Online Appendix for "On the Value of Birth Weight"*

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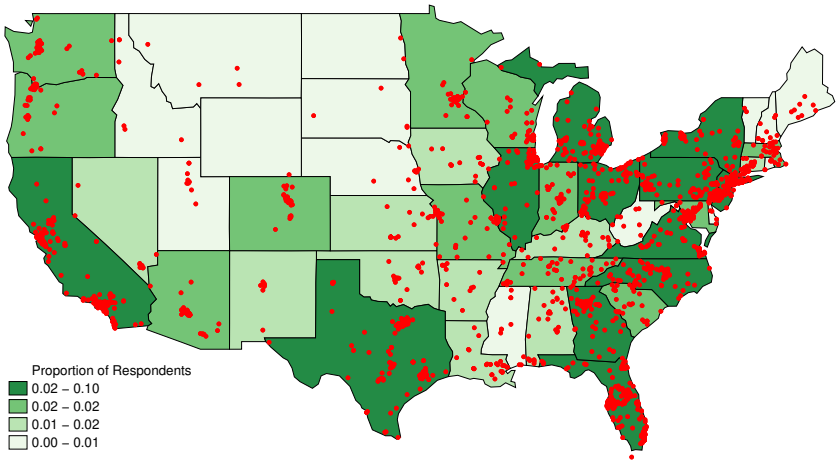
Abstract

This document contains the online appendix for "On the Value of Birth Weight".

*This experiment documented in this paper has passed ethical approval at the Oxford Centre of Experimental Social Sciences (CESS), and been registered as project ETH-160128161. We thank the editor James Fenske, two anonymous referees at the Oxford Bulletin of Economics and Statistics, Áureo de Paula, two anonymous referees at Review of Economic Studies, and participants in seminars at the University of Exeter and the University of Surrey, and at the Royal Economic Society (RES) Annual Conference 2019 (University of Warwick) and European Society for Population Economics (ESPE) Annual Conference 2019 (University of Bath) for helpful comments and suggestions. eplication materials are available at the Harvard Dataverse, DOI: `https://doi.org/10.7910/DVN/IWINJN`. Any errors are our own.

Additional Figures and Tables

Figure A1: Geographical Coverage of Respondents



NOTES: The survey sample consists of 2,005 respondents. The final estimation sample consists of 1,894 respondents after removing respondents whose geographic IP suggested a non-US location (72 respondents, 3.6%), those who failed to respond that their educational attainment was identical at the beginning and end of the survey 26 respondents, 1.3%, and those who completed the discrete choice experiment in under two minutes (16 respondents, 0.8%).

Table A1: Geographical Coverage of Respondents

State Name	Percent MTurk	Percent Census Bureau	Difference
Alabama	1.53	1.51	0.02
Alaska	0.21	0.23	-0.02
Arizona	1.85	2.12	-0.28
Arkansas	0.84	0.93	-0.08
California	7.87	12.18	-4.31
Colorado	1.80	1.70	0.10
Connecticut	1.27	1.12	0.15
Delaware	0.11	0.29	-0.19
District of Columbia	0.21	0.21	0.00
Florida	9.50	6.31	3.20
Georgia	3.48	3.18	0.31
Hawaii	0.11	0.45	-0.34
Idaho	0.26	0.51	-0.25
Illinois	3.01	4.00	-0.99
Indiana	1.90	2.06	-0.16
Iowa	0.74	0.97	-0.23
Kansas	0.95	0.91	0.04
Kentucky	1.37	1.38	-0.00
Louisiana	1.48	1.45	0.03
Maine	0.42	0.41	0.01
Maryland	1.85	1.87	-0.02
Massachusetts	1.90	2.11	-0.21
Michigan	4.12	3.09	1.03
Minnesota	1.58	1.71	-0.12
Mississippi	0.63	0.93	-0.30
Missouri	2.22	1.89	0.32

Table A1: Geographical Coverage of Respondents

State Name	Percent MTurk	Percent Census Bureau	Difference
Montana	0.21	0.32	-0.11
Nebraska	0.58	0.59	-0.01
Nevada	0.79	0.90	-0.11
New Hampshire	0.63	0.41	0.22
New Jersey	3.17	2.79	0.38
New Mexico	0.69	0.65	0.04
New York	6.71	6.16	0.55
North Carolina	3.85	3.12	0.73
North Dakota	0.11	0.24	-0.13
Ohio	4.28	3.61	0.66
Oklahoma	1.00	1.22	-0.21
Oregon	1.74	1.25	0.49
Pennsylvania	4.96	3.98	0.98
Rhode Island	0.26	0.33	-0.06
South Carolina	1.64	1.52	0.11
South Dakota	0.21	0.27	-0.06
Tennessee	2.27	2.05	0.22
Texas	6.60	8.55	-1.95
Utah	0.63	0.93	-0.30
Vermont	0.16	0.19	-0.04
Virginia	3.59	2.61	0.98
Washington	2.32	2.23	0.09
West Virginia	0.58	0.57	0.01
Wisconsin	1.69	1.80	-0.11
Wyoming	0.11	0.18	-0.08

