

Online Appendix to “Heterogeneous Beliefs and School Choice Mechanisms”

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A Appendix A: Additional Tables and Figures

Table A1: NHPS school district characteristics

	2015	2017
<i>A. Demographics</i>		
Female	49.4%	49.3%
Asian	2.3%	2.2%
Black	41.9%	39.3%
Hispanic	40.2%	43.4%
Other	0.9%	1.4%
White	14.8%	13.9%
<i>B. Student status</i>		
Free/reduced meals eligible	58.7%	51.0%
English learners	14.2%	15.2%
Individualized education program	12.5%	13.5%

Notes: School district characteristics in academic year 2014-2015 (‘2015’) and 2016-2017 (‘2017’). Reproduced from (Edsight, 2015, 2017), available online at edsight.ct.gov.

Table A2: Summary Statistics: Survey and Lottery Applications

School	Considered	In app.	1 st in app.	Most preferred	Revealed strategic	Mistaken strategic
Achievement First	64.8	9.1	0.6	3.8	3.5	1.1
Common Ground	55.7	16.7	4.9	4.2	1.7	0.7
Coop. Arts	63.6	22.5	10.9	19.2	11.5	2.5
Engineering & Sci	44.3	42.6	21.6	10.5	2.8	0.7
HS in the Community	54.5	20.1	2.4	3.5	1.7	0.7
Hill Regional	73.9	54.1	24.3	20.9	4.5	1.8
Hillhouse	75.0	6.6	0.5	1.7	1.2	1.2
Hyde	53.4	21.6	5.2	5.2	2.8	2.5
Metro Business	60.2	45.0	13.1	15.0	4.5	1.4
New Haven Academy	64.8	24.9	5.8	4.5	1.4	0.7
Riverside	39.8	3.0	1.2	0.0	0.0	0.0
Cross	66.7	40.9	15.9	13.0	3.5	1.8

	Probability		Marginal RSP		Capacity	
	2015	2017	2015	2017	2015	2017
Achievement First	93.5	14.1	(N,1)	(N,1)	28	2
Common Ground	20.9	5.6	(N,4)	(N,3)	56	70
Coop. Arts					147	155
Engineering & Sci	48.6	58.9	(N,1)	(N,1)	37	47
HS in the Community	61.7	94.2	(N,2)	(N,2)	69	68
Hill Regional	58.0	48.5	(N,1)	(N,1)	158	111
Hillhouse	100.0	88.3	(N,4)	(N,1)	17	12
Hyde	72.8	73.2	(N,2)	(N,2)	75	83
Metro Business	97.4	39.1	(N,1)	(N,1)	94	79
New Haven Academy	89.7	60.6	(N,2)	(N,1)	74	61
Riverside						
Cross	100.0	39.1	(N,4)	(N,1)	72	34

Notes: $N=331$ (87 in 2015, 244 in 2017) students in the survey who participated in the survey and matched to lottery data. Upper panel: All figures are percentages out of N . ‘Considered’ equals 1 when the respondent stated that he or she considered this school as a possible choice for his/her child and was only asked in 2015. ‘In app.’ displays frequencies at which different schools appeared in lottery applications, while ‘1st in app’ shows frequencies for first-ranked schools. ‘Most preferred’ refers to respondents’ unconstrained first-choice school. ‘Revealed strategic’ show the rate at which respondents’ unconstrained first-choice school was not ranked first on a lottery application. ‘Mistaken strategic’ tabulates the rate at which each school was played strategically but the RatEx odds of their first choice school were lower than the odds had they ranked their unconstrained first-choice first on the application. Lower panel: ‘Probability’ gives the odds, by year, that a student in the marginal round received a placement. ‘Marginal RSP’ is a pair describing the marginal report-specific priority. Y/N signify sibling priority (yes/no), while the number indicates the rank. Omitted for AF in 2017 (when no seats were available through the lottery) for Riverside (not assigned through main process) and for Coop. Arts (students may apply to different programs). ‘Capacity’ gives the number of seats available through assignment process at each school in each year. AF and Eng.& Sci. admit students through K-12 programs. See section 4.3 for details. Seat counts from Cross and Hillhouse are for non-neighborhood students.

