Online Appendix to "Distributional preferences in larger groups: Keeping up with the Joneses and keeping track of the tails"

Raymond Fisman, Ilyana Kuziemko and Silvia Vannutelli[*]

April 22, 2020

---
[*]Fisman: Boston University and NBER (email: rfisman@bu.edu); Kuziemko: Princeton University and NBER (email: kuziemko@princeton.edu); Vannutelli: Boston University (email: svann@bu.edu)

A   Additional Tables and Figures

Table A.1: Survey Sessions Details

Session	Date	Survey Obs	Analysis Obs
Percentage Differences	September 09, 2013	1025	1025
Absolute Differences	September 17, 2013	1503	1503
Own Income Variation	November 14, 2013	1003	808
Nine Person	November 15, 2013	1002	773
Alternative Formatting	November 27, 2013	1000	663
High Inequality	December 27, 2013	1001	639
Very High Inequality	December 30, 2013	1005	725
Real Stakes	August 7, 2014	967	746
Democracy	August 13, 2019	314	314
Labeled Mean	August 13, 2019	296	296
HIstogram	September 9, 2019	255	255

Notes: Total survey observations and analysis observations differ because we drop all participants who had taken a previous survey from our analysis.

Table A.2: Bottom, Topmost and Local Inequality Aversion in the Main Sample, Reweighted

	Dep. var: Chose Second Distribution			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0371***	-0.0372***	-0.0372***	-0.0388***
	[0.00415]	[0.00416]	[0.00416]	[0.00438]
$DiffIncome^{+2}$ in B vs. A	-0.000224	-0.000329	-0.000328	-0.000106
	[0.00365]	[0.00365]	[0.00365]	[0.00382]
$DiffIncome^{BOTTOM}$ in B vs. A	0.195***	0.196***	0.196***	0.200***
	[0.00662]	[0.00662]	[0.00662]	[0.00690]
$DiffIncome^{TOP}$ in B vs. A	-0.0426***	-0.0425***	-0.0425***	-0.0442***
	[0.00407]	[0.00407]	[0.00407]	[0.00431]
Above Two/One Diff.	.03691***	.03691***	.03684***	.03866***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	14515	14515	14515	13229
R2	0.103	0.103	0.104	0.109

Notes: All regressions use robust standard errors clustered at the subject level. All observations are reweighted to be reflective of the GSS population based on age (above 30), gender, income (above $60,000$), and belief that the government should reduce income differences. Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table A.3: Bottom, Topmost and Local Inequality Aversion in the Main Sample, controlling for Surplus

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0438***	-0.0439***	-0.0439***	-0.0444***
	[0.00495]	[0.00495]	[0.00495]	[0.00521]
$DiffIncome^{+2}$ in B vs. A	-0.00509	-0.00521	-0.00519	-0.00418
	[0.00405]	[0.00405]	[0.00405]	[0.00423]
$DiffIncome^{BOTTOM}$ in B vs. A	0.189***	0.189***	0.189***	0.195***
	[0.00705]	[0.00705]	[0.00705]	[0.00732]
$DiffIncome^{TOP}$ in B vs. A	-0.0480***	-0.0480***	-0.0479***	-0.0487***
	[0.00463]	[0.00463]	[0.00463]	[0.00490]
$DiffSurplus$ in B vs. A	0.00668**	0.00670**	0.00669**	0.00563**
	[0.00261]	[0.00261]	[0.00261]	[0.00273]
Above Two/One Diff.	.03873***	.03873***	.03866***	.0402***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	14515	14515	14515	13229
R2	0.103	0.104	0.104	0.109

Notes: All regressions include robust standard errors clustered at the subject level. The sample in this table includes participants in the "Absolute Differences" and "Percentage Differences" experiments run in September 2013 (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**} p < 0.05,^{***} p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual. $DiffSurplus$ is the difference in the sum of incomes between Societies B and A. See the text for additional details on variable definitions.

Table A.4: Bottom, Topmost and Local Inequality Aversion in the Main Sample, controlling for Gini Coefficient

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0391***	-0.0393***	-0.0392***	-0.0409***
	[0.00418]	[0.00418]	[0.00418]	[0.00441]
$DiffIncome^{+2}$ in B vs. A	-0.000331	-0.000436	-0.000435	-0.000261
	[0.00364]	[0.00364]	[0.00365]	[0.00381]
$DiffIncome^{BOTTOM}$ in B vs. A	0.175***	0.175***	0.175***	0.179***
	[0.00843]	[0.00842]	[0.00842]	[0.00873]
$DiffIncome^{TOP}$ in B vs. A	-0.0341***	-0.0341***	-0.0340***	-0.0355***
	[0.00467]	[0.00467]	[0.00467]	[0.00492]
$DiffGini$ in B vs. A	-0.103***	-0.104***	-0.104***	-0.106***
	[0.0276]	[0.0276]	[0.0276]	[0.0288]
Above Two/One Diff.	.03882***	.03882***	.03876***	.04063***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	14515	14515	14515	13229
R2	0.104	0.104	0.105	0.110

Notes: All regressions include robust standard errors clustered at the subject level. The sample in this table includes participants in the "Absolute Differences" and "Percentage Differences" experiments run in September 2013 (see text for details). Only subjects who completed all 10 iterations are included $^{*}p < 0.1,^{**} p < 0.05,^{***} p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual. $DiffGini$ is the difference in the Gini Coefficient between Societies B and A, multiplied by 100,000. See the text for additional details on variable definitions.