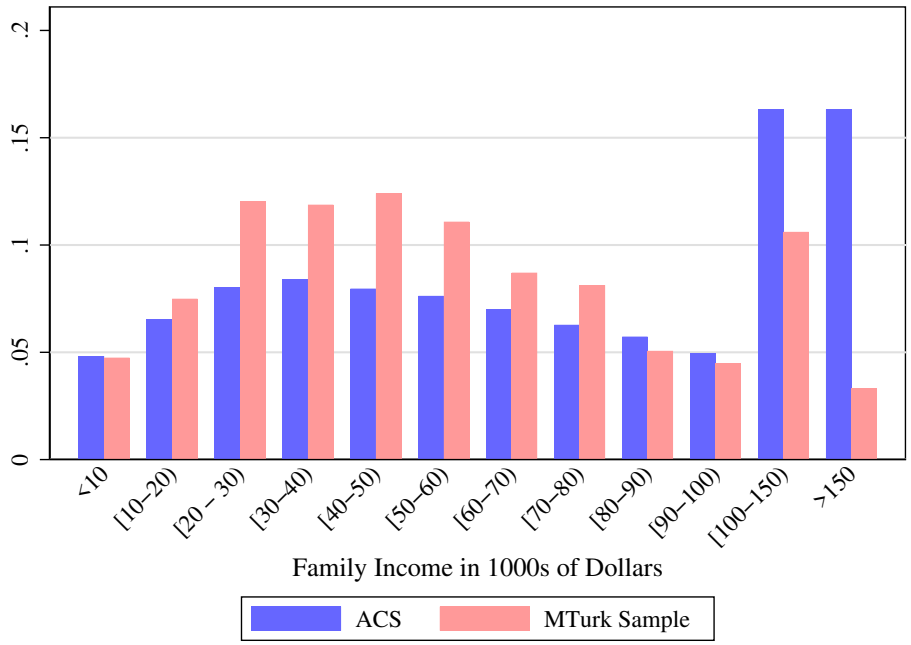
NOTES: Columns present the percentage of respondents from the MTurk sample, the percentage of residents according to US Census Bureau records (2015), and the difference between the percentage of MTurk respondents and residents.

Table A2: Comparison of MTurk Respondents with American Community Survey

Variable	MTurk Sample		ACS Sample		Difference	
	Mean	Std. Dev.	Mean	Std. Dev.	Diff.	t-Stat.
Female	0.531	(0.499)	0.507	(0.500)	0.024	2.096
Age	36.545	(11.683)	22.246	(12.716)	14.299	48.909
Black	0.079	(0.270)	0.081	(0.273)	-0.002	-0.330
White	0.820	(0.384)	0.477	(0.499)	0.343	29.890
Hispanic	0.080	(0.272)	0.458	(0.498)	-0.378	-32.995
Parent	0.496	(0.500)	0.527	(0.499)	-0.031	-2.722
Number of Children	1.014	(1.267)	1.006	(1.310)	0.008	0.269
Married	0.455	(0.498)	0.169	(0.375)	0.286	33.097
Employed	0.733	(0.442)	0.302	(0.459)	0.431	40.910
Some College +	0.890	(0.313)	0.367	(0.482)	0.523	47.278
Years of Education	14.675	(1.730)	10.465	(5.437)	4.21	33.698
Family Income (1000s)	59.630	(39.294)	87.066	(91.364)	-27.436	-13.067

Notes: MTurk sample refers to the full estimation sample from the Discrete Choice Experiments implemented on Amazon Mechanical Turk and ACS Sample refers to the 2015 American Community Survey universe of respondents between 18 and 75 years. Sample weights are used when calculating ACS summary statistics. The absolute difference between means is displayed in the column labelled Diff, and a t-statistic associated with a t-test of equality of means is displayed in the t-Stat. column.

Figure A2: Total Family Income: MTurk Sample and ACS Sample (2015)



Notes: Income levels are reported in bins. In the MTurk survey, respondents reported their binned family income, while in ACS, absolute family income is reported. The full analysis sample is compared with the full ACS sample aged between 18-75.

