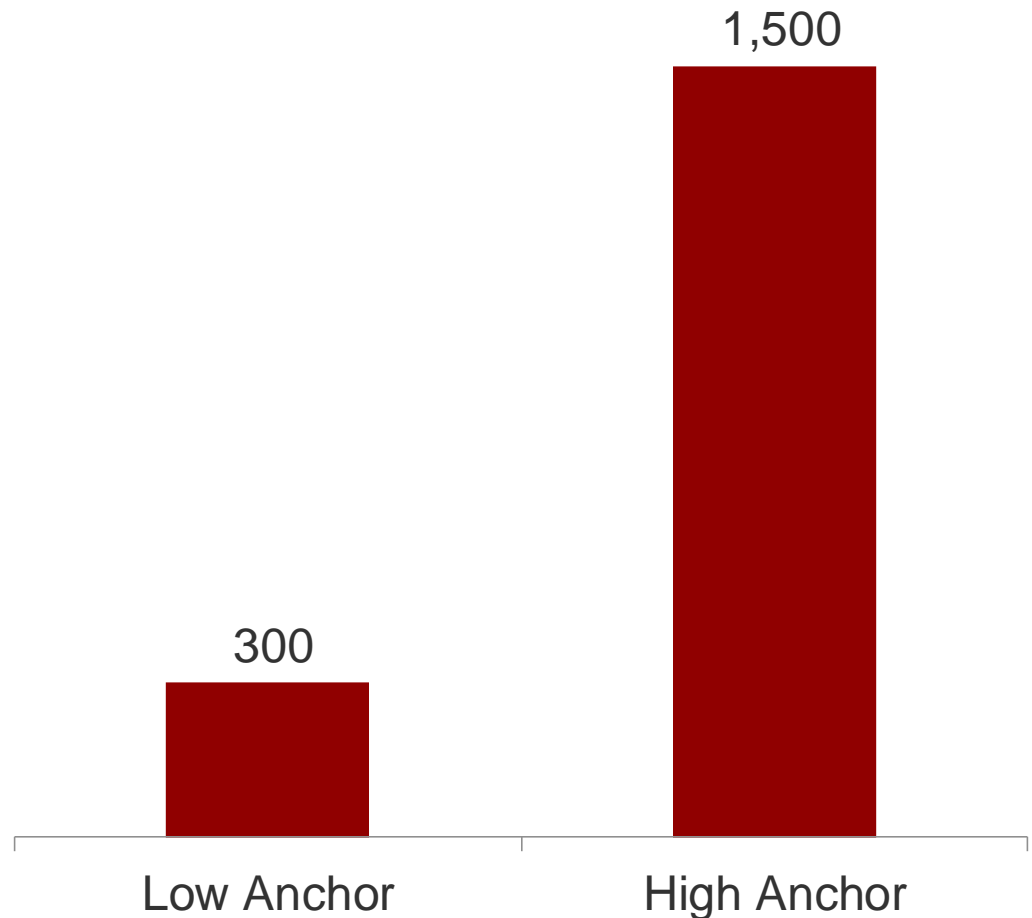
Target: "I want to pay at least that amount"

Do payoff amounts on credit card statements act as anchors, or as target values for cardholders?

Anchoring

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

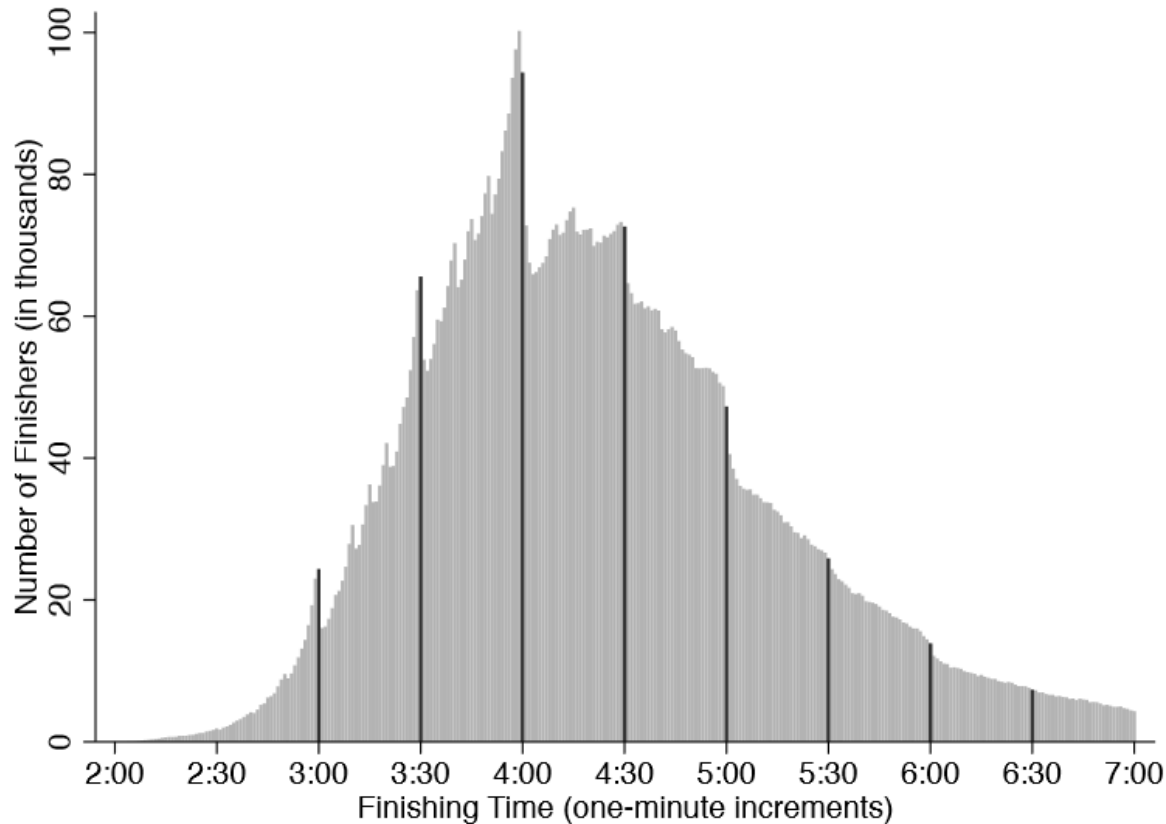
What is the length of the Mississippi River (in miles)?



Targets

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.

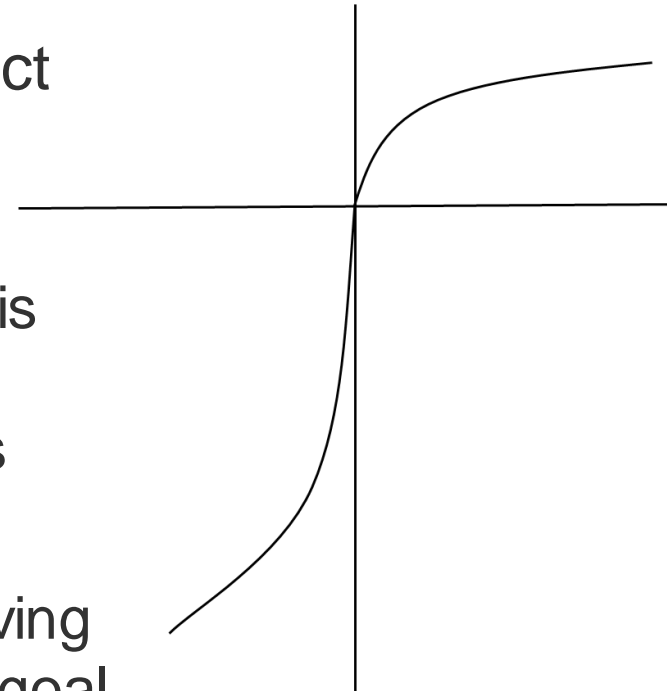
Values as Targets or Goals

“Mere” goals take on properties of Prospect Theory’s value function

Loss aversion → being below goal by x units is perceived as a loss; work harder to increase performance than when above goal by x units

Diminishing sensitivity → exert less effort moving away from goal, but more when approaching goal

- *Far from goal: Extra effort yields low reward*
- *Close to goal: Extra effort yields high reward*



Properties of Targets (vs. Anchors)

Factors increasing consumer effort

- Financial benefits: Avoid penalties, earn rewards
- Psychological benefits: Motivational importance, satisfaction from goal achievement

Factors decreasing consumer effort

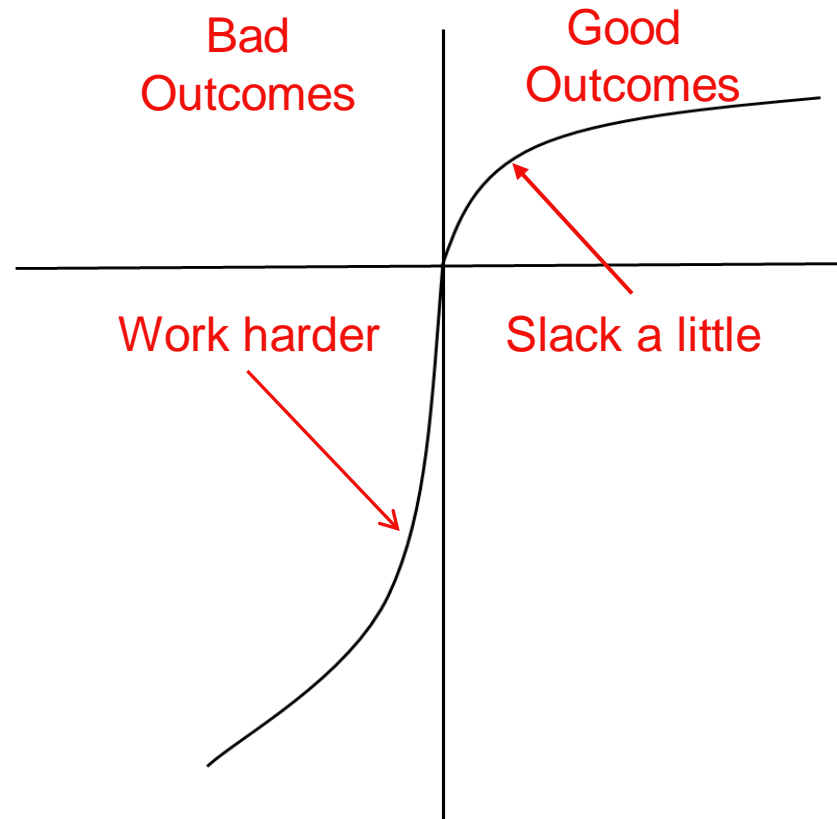
- Goal is too high: Why bother? Backfire
- Goal is too low: Lack of motivation after goal achievement

Project Motivation

- 2009 CARD Act increased information presented to consumers on credit card statements
- Behavioral scientists, when they weigh in, say those numbers act as ***anchors***, but might they be influencing motivation, acting as ***target values***?
- Can we tell whether values on credit cards act as anchors vs. target values?
- Does this distinction matter for repayment behavior?

Are numbers on credit card statements motivationally meaningful?

- If numbers on credit card statements act as target values:
 1. People might feel bad about not paying the suggested amount
 2. They might work hard to scrounge up the money to pay that amount, especially if they're close
 3. They might reduce effort when their performance exceeds target, especially when they're further past the target
 4. We might observe discontinuities in responses near the target value



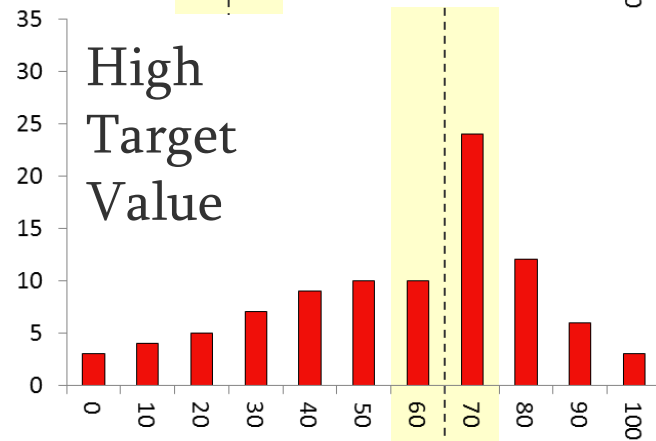
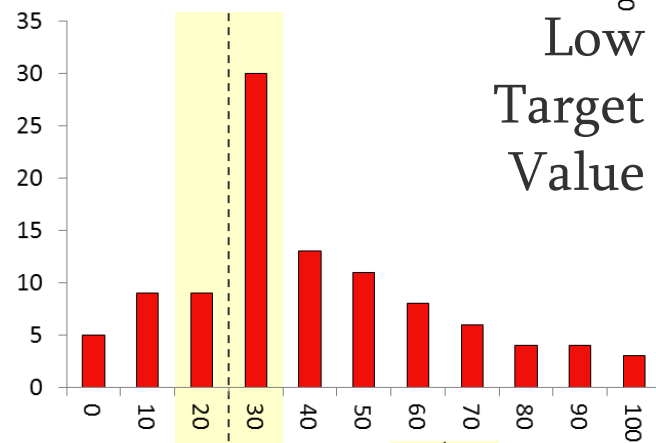
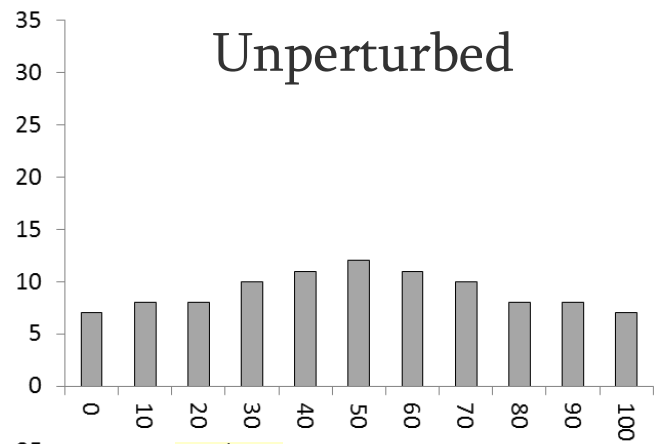
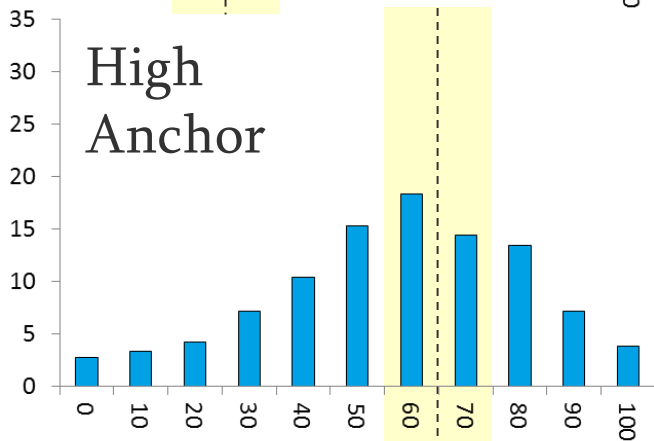
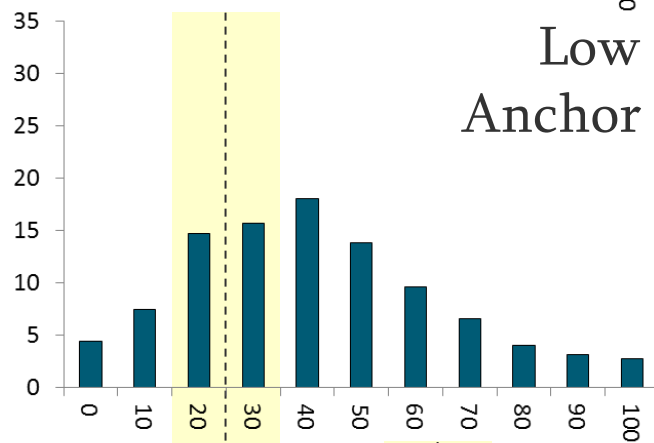
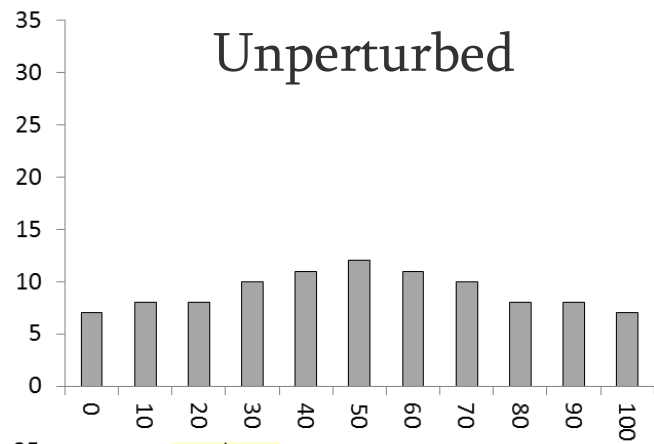
Project Outline

- I. Distinguishing anchors from target values based on distributional properties
- II. Using scenario studies to determine whether values on credit card statements take on properties of anchors or target values
 - Motivational
 - Distributional
- III. An examination of self-selected targets as motivating values for customers in Chase Blueprint

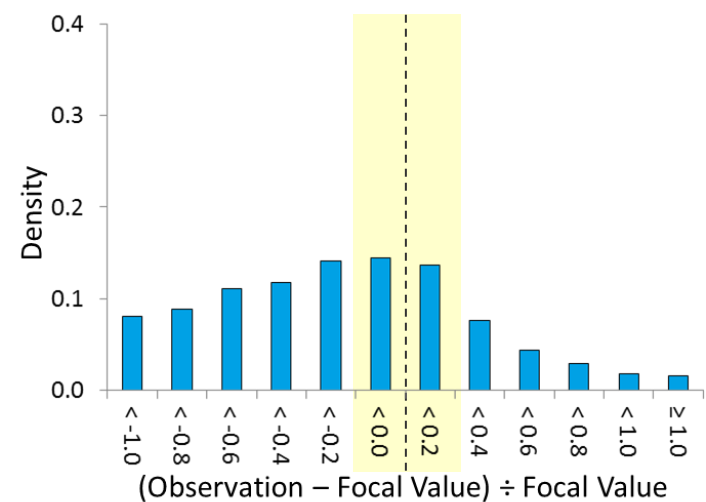
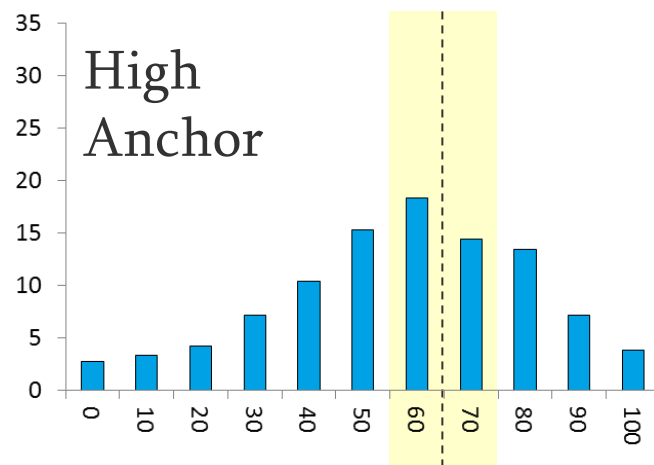
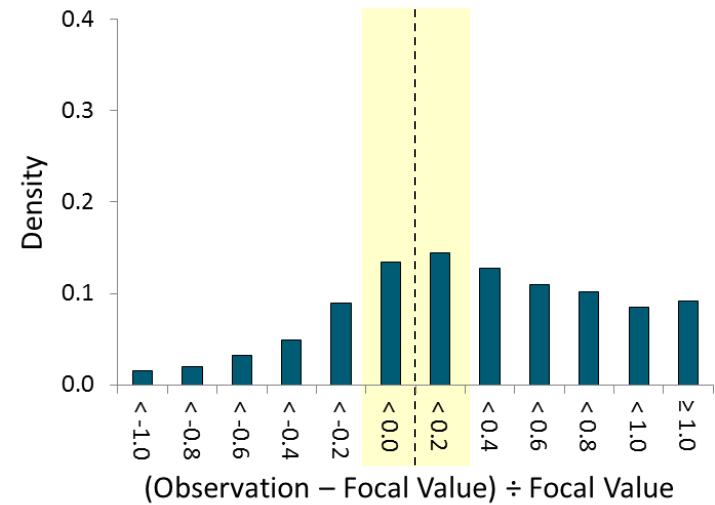
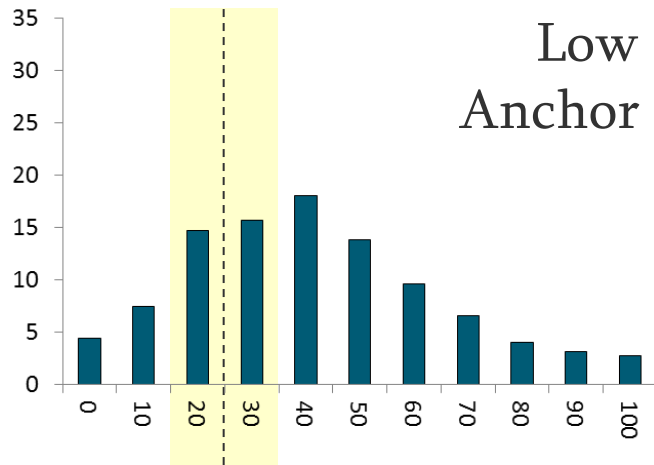
Distinguishing anchors
from target values