Table A.5: Bottom, Topmost and Local Inequality Aversion in the Main Sample, controlling for Fehr-Schmidt variables

	Dep. var: Chose Distribution B over A		
	(1)	(2)	(3)
$DiffIncome^{+1}$ in B vs. A	-0.0371***		-0.0393***
	[0.00415]		[0.00681]
$DiffIncome^{+2}$ in B vs. A	-0.000224		-0.00162
	[0.00365]		[0.00520]
$DiffIncome^{BOTTOM}$ in B vs. A	0.195***		0.174***
	[0.00662]		[0.00825]
$DiffIncome^{TOP}$ in B vs. A	-0.0426***		-0.0441***
	[0.00407]		[0.00567]
$DiffFS^{ADV}$ in B vs. A		-0.197***	-0.0418***
		[0.00817]	[0.00987]
$DiffFS^{DISADV}$ in B vs. A		-0.0806***	0.00606
		[0.00705]	[0.0150]
Above Two/One Diff.	.03691***		.03764***
Question-Order FE	Yes	Yes	Yes
Position	Yes	Yes	Yes
Ex. short duration	Yes	Yes	Yes
Observations	14515	14515	14515
R2	0.103	0.0618	0.104

Notes: All regressions include robust standard errors clustered at the subject level. The sample in this table includes participants in the "Absolute Differences" and "Percentage Differences" experiments run in September 2013 (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table A.6: Heterogeneity in Inequality Aversion in the Own-Income Varies Sample

	Dep. var: Chose Second Distribution			
	(1)	(2)	(3)	(4)
	Democrat	Republican	Not Fair Distribution	Fair Distribution
$DiffIncome^{+1}$ in B vs. A	-0.0159**	-0.0200	-0.0118**	-0.0126
	[0.00772]	[0.0131]	[0.00574]	[0.00818]
$DiffIncome^{+2}$ in B vs. A	0.000861	-0.0240**	0.00315	-0.00712
	[0.00800]	[0.0107]	[0.00527]	[0.00894]
$DiffIncome^{BOTTOM}$ in B vs. A	0.160***	0.107***	0.159***	0.0767***
	[0.0212]	[0.0309]	[0.0151]	[0.0205]
$DiffIncome^{OWN}$ in B vs. A	0.213***	0.249***	0.191***	0.261***
	[0.0103]	[0.0175]	[0.00793]	[0.0107]
$DiffIncome^{TOP}$ in B vs. A	-0.0386***	-0.0115	-0.0467***	-0.0241***
	[0.00655]	[0.0102]	[0.00469]	[0.00752]
Above Two/One Diff.	.01673	-.00393	.01493*	.00549
Question-Order FE	No	No	No	No
Position	No	No	No	No
Ex. short duration	No	No	No	No
Observations	1560	655	3302	1243

Notes: All regressions use robust standard errors clustered at the subject level. The sample in this table includes participants in the "Own Income" experiment (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. In columns (1) and (2) regressions are run separately on the subsamples of, respectively, self-identified Democrats and Republicans. In columns (3) and (4) we divide the sample based on responses to the question, "Do you feel that the distribution of income and wealth in the US today is fair or should be more evenly distributed among a larger portion of the population?" $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^1$ is the difference in income between Societies B and A for the poorest (i.e., position 1) individual. $DiffIncome^7$ is similarly defined for the richest individual.

Table A.7: Heterogeneity in Inequality Aversion

	Dep. var: Chose Second Distribution							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Income $\leq$ 49k	Income $\geq$ 49k	Age $\leq$ 30	Age $\geq$ 30	Male	Female	No College	College
$DiffIncome^{+1}$ in B vs. A	-0.0288***	-0.0437***	-0.0328***	-0.0426***	-0.0348***	-0.0378***	-0.0346***	-0.0374***
	[0.00588]	[0.00589]	[0.00518]	[0.00695]	[0.00581]	[0.00593]	[0.00648]	[0.00543]
$DiffIncome^{+2}$ in B vs. A	0.00419	-0.00514	0.00218	-0.00584	-0.00264	0.00168	0.000395	-0.00126
	[0.00498]	[0.00536]	[0.00459]	[0.00608]	[0.00499]	[0.00537]	[0.00562]	[0.00482]
$DiffIncome^{BOTTOM}$ in B vs. A	0.205***	0.185***	0.194***	0.198***	0.198***	0.191***	0.201***	0.191***
	[0.00949]	[0.00933]	[0.00794]	[0.0122]	[0.00878]	[0.0102]	[0.0102]	[0.00881]
$DiffIncome^{TOP}$ in B vs. A	-0.0394***	-0.0457***	-0.0491***	-0.0313***	-0.0323***	-0.0532***	-0.0327***	-0.0498***
	[0.00572]	[0.00579]	[0.00501]	[0.00694]	[0.00566]	[0.00585]	[0.00623]	[0.00538]
Above Two/One Diff.	.03298***	.03854***	.03498***	.03679***	.03217***	.03944***	.03495***	.03613***
Question-Order FE	No	No	No	No	No	No	No	No
Position	No	No	No	No	No	No	No	No
Ex. short duration	No	No	No	No	No	No	No	No
Observations	7226	7182	9737	4671	7892	6516	6056	8352

Notes: All regressions use robust standard errors clustered at the subject level. The sample in this table includes participants in the "Absolute Differences" and "Percentage Differences" experiments run in September 2013 (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^1$ is the difference in income between Societies B and A for the poorest (i.e., position 1) individual. $DiffIncome^7$ is similarly defined for the richest individual.