Figure A3: Discrete Choice Experiment Framing

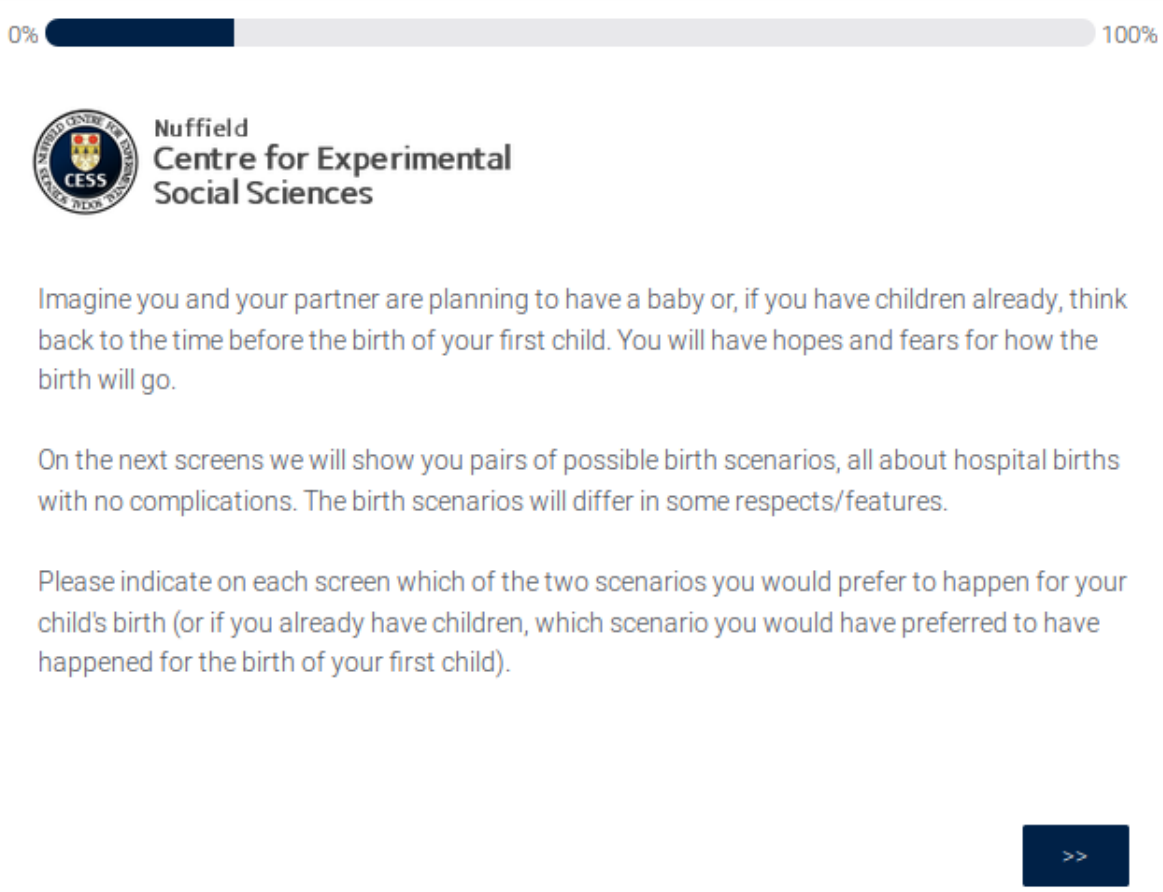


Figure A4: Discrete Choice Experiment Options

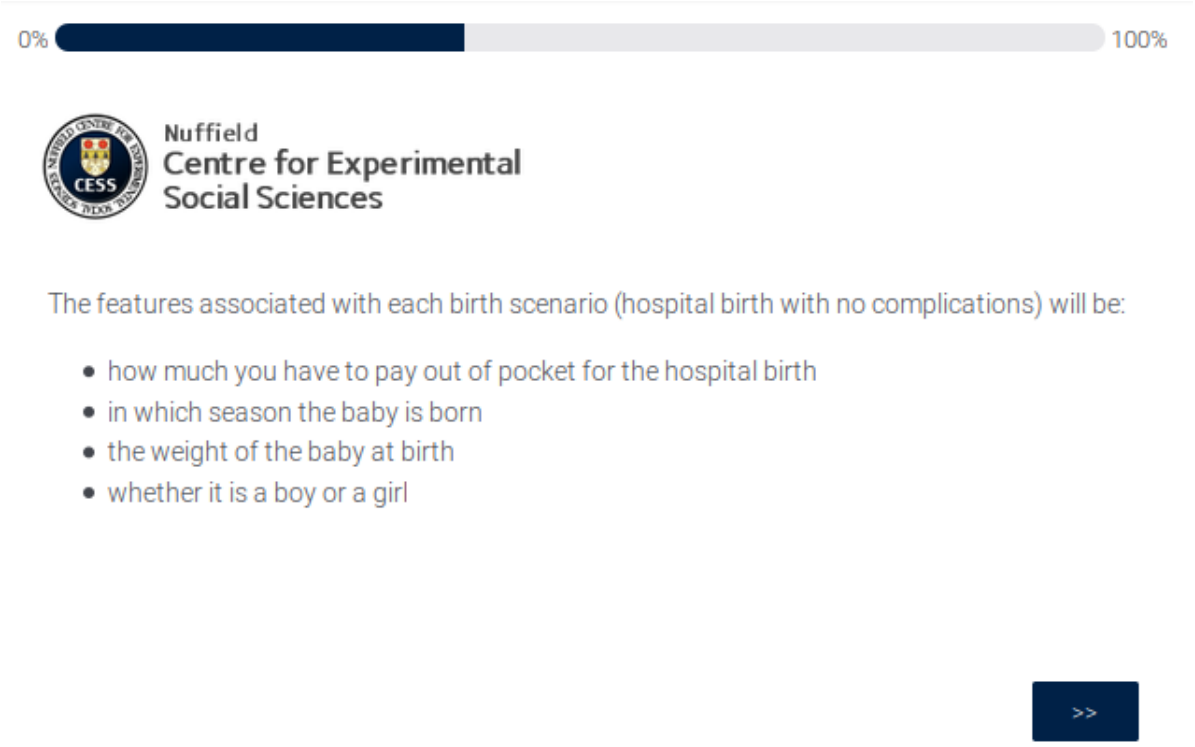


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Figure A5: Discrete Choice Experiment Example