Table A3: Demographic correlates of choice participation

	All surveyed			Choice participants	
	Participate	Place	Place MP	Place	Place MP
Black	-0.07 (0.05)	-0.05 (0.05)	-0.09 (0.06)	-0.04 (0.07)	-0.08 (0.08)
White	-0.03 (0.07)	0.01 (0.08)	0.03 (0.10)	0.02 (0.09)	0.01 (0.11)
Female	0.08 (0.04)	-0.02 (0.04)	-0.00 (0.06)	-0.05 (0.05)	-0.04 (0.06)
Tract poverty rate	-0.17 (0.19)	-0.08 (0.21)	-0.52 (0.25)	-0.07 (0.25)	-0.45 (0.28)
Dep. var. mean	0.807	0.581	0.369	0.720	0.434
N	358	358	312	289	265

Notes: Table displays regression results for regressions of a dummy indicating participation in the lottery ('Participate'), receiving placement at through the lottery ('Place') and placing at respondents' unconstrained first-choice school ('Place MP') on a demographic covariates. 'All surveyed' uses the full sample of survey respondents while 'Choice participants' conditions on those surveyed who participated in choice. Neighborhood school and year fixed effects included in all regressions (not shown). Robust standard errors in parentheses. See section 3.7 for details.

Table A4: Beliefs and application choices, conditional on preferences and first-listed schools

	(1) State 1 st listed as MP	(2) State 1 st listed as MP	(3) Placed	(4) Placed	(5) Placed
Subjective belief		-0.0322 (0.0986)			0.165 (0.107)
RatEx	0.0472 (0.190)	0.0512 (0.190)	0.970 (0.0425)	0.937 (0.146)	0.934 (0.147)
Placed	0.0599 (0.0748)	0.0626 (0.0756)			
Constant	0.643 (0.104)	0.657 (0.115)	0.00809 (0.0312)	0.0691 (0.107)	-0.0186 (0.126)
Model test	0.424	0.694	0.220	0.607	0.308
<i>N</i>	186	186	2,101	186	186

Notes: Robust standard errors in parentheses. Specifications (1) and (2) include fixed effects for survey respondents' most-preferred schools. Specifications (3) through (5) include fixed effects for lottery applicants' first-listed schools. Model test displays *p*-values for a variety of statistical tests: (1) Placed=0 (2) Placed=0, Subjective belief=0 (3)-(4) RatEx=1, constant=0 (5) Subjective belief, RatEx=1, constant=0.

Table A5: Correlates of belief errors (cont.)

	D. Strategies		E. Participant characteristics		F. Recall	
	Optimism	Abs. Error	Optimism	Abs. Error	Optimism	Abs. Error
Hypothetical rank 2	41.6 (1.4)	10.6 (1.9)	41.7 (1.4)	10.5 (1.8)	41.7 (1.3)	11.4 (1.7)
Have priority	-27.6 (6.7)	3.0 (5.9)	-24.0 (7.1)	5.7 (4.8)	-25.1 (7.2)	5.8 (4.8)
Revealed strategic	3.7 (5.0)	-2.3 (2.6)				
Mistaken strategic	-5.4 (6.4)	4.7 (3.2)				
Mother			-3.8 (4.6)	-0.3 (2.3)		
Helped with application			-0.2 (4.7)	-0.1 (2.5)		
Correctly recall application					-0.1 (4.0)	-1.4 (2.0)
<i>N</i>	941	941	1,045	1,045	1,155	1,155

Standard errors in parentheses. Errors clustered at the student level. Sample sizes change across panels due to covariate availability. All regressions include year fixed effects and exclude neighborhood schools from the sample. Correctly recall application is a dummy equal to one if a student both participated in the lottery and can correctly recall their first-listed school. See section 3.7 for additional description.