A

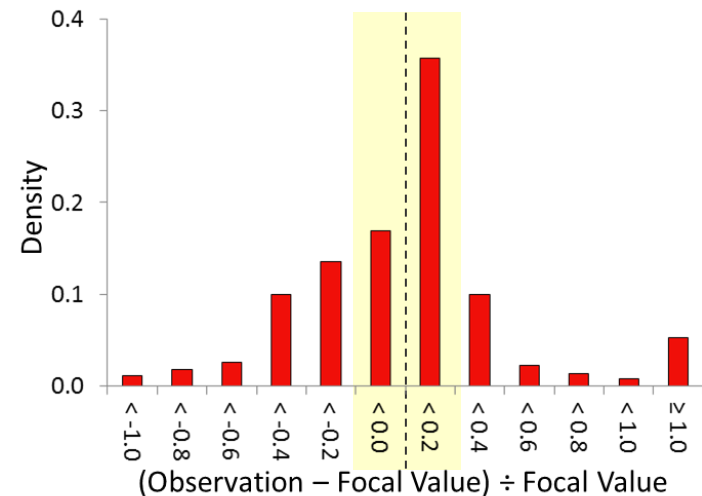
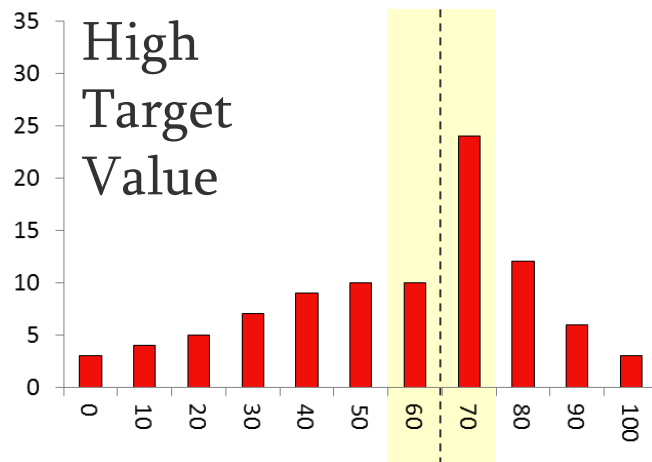
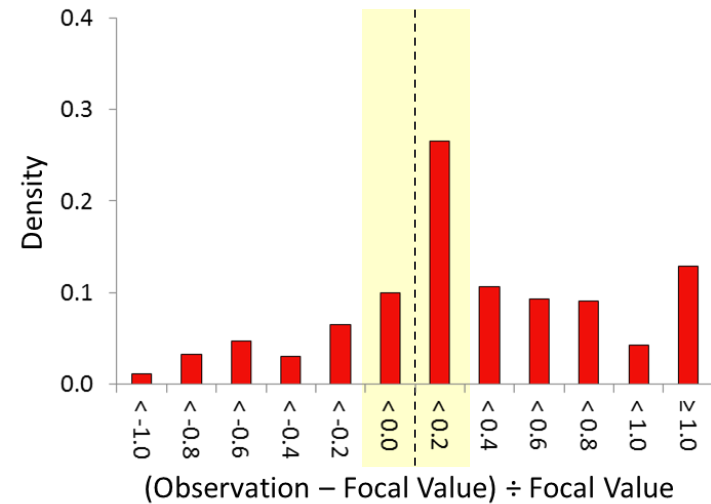
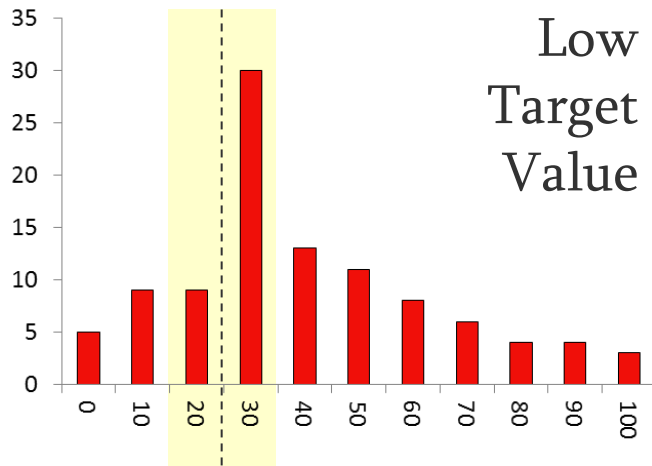
Stylized Contrast



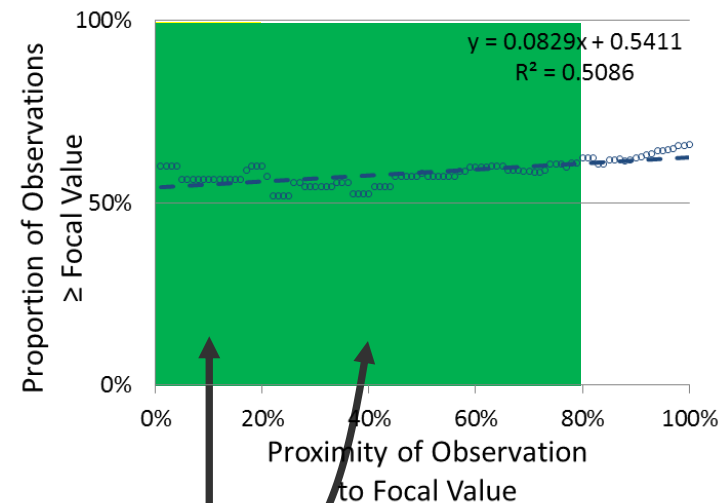
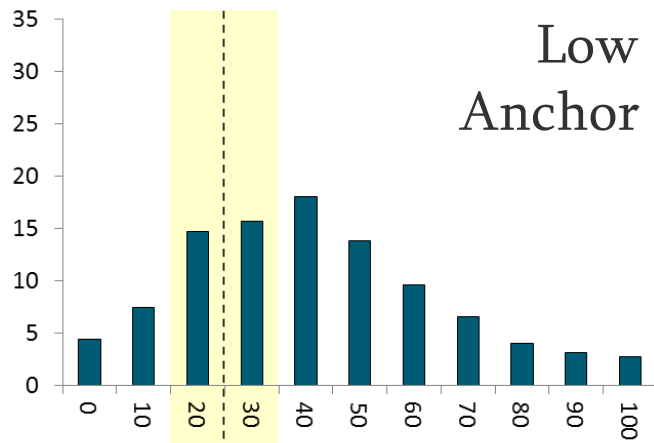
Rescaling distributions in terms of their focal value...



Rescaling distributions in terms of their focal value...

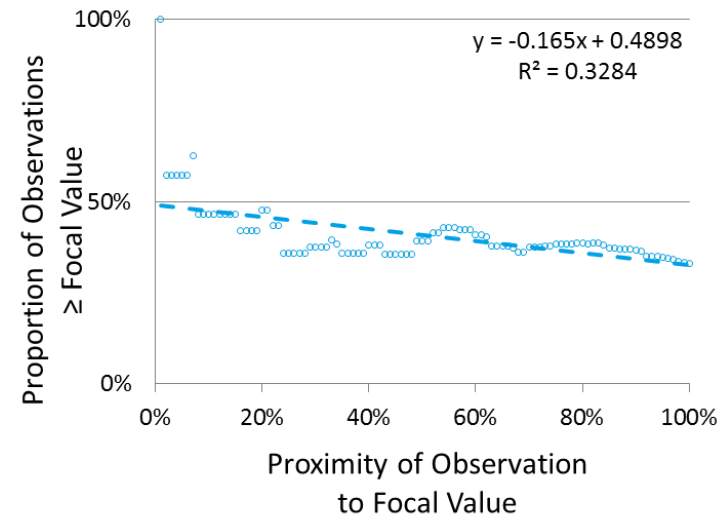
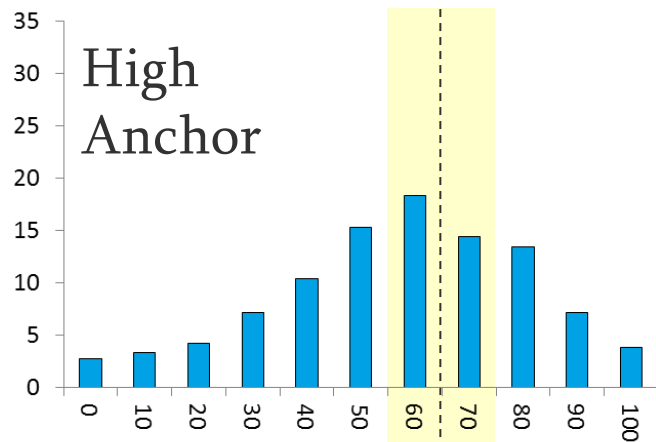
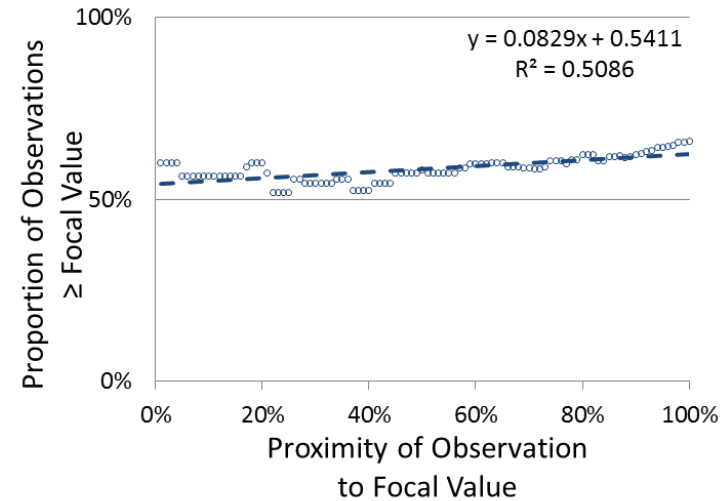
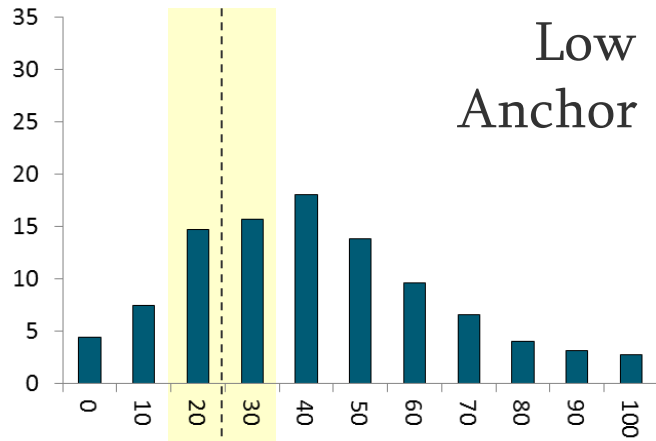


Another way to represent these distributions...

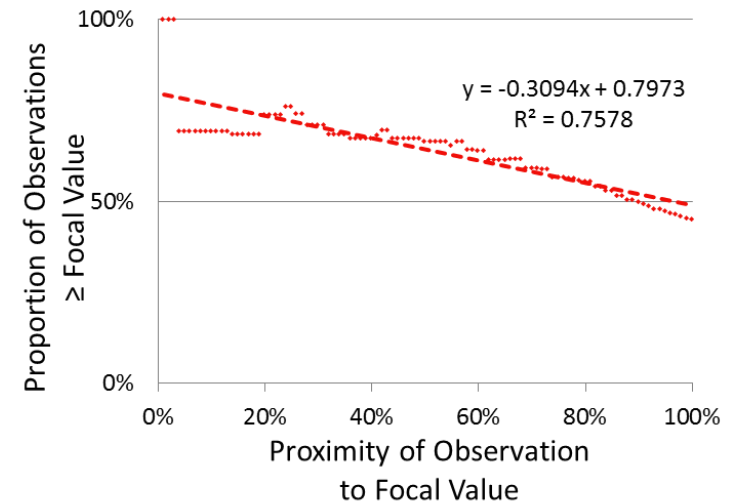
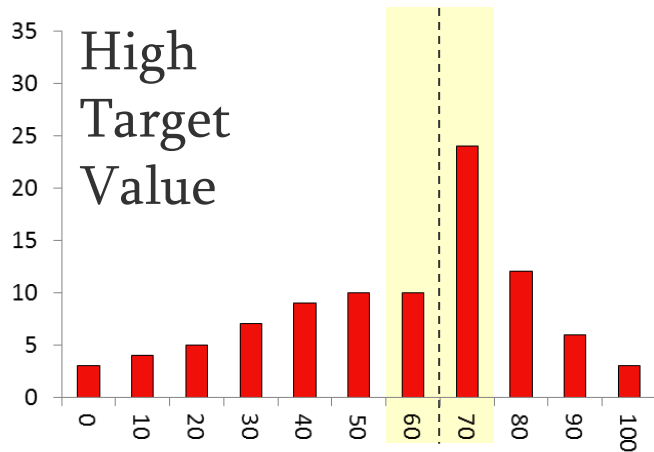
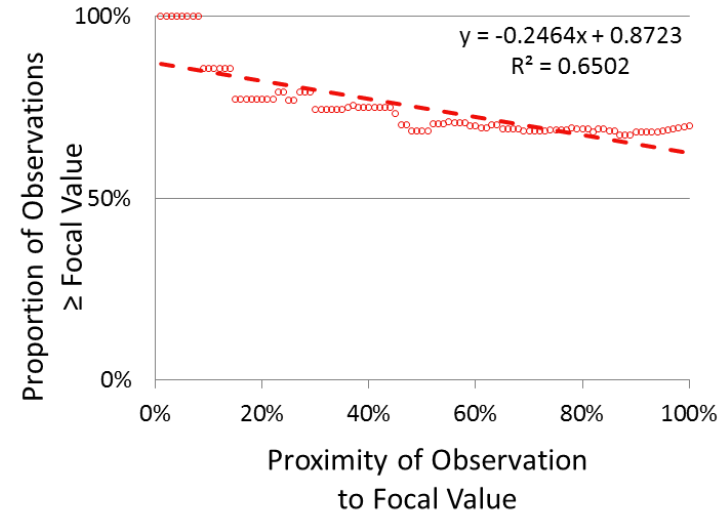
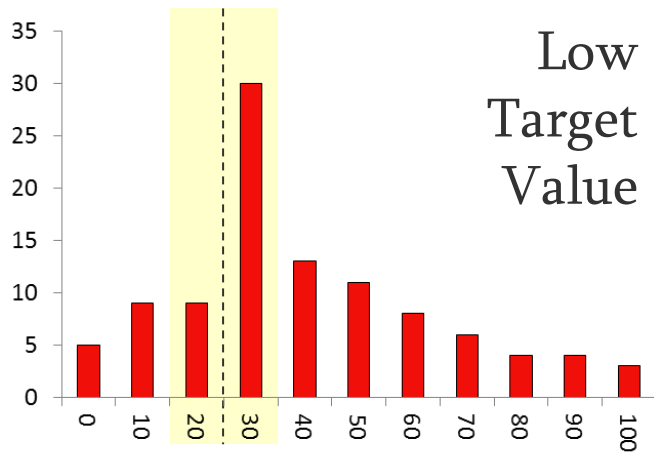


Only the closest 20% of observations are included here
The closest 80% are included here

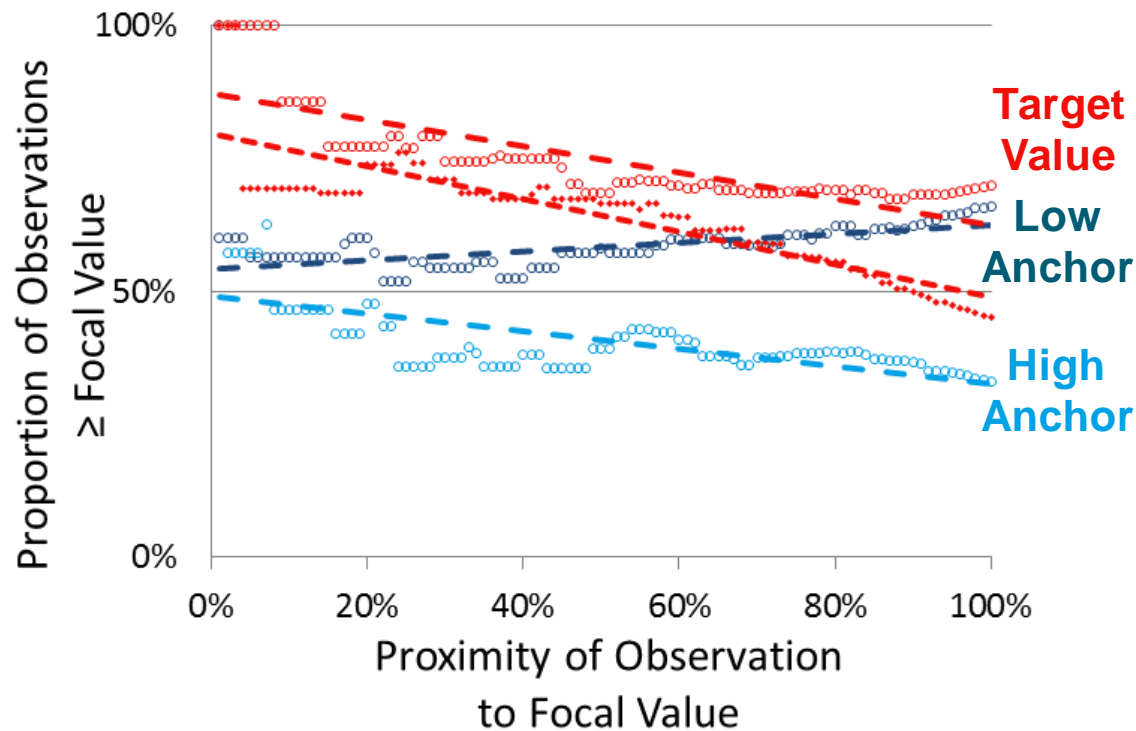
Another way to represent these distributions...



Another way to represent these distributions...



One representation of these four stylized examples



- Do anchoring and target value-based distributions differ in the slope imputed here?
- How about in the intercept?

Here's what we did

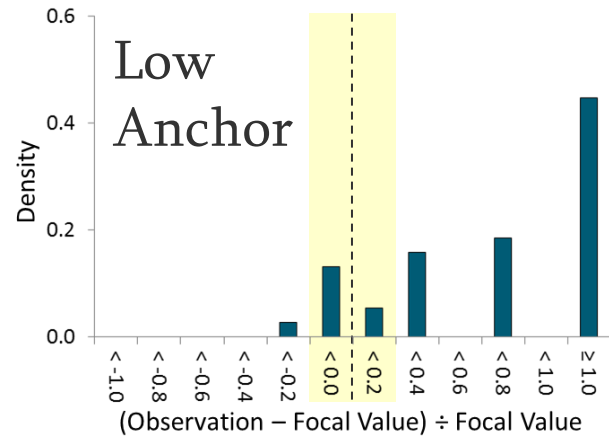
- Collected a convenience sample of anchoring distributions (plus one of our own), $N = 22$
- Collected as many target-value-related distributions as we could (plus a handful of our own), $N = 10$

Domain	Target	N
Corporate earnings	Proj. EPS	179,978
NFL kickoff returns fielded in endzone	20 yd line	2,252
Federal tax liability	Est. payments+whold	115,594
Marathon finishing times	Goal time	1,550
Husbands, wives reported income on census	Wife's income	33,676

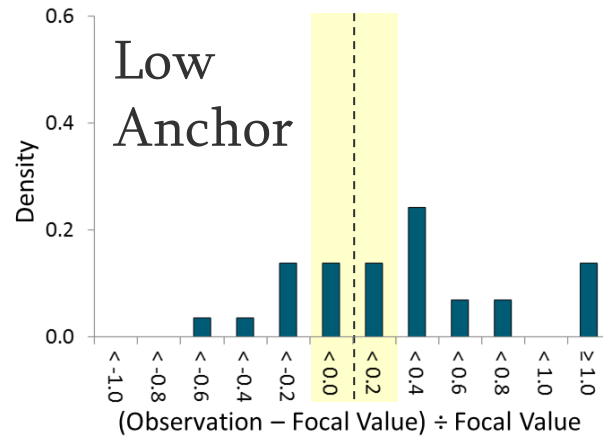
* Thank you to Shane Frederick, Robyn LeBoeuf, Daniel Mochon, Leif Nelson, Joe Simmons, Daniel Feenberg, Etan Green, Sam Hartzmark, Emir Kamenica, Alex Rees-Jones, George Wu

Tendencies of Anchoring Distributions

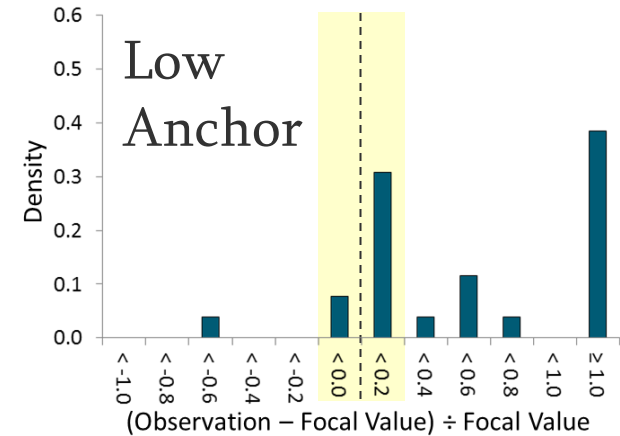
1. No pronounced discontinuity around anchor
2. Most of mass to right (low)/left (high)



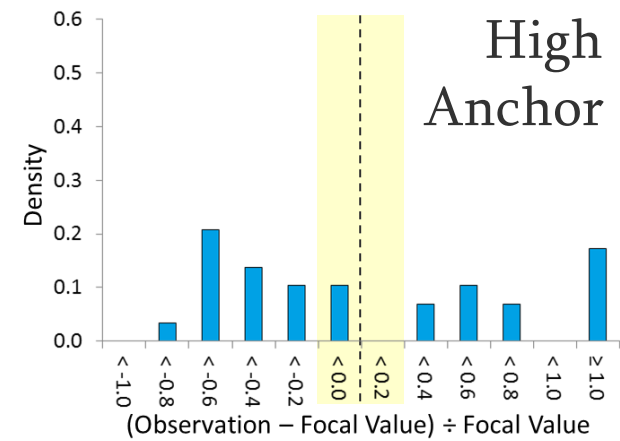
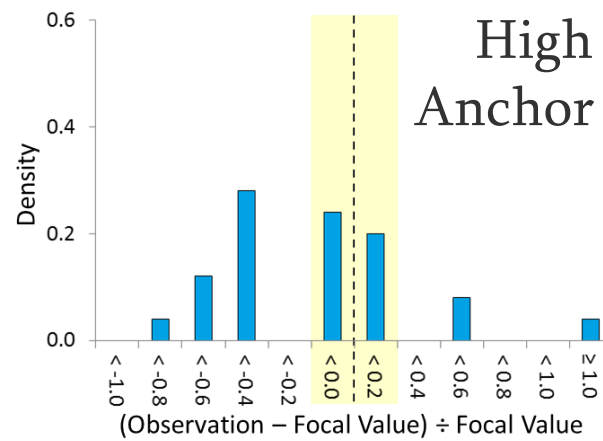
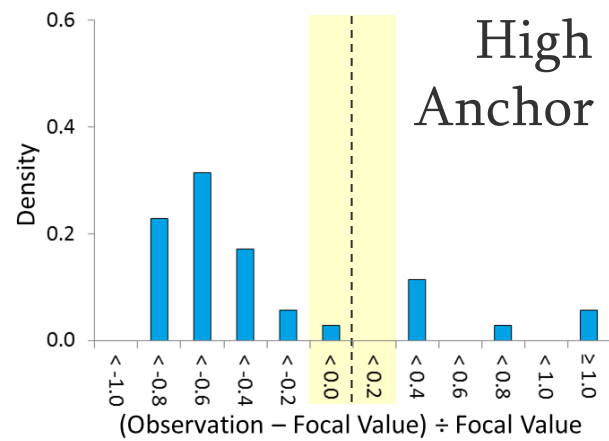
Is the Brandenburg Gate taller or shorter than 25 (150) meters?