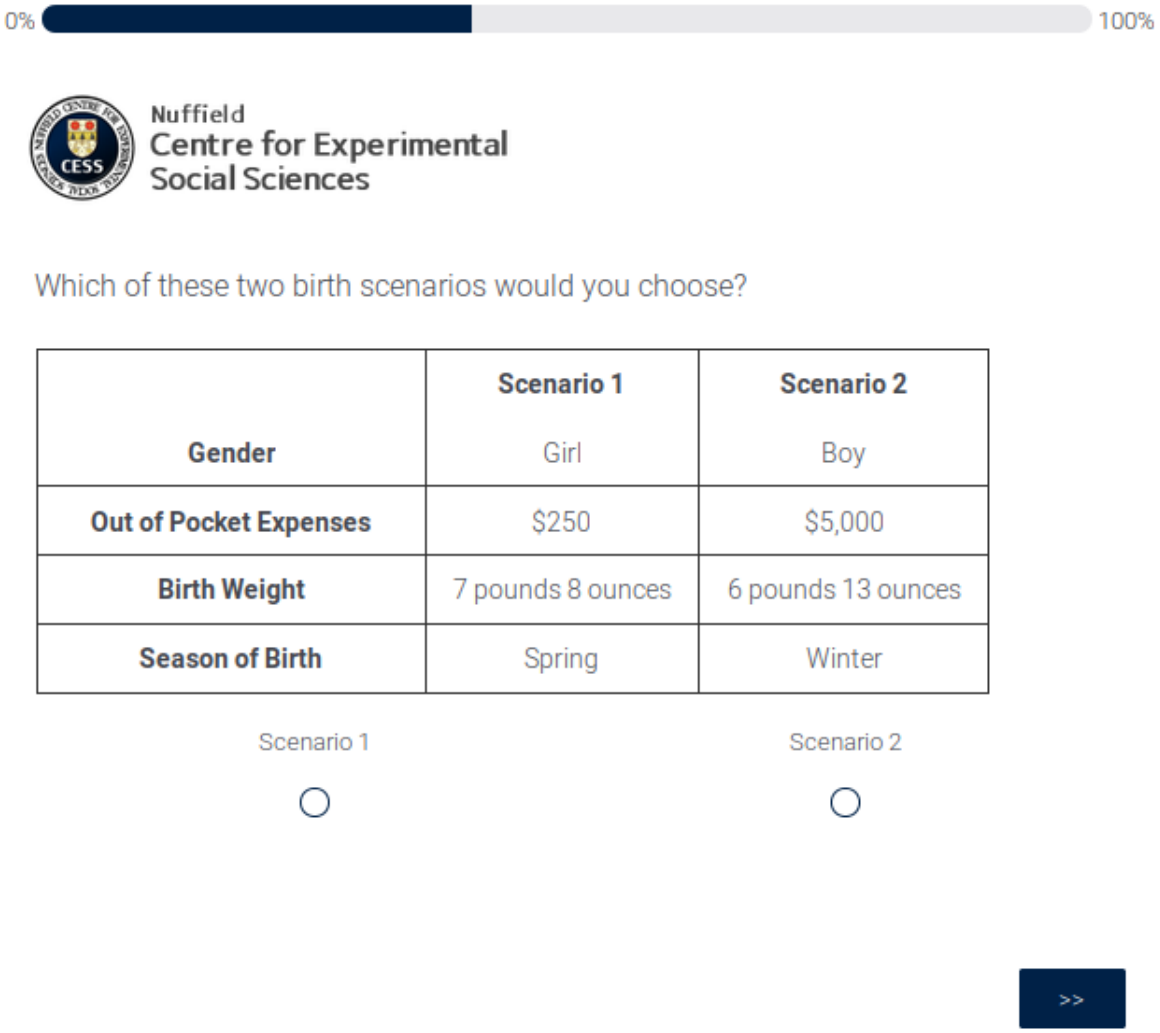
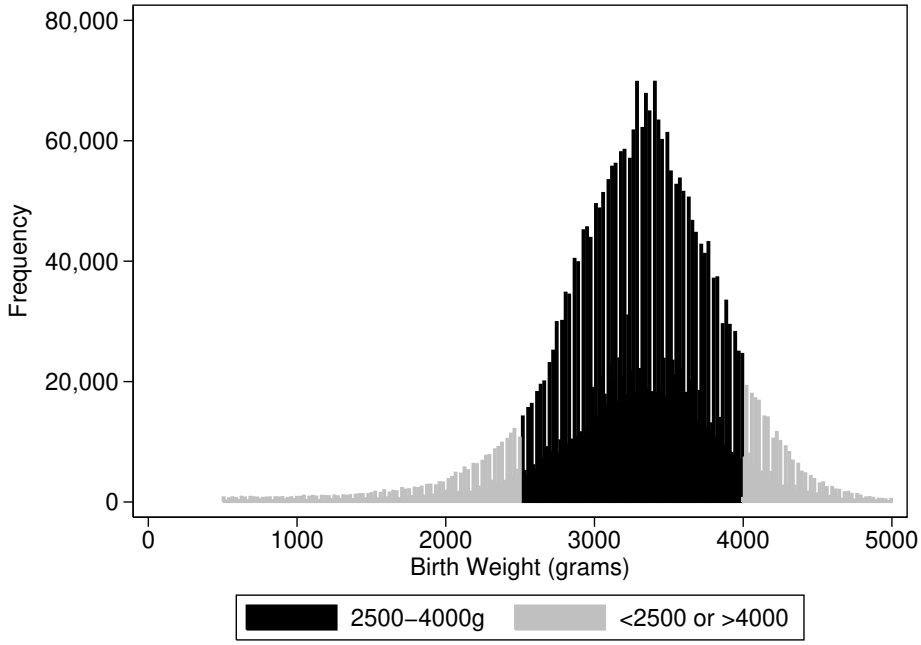
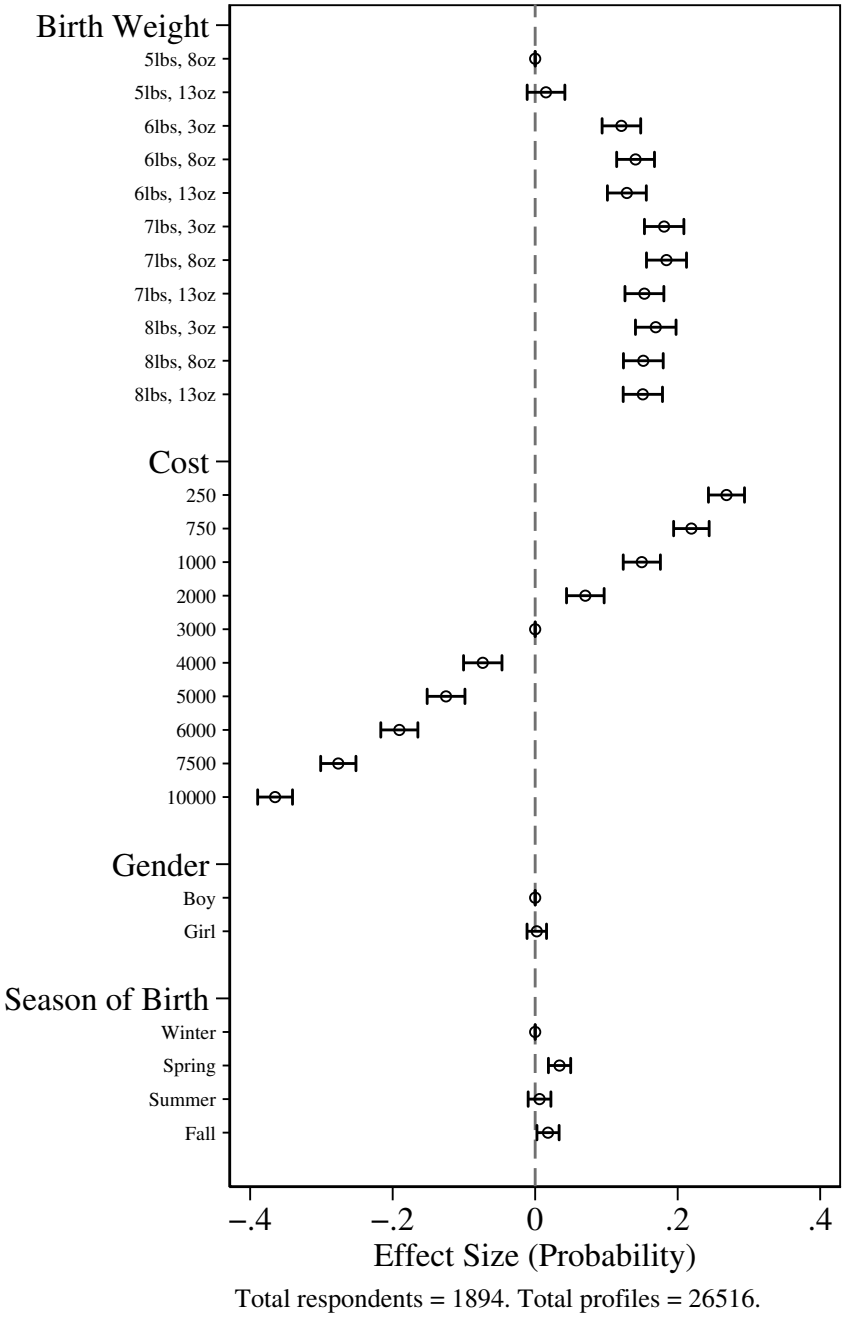