Table A.8: Most common bigrams

"Real Stakes"		"Labeled Mean"		"Democracy"	
Text	Freq.	Text	Freq.	Text	Freq.
lowest incom	64	averag incom	47	lowest incom	23
highest incom	54	lowest incom	16	higher incom	14
incom level	49	median incom	14	even distribut	12
higher incom	38	higher averag	13	highest incom	10
amount money	35	highest incom	12	incom peopl	10
distribut incom	35	incom level	12	lower incom	10
equal distribut	31	lower averag	12	lowest earner	10
incom distribut	26	incom averag	10	incom distribut	8
incom higher	26	closer averag	8	incom level	8
even distribut	25	even distribut	8	distribut wealth	7
incom equal	23	incom lower	8	look lowest	7
lower incom	23	lowest earner	8	differ incom	6
incom peopl	22	incom equal	7	incom higher	6
middl class	21	low incom	7	amount money	5
gap incom	20	wealth distribut	7	equal distribut	5
incom highest	18	averag salari	6	highest lowest	5
distribut wealth	17	incom closest	6	incom lowest	5
import factor	17	incom distribut	6	lowest person	5
highest lowest	16	lower incom	6	amount incom	4
incom lowest	16	peopl make	6	closest top	4

Notes: Data are taken from the "real stakes," "labeled mean," and "democracy" experiments. Respondents who took the survey more than once are dropped. We use the "tm" package in R to process the text of the responses to this question. We convert all text to lowercase, strip punctuation and common English stopwords, and stem words with a Porter stemmer. We then take all 2-word (bigram) sequences in the remaining text, and calculate frequencies across subject responses.

Table A.9: Bottom, Topmost and Local Inequality Aversion in the Histogram Treatment

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffFrequency^{+1}$ in B vs. A	-0.0112	-0.000427	-0.0223	-0.0197
	[0.00815]	[0.00766]	[0.0187]	[0.0166]
$DiffFrequency^{+2}$ in B vs. A	-0.00782	0.0000707	-0.000974	-0.000550
	[0.00730]	[0.00732]	[0.0201]	[0.0178]
$DiffFrequency^{BOTTOM}$ in B vs. A	-0.00344	-0.00421	-0.0316	-0.0308
	[0.00971]	[0.00949]	[0.0252]	[0.0221]
$DiffFrequency^{TOP}$ in B vs. A	-0.0306***	-0.0229***	-0.0632**	-0.0446**
	[0.00720]	[0.00707]	[0.0273]	[0.0221]
$DiffFrequency^{OWN}$ in B vs. A		0.0894***	0.0449**	0.0385**
		[0.00831]	[0.0202]	[0.0169]
Above Two/One Diff.	.00342	.0005	.02129	.01919
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	No	Yes
Ex. short duration	No	No	No	Yes
Observations	2334	2334	339	479
R2	0.0119	0.0791	0.0748	0.0440

Notes: All regressions include robust standard errors clustered at the subject level. The sample in this table includes participants in the experiment run in September 2019 (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. Column (1) and (2) include all 255 subjects who completed the experiment. Column (3) restricts attention to the 37 subjects who very likely understood the histogram, i.e. those whose choices imply a $DiffFrequency^{OWN}$ coefficient between (-0.05,0.05). Column (4) is analogous to column (3) but uses a slightly less restrictive classification, including subjects whose choices imply a $DiffFrequency^{OWN}$ coefficient between (-0.1,0.1) (see Section 6.3 for details). $DiffFrequency^{+1}$ is the difference in the frequency between Societies B and A for the group of individuals in the position directly above the subject's own group. $DiffFrequency^{+2}$ is similarly defined for the group of individuals two positions above the subject's own group. $DiffFrequency^{TOP}$ is the difference in frequency between Societies B and A for the richest (i.e., position 26) group of individuals. $DiffFrequency^{BOTTOM}$ is similarly defined for the poorest group of individuals $DiffFrequency^{OWN}$ is the difference in frequency between Societies B and A for the subject own group.