Is the length of the Mississippi River longer or shorter than 1,200 (3,500) miles?

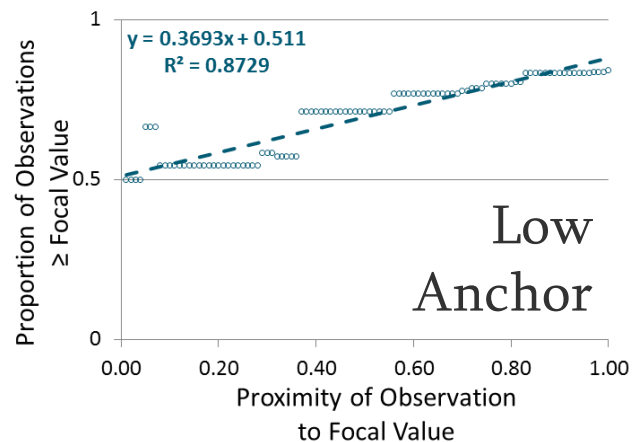


Is the population of Chicago smaller or larger than 800,000 (5,000,000)?

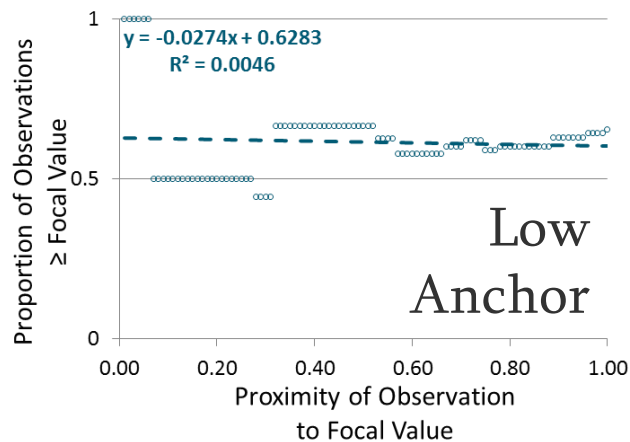


Tendencies of Anchoring Distributions

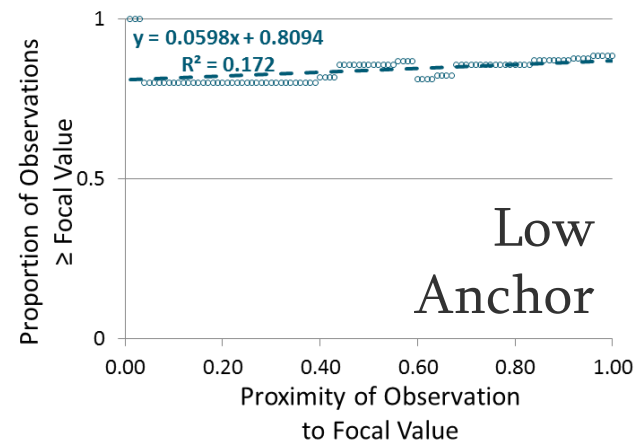
1. Start middling
2. Slope upward (low) / downward (high)



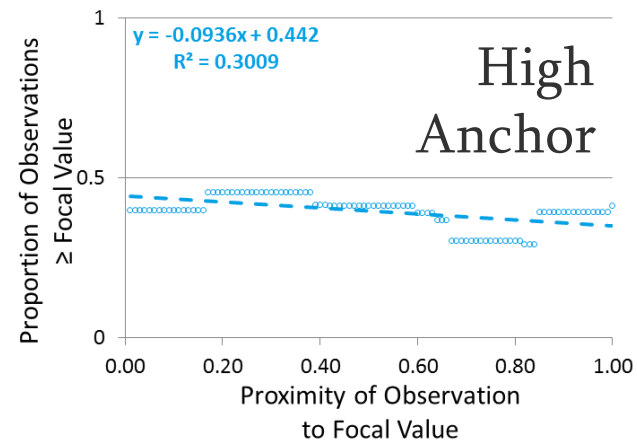
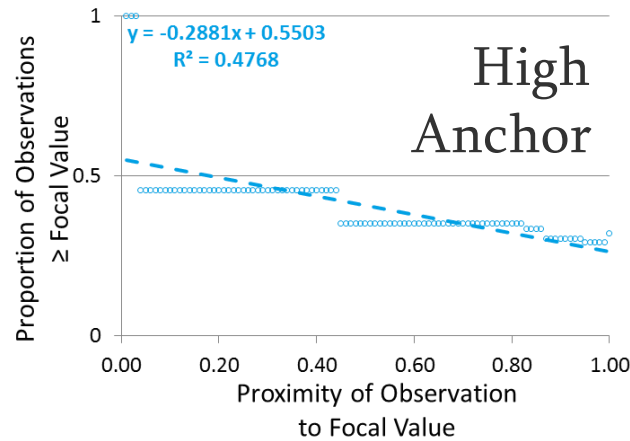
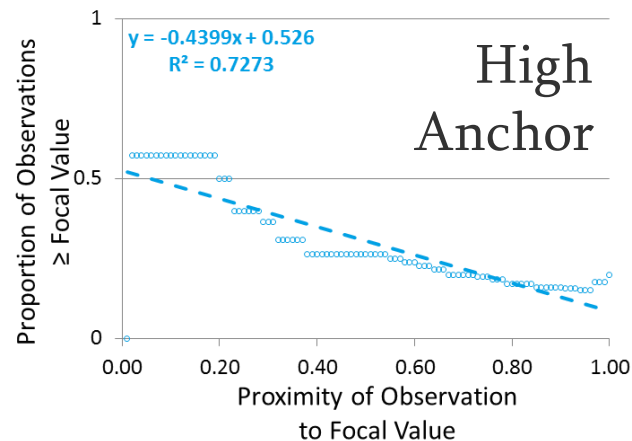
Is the Brandenburg Gate taller or shorter than 25 (150) meters?



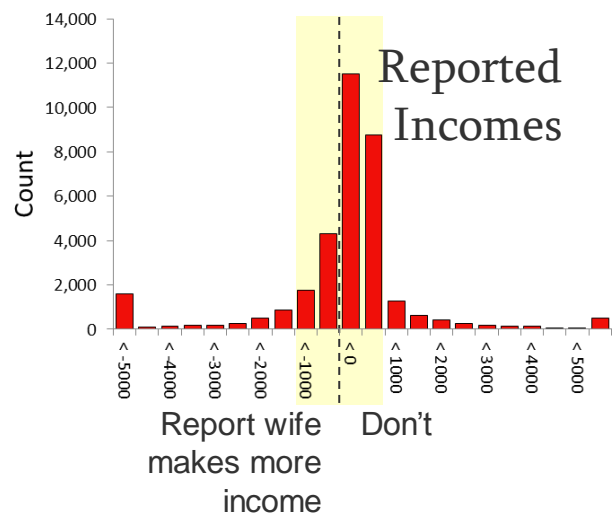
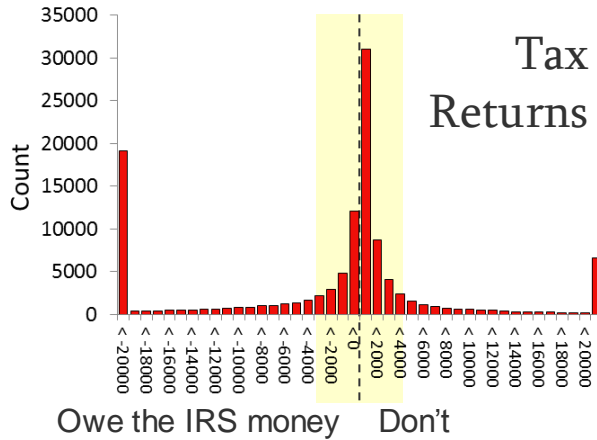
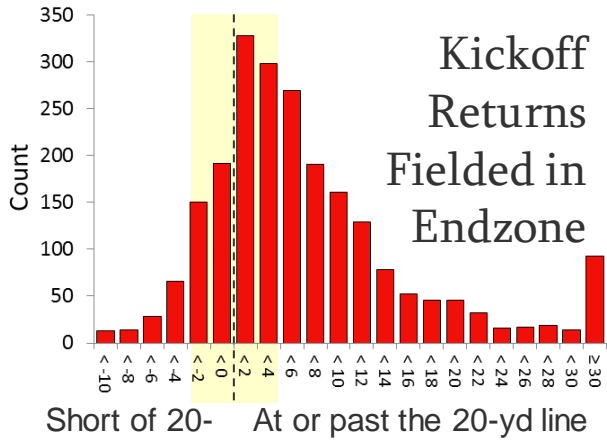
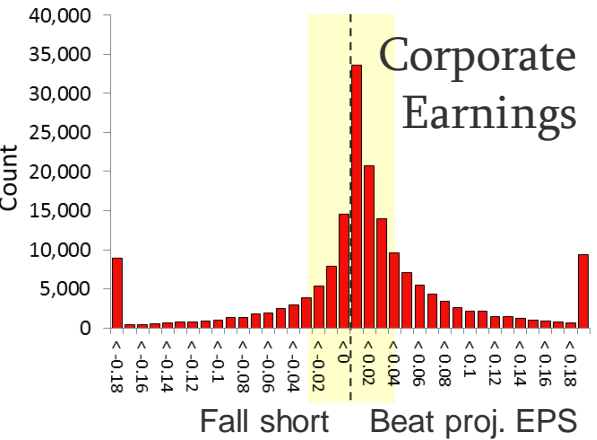
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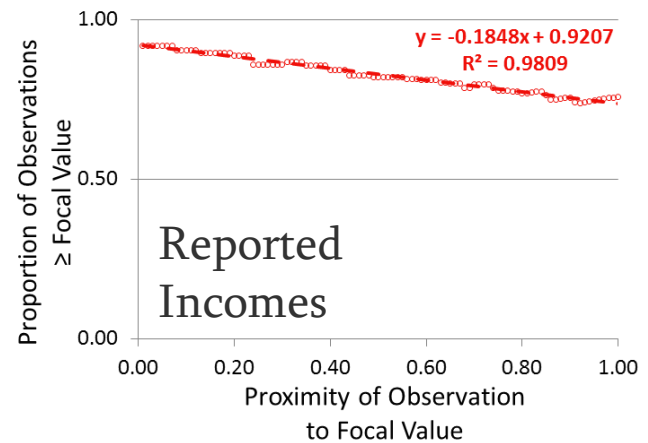
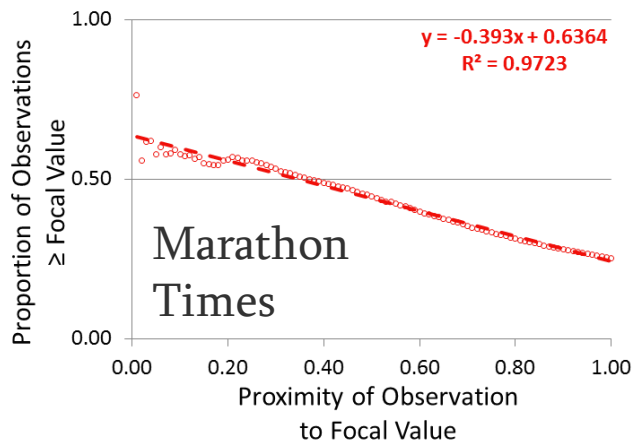
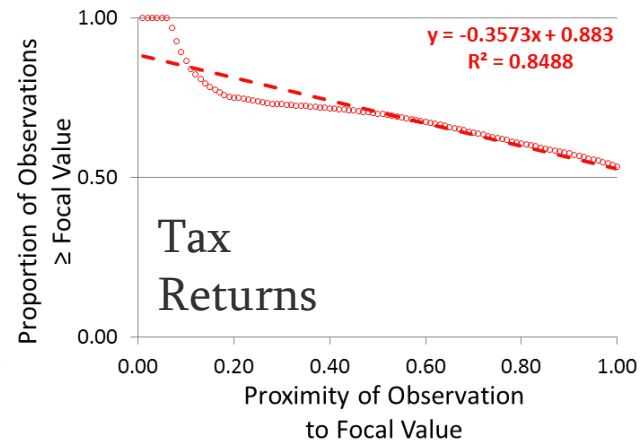
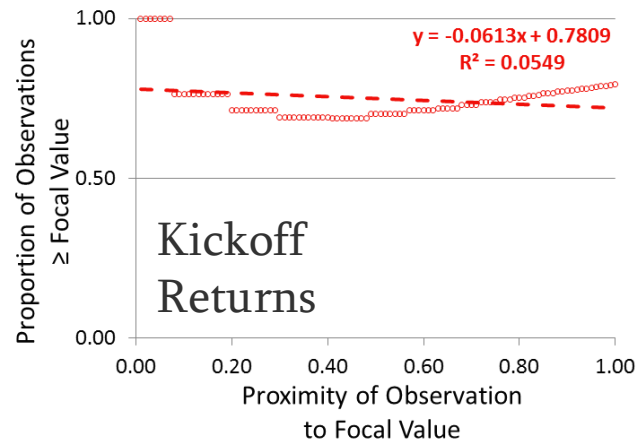
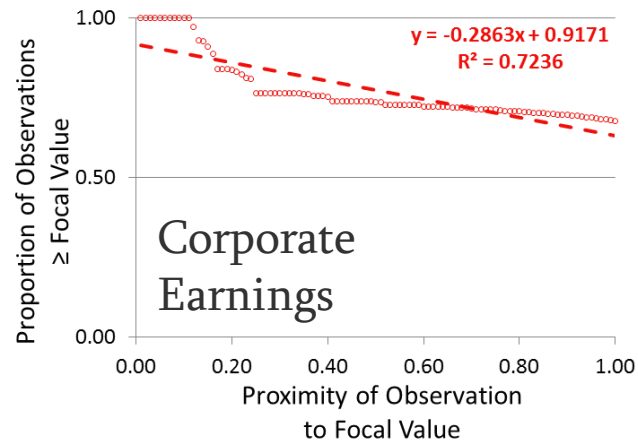


Major Tendency of Target Value Distributions: Discontinuity around target

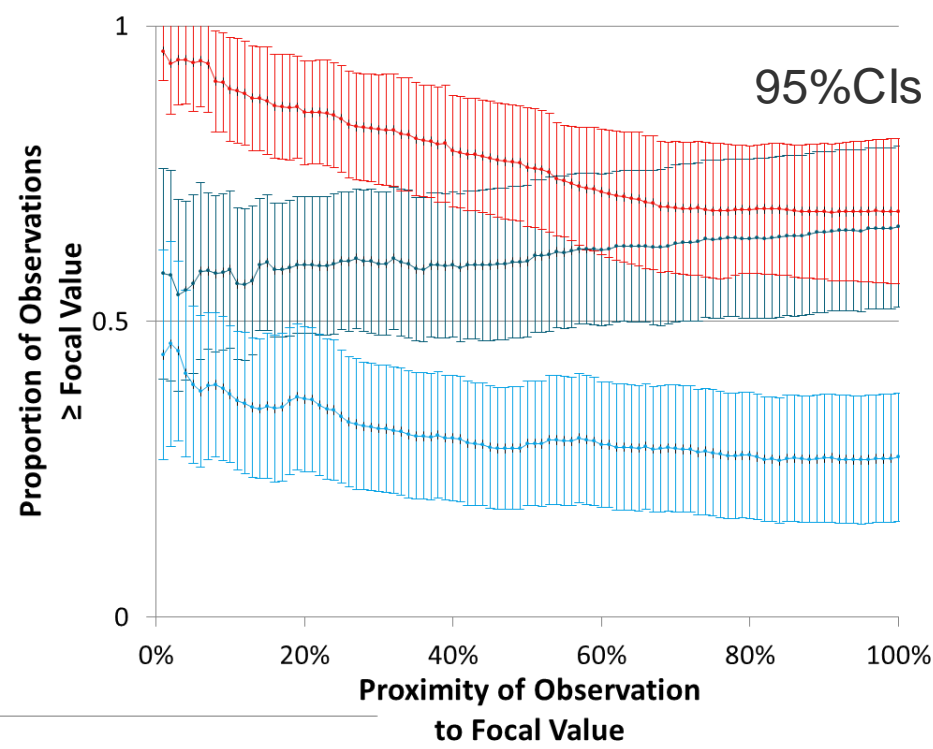
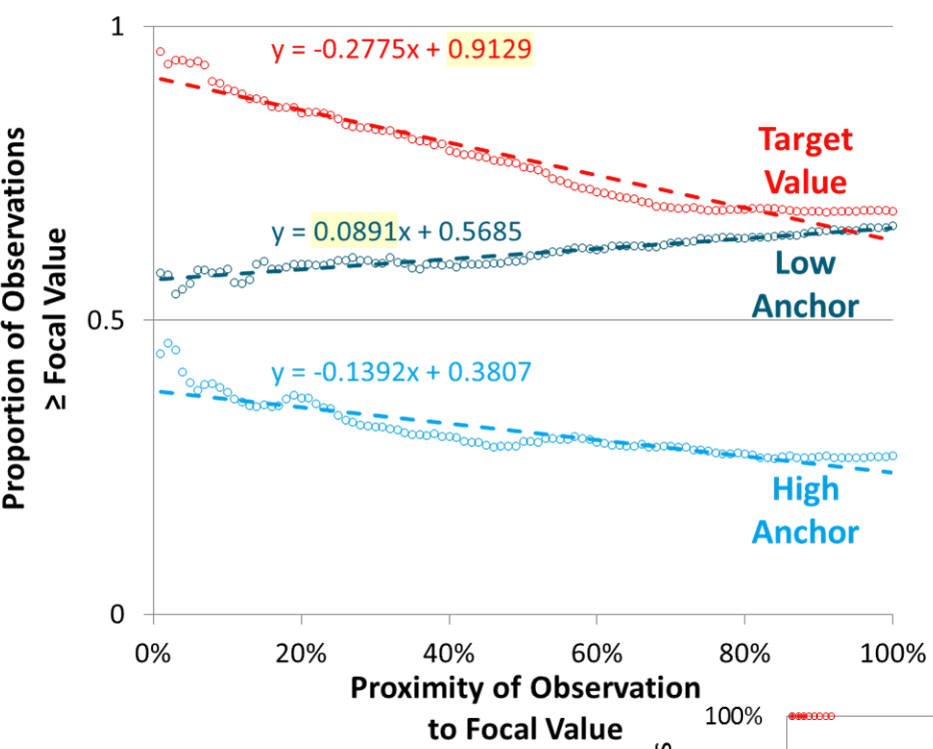


Tendencies of Target Value distributions

1. Start higher
2. Slope downward



All distributions



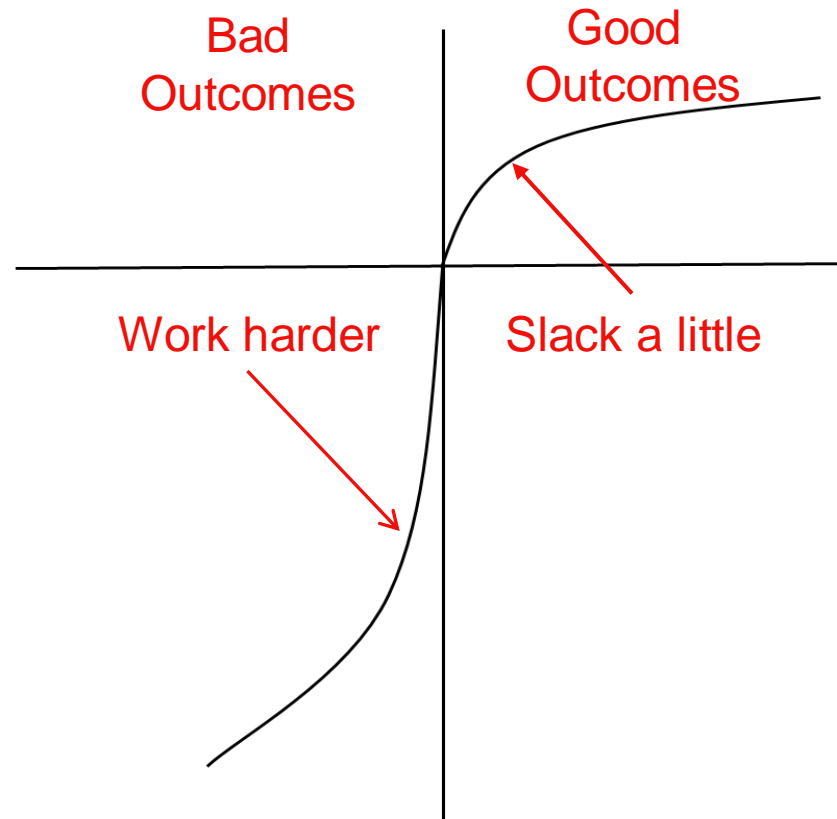
Comparison	Target Value $N = 10; M(SD)$	Low Anchor $N = 22; M(SD)$	High Anchor $N = 22; M(SD)$	$F(2, 51)$	η_p^2
Slope	0.18 (0.15)	0.09 (0.27)	-0.14 (0.25)	9.17**	0.26
Intercept	0.11 (0.13)	0.57 (0.29)	0.38 (0.29)	13.85***	0.35

Reminder of our stylized example:

The focused question: Are numbers on credit card statements more like anchors or target values?