Figure A6: Birth Weight from Administrative Data



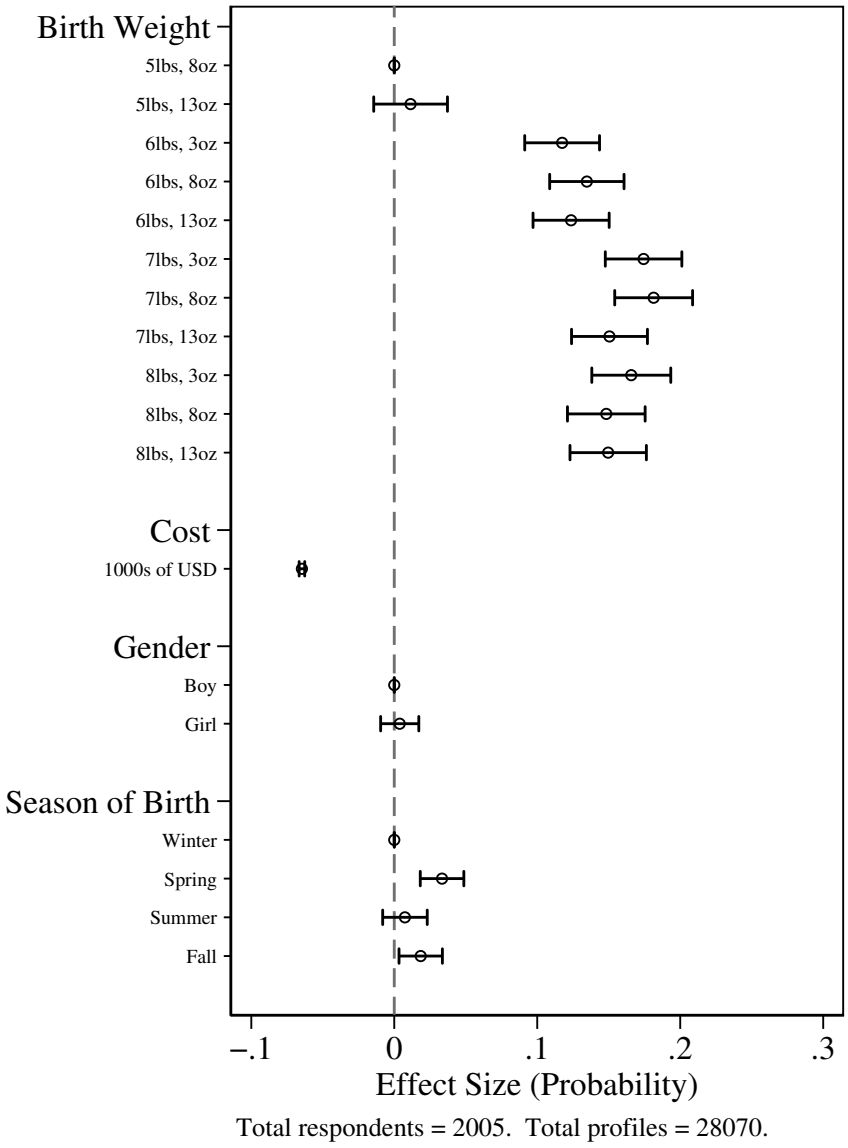
NOTES: Full birth weight distribution from all US births occurring in 2013 observed from NVSS birth certificate data (values below 500 grams or above 5000 grams are removed for display purposes). 84.09% of all births fall in the "normal" birth range of 2500 to 4000g. Of non-normal birth weights, 8.02% are low birth weight ($<$ 2,500 grams), and the remaining 7.89% were large ($>$ 4,000 grams).

Figure A7: Discrete Choice Experimental Results with Categorical Costs



NOTES: Refer to note to Figure 2. This figure is based on an identical sample, however now using a categorical, rather than a linear, measure of costs.

Figure A8: Discrete Choice Experimental Results (Full Sample)



NOTES: Refer to notes to Figure 2. This figure is identical, however now also including the $\sim$ 5% of the sample removed for failing consistency checks.