Table A6: Source of information and belief errors

<i>A. Information sources</i>			
	Mean	Optimism	Abs. Error
Visit fair	0.41	−3.4 (6.2)	−1.0 (3.1)
Visit school	0.51	0.5 (6.2)	3.2 (3.0)
Visit website	0.57	−6.9 (6.2)	−4.8 (3.1)
Talk to teacher	0.54	0.6 (6.2)	−0.5 (3.0)
Talk to counselor	0.47	−1.2 (6.2)	−2.1 (3.2)
Talk to friend	0.42	1.6 (6.2)	−0.2 (3.1)
Read catalog	0.65	−5.9 (6.7)	−4.8 (3.1)
Read newspaper	0.25	5.3 (7.4)	−0.9 (4.0)
Looked up capacity	0.24	1.7 (4.0)	−1.4 (2.0)
Any admin. source	0.88	−12.8 (11.7)	−1.7 (6.5)
<i>B. Strategic play</i>			
	Mean	Strategic	Mistaken strategic
Understand ranking penalty	0.23	3.9 (6.7)	3.8 (5.7)
Understand priorities	0.12	−14.3 (8.4)	−6.6 (6.8)
Understand both	0.04	1.5 (15.3)	2.0 (13.0)

Panel A: Cells display independent variable means, regression coefficients, and standard errors from separate regressions of belief errors (column titles) against each information source, with controls for rank, priority, and year, when appropriate. Standard errors are clustered at the student level. Panel B: within-year bivariate regressions of indicators for strategic and mistaken strategic on indicators for understanding priorities, ranking penalty, and both mechanisms. Robust standard errors in parentheses. See section 3.7 for details.

Table A7: Probability of enrolling in a placed school: linear probability models

	Survey Only		Full Sample	
	(1)	(2)	(3)	(4)
Most-preferred	18.5 (6.4)	18.3 (6.2)		
Zoned to Cross	3.6 (6.4)	-0.9 (6.7)	-4.3 (2.5)	-3.7 (2.6)
HS distance (km)			-0.7 (0.4)	0.8 (0.7)
Dep. var. mean	70.05	70.05	69.02	69.02
<i>N</i>	207	207	1,388	1,388
School FE	No	Yes	No	Yes

Linear probability models of enrollment in a school in the year following the lottery, conditional on being placed in a school, on a survey-elicited dummy indicating whether a school is a student's most-preferred ('Most preferred'), as well as a control for students' default schools ('Zoned to Cross') and a year effect (not shown). Robust standard errors in parentheses.

Table A8: Median and 90% credible intervals for belief model covariances Σ^η .

Low SES			
	η_0	η_{pri}	η_{round}
<i>2015</i>			
η_0	(64.22, 71.18, 80.48)		
η_{pri}	(3.2, 4.87, 6.97)	(6.03, 6.72, 8.43)	
η_{round}	(-28.73, -25.53, -22.95)	(-2.52, -1.8, -1.16)	(8.22, 9.2, 10.32)
<i>2017</i>			
η_0	(33.33, 37.0, 41.82)		
η_{pri}	(7.15, 11.14, 16.41)	(2.08, 3.86, 6.94)	
η_{round}	(-1.46, -0.85, -0.41)	(-0.52, -0.28, -0.09)	(0.06, 0.09, 0.13)
High SES			
	η_0	η_{pri}	η_{round}
<i>2015</i>			
η_0	(69.23, 88.74, 121.18)		
η_{pri}	(-13.15, -2.24, 10.57)	(0.9, 4.33, 12.53)	
η_{round}	(-40.43, -30.05, -23.2)	(-3.46, 0.71, 4.44)	(7.83, 10.29, 13.54)
<i>2017</i>			
η_0	(36.4, 42.23, 48.99)		
η_{pri}	(21.74, 27.32, 33.35)	(12.91, 17.86, 25.13)	
η_{round}	(-1.94, -1.19, -0.36)	(-1.31, -0.74, -0.22)	(0.06, 0.12, 0.18)

Notes: Median and 90% credible intervals for belief error covariance terms. Panels split by SES and year. See Sections 5 and 6 for details.