Are numbers on credit card statements motivationally meaningful?

- If numbers on credit card statements act as target values:
 1. People might feel bad about not paying the suggested amount
 2. They might work hard to scrounge up the money to pay that amount, especially if they're close
 3. They might reduce effort when their performance exceeds target, especially when they're further past the target
 4. We might observe discontinuities in responses near the target value



Five scenario studies:

Credit card suggested payments

Most credit cards require a minimum payment... the questions that follow are about a new type of credit card... instead of having a minimum... gives a “suggested payment amount”... you do not have to pay the suggested amount and can pay any amount you’d like

Comprehension questions:

Does the card described above have a minimum payment amount? (No)
If you do not pay off the total balance in full, will you be charged interest? (Yes)

...

Credit Card Statement

...

Suggested Payment Amount: \$111.92 (\$335.77) [\$1007.30]

How much would you pay?

Five scenario studies:

Credit card suggested payments

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Credit Card Statement

...

Suggested Payment Amount: \$111.92 (\$335.77) [\$1007.30]

How much would you pay?

Some scenario studies:

Credit card suggested payments

Credit Card Statement

Account Number

1234 5678 9876 5432

Current Total Account Balance: \$5,596.12

Annual Percentage Rate (APR): 15%

Suggested Payment Amount: \$111.92 (\$335.77) [\$1007.30]

How much would you pay?

If numbers on credit card statements act as target values...

- 1. *People might feel bad about not paying the suggested amount***
2. They might work hard to scrounge up the money to pay that amount, especially if they're close
3. They might reduce effort when their performance exceeds target, especially when they're further past the target
4. We might observe discontinuities in responses near the target value

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)

Follow up: Payment Satisfaction

(3 x 5 between-subjects; $N = 785 \rightarrow 729$)

3: Suggested Payment

- Low = \$111.92
- Medium = \$335.77
- High = \$1,007.30

Low Sugg; Overpay 10%

Sheri has the credit card described above. She has a total account balance of \$5,596.12.

This month, Sheri's suggested payment is \$111.92, and she is able to pay \$123.11

5: Actual Payment

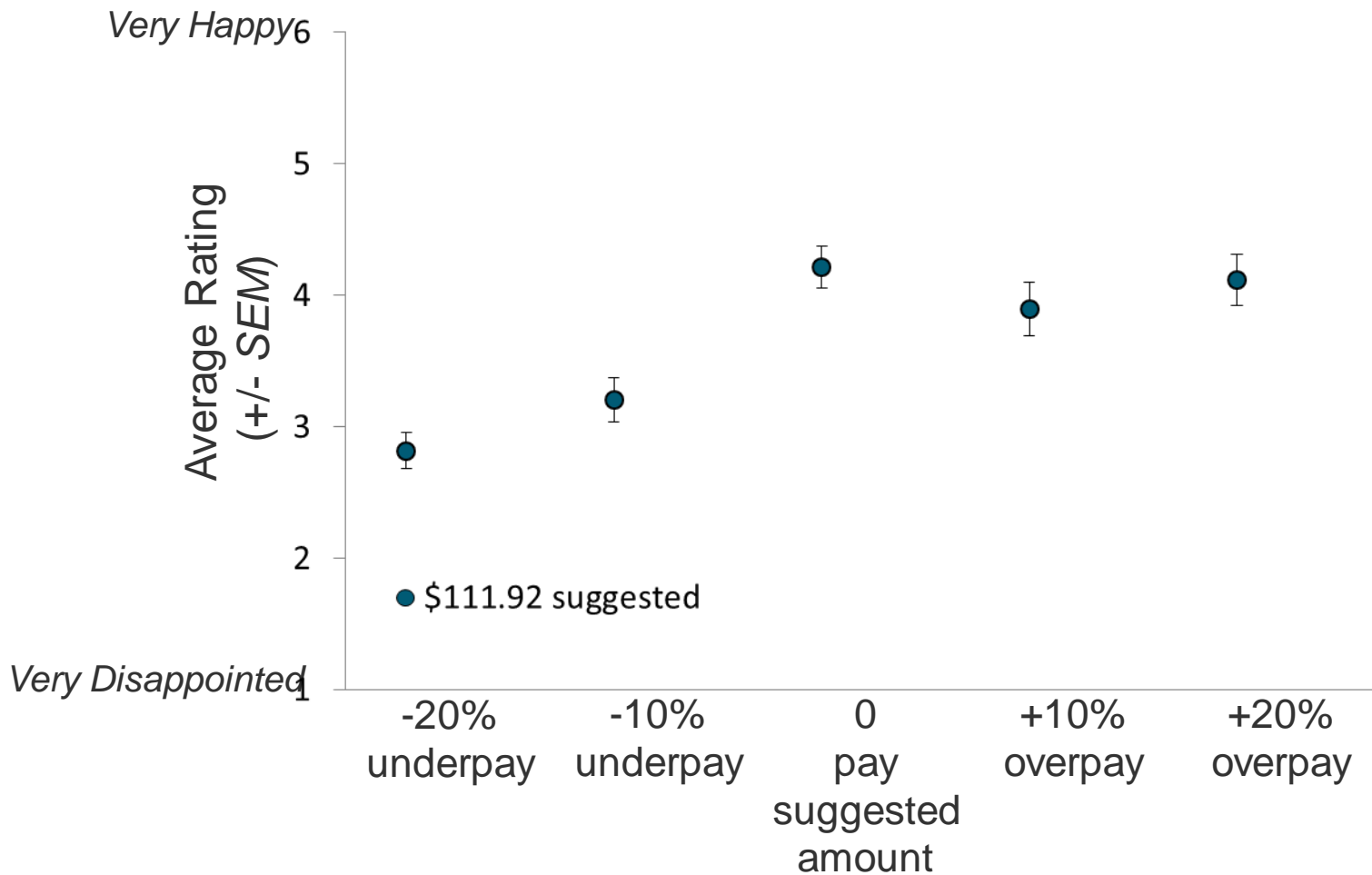
- Underpay by 20%
- Underpay by 10%
- Pay Suggested Amount
- Overpay by 10%
- Overpay by 20%

Med Sugg; Underpay 10%

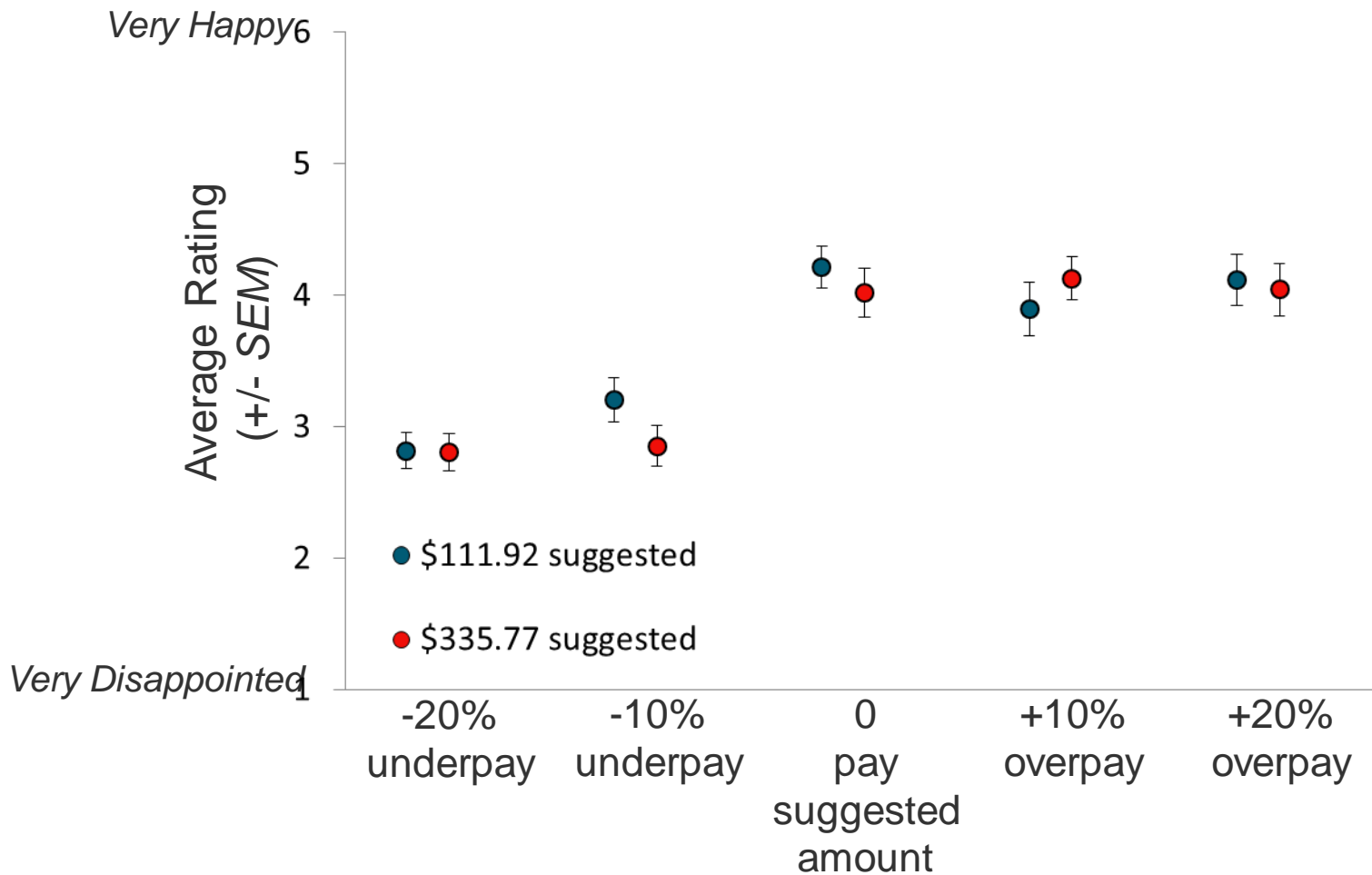
Terri has the credit card described above. She has a total account balance of \$5,596.12.

This month, Terri's suggested payment is \$335.77, and she is able to pay \$302.19.

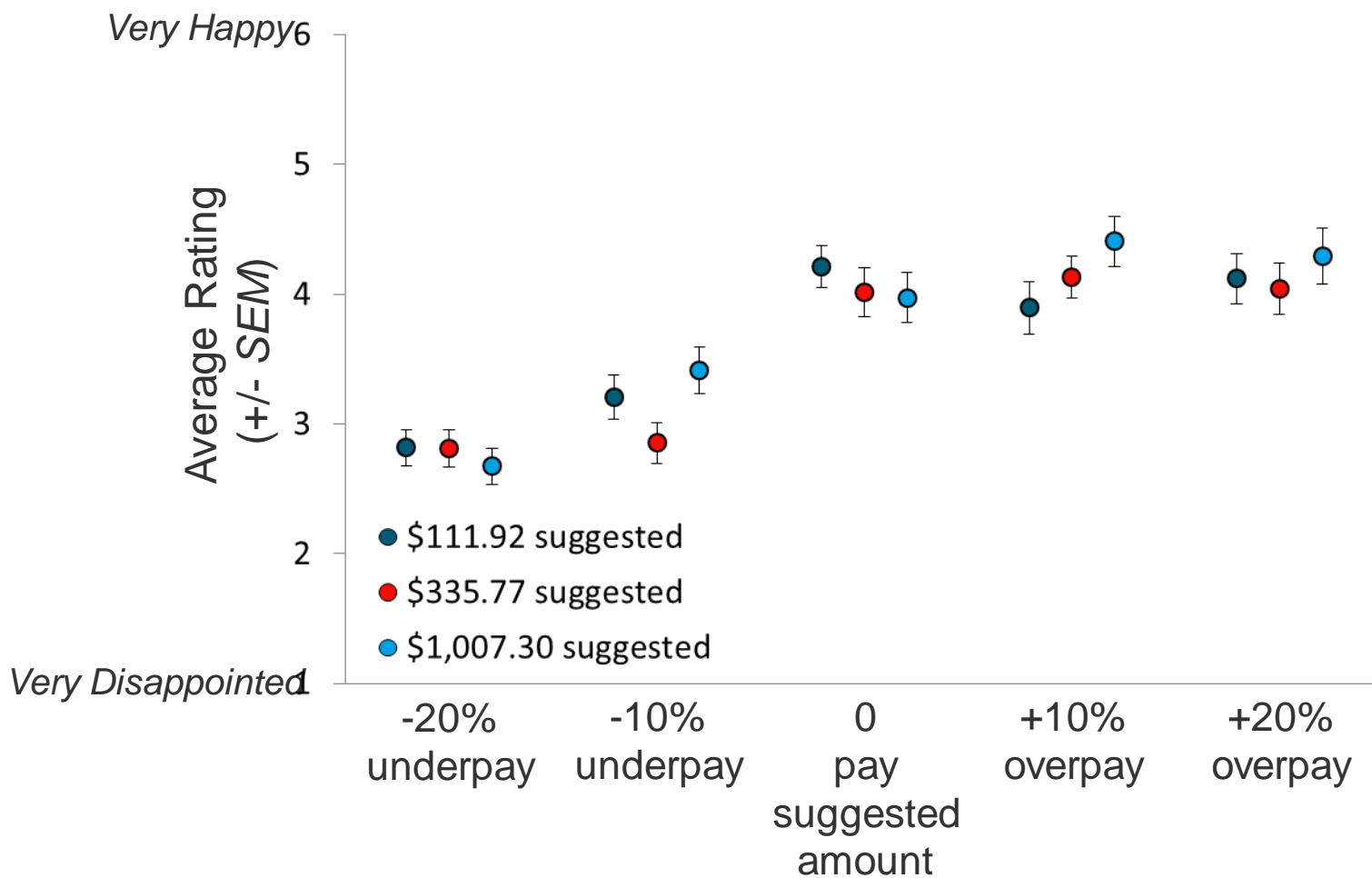
Low Suggested Payment Conditions



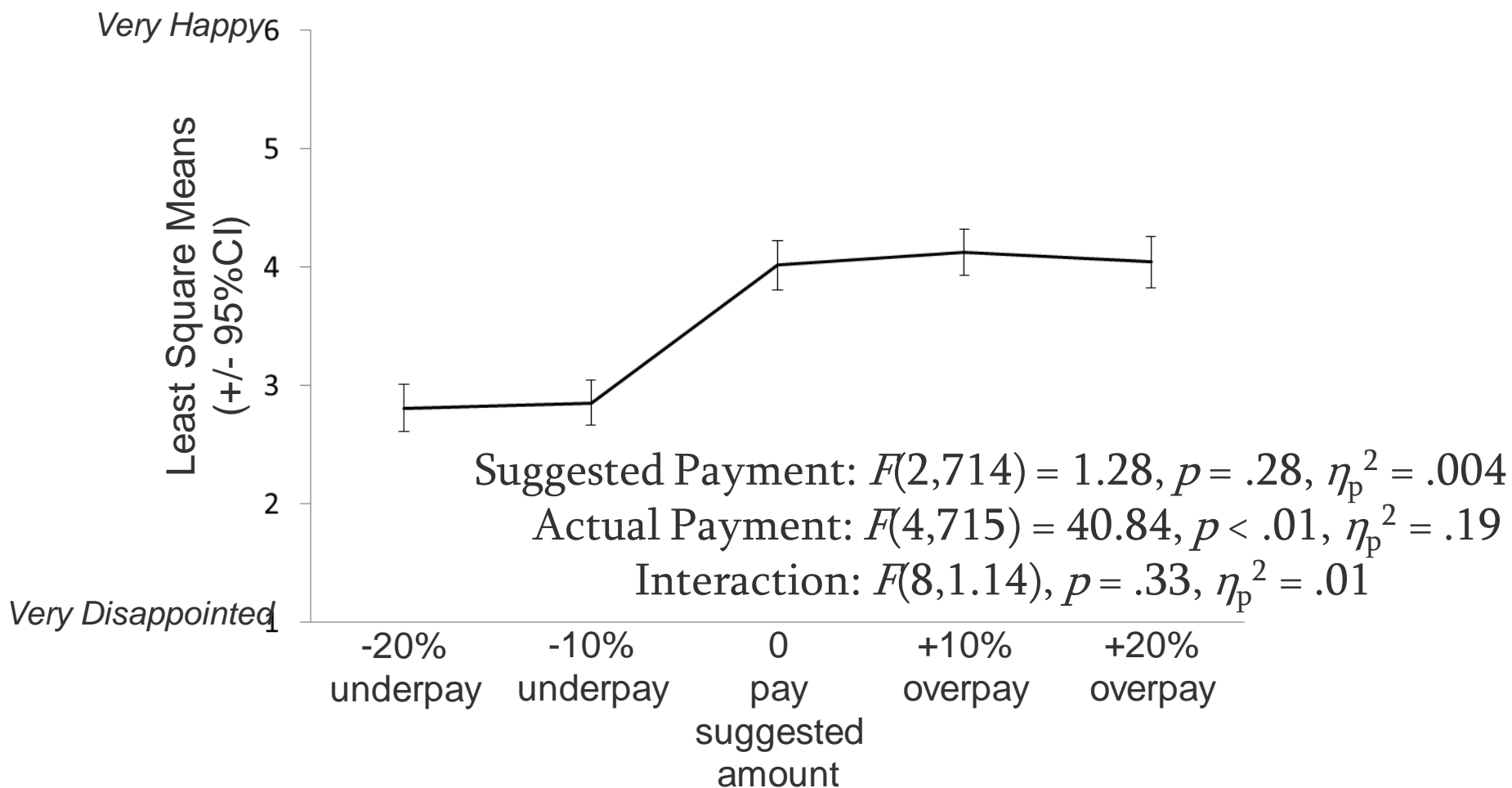
Low and Medium Suggested Payment Conditions



Low, Medium, and High Suggested Payment Conditions



Upshot: Meeting or Not Meeting Suggested Amount Matters



If numbers on credit card statements act as target values...

1. People might feel bad about not paying the suggested amount
2. ***They might work hard to scrounge up the money to pay that amount, especially if they're close***
3. They might reduce effort when their performance exceeds target, especially when they're further past the target
4. We might observe discontinuities in responses near the target value

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

This month, Barry's suggested payment is \$1,134.00. The payment is due in one week, and as of yesterday, Barry was able to pay \$1,077.30.

Barry = \$35.16

This month, Gary's suggested payment is \$2,154.60. The payment is due in one week, and as of yesterday, Gary was able to pay \$1,077.30.

Gary = \$26.86

Each of them just received a tax refund of \$50 in the mail today.

DV: How much of this money do you think each will put toward their credit card bill?

paired- $t(69) = 2.51, p < .05, \eta_p^2 = .08$
24 of 70 participants express this pattern

If numbers on credit card statements act as target values...