Table A3: Birth Characteristics and WTP for Birth Weight Re-weighting for Representativenss

	By State Population		By All ACS Characteristics	
	(1) Continuous	(2) Categorical	(3) Continuous	(4) Categorical
Birth Weight (in 1000s of grams)	0.093***		0.091***	
	[0.007]		[0.021]	
costNumerical	-0.062***	-0.062***	-0.055***	-0.056***
	[0.001]	[0.001]	[0.005]	[0.005]
5lbs, 13oz		0.020		-0.068
		[0.014]		[0.105]
6lbs, 3oz		0.118***		0.143***
		[0.014]		[0.034]
6lbs, 8oz		0.141***		0.197***
		[0.014]		[0.033]
6lbs, 13oz		0.132***		0.113***
		[0.014]		[0.043]
7lbs, 3oz		0.182***		0.241***
		[0.015]		[0.047]
7lbs, 8oz		0.182***		0.133*
		[0.015]		[0.080]
7lbs, 13oz		0.154***		0.132***
		[0.015]		[0.045]
8lbs, 3oz		0.171***		0.145***
		[0.015]		[0.042]
8lbs, 8oz		0.156***		0.196***
		[0.015]		[0.035]
8lbs, 13oz		0.153***		0.083
		[0.015]		[0.095]
Girl	0.003	0.002	0.013	0.013
	[0.007]	[0.007]	[0.023]	[0.021]
Spring	0.032***	0.031***	0.012	0.004
	[0.008]	[0.008]	[0.017]	[0.019]
Summer	0.002	0.002	-0.019	-0.023
	[0.008]	[0.008]	[0.019]	[0.022]
Fall	0.018**	0.017**	-0.066	-0.057
	[0.008]	[0.008]	[0.074]	[0.062]
WTP for Birth Weight (1000 grams)	1496.2		1657.8	
95% CI	[1249.5;1742.9]		[1044.9;2270.6]	
Observations	26516	26516	26474	26474

Refer to Table 2 for full notes. This table replicates these results assigning probability weights to respondents, to mimic the US population in various ways. In columns 1 and 2, weights are assigned based only on the state of residence of a respondent so that the likelihood a particular respondent is included in the survey is the same as their state's portion of the national population. In columns 3 and 4, respondents are re-weighted based on all observable measures described in Appendix Table A2, so that the re-weighted sample matches the gender, age, race, ethnicity, education, income, employment and parental status of the full US sample, based on the 2015 American Community Survey. In a small number of cases, these weights are missing given that covariates perfectly predict participation, and as such these observations are omitted from the estimation sample in columns 3 and 4. Additional details of this procedure are provided in Section 6.

Table A4: Birth Characteristics and Willingness to Pay for Birth Weight

	(1) Parents v Non-Parents	(2) Parents v Intending	(3) Parents v Intended childless	(4) Intending v Intended childless
Birth Weight (in 1000s of grams)	0.086***	0.092***	0.081***	0.081***
	[0.010]	[0.014]	[0.014]	[0.014]
costNumerical	-0.063***	-0.062***	-0.063***	-0.064***
	[0.001]	[0.001]	[0.001]	[0.001]
Birth Weight × Parent	0.012	0.006	0.016	
	[0.014]	[0.018]	[0.017]	
Birth Weight × Planning Children				0.010
				[0.020]
Girl	0.003	0.004	0.006	-0.004
	[0.007]	[0.008]	[0.008]	[0.010]
Spring	0.034***	0.039***	0.037***	0.024**
	[0.008]	[0.009]	[0.009]	[0.011]
Summer	0.006	0.012	0.002	0.005
	[0.008]	[0.009]	[0.009]	[0.011]
Fall	0.019**	0.026***	0.017*	0.012
	[0.008]	[0.009]	[0.009]	[0.011]
WTP for Birth Weight (1000 grams)	1377.7	1486.6	1298.3	1276.9
95% CI (Birth Weight)	[1062.8;1692.7]	[1026.9;1946.3]	[866.9;1729.8]	[848.6;1705.2]
WTP for Interation	186.3337	104.7757	261.6385	160.9043
95% CI (Interaction)	[-257.8;630.5]	[-454.1;663.7]	[-268.4;791.6]	[-446.3;768.2]
Observations	26516	19432	20230	13370

Refer to Table 2 for full notes. Each specification interacts birth weight with a dummy in order to estimate the differential importance of birth weight, as well as WTP. Values for WTP of the baseline group are displayed first in the footer, followed by the *differential* WTP for the interaction group. Each model also includes the uninteracted dummy as a control. Column 1 consists of all observations, so the interaction is interpreted as the difference between all parents and all non parents. Column 2 consists of all parents and all non parents who intend to have children (intended childless are removed from the sample) so the interaction is interpreted as the difference between all parents and non parents who intend to have children. Column 3 consists of all parents and non parents who intended to be childless, and column 4 consists of non-parents only, where the interaction is interpreted as the difference between those who intend to have children and those who do not.

Table A5: Summary Statistics of Respondents by Parental Status

	N	Mean	Std. Dev.	Min	Max
Panel A: Parents					
Female	939	0.65	0.48	0.00	1.00
Age	939	41.21	11.77	21.00	82.00
Black	939	0.07	0.26	0.00	1.00
White	939	0.87	0.34	0.00	1.00
Hispanic	939	0.07	0.26	0.00	1.00
Number of Children	939	2.05	1.06	1.00	6.00
Married	939	0.71	0.46	0.00	1.00
Employed	939	0.72	0.45	0.00	1.00
Some College +	939	0.88	0.33	0.00	1.00
Years of Education	939	14.64	1.76	8.00	17.00
Total Family Income (1000s)	939	65.59	38.78	5.00	175.00
Hourly earnings on MTurk	939	4.25	2.80	1.50	11.50
Panel B: Non-Parents					
Female	955	0.42	0.49	0.00	1.00
Age	955	31.96	9.60	18.00	74.00
Black	955	0.09	0.28	0.00	1.00
White	955	0.77	0.42	0.00	1.00
Hispanic	955	0.09	0.28	0.00	1.00
Number of Children	955	0.00	0.00	0.00	0.00
Married	955	0.21	0.40	0.00	1.00
Employed	955	0.75	0.43	0.00	1.00
Some College +	955	0.90	0.30	0.00	1.00
Years of Education	955	14.71	1.70	10.00	17.00
Total Family Income (1000s)	955	53.77	38.94	5.00	175.00
Hourly earnings on MTurk	955	4.60	2.88	1.50	11.50

NOTES: Full summary statistics and notes are provided in Table 1. Here identical values are provided for parents (Panel A) and non-parents (Panel B) separately.