Table A.10: Bottom, Topmost and Local Inequality Aversion in the Histogram Treatment, Sign-Based Results

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$SignFrequency^{+1}$ in B vs. A	-0.0264	-0.0110	-0.0963*	-0.0911**
	[0.0228]	[0.0216]	[0.0479]	[0.0445]
$SignFrequency^{+2}$ in B vs. A	0.0209	0.0248	0.0230	0.0362
	[0.0202]	[0.0192]	[0.0553]	[0.0450]
$SignFrequency^{BOTTOM}$ in B vs. A	-0.00718	-0.00996	-0.101*	-0.0793
	[0.0220]	[0.0213]	[0.0558]	[0.0480]
$SignFrequency^{TOP}$ in B vs. A	-0.103***	-0.0837***	-0.254***	-0.200***
	[0.0244]	[0.0231]	[0.0815]	[0.0663]
$SignFrequency^{OWN}$ in B vs. A		0.301***	0.136***	0.125***
		[0.0260]	[0.0436]	[0.0334]
Above Two/One Diff.	.04734*	.03579	.11932*	.12731**
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	No	Yes
Ex. short duration	No	No	No	Yes
Observations	2334	2334	339	479
R2	0.0116	0.101	0.110	0.0737

Notes: All regressions include robust standard errors clustered at the subject level. The sample in this table includes participants in the experiment run in September 2019 (see text for details). Only subjects who completed all 10 iterations are included $^*p < 0.1,$$^{**}p < 0.05,$$^{***}p < 0.01.$ Column (1) and (2) include all 255 subjects who completed the experiment. Column (3) restricts attention to the 37 subjects we classify as those who very likely understood the histogram. Column (4) is analogous to column (3) but uses a slightly less restrictive classification, thus including 52 subjects (see Section 6.3 for details). $SignFrequency^{+1}$ is the sign of the difference in the frequency between Societies B and A for the group of individuals in the position directly above the subject's own group. $SignFrequency^{+2}$ is similarly defined for the group of individuals two positions above the subject's own group. $SignFrequency^{TOP}$ is the sign of the difference in frequency between Societies B and A for the richest (i.e., position 26) group of individuals. $SignFrequency^{BOTTOM}$ is similarly defined for the poorest group of individuals. $SignFrequency^{OWN}$ is the sign of the difference in frequency between Societies B and A for the subject own group.

B   Additional Experiments, Histogram Treatment Description

In this treatment, respondents are presented with societies captured by histograms showing the fraction of the population in each income bracket. To generate each distribution, we took 700 draws from the log-normal distributions with parameters $\mu = 11$ and $\sigma = 0.88$, values that result in a distribution with mean and median that approximate the U.S. household income distribution in 2017 (see Table A1 (p. 27) of `https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-263.pdf`). The choice of 700 was made to be large enough ensure that the distributions were broadly comparable, while not so large as to erase any discernable differences between them.

The resultant distributions were then put into bins of $10,000 width, topcoded at $250,000.

The instructions in the "histogram treatment" were amended to read as follows. First, since the histogram treatment involves *groups* of individuals rather than individual members of a society, in the initial instructions we provide the following guidance on how to interpret the graphs that follow (this material departs from the previous instructions only in providing a definition for INCOME GROUP rather than INCOME):

> The next several questions are about "INCOME GROUP" and "SOCIETY".
>
> We would like you to think about these two definitions when you respond to the questions that follow:
>
> "INCOME GROUP" in this survey is defined as a group of individuals in the society whose incomes all fall within a particular range.
>
> "SOCIETY" in this survey is a hypothetical society which we divide into groups based on their incomes.

We then provide the following explanation, to help readers to interpret the histograms that follow:

> In each of the questions that follow, you will be asked to imagine that you are a member of one of the income groups in each of two corresponding hypothetical societies.
>
> On your screen two graphs will be displayed, each graph representing one of the two hypothetical societies. The height of each bar indicates the number of people in each income group, with the income range for the group labeled at the bottom of the bar. You will be asked which society, among the two societies displayed, you would prefer to live in. In each graph that is displayed, a red bar will indicate

your income group in that respective society (i.e., whether your income is in the 0-10,000 range, the 10-20,000 range, etc).

You can select the society that you would prefer to live in by clicking on the button at the bottom of the graph and then clicking next.

In Figure B.1, we provide a screenshot of a sample decision. As before, respondents made 10 such decisions during the experiment. As we emphasize in our response to your earlier comment, we were not entirely sure what to expect from this treatment, since it confronts respondents with a distinct type of "neighbor" comparison based on quantities of individuals rather than income differentials. As you imply, it is plausible that similar positional concerns might be invoked in this setting as well, and indeed ones that may be of more immediate relevance to larger societies.