1. People might feel bad about not paying the suggested amount
2. They might work hard to scrounge up the money to pay that amount, especially if they're close
3. ***They might reduce effort when their performance exceeds target, especially when they're further past the target***
4. We might observe discontinuities in responses near the target value

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

This month, Harry's suggested payment is \$335.77. The payment is due in one week, and right now, Harry is able to pay \$1,057.67.

Harry = 2.70

This month, Larry's suggested payment is \$1,007.30. The payment is due in one week, and right now, Larry is able to pay \$1,057.67.

Larry = 3.57

DV: How hard do you think each of these cardholders will try to come up with more money for their payments in the next week?

Harry/Larry will... (1 = not try at all; 6 = try extremely hard)

(Adapted from HLW 1999, Problem 6; $N = 64 \rightarrow 61$)

paired- $t(60) = 4.52, p < .001, \eta_p^2 = .25$
39 of 61 participants express this pattern

If numbers on credit card statements act as target values...

1. People might feel bad about not paying the suggested amount
2. They might work hard to scrounge up the money to pay that amount, especially if they're close
3. They might reduce effort when their performance exceeds target, especially when they're further past the target
4. ***We might observe discontinuities in responses near the target value***

Study Overview

- 797 mTurk Participants
 - 54 failed the comprehension check. So, $N = 743$
- 2 x 3 between-subjects design
 - Factor 1: Minimum payment vs. suggested payment
 - Factor 2: Low vs. Medium vs. High suggested value
- Also asked about measures of financial status
 - Household income, perceived purchase ability, number of months of emergency savings, ratio of credit card debt to emergency savings

Suggested Payment Conditions

Most credit cards require a minimum payment... the questions that follow are about a new type of credit card... instead of having a minimum... gives a “suggested payment amount”... you do not have to pay the suggested amount and can pay any amount you’d like

Comprehension questions:

Does the card described above have a minimum payment amount?
(No)

If you do not pay off the total balance in full, will you be charged interest? (Yes)

...

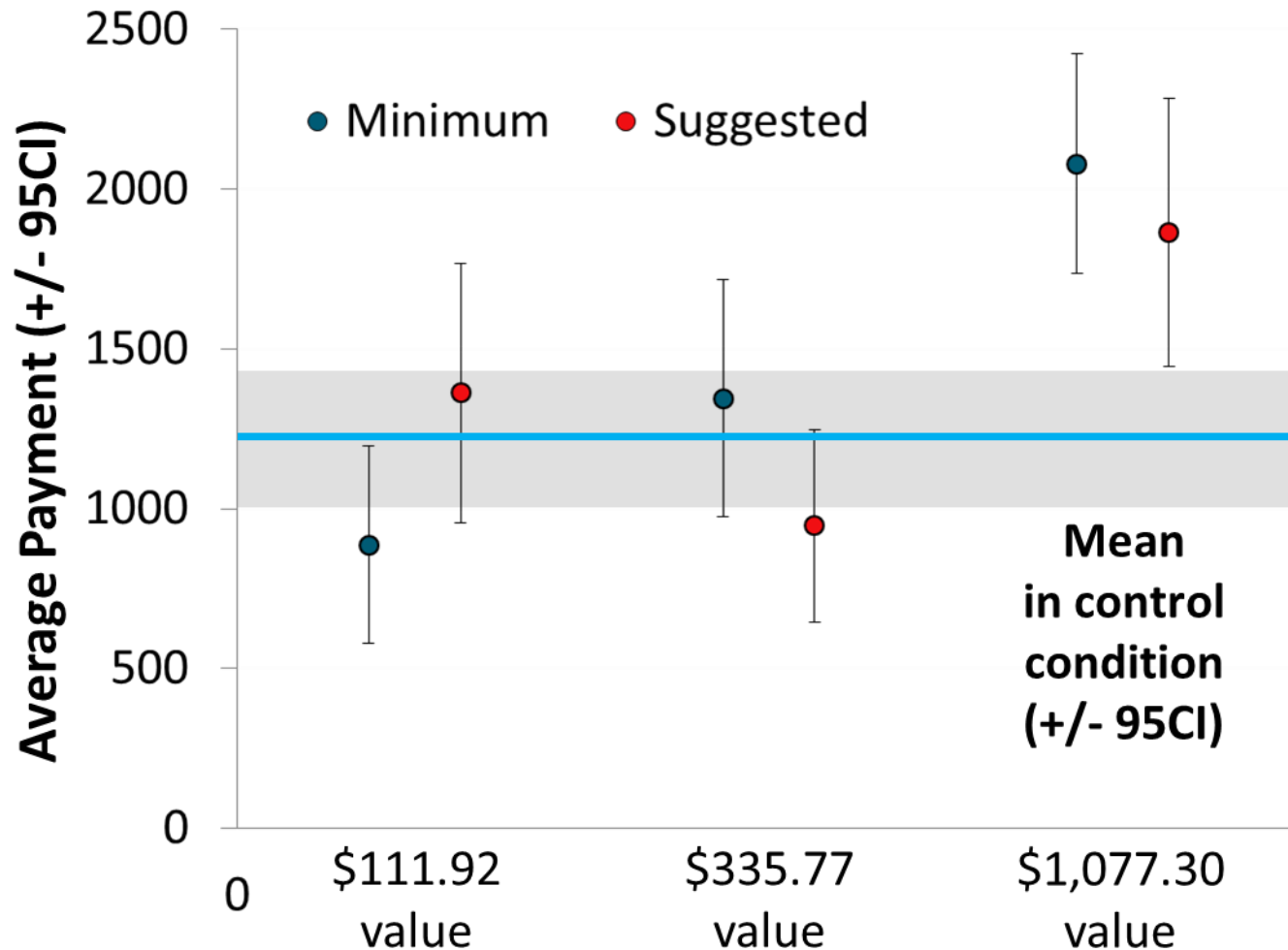
Credit Card Statement

...

Suggested Payment Amount: \$111.92 (\$335.77) [\$1007.30]

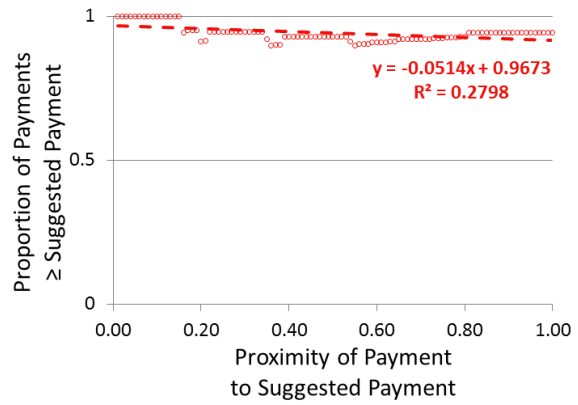
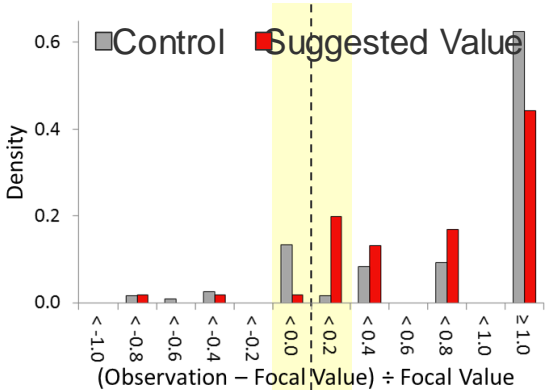
How much would you pay?

Do these focal values make a difference?

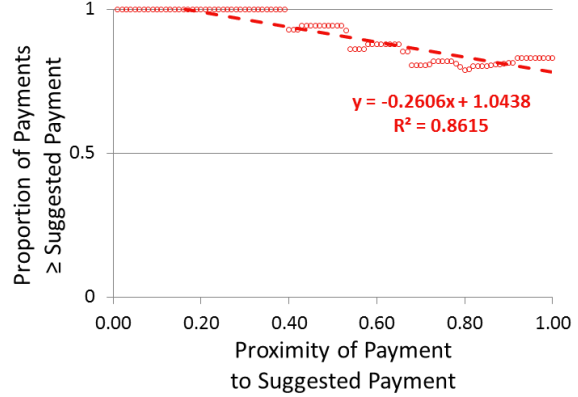
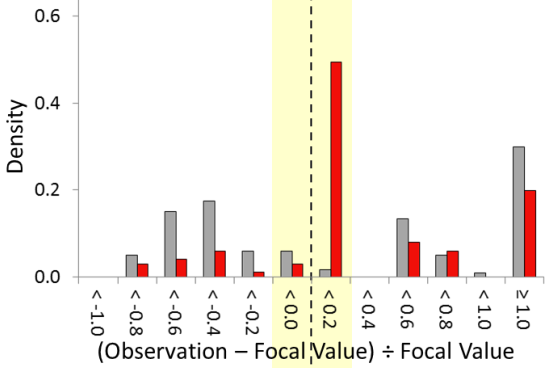


Distributions of payment amounts

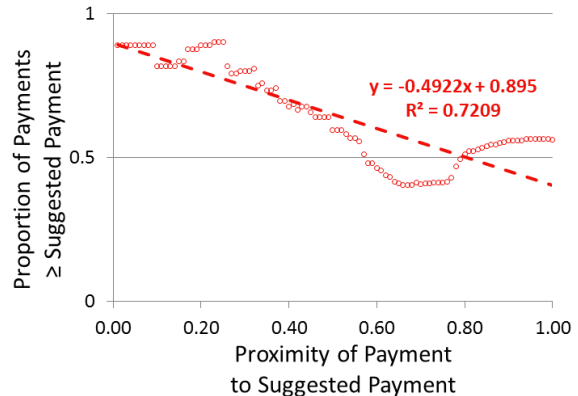
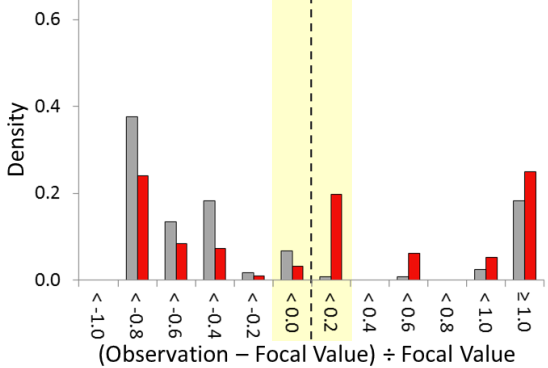
Low



Medium



High

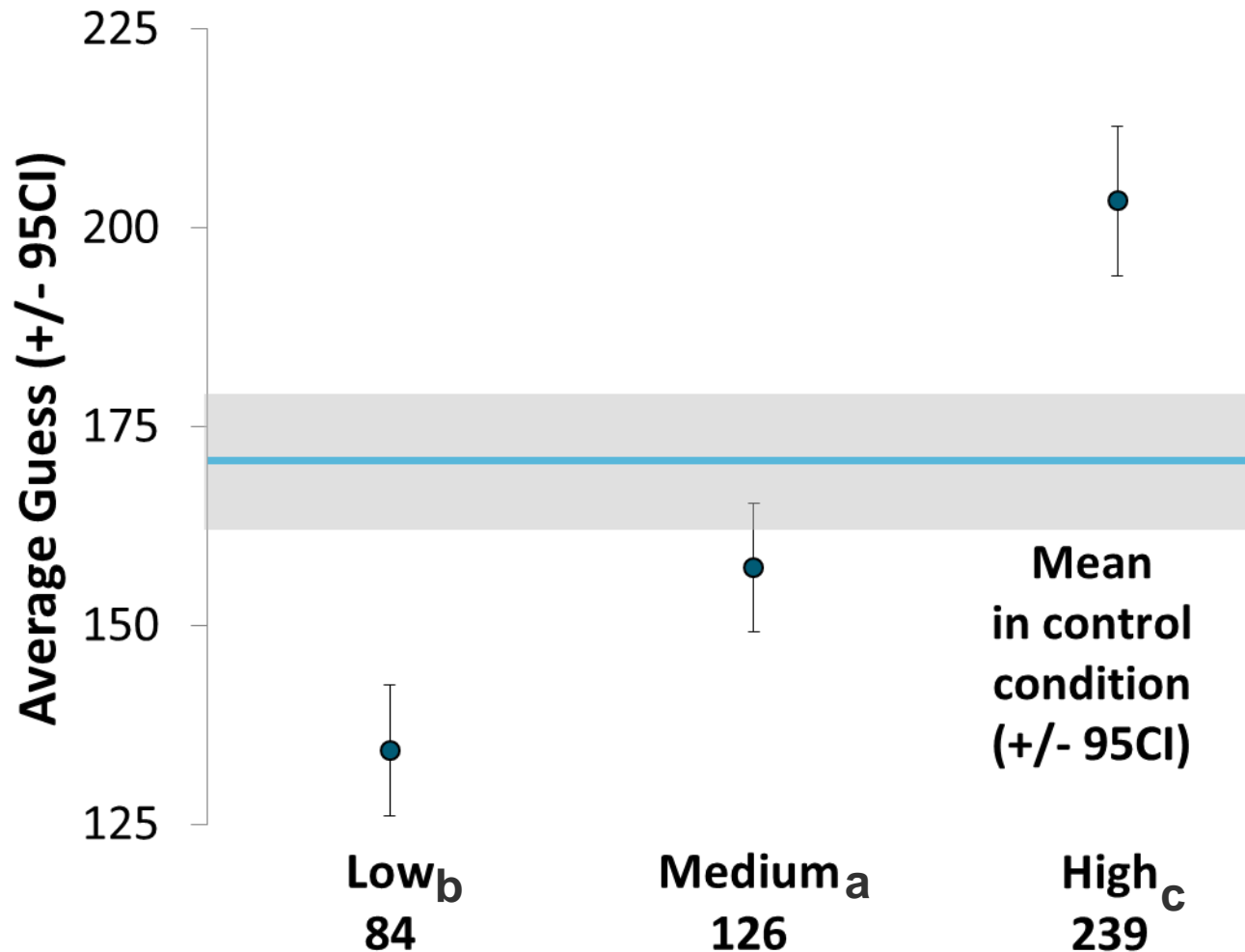


An Anchoring Task (for illustrative purposes)



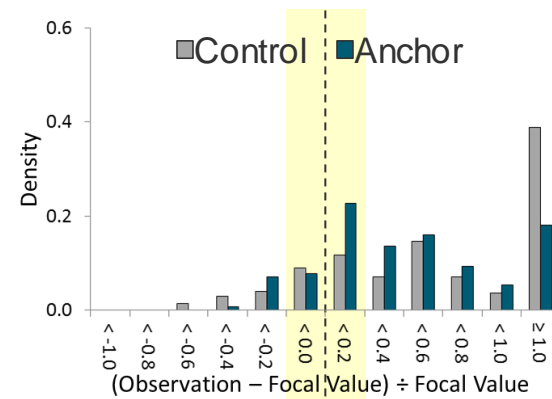
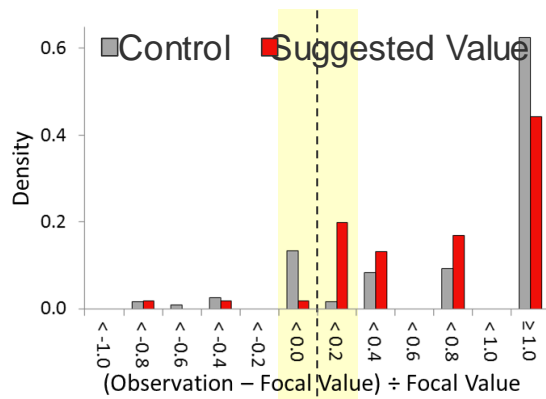
- Online participants guessed how many starburst fruit chews were in this canister (\$30 prize)
- Three conditions:
 - Control (unperturbed)
 - Low Anchor (set at 18th pctile of control distribution; like low value in previous study)
 - Medium Anchor (set at the 49th pctile of control distribution, like medium value in previous study)
 - High Anchor (set at 77th pctile of control distribution, like high value in previous study)

Do anchors make a difference?

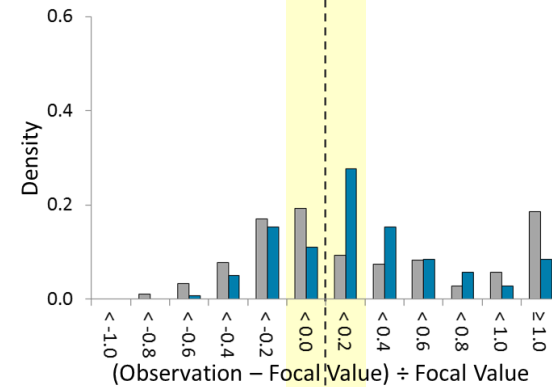
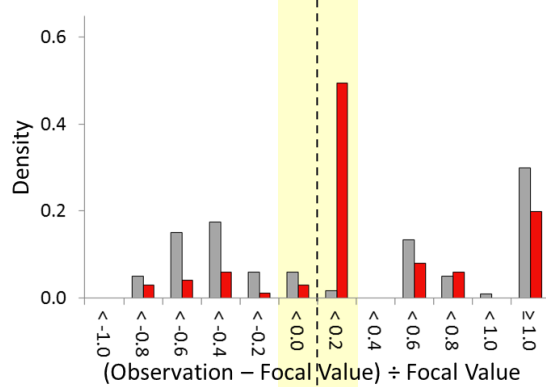


Credit Cards vs. Starburst

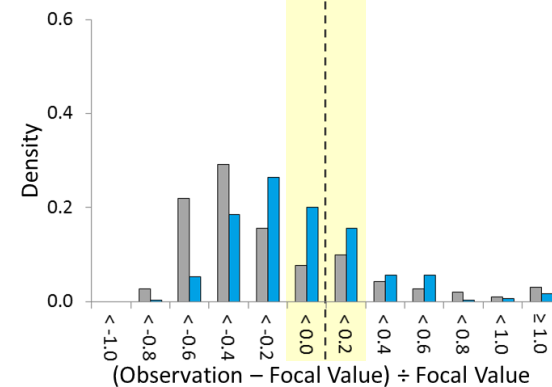
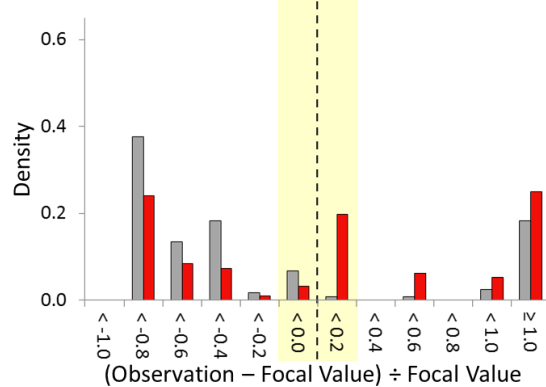
Low

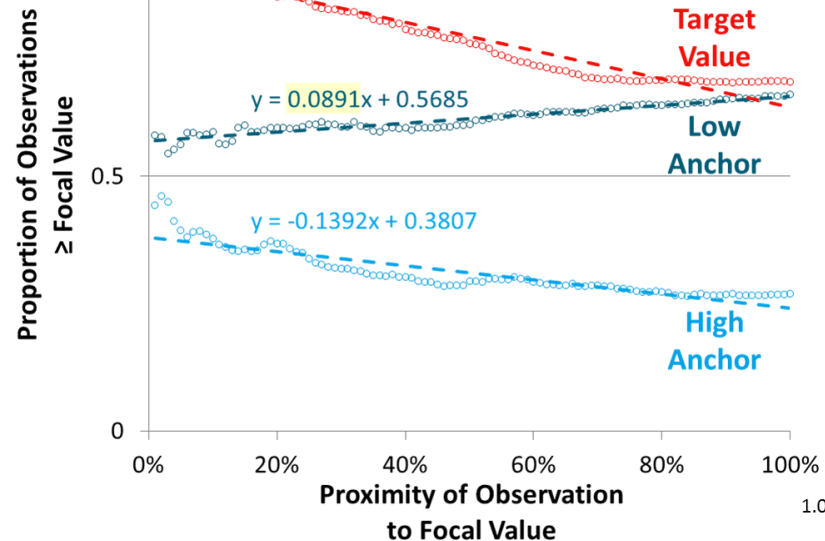


Medium



High

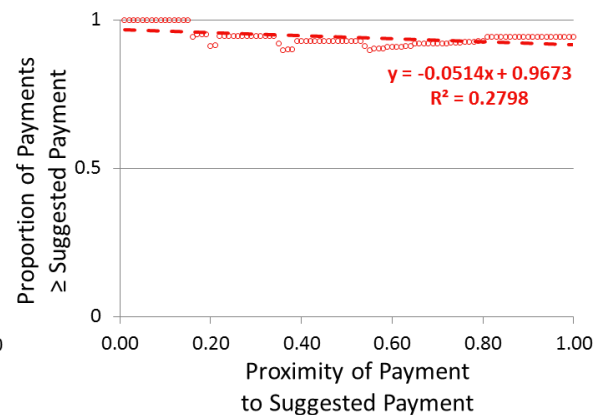
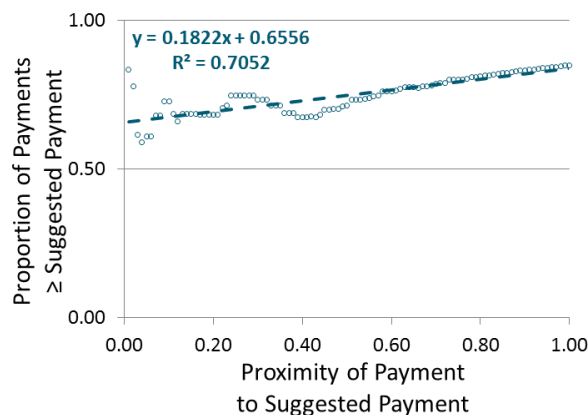




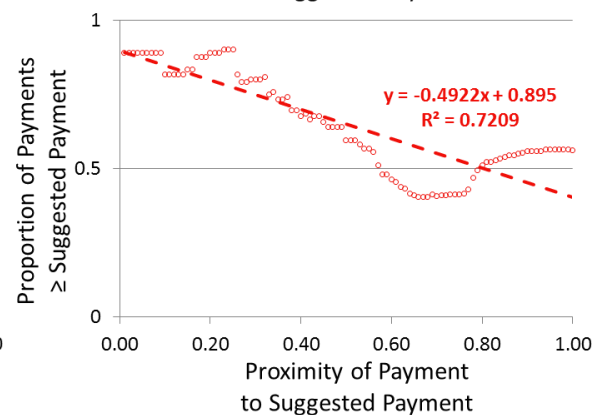
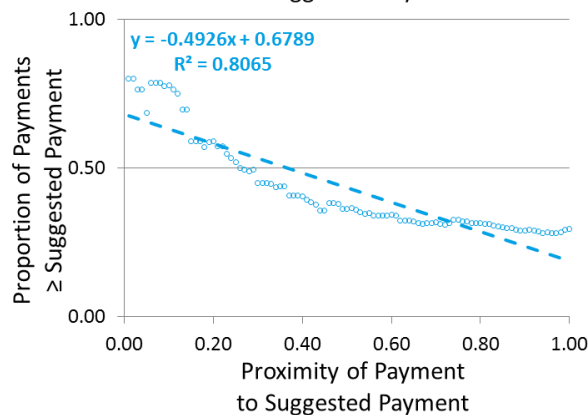
Anchors

Suggested Values

Low



High



Summary so far

- Evidence consistent with values on credit card statements inducing loss aversion (without diminishing sensitivity)
 - People try to meet or exceed these values, for hypothetical choices and in the real world
 - Meeting or exceeding these values results in more satisfaction/less disappointment than not doing so
 - Some evidence for discontinuities in distributions of repayments that don't look much like the smoother, more symmetric-looking distributions produced by anchoring
- Evidence for which we may need diminishing sensitivity (weaker)
 - Being closer to reference point results in more motivation for credit repayment (Studies 3 and 4)

Bank Data

Suggested Payments



Introducing Blueprint, only for Chase customers.