Table A6: Heterogeneity by Parental Status with Interactions

	Parent		Non-Parents	
	(1) Yes	(2) No	(3) Intending	(4) Not Intending
Birth Weight (in 1000s of grams)	0.105***	0.087***	0.094***	0.085***
	[0.012]	[0.010]	[0.014]	[0.016]
costNumerical	-0.062***	-0.064***	-0.062***	-0.065***
	[0.001]	[0.001]	[0.002]	[0.002]
Income (demeaned)	-0.000	-0.022	-0.029	-0.008
	[0.035]	[0.031]	[0.044]	[0.046]
Age (demeaned)	-0.055	-0.000	-0.091	0.014
	[0.051]	[0.029]	[0.068]	[0.034]
Birth Weight × Income	0.000	0.007	0.009	0.003
	[0.011]	[0.010]	[0.014]	[0.014]
Birth Weight × Age	0.017	0.001	0.029	-0.003
	[0.016]	[0.009]	[0.021]	[0.011]
WTP for Birth Weight (1000 grams)	1697.4	1364.2	1505.4	1306.1
95% CI	[1308.4;2086.3]	[1035.5;1692.8]	[1035.6;1975.2]	[808.9;1803.3]
Significance of Interactions (p-value)	0.540	0.781	0.281	0.927
Observations	13104	13370	6286	7084

These results replicate Table 3, however now additionally interact the birth weight value observed by the respondent with their Age and Income. In each case, average marginal effects from a logit regression are displayed. Additional birth characterics (gender, season and sex) are omitted for ease of presentation. All columns include option order fixed effects and round fixed effects. For additional notes, refer to Table 3.

Table A7: Full Sample with Interactions

	(1) Continuous	(2) Interactions
Birth Weight (in 1000s of grams)	0.092***	0.092***
	[0.007]	[0.007]
costNumerical	-0.063***	-0.063***
	[0.001]	[0.001]
Girl	0.003	0.002
	[0.007]	[0.007]
Spring	0.034***	0.034***
	[0.008]	[0.008]
Summer	0.006	0.006
	[0.008]	[0.008]
Fall	0.019**	0.019**
	[0.008]	[0.008]
Income (demeaned)		-0.018
		[0.023]
Age (demeaned)		-0.007
		[0.024]
Birth Weight × Income		0.006
		[0.007]
Birth Weight × Age		0.003
		[0.007]
WTP for Birth Weight (1000 grams)	1470.3	1473.2
95% CI	[1238.3;1702.3]	[1241.3;1705.2]
Significance of Interactions (p-value)		0.682
Observations	26516	26474

These results replicate Table 2 (column 1), however now additionally interact the birth weight value observed by the respondent with their Age and Income (column 2). Significance of interactions refers to the null on a joint test that each of these interaction terms is equal to zero. Additional details are available as notes to Table 2.

Table A8: Birth Characteristics and Willingness to Pay for Birth Weight by Demographics

	Race				Sex	
	(1) Black/Afr. Am.	(2) Asian	(3) White	(4) Other Race	(5) Female	(6) Male
Birth Weight (in 1000s of grams)	0.017	0.122***	0.094***	0.136***	0.084***	0.102***
	[0.027]	[0.030]	[0.008]	[0.023]	[0.010]	[0.010]
costNumerical	-0.059***	-0.059***	-0.063***	-0.058***	-0.065***	-0.060***
	[0.003]	[0.003]	[0.001]	[0.003]	[0.001]	[0.001]
Girl	0.012	0.031	0.001	0.009	0.026***	-0.024**
	[0.024]	[0.029]	[0.008]	[0.023]	[0.009]	[0.010]
Spring	-0.007	0.014	0.041***	0.017	0.047***	0.020*
	[0.026]	[0.033]	[0.009]	[0.026]	[0.011]	[0.012]
Summer	0.005	0.007	0.009	-0.015	0.000	0.015
	[0.030]	[0.037]	[0.009]	[0.028]	[0.011]	[0.012]
Fall	-0.013	0.035	0.022**	0.023	0.021*	0.018
	[0.028]	[0.034]	[0.009]	[0.027]	[0.011]	[0.012]
WTP for Birth Weight (1000 grams)	288.6	2075.8	1481.3	2335.3	1295.5	1700.0
95% CI	[-605.5;1182.6]	[984.9;3166.6]	[1231.1;1731.6]	[1503.5;3167.1]	[993.4;1597.6]	[1339.3;2060.7]
Observations	2100	1610	21756	2660	14070	12446

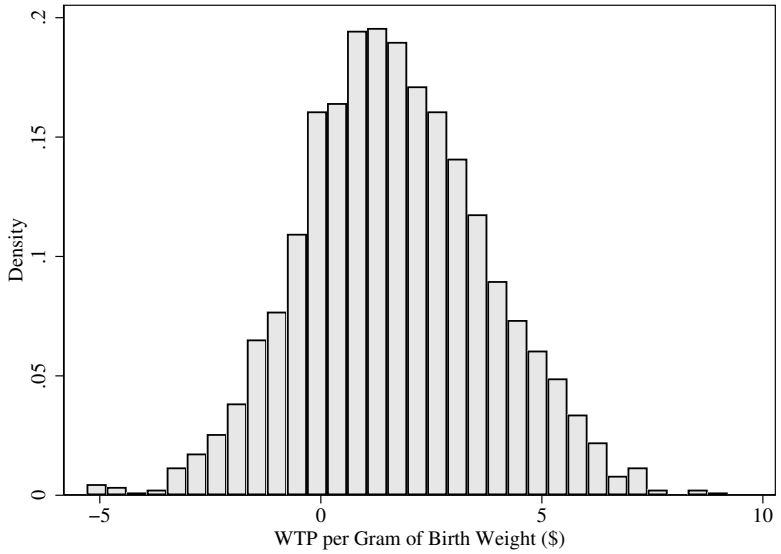
Average marginal effects from a logit regression are displayed. All columns include option order fixed effects and round fixed effects. Standard errors are clustered by respondent. Willingness to pay and its 95% confidence interval is estimated based on the ratio of costs to the probability of choosing a particular birth weight. The 95% confidence interval is calculated using the delta method for the ratio. Estimates are presented separating by race and by sex. Both characteristics are informed by respondents, and for the case of race can be Asian; Black or African American; White; American Indian or Alaska Native; Native Hawaiin or Pacific Islander; Other. Given small samples, the latter three classes are presented as a group in column 4.