Figure B.1: Alternative presentation of income distribution, using histograms

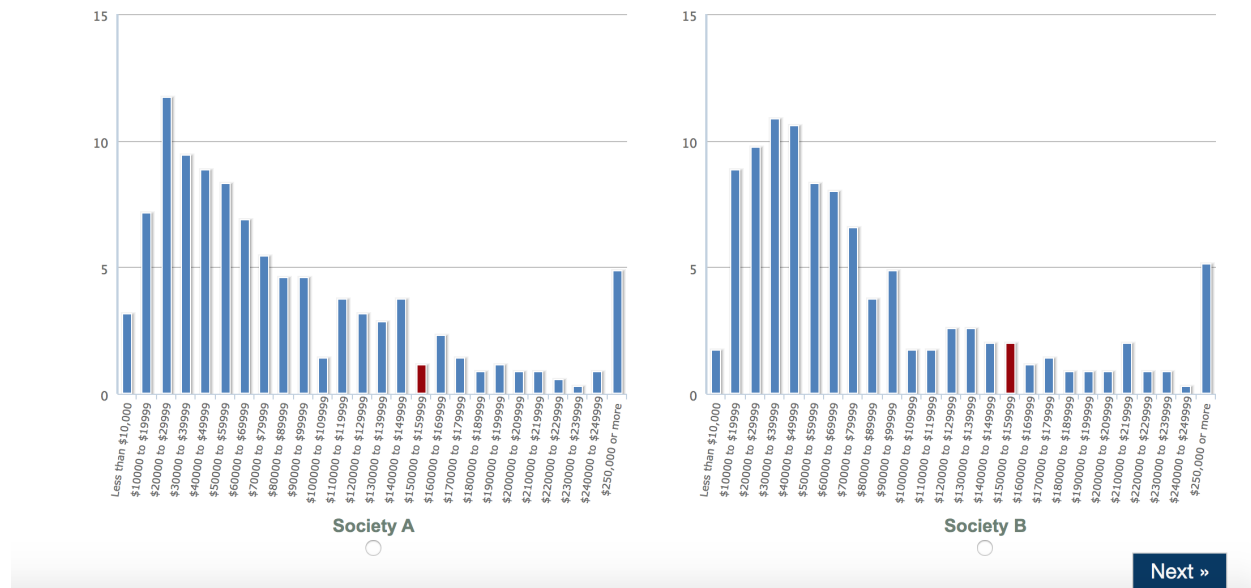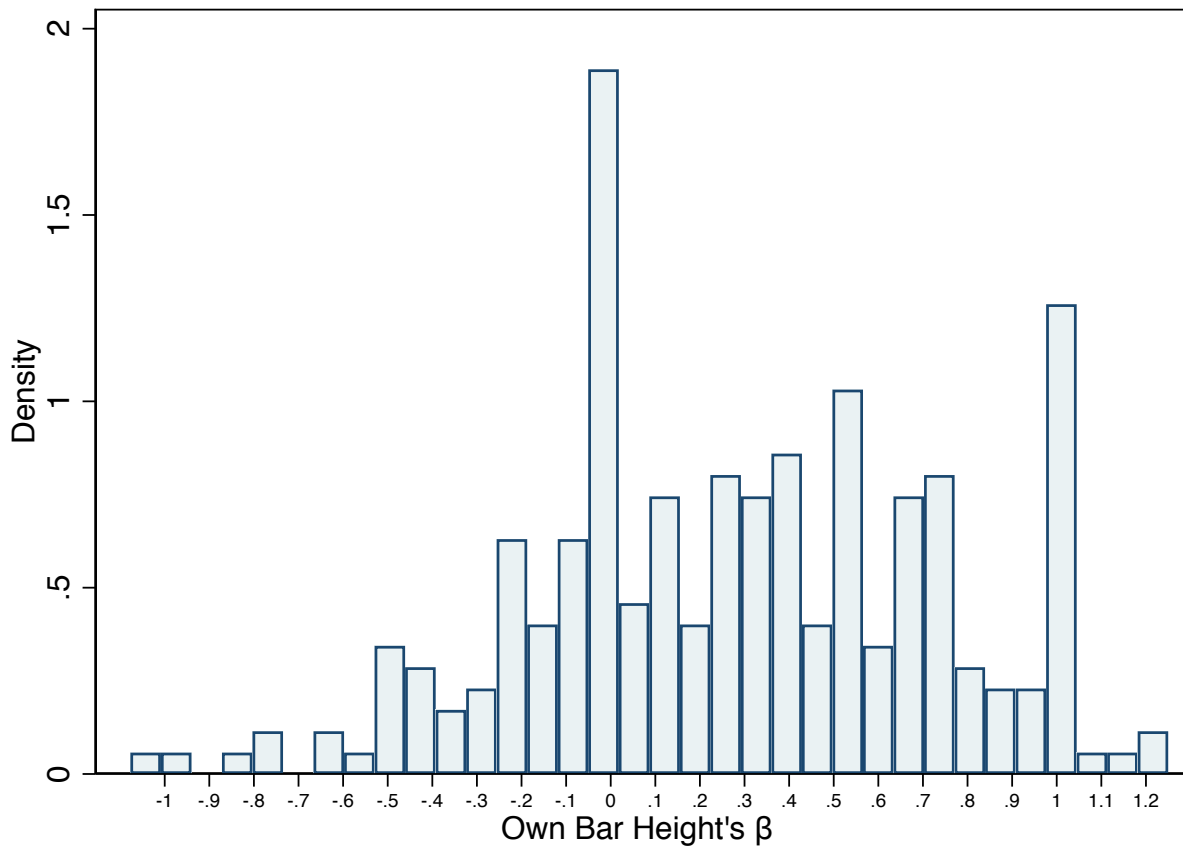Figure B.2: Histogram Undestanding

C   Additional regression specifications for companion experiments

Table C.1: Bottom, Topmost and Local Inequality Aversion in the Absolute Differences Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0544***	-0.0543***	-0.0543***	-0.0533***
	[0.00700]	[0.00701]	[0.00701]	[0.00727]
$DiffIncome^{+2}$ in B vs. A	0.000331	0.000214	0.000236	-0.000933
	[0.00640]	[0.00639]	[0.00639]	[0.00655]
$DiffIncome^{BOTTOM}$ in B vs. A	0.206***	0.206***	0.206***	0.209***
	[0.00775]	[0.00774]	[0.00774]	[0.00804]
$DiffIncome^{TOP}$ in B vs. A	-0.0620***	-0.0621***	-0.0621***	-0.0651***
	[0.00779]	[0.00779]	[0.00780]	[0.00805]
Above Two/One Diff.	.05469***	.05452***	.05453***	.05238***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	8669	8669	8669	8139
R2	0.133	0.134	0.134	0.139

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual.