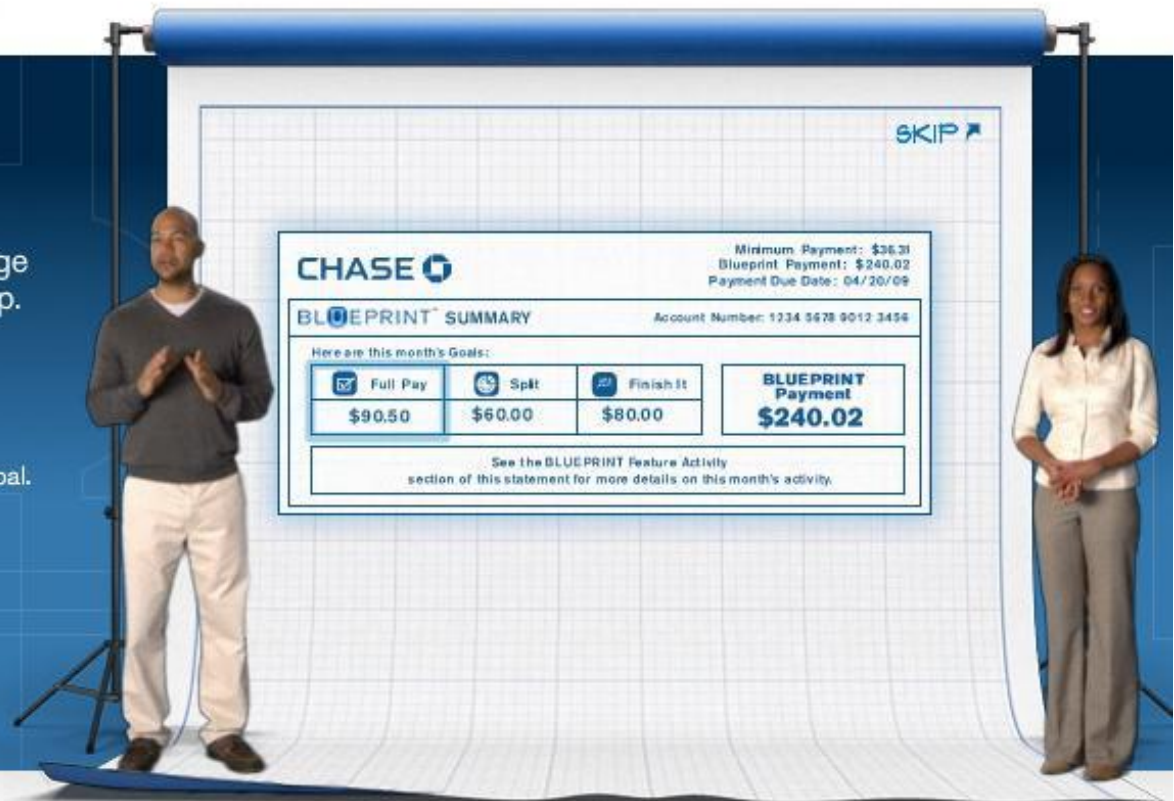
A unique set of features that lets you manage your finances—on your terms. Easy to set up. Simple to use. And Blueprint is free.

- Design custom payment plans.
- See them separated out on every statement.
- Monitor your progress until you've reached your goal.

SET UP BLUEPRINT



Full Pay Split Finish It Track It



Minimum Payment: \$36.31
Blueprint Payment: \$240.02
Payment Due Date: 04/20/09

BLUEPRINT SUMMARY

Account Number: 1234 5678 9012 3456

Here are this month's Goals:

Full Pay	Split	Finish It
\$90.50	\$60.00	\$80.00

**BLUEPRINT
Payment
\$240.02**

See the BLUEPRINT Feature Activity section of this statement for more details on this month's activity.

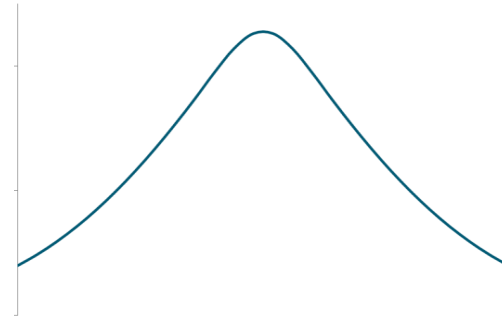
Practical Consequences

- Introducing additional values could encourage consumers to pay more each month
 - If suggested values on credit card statement are processed as goals (e.g., vs. anchors), values that are unrealistically high may backfire
 - Understanding whether these values have motivational importance influences how we would help consumers pay down their debt

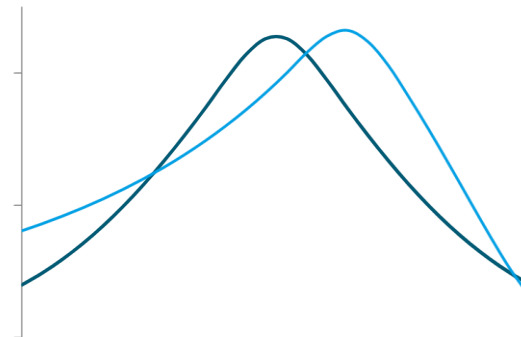


Possible Predictions

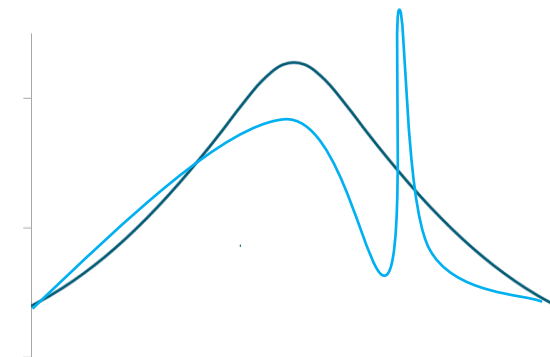
Additional values are ignored



Additional values act as anchors



Additional values act as goals*
*(if achievable)



Key Questions

For people who are motivated to repay (i.e., opt in)

- 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 chosen target?

Chase Blueprint Overview

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

slate™

from CHASE

P.O. BOX 15123
WILMINGTON, DE
19850-5123

00558 BEX Z 08109 D
JOHN A. SMITH
123 MAIN ST
ANYTOWN, DE 19806



⑆ 1 1 1 9 2 1 8 6 1 ⑆ 1 2 3 4 5 6 7 8 9 0 1 2 ⑆ 20000 1

Blueprint is Active
Blueprint Payment =
\$283.55

Payment Due Date:	04/19/12
New Balance	\$1,815.30
Minimum Payment:	\$61.00

Account number: 1234 5678 9012 3456

\$ _____ Amount Enclosed

Make your check payable to: Chase Card Services.



CARDMEMBER SERVICE
PO BOX 15153
WILMINGTON, DE 19886-5153

The Blueprint payment is the amount you pay to stay on track with your active Blueprint plans. It includes your account minimum payment due, so only one payment is needed.

slate™



Manage your account online:
www.chase.com/creditcards

Additional contact information
conveniently located on reverse side

ACCOUNT SUMMARY

Account number: 1234 5678 9012 3456	
Previous Balance	\$1,373.58
Payments, Credits	-\$140.00
Purchases	+\$566.30
Interest Charged	+\$15.42
New Balance	\$1,815.30
Opening/Closing Date	2/23/12 - 03/23/12
Total Credit Line	\$10,000.00
Available Credit	\$8,184.70
Cash Access Line	\$2,000.00
Available for Cash	\$2,000.00

View all of your
Blueprint activity in
one place.

PAYMENT INFORMATION

New Balance	\$1,815.30
Payment Due Date	04/19/12
Minimum Payment Due	\$61.00

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay up to a \$35.00 late fee and your APRs will be subject to increase to a maximum Penalty APR of 29.99%.



Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

If you make no additional charges using this card and each month you only pay...	You will pay off the balance shown on this statement in about...	And you will end up paying an estimated total of...
Only the minimum payment	9 years	\$2,950.00
\$61.00	3 years.	\$2,188.00 (Savings=\$762.00)

If you would like information about credit counseling services, call 1-866-797-2885.

BLUEPRINT SUMMARY

Here are your Blueprint goals for this month:

 Full Pay	 Split	 Finish It	BLUEPRINT Payment \$283.55
\$90.50	\$60.00	\$80.00	NOTE: Pay this amount to stay on track with your BLUEPRINT Plan. This amount also satisfies your <u>minimum payment due</u>

See the BLUEPRINT Feature Activity section of this statement for more details on this month's activity.

INTEREST CHARGES

Your Annual Percentage Rate (APR) is the annual interest rate on your account.

Balance Type	Annual Percentage Rate (APR)	Balance Subject To Interest Rate	Interest Charges
PURCHASES			
Purchases			
Blueprint			
Split - Furniture: Sofa			
Finish It: My Balance			
CASH ADVANCES			
Cash advances	12.49%(v)	\$0.00	\$0.00
BALANCE TRANSFERS			
Balance transfers	12.49%(v)	\$0.00	\$0.00

This section provides financial information for each of your Blueprint Finish It or Split plans.

ACCOUNT ACTIVITY

Date of Transaction	Merchandise
03/10	PAYMENT - THANK YOU
03/03	BILL'S FURNITURE
03/03	JOE'S OIL
03/05	ANN'S SHOP
03/09	EMERSON'S
03/10	JONES
03/11	COFFEE
03/20	FRANKS GAS AND GO
03/22	B HOTEL
03/21	CORNER GROCERY

Icons indicate your

(v) = Variable Rate

29 Days in Billing Period

Please see Information About Your Account section for the Calculation of Balance Subject to Interest Rate, Annual Renewal Notice, How to Avoid Interest on Purchases, and other important information, as applicable.

BLUEPRINT FEATURE ACTIVITY



Full Pay

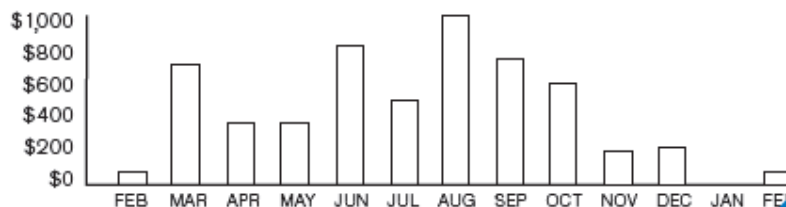
Full Pay Payment Due: \$90.50

Below is your spending in your Full Pay categories. You can avoid interest when you pay these purchases in full each month, even when you carry a balance. Remember, you can change your categories any time.

Full Pay Category	Category Spending	Number of Transactions
Grocery Stores	\$50.50	2
Gas Stations	\$40.00	3
Drugstores	\$00.00	0
Total	\$90.50	

Your plan payments are shown here on every statement, which is included in your Blueprint payment amount.

Full Pay Historical Spending



Check here each month for a personalized Blueprint message.

Great news: You avoided interest on the purchases that were included in your selected Full Pay categories! Please continue to make your Blueprint payment each month to take full advantage of the Full Pay benefits.

Data Overview

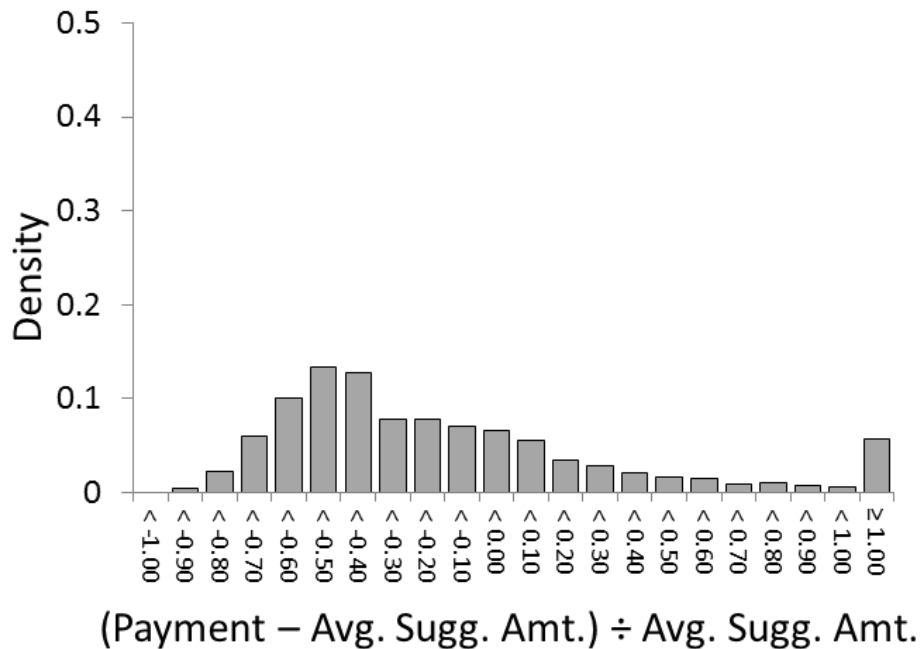
	Debt Decumulation	Spending Categories
Unique accounts	7,045	12,774
Transactions	292,968	280,027
Balance	\$2,933	\$2,751
Goal	\$209	\$154
Age	42	52
Income	\$51,571	\$51,492
Credit score	706	736
Male	39%	41%

Payments

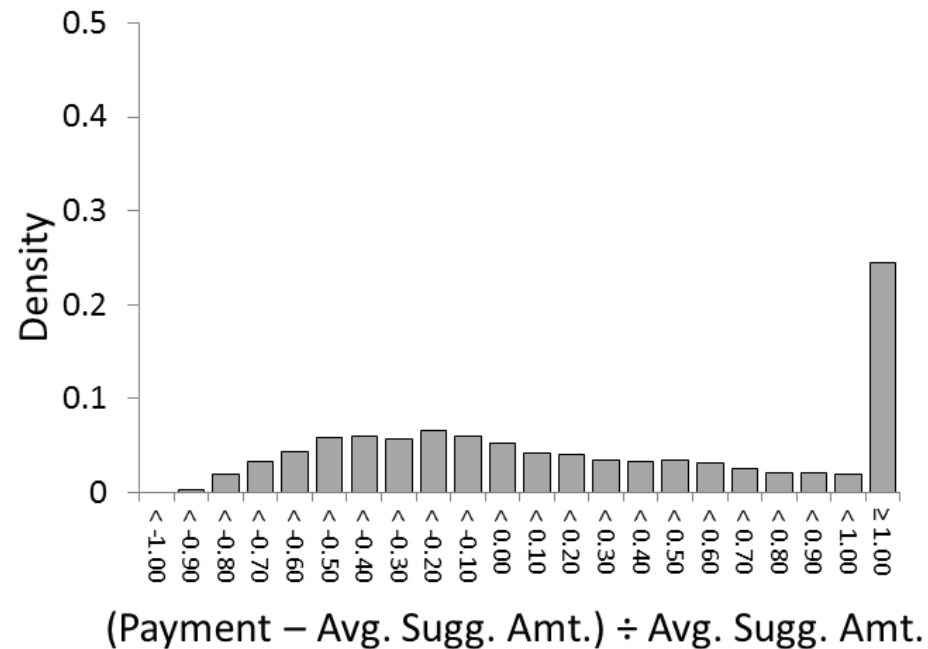
Plan	Period	Minimum	Goal	Balance	Other
Debt Decumulation	PRE	23%		2%	75%
	POST	14%	27%	1%	58%
Spending Categories	PRE	8%		7%	86%
	POST	8%	8%	5%	79%

Does payment behavior change with introduction of suggested payment?

Debt Decumulation



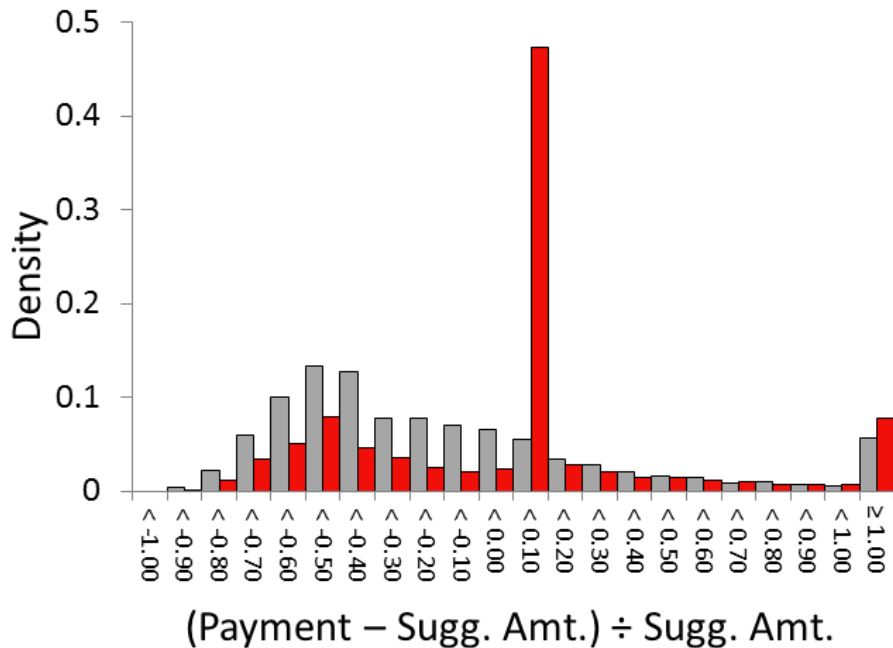
Spending Categories



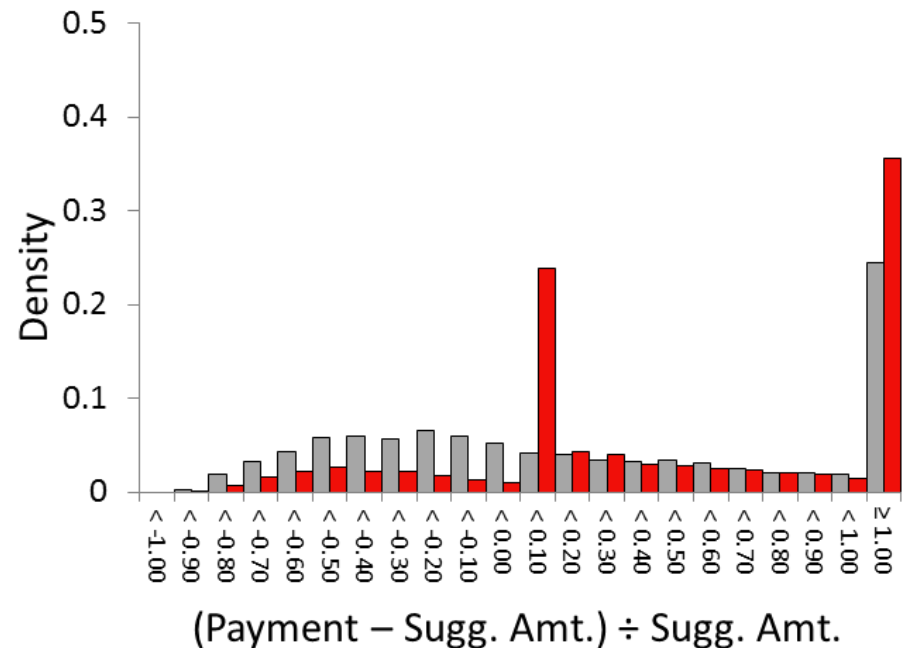
■ Pre-Enrollment
■ Post-Enrollment

Does payment behavior change with introduction of suggested payment?