Table A9: 90% credible intervals for preference shocks, Σ

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>2015</i>												
Achievement First Amistad HS (1)	(223.17, 2070.74)											
Common Ground Charter (2)	(-84.33, 105.69)	(256.13, 2375.47)										
Coop. Arts and Humanities (3)	(-87.85, 107.02)	(-108.73, 93.22)	(267.52, 2540.02)									
Engineering & Science Univ. HS (4)	(-16.97, 225.89)	(-110.18, 100.22)	(-257.22, 7.14)	(269.89, 2459.05)								
High School in the Community (5)	(-74.0, 101.47)	(-89.92, 104.56)	(-109.94, 77.16)	(-76.28, 138.63)	(227.29, 2088.06)							
Hill Regional Career (6)	(-49.97, 144.17)	(-183.64, 42.38)	(-105.5, 69.46)	(-110.6, 81.98)	(-88.45, 85.13)	(260.56, 2395.17)						
Hillhouse (7)	(-91.52, 101.8)	(-71.88, 145.64)	(-82.96, 126.09)	(-119.84, 107.21)	(-91.51, 97.83)	(-137.56, 70.69)	(237.64, 2228.93)					
Hyde School (8)	(-37.71, 166.06)	(-110.88, 102.62)	(-257.11, 5.58)	(-38.44, 190.9)	(-37.58, 155.82)	(-8.2, 228.78)	(-71.18, 141.13)	(243.33, 2216.07)				
Metropolitan Business Academy (9)	(-72.09, 99.8)	(-150.58, 52.16)	(-123.58, 54.94)	(-2.91, 260.33)	(-25.34, 171.21)	(12.02, 294.31)	(-166.46, 46.48)	(-49.65, 125.44)	(224.88, 2154.97)			
New Haven Academy (10)	(-44.69, 149.79)	(-86.35, 108.51)	(-102.98, 69.08)	(-43.26, 156.29)	(-32.04, 157.15)	(-124.12, 50.28)	(-88.25, 97.3)	(-52.27, 136.68)	(-17.59, 190.36)	(227.91, 2135.45)		
Riverside Education Academy (11)	(-133.78, 84.36)	(-73.07, 176.65)	(-132.87, 101.71)	(-173.38, 82.08)	(-103.12, 104.48)	(-229.13, 28.43)	(-109.92, 119.12)	(-161.78, 68.46)	(-169.26, 42.02)	(-133.57, 75.64)	(267.03, 2482.9)	
Wilbur L. Cross High School (12)	(-132.43, 77.01)	(-140.86, 107.74)	(-86.55, 133.35)	(-138.92, 107.79)	(-114.45, 92.22)	(-141.47, 75.12)	(-117.44, 116.5)	(-199.1, 35.97)	(-171.03, 43.72)	(-168.33, 48.54)	(-84.14, 162.87)	(274.25, 2510.05)
<i>2017</i>												
Achievement First Amistad HS (1)	(141.38, 871.32)											
Common Ground Charter (2)	(-40.82, 55.89)	(159.79, 986.55)										
Coop. Arts and Humanities (3)	(-8.05, 99.07)	(-42.12, 53.74)	(164.43, 1008.67)									
Engineering & Science Univ. HS (4)	(-13.67, 94.5)	(-53.0, 45.0)	(-62.23, 31.72)	(164.29, 1022.42)								
High School in the Community (5)	(-37.68, 45.12)	(-32.1, 62.51)	(-47.6, 36.74)	(-40.05, 48.87)	(138.5, 859.39)							
Hill Regional Career (6)	(-36.11, 50.51)	(-87.33, 14.77)	(-54.0, 28.21)	(-94.16, 6.83)	(-29.63, 51.7)	(155.76, 987.91)						
Hillhouse (7)	(-42.12, 49.2)	(-61.77, 39.31)	(-44.48, 53.12)	(-58.3, 41.21)	(-51.0, 39.57)	(-35.36, 58.5)	(145.95, 900.31)					
Hyde School (8)	(-35.9, 48.92)	(-46.9, 47.15)	(-81.91, 13.87)	(-23.38, 69.59)	(-32.15, 50.17)	(-10.47, 90.31)	(-45.33, 44.95)	(140.99, 881.93)				
Metropolitan Business Academy (9)	(-49.22, 34.29)	(-62.38, 29.79)	(-68.82, 18.82)	(-64.73, 25.63)	(-16.06, 68.63)	(-0.12, 102.77)	(-48.4, 41.36)	(-11.71, 77.29)	(147.66, 919.11)			
New Haven Academy (10)	(-25.91, 63.52)	(-61.87, 32.67)	(-10.68, 82.59)	(-39.73, 51.93)	(-48.99, 35.88)	(-71.64, 14.12)	(-33.43, 60.77)	(-33.75, 51.34)	(-18.16, 64.7)	(149.05, 908.62)		
Riverside Education Academy (11)	(-54.23, 47.13)	(-66.54, 56.82)	(-66.95, 55.77)	(-64.69, 48.66)	(-56.93, 44.03)	(-71.84, 42.26)	(-55.46, 56.17)	(-56.42, 42.05)	(-65.66, 38.39)	(-46.72, 63.37)	(168.23, 1055.91)	
Wilbur L. Cross High School (12)	(-44.97, 40.5)	(-23.64, 69.84)	(-79.13, 15.7)	(-26.68, 67.76)	(-18.28, 75.13)	(-43.13, 44.06)	(-50.42, 43.2)	(-44.25, 33.71)	(-55.22, 29.68)	(-63.92, 22.11)	(-60.3, 41.74)	(143.9, 899.39)