Table C.2: Bottom, Topmost and Local Inequality Aversion in the Percentage Differences Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0280***	-0.0281***	-0.0281***	-0.0305***
	[0.00514]	[0.00515]	[0.00515]	[0.00549]
$DiffIncome^{+2}$ in B vs. A	-0.000459	-0.000588	-0.000538	0.000398
	[0.00443]	[0.00443]	[0.00444]	[0.00469]
$DiffIncome^{BOTTOM}$ in B vs. A	0.166***	0.166***	0.166***	0.172***
	[0.0128]	[0.0129]	[0.0129]	[0.0135]
$DiffIncome^{TOP}$ in B vs. A	-0.0365***	-0.0364***	-0.0363***	-0.0371***
	[0.00474]	[0.00474]	[0.00474]	[0.00507]
Above Two/One Diff.	.0275***	.02756***	.02754***	.03093***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	5846	5846	5846	5090
R2	0.0640	0.0650	0.0657	0.0696

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included *$p < 0.1$,**$p < 0.05$,***$p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table C.3: Bottom, Topmost and Local Inequality Aversion in the Own Income Variation Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0126***	-0.0125***	-0.0122**	-0.0105**
	[0.00476]	[0.00475]	[0.00475]	[0.00486]
$DiffIncome^{+2}$ in B vs. A	-0.000666	-0.000624	-0.000735	-0.000170
	[0.00451]	[0.00450]	[0.00450]	[0.00456]
$DiffIncome^{BOTTOM}$ in B vs. A	0.135***	0.135***	0.135***	0.136***
	[0.0125]	[0.0125]	[0.0125]	[0.0127]
$DiffIncome^{TOP}$ in B vs. A	-0.0400***	-0.0403***	-0.0402***	-0.0405***
	[0.00401]	[0.00403]	[0.00403]	[0.00412]
$DiffIncome^{OWN}$ in B vs. A	0.211***	0.211***	0.211***	0.210***
	[0.00657]	[0.00657]	[0.00658]	[0.00668]
Above Two/One Diff.	.01193*	.01183*	.01149*	.01029
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	4573	4573	4573	4397
R2	0.288	0.289	0.290	0.289

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual. $DiffIncome^{OWN}$ is the difference in income between Societies B and A for the subject own income.

Table C.4: Bottom, Topmost and Local Inequality Aversion in the Nine Person Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0545***	-0.0543***	-0.0545***	-0.0556***
	[0.00870]	[0.00871]	[0.00873]	[0.00874]
$DiffIncome^{+2}$ in B vs. A	-0.00225	-0.00234	-0.00224	-0.00286
	[0.00728]	[0.00729]	[0.00731]	[0.00741]
$DiffIncome^{BOTTOM}$ in B vs. A	0.245***	0.245***	0.245***	0.241***
	[0.0232]	[0.0233]	[0.0233]	[0.0235]
$DiffIncome^{TOP}$ in B vs. A	-0.0505***	-0.0505***	-0.0505***	-0.0509***
	[0.00593]	[0.00593]	[0.00593]	[0.00597]
Above Two/One Diff.	.05229***	.05198***	.05223***	.05273***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	3396	3396	3396	3330
R2	0.0827	0.0834	0.0836	0.0834

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^9$ is the difference in income between Societies B and A for the richest (i.e., position 9) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table C.5: Bottom, Topmost and Local Inequality Aversion in the High Inequality Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0260***	-0.0259***	-0.0259***	-0.0272***
	[0.00541]	[0.00541]	[0.00541]	[0.00552]
$DiffIncome^{+2}$ in B vs. A	-0.00491	-0.00469	-0.00476	-0.00462
	[0.00394]	[0.00396]	[0.00396]	[0.00401]
$DiffIncome^{BOTTOM}$ in B vs. A	0.324***	0.322***	0.321***	0.324***
	[0.0405]	[0.0405]	[0.0406]	[0.0413]
$DiffIncome^{TOP}$ in B vs. A	-0.0568***	-0.0569***	-0.0569***	-0.0574***
	[0.00384]	[0.00385]	[0.00385]	[0.00396]
Above Two/One Diff.	.02111***	.02117***	.0211***	.0226***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	3631	3631	3631	3482
R2	0.128	0.130	0.131	0.133