Debt Decumulation

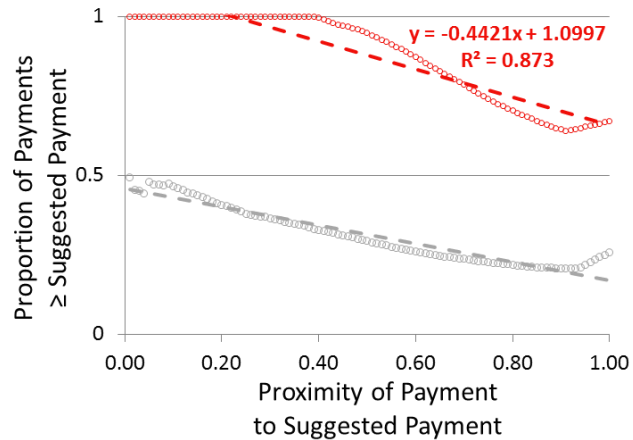


Spending Categories

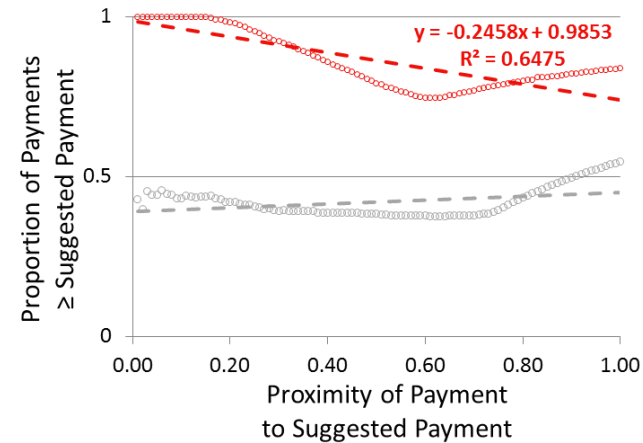


Comparison to all distributions

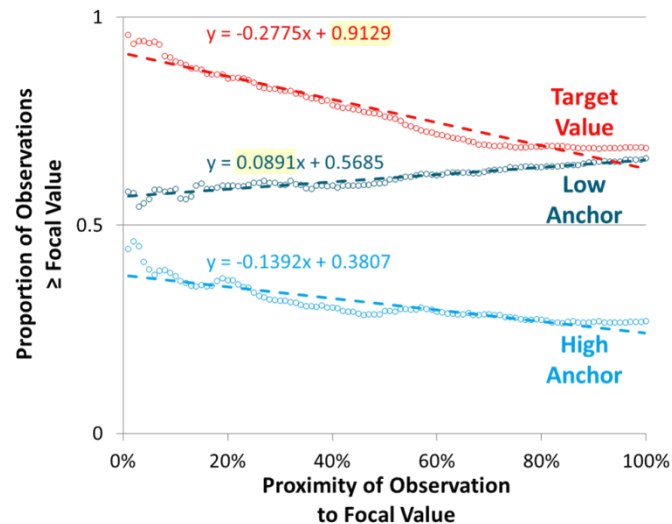
Debt Decumulation



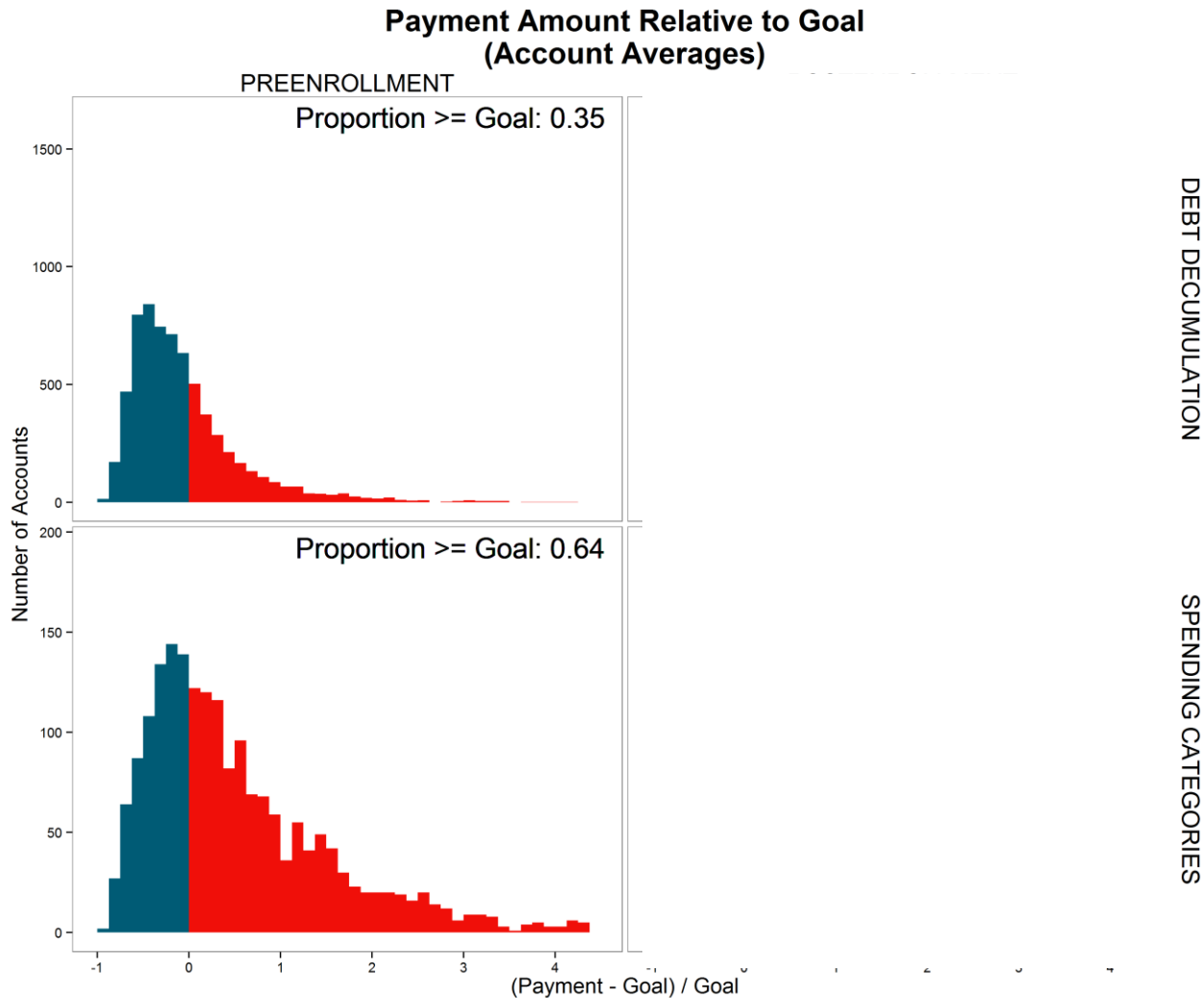
Spending Categories



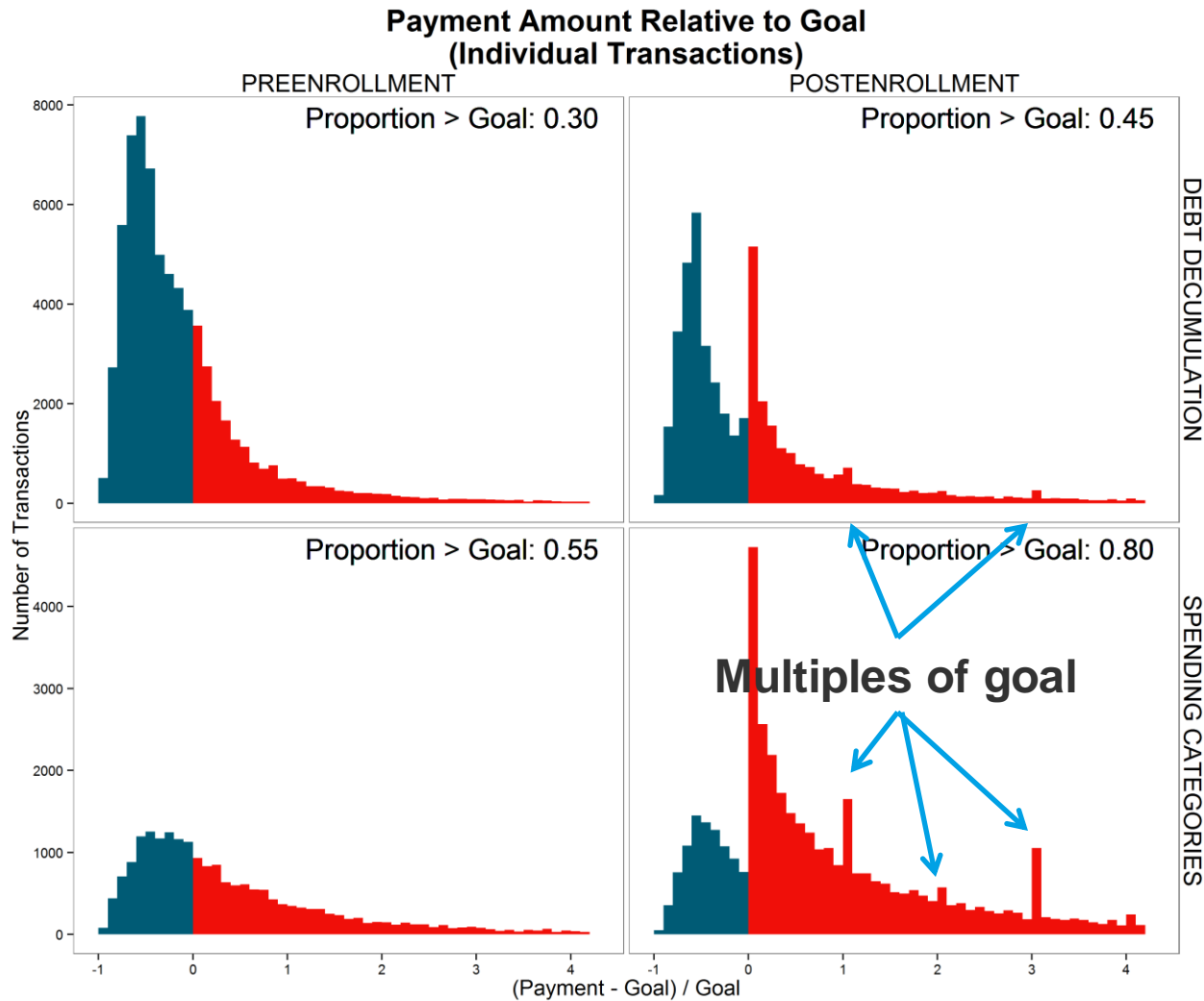
All Distributions



Does the Value Change Payments?



Anchor or Goal? Consequences?



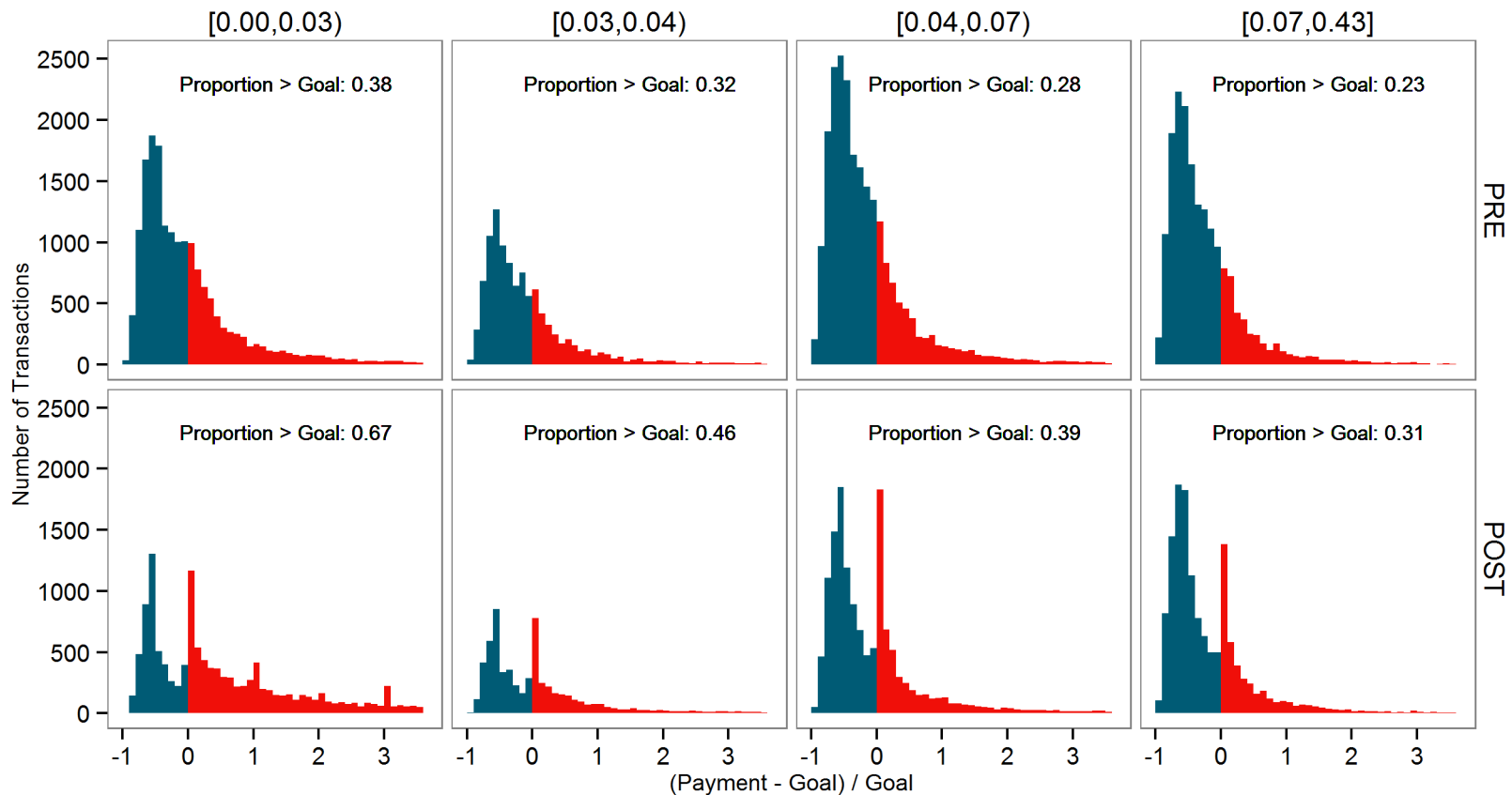
Excluding transactions of exactly the goal amount

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 – Debt Decumulation Program

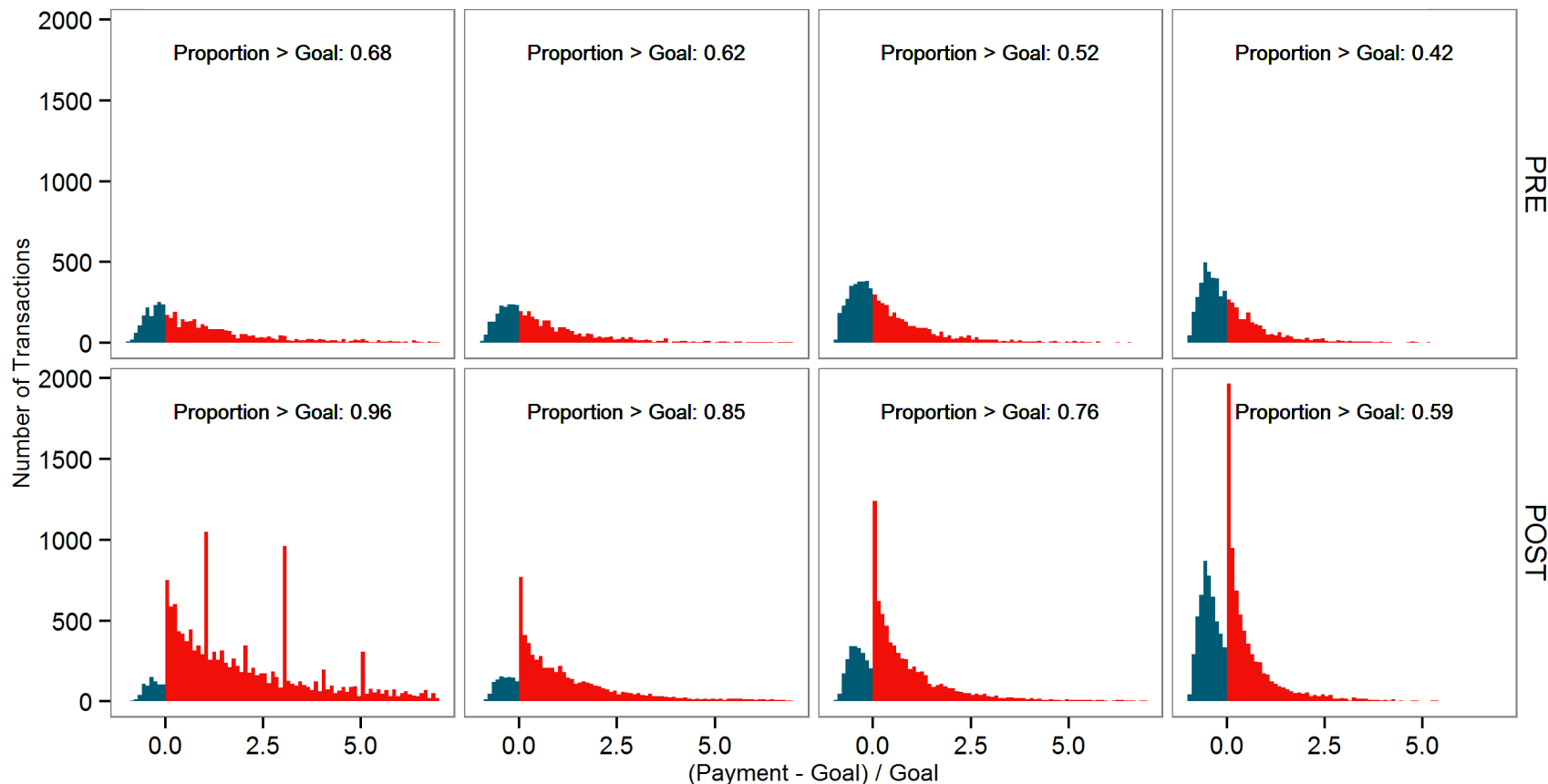
Payment Amount Relative to goal (Transaction Level Data)



Excluding transactions of exactly the goal amount

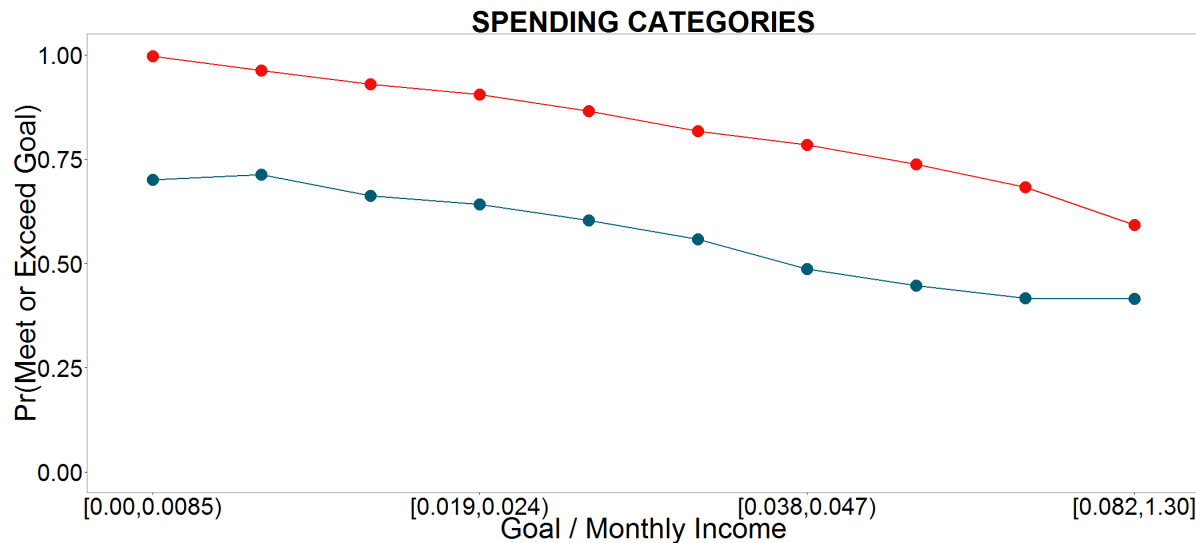
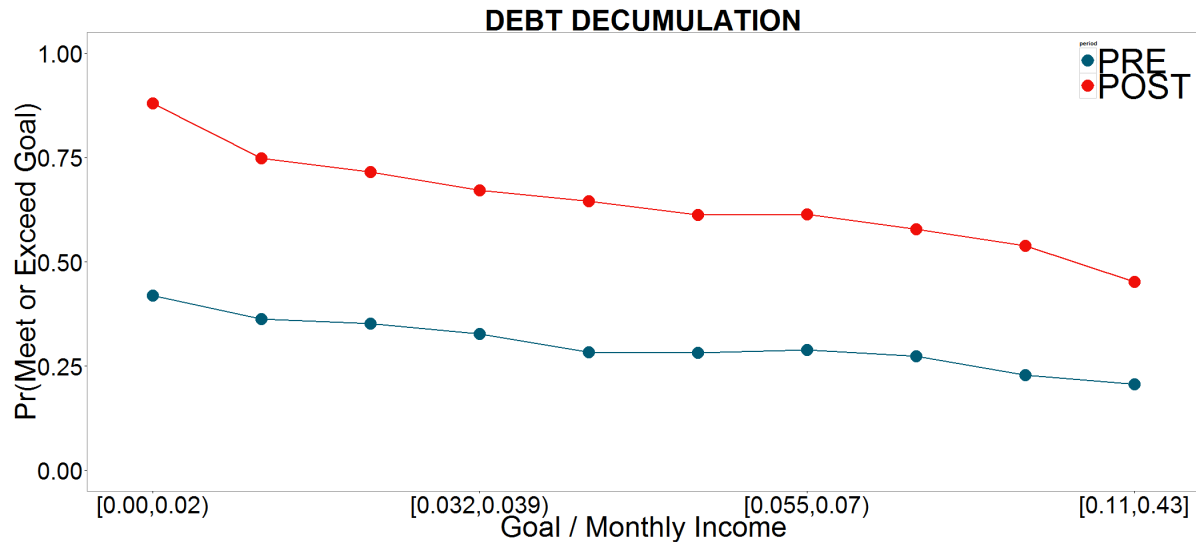
Goal Amount as a Function of Monthly Income – Spending Categories Program