Table A9: Allowing for Preference Heterogeneity with Mixed Logit

	All	Parent		Non-Parents	
	(1)	(2) Yes	(3) No	(4) Intending	(5) Intended Childless
Panel A: Mean					
Cost (in 1000s of dollars)	-0.555***	-0.522***	-0.596***	-0.594***	-0.617***
	[0.013]	[0.018]	[0.020]	[0.029]	[0.029]
Birth Weight (in 1000s of grams)	0.936***	0.936***	0.912***	1.023***	0.853***
	[0.064]	[0.088]	[0.092]	[0.136]	[0.129]
Fall	0.205***	0.213***	0.193**	0.339***	0.061
	[0.057]	[0.081]	[0.081]	[0.118]	[0.118]
Spring	0.321***	0.369***	0.280***	0.338***	0.239**
	[0.057]	[0.081]	[0.081]	[0.116]	[0.119]
Summer	0.124**	0.121	0.131	0.293**	-0.019
	[0.057]	[0.080]	[0.084]	[0.119]	[0.123]
Girl	0.034	0.050	0.002	-0.048	0.055
	[0.060]	[0.082]	[0.087]	[0.130]	[0.121]
Panel B: Standard Deviation					
Birth Weight (in 1000s of grams)	1.772***	1.716***	1.822***	1.853***	1.811***
	[0.090]	[0.127]	[0.130]	[0.190]	[0.174]
Fall	-0.337**	0.524***	-0.089	0.351	-0.332
	[0.161]	[0.196]	[0.295]	[0.258]	[0.256]
Spring	0.219	-0.265	0.103	0.005	0.362
	[0.165]	[0.245]	[0.204]	[0.258]	[0.272]
Summer	0.215	0.343	-0.399**	-0.085	0.632**
	[0.272]	[0.319]	[0.190]	[0.294]	[0.284]
Girl	1.864***	1.775***	1.919***	2.037***	1.917***
	[0.085]	[0.115]	[0.124]	[0.182]	[0.185]
WTP for Birth Weight (1000 grams)	1684.5	1792.5	1529.6	1721.5	1381.6
95% CI	[1469.0;1900.0]	[1475.2;2109.9]	[1238.4;1820.8]	[1291.3;2151.8]	[988.4;1774.9]
% Positively Impacted by Birth Weight	70.1	70.7	69.2	71.0	68.1
Observations	26516	13146	13370	6286	7084

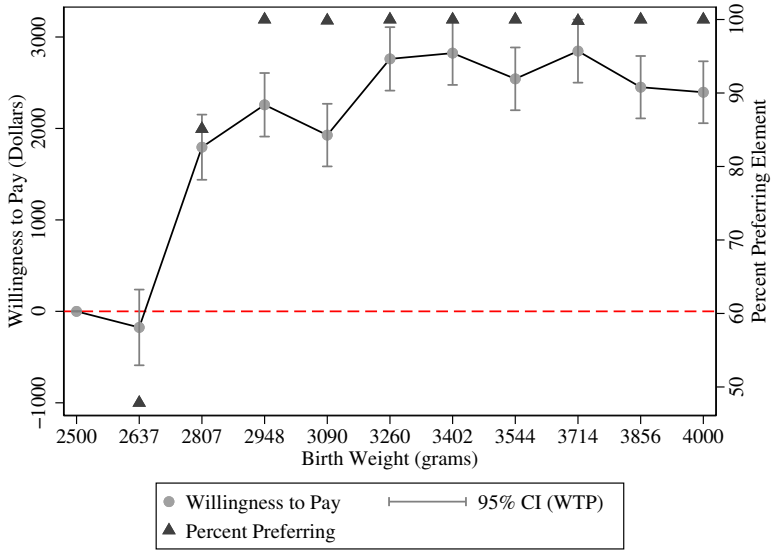
All specifications are estimated using a Mixed Logit model. Panel A displays mean coefficients from the mixed logit, and panel B displays the estimated standard deviation of each coefficient. All coefficients with the exception of Cost are allowed to vary randomly throughout the sample. The WTP is calculated as the ratio of the coefficient on birth weight to that on costs, and confidence intervals are calculated by the delta method. The % of respondents who value birth weight positively based on individual coefficients is displayed at the foot of the table. Standard errors are clustered by respondent.

Figure A9: Distribution of Willingness to Pay in the Population



NOTES: Distribution of WTP among all respondents is estimated from a mixed logit model using a linear specification for birth weight, and the conditioning of individual taste (COIT) procedure described in **?**. All respondents are used.

Figure A10: Willingness to Pay and Proportion Positively Valuing Birth Weight (Mixed Logit)



NOTES: A mixed logit specification is estimated, however now birth weight is allowed to enter non-parametrically. Willingness to Pay for each component is with respect to the baseline birth weight of 2,500 grams. The Percent Preferring Birth weight refer to the percentage of all respondents who positively value a given weight versus the baseline category. Refer to notes to Table A9 for additional details.