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^*p < 0.1,$$^{**}p < 0.05,$$^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table C.6: Bottom, Topmost and Local Inequality Aversion in the Very High Inequality Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0265***	-0.0265***	-0.0264***	-0.0267***
	[0.00327]	[0.00326]	[0.00326]	[0.00328]
$DiffIncome^{+2}$ in B vs. A	-0.000830	-0.000773	-0.000806	-0.000378
	[0.00277]	[0.00276]	[0.00276]	[0.00279]
$DiffIncome^{BOTTOM}$ in B vs. A	0.311***	0.309***	0.309***	0.317***
	[0.0407]	[0.0409]	[0.0409]	[0.0410]
$DiffIncome^{TOP}$ in B vs. A	-0.0325***	-0.0325***	-0.0325***	-0.0324***
	[0.00250]	[0.00250]	[0.00250]	[0.00252]
Above Two/One Diff.	.0257***	.0257***	.02562***	.02633***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	4109	4109	4109	4042
R2	0.0992	0.100	0.101	0.101

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table C.7: Bottom, Topmost and Local Inequality Aversion in the Alternative Formatting Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0408***	-0.0407***	-0.0407***	-0.0411***
	[0.00641]	[0.00640]	[0.00639]	[0.00666]
$DiffIncome^{+2}$ in B vs. A	-0.00220	-0.00221	-0.00226	-0.00227
	[0.00513]	[0.00514]	[0.00514]	[0.00534]
$DiffIncome^{BOTTOM}$ in B vs. A	0.178***	0.176***	0.176***	0.183***
	[0.0152]	[0.0153]	[0.0152]	[0.0159]
$DiffIncome^{TOP}$ in B vs. A	-0.0547***	-0.0545***	-0.0547***	-0.0522***
	[0.00567]	[0.00568]	[0.00568]	[0.00592]
Above Two/One Diff.	.03859***	.03852***	.03849***	.03879***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	3729	3729	3729	3417
R2	0.101	0.104	0.104	0.105

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. In all specifications, monetary values are expressed in units of $10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual.

Table C.8: Bottom, Topmost and Local Inequality Aversion in the Real Stakes Sample

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.00509	-0.00496	-0.00520	-0.00566
	[0.00574]	[0.00571]	[0.00571]	[0.00598]
$DiffIncome^{+2}$ in B vs. A	-0.000258	0.000159	0.000204	0.00113
	[0.00480]	[0.00484]	[0.00484]	[0.00512]
$DiffIncome^{BOTTOM}$ in B vs. A	0.223***	0.223***	0.223***	0.225***
	[0.0137]	[0.0137]	[0.0137]	[0.0143]
$DiffIncome^{TOP}$ in B vs. A	-0.0402***	-0.0403***	-0.0402***	-0.0432***
	[0.00507]	[0.00505]	[0.00504]	[0.00516]
Above Two/One Diff.	.00483	.00512	.00541	.00679
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	4523	4523	4523	4170
R2	0.0954	0.0971	0.0979	0.103

Notes: All regressions use robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^*p < 0.1,^{**} p < 0.05,^{***} p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^7$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^1$ is similarly defined for the poorest individual.

Table C.9: Bottom, Topmost and Local Inequality Aversion in the Democracy Treatment

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0107	-0.00998	-0.0109	-0.0107
	[0.00931]	[0.00917]	[0.00918]	[0.00948]
$DiffIncome^{+2}$ in B vs. A	0.0139*	0.0148**	0.0148**	0.0139*
	[0.00708]	[0.00708]	[0.00705]	[0.00743]
$DiffIncome^{BOTTOM}$ in B vs. A	0.226***	0.226***	0.225***	0.229***
	[0.0218]	[0.0217]	[0.0218]	[0.0225]
$DiffIncome^{TOP}$ in B vs. A	-0.0397***	-0.0397***	-0.0390***	-0.0381***
	[0.00818]	[0.00814]	[0.00811]	[0.00845]
Above Two/One Diff.	.02452**	.02477**	.02568**	.02462**
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	1851	1851	1851	1723
R2	0.0985	0.104	0.106	0.110

Notes: All regressions include robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included *$p < 0.1$,** $p < 0.05$,*** $p < 0.01$. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual.

Table C.10: Bottom, Topmost and Local Inequality Aversion in the Labeled Mean Treatment

	Dep. var: Chose Distribution B over A			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0255***	-0.0281***	-0.0279***	-0.0305***
	[0.00910]	[0.00907]	[0.00911]	[0.00961]
$DiffIncome^{+2}$ in B vs. A	-0.0249***	-0.0248***	-0.0242***	-0.0273***
	[0.00868]	[0.00870]	[0.00867]	[0.00909]
$DiffIncome^{BOTTOM}$ in B vs. A	0.108***	0.108***	0.110***	0.106***
	[0.0224]	[0.0224]	[0.0224]	[0.0243]
$DiffIncome^{TOP}$ in B vs. A	-0.0407***	-0.0405***	-0.0408***	-0.0401***
	[0.00864]	[0.00860]	[0.00858]	[0.00901]
Above Two/One Diff.	.00062	.0033	.00372	.00315
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	1702	1702	1702	1522
R2	0.0558	0.0629	0.0646	0.0672

Notes: All regressions include robust standard errors clustered at the subject level. Only subjects who completed all 10 iterations are included $^{*}p < 0.1,^{**} p < 0.05,^{***} p < 0.01$. In all specifications, monetary values are expressed in units of $10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual.