Payment Amount Relative to goal
(Transaction Level Data)



Excluding transactions of exactly the goal amount

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



Round Numbers and “Piling In” from Earlier

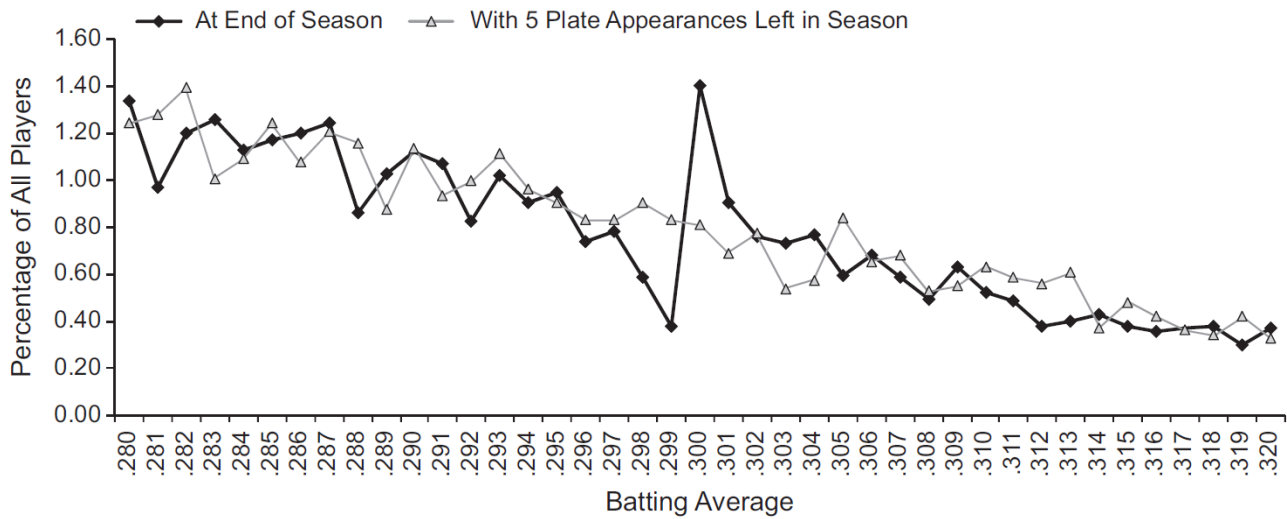


Figure 2: Distribution of maratho

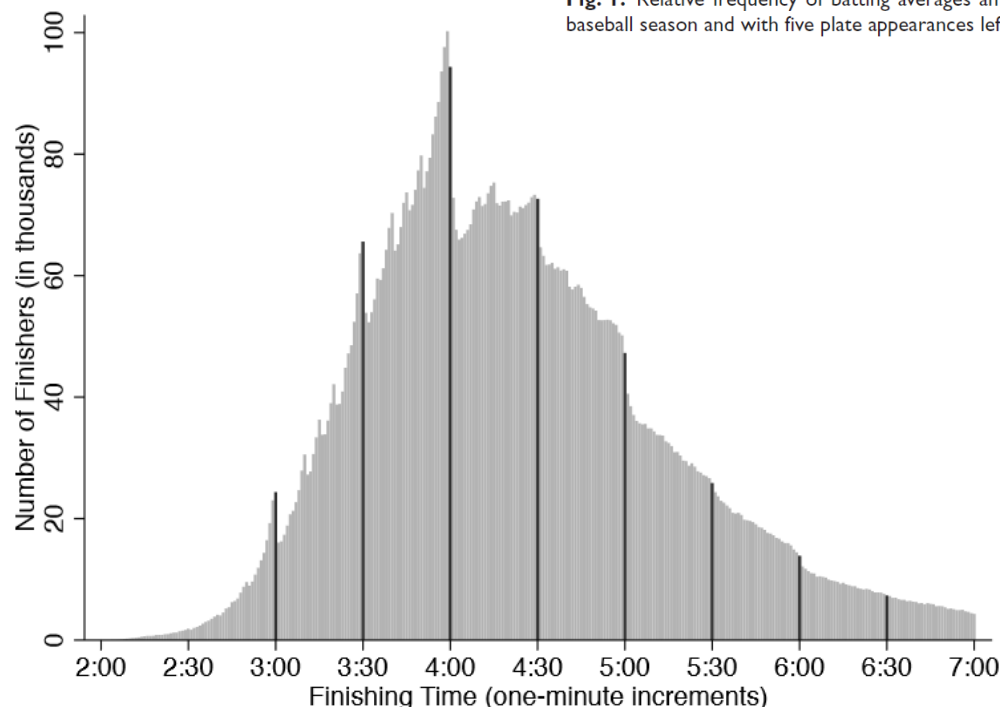
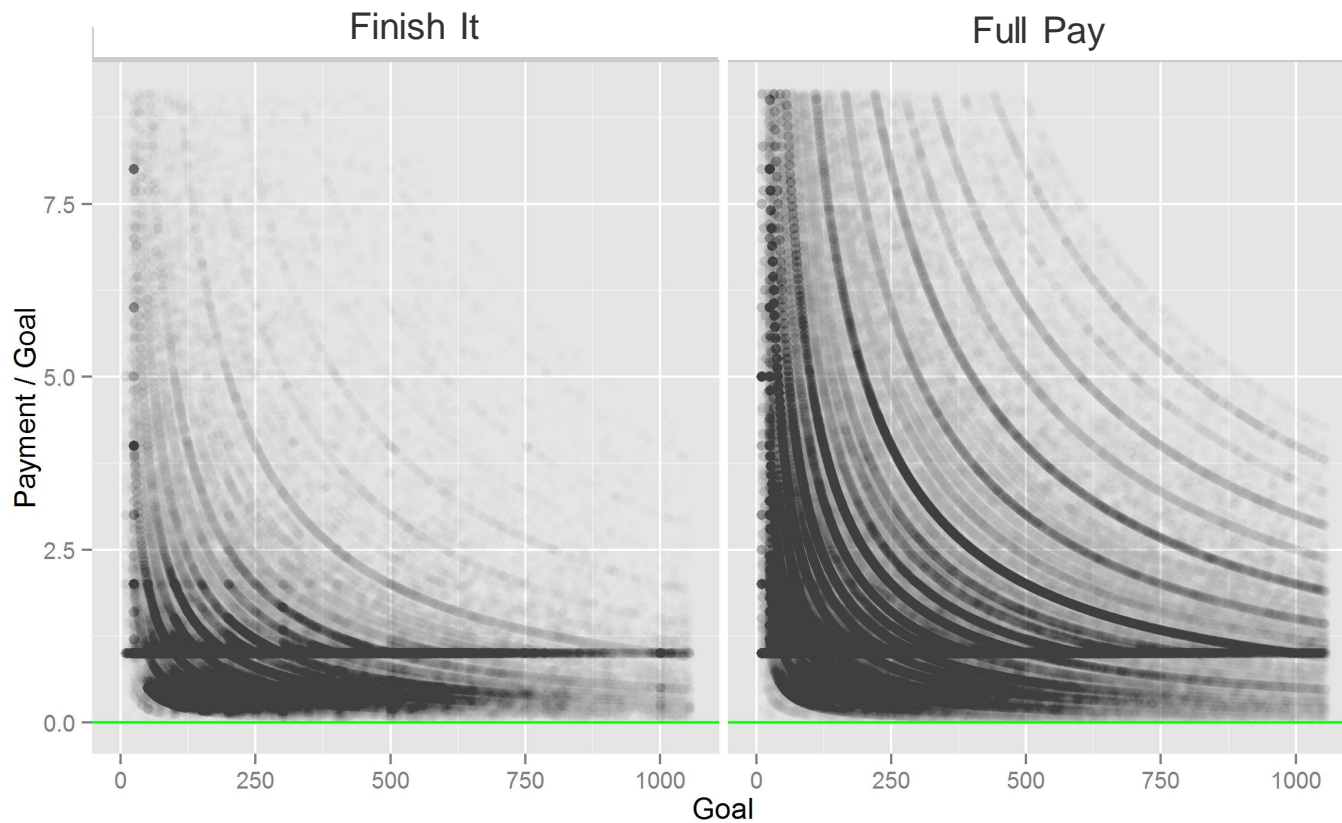


Fig. 1. Relative frequency of batting averages among Major League Baseball players between 1975 and 2008. Batting averages at the end of the baseball season and with five plate appearances left in the season are shown. The graph includes only player-seasons with at least 200 at bats.

In Our Bank Data...



Conclusions

We can distinguish numbers that are motivationally relevant (target values) from those that aren't (anchors)

- People feel good (bad) about outcomes that do (don't) meet targets
- People work harder when just short of target
- People slack as they move further from a surpassed target
- Discontinuities: target value distributions start high and slope downward

People treat suggested values on statements as targets, and these targets alter payment amounts

Conclusions

Self-selected targets

- 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
-
- Open questions
 - Overall effects on outstanding debt levels
 - Optimal goal recommendations

THANK YOU

abby@chicagobooth.edu

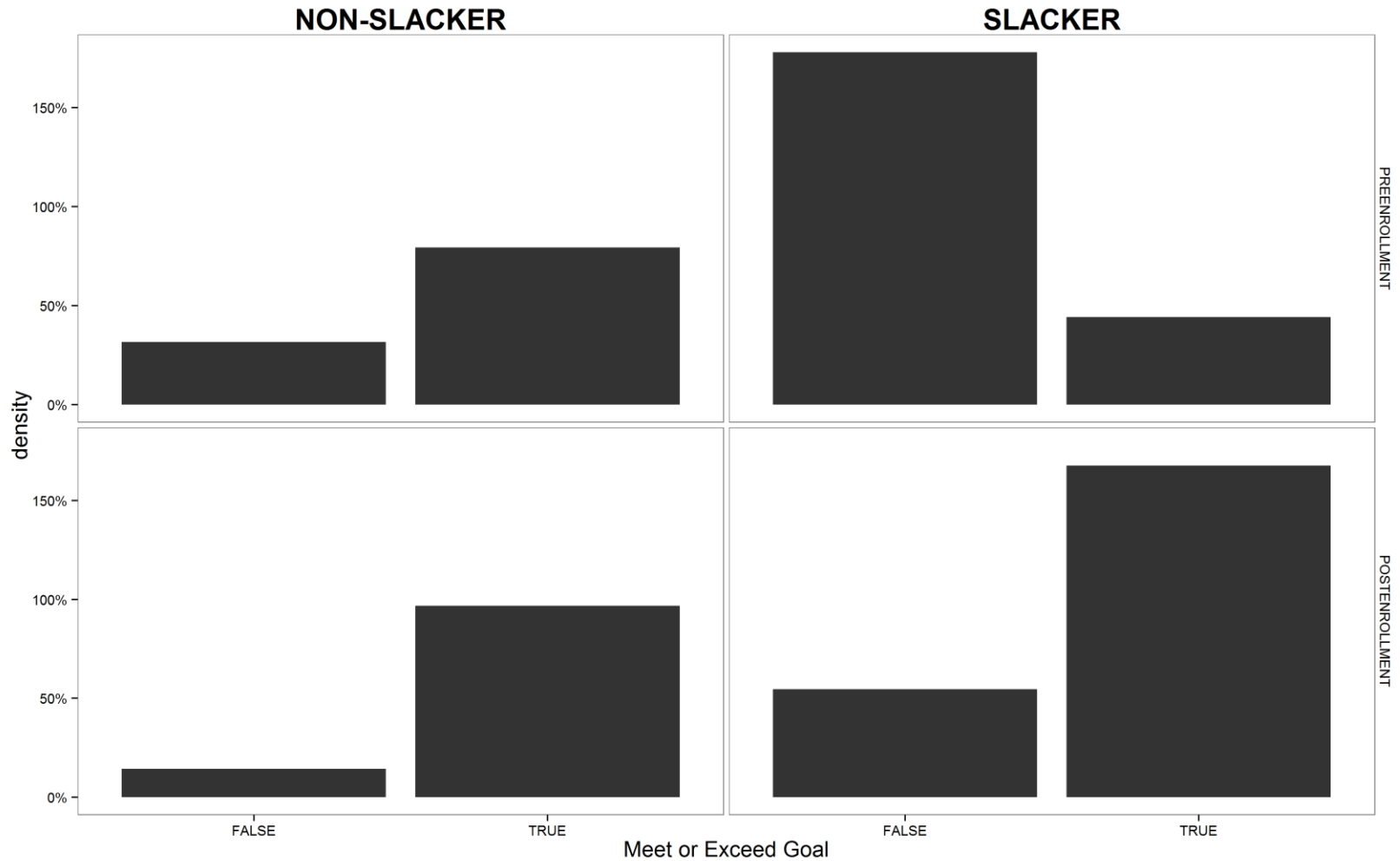
APPENDIX

% of Pre-enrollment Payments by Group

Group	Min +/- \$50	Paid in Full	Mixed Behavior
Finish It	50	26	18
Full Pay	32	1	69
Matched Sample	56	26	18

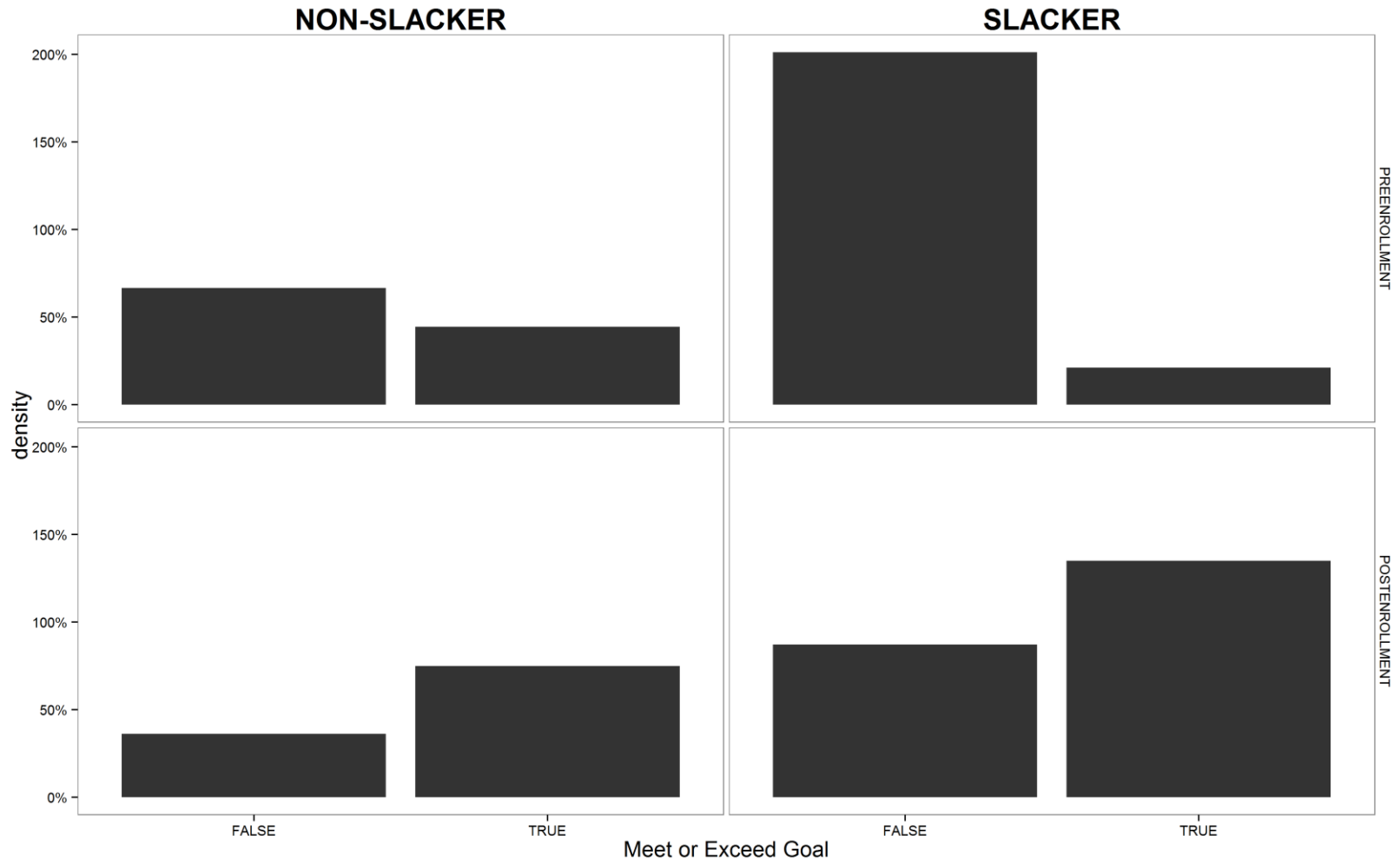
Full Pay: Pr(Meet or Exceed Goal)

Slacker = someone paying w/in \$50 min. pre-enrollment

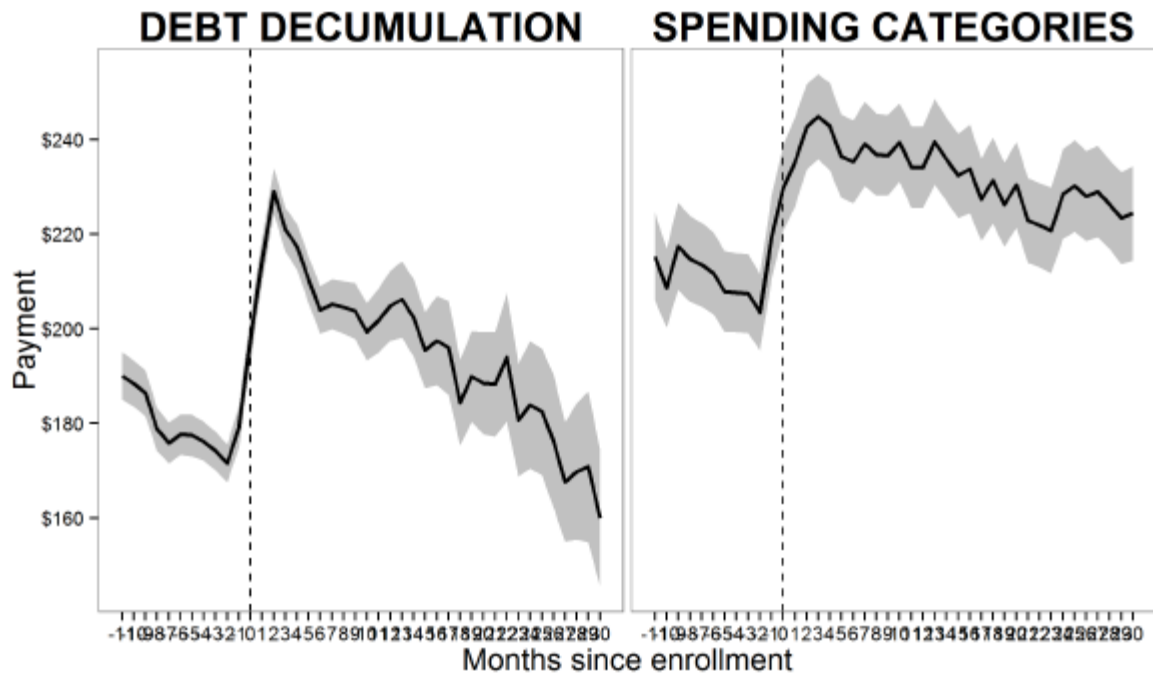


Finish It: Pr(Meet or Exceed Goal)

Slacker = someone paying w/in \$50 min. pre-enrollment



Payment by Month



Payment/ Balance by Month