D   Additional information on data collection

We registered as a requester and created a *human intelligence task* (HIT) titled "5-10 Minute Survey About Income Preferences."[1] To limit selection bias while also giving workers an honest description of the task, we provided a short, neutral description of the HIT ("This survey is part of an academic research survey") that could be viewed by workers before they signed up to participate. As noted in the text, compensation was set to $.50.

Each worker logs in with an MTurk worker ID. We collected data over ten separate sessions, and in our main results we drop any worker who had taken a previous survey with the same ID so as to gather a fresh sample each time. Our results hold, however, when we keep repeat-takers in the sample, as we show below in Appendix Table D.1.

We took a number of steps to ensure a subject pool composed of attentive adult Americans (actual humans as opposed to "bots") taking the survey in good faith. We begin each survey with a "captcha" (non-standard writing difficult for computers to interpret), followed by a series of animal sketches (hand-drawn by one of the authors) that subjects needed to identify before starting the experiment, in case robots have been trained to read captchas.[2] Individuals were prompted for a response if they tried to skip questions (to further discourage robots and inattentive respondents). We also limited the survey's availability to those with U.S. billing addresses and asked respondents to confirm their residency in the United States. Finally, we also required that MTurk workers have at least a ninety percent satisfaction rate on past HITs.

For the 2019 surveys, we continue to take these steps, but we raised the past-satisfaction threshold from 90 to 97 percent. We made this choice because of the well-documented decline in MTurk data quality noticed by past researchers (see, e.g., Kennedy et al. (2018) and Dennis et al. (2018)). Two of us independently found the same phenomenon in a different paper (**?**). In that paper, we detected bots by reading the answers to open-ended questions. For bots, the answers appear to be generated by an algorithm that searches online for the words included in the question and then outputs one of the results. In Fisman et al. (2017), we had asked subjects the open-ended question: "How did you decide how much the hypothetical person should pay in taxes." Bots would answer with grammatically correct but non-responsive sentences such as: "The three types of taxes are the proportional tax, the progressive tax, and the regressive tax." We found that raising the threshold to 97 percent

---

[1]Two sessions of the survey were administered with small changes to the HIT title. One session was run with the title "7-10 Minute Survey About Income Preferences", and another was run with the title "10 Minute Research Survey About Income Preferences".

[2]Examples of "captchas" can be found here: `http://www.fileflash.com/graphics/screens/Captcha_Creator_PHP_Script-69.gif`.

Table D.1: Bottom, Topmost and Local Inequality Aversion in the Main Sample, including retakers

	Dep. var: Chose Second Distribution			
	(1)	(2)	(3)	(4)
$DiffIncome^{+1}$ in B vs. A	-0.0371***	-0.0372***	-0.0372***	-0.0388***
	[0.00415]	[0.00416]	[0.00416]	[0.00438]
$DiffIncome^{+2}$ in B vs. A	-0.000224	-0.000329	-0.000328	-0.000106
	[0.00365]	[0.00365]	[0.00365]	[0.00382]
$DiffIncome^{BOTTOM}$ in B vs. A	0.195***	0.196***	0.196***	0.200***
	[0.00662]	[0.00662]	[0.00662]	[0.00690]
$DiffIncome^{TOP}$ in B vs. A	-0.0426***	-0.0425***	-0.0425***	-0.0442***
	[0.00407]	[0.00407]	[0.00407]	[0.00431]
Above Two/One Diff.	.03691***	.03691***	.03684***	.03866***
Question-Order FE	No	Yes	Yes	Yes
Position	No	No	Yes	Yes
Ex. short duration	No	No	No	Yes
Observations	14515	14515	14515	13229
R2	0.103	0.103	0.104	0.109

Notes: All regressions use robust standard errors clustered at the subject level. The sample in this table includes participants in the "Absolute Differences" and "Percentage Differences" experiments run in September 2013 (see text for details). Only subjects who completed all 10 iterations are included $^{*}p < 0.1,^{**}p < 0.05,^{***}p < 0.01$. Subjects who completed multiple versions of the survey are now included. In all specifications, monetary values are expressed in units of $\$10,000$ to make the table more readable. $DiffIncome^{+1}$ is the difference in income between Societies B and A for the individual in the position directly above the subject's own. $DiffIncome^{+2}$ is similarly defined for the individual two positions above the subject. $DiffIncome^{7}$ is the difference in income between Societies B and A for the richest (i.e., position 7) individual. $DiffIncome^{1}$ is similarly defined for the poorest individual.

effectively eliminated bots from the MTurk sample. The data appendix for Fisman et al. (2017) provides slightly more detail.

For all of the 2019 MTurk sessions, we asked open-ended questions and thus could assess the answers. None gave answers of the type described above.

References

Dennis, SA, BM Goodson, and C Pearson, "Virtual private servers and the limitations of IP-based screening procedures: Lessons from the MTurk quality crisis of 2018," 2018.

Fisman, Raymond, Keith Gladstone, Ilyana Kuziemko, and Suresh Naidu, "Do Americans Want to Tax Capital? Evidence from Online Surveys," Working Paper 23907, National Bureau of Economic Research October 2017.

Kennedy, Ryan, Scott Clifford, Tyler Burleigh, Philip Waggoner, and Ryan Jewell, "The shape of and solutions to the MTurk quality crisis," *Available at SSRN*, 2018.