Notes: 90% credible intervals for preference covariance matrix. See Sections 5 and 6 for details.

Table A10: Distance-Metric Welfare: Benchmark and Counterfactuals, 2015

	Mean welfare			Welfare differences		
	Baseline	RatEx	DA	RatEx – Baseline	DA – Baseline	No Survey DA – Baseline
<i>A1. Posterior distribution of mean distance-metric welfare</i>						
Mean	9.942	14.985	13.882	5.043	3.941	–1.653
Median	8.878	13.242	12.328	4.463	3.507	–1.047
95% CI	[5.353, 23.409]	[8.083, 35.345]	[7.439, 32.552]	[2.661, 11.588]	[2.100, 8.908]	[–5.455, –0.507]
<i>A2. High-SES mean minus low-SES mean</i>						
Mean	–2.552	–3.740	–3.643	–1.188	–1.091	1.127
Median	–2.308	–3.342	–3.279	–1.044	–0.954	0.656
95% CI	[–5.381, –1.001]	[–8.056, –1.722]	[–7.713, –1.679]	[–2.555, –0.324]	[–2.425, –0.276]	[0.225, 3.882]
<i>B. DA-4 - baseline under different strategy types</i>						
Mean	4.018	4.239	4.018	4.016		
Median	3.586	3.782	3.586	3.593		
95% CI	[2.140, 8.970]	[2.263, 9.701]	[2.140, 8.968]	[2.140, 8.949]		
<i>C. Share submitting baseline application under DA-4</i>						
Mean	4.018	2.982	1.947	0.916	–0.142	
Median	3.586	2.656	1.745	0.805	–0.115	
95% CI	[2.140, 8.970]	[1.625, 6.632]	[1.033, 4.260]	[0.451, 2.198]	[–0.430, 0.043]	
<i>D. Eliminate specific error components under DA-4 and baseline</i>						
	Switch to DA		Keep baseline mechanism			
	School and priority	School	School and priority	School		
Mean	3.165	3.173	3.256	3.261		
Median	2.825	2.817	2.909	2.910		
95% CI	[1.723, 7.036]	[1.728, 7.053]	[1.778, 7.273]	[1.790, 7.291]		

Notes: This table describes the posterior distribution of mean welfare in the baseline case and under policy counterfactuals for 2015 households. Welfare is measured using miles traveled as the numeraire good. Panels A1 and A2: ‘Baseline’ is baseline mechanism given observed beliefs. ‘RatEx’ is the baseline mechanism under rational expectations beliefs. ‘DA’ is the strategy-proof deferred acceptance mechanism. ‘RatEx-baseline’ and ‘DA-baseline’ columns compare welfare differences under the listed mechanisms. ‘No survey DA-base’ column compares welfare under the sophisticated DA and baseline mechanisms using model estimates based on rational expectations beliefs. Panel A2 displays differences in each of these objects between high-SES and low-SES households. Panel B: difference between DA welfare and baseline welfare under ‘drop’ and ‘stop’ DA play (columns 1-4) and sophisticated truncated DA-4. See text for details. Panel C: Welfare gain from switch to DA from baseline by share of households continuing to submit ‘baseline’ applications. See text for details. Panel D: Welfare change from switch to DA from baseline under strategic truncated DA with school- and school by priority-specific errors (columns 1+2), and welfare change from switching to only school- and school by priority-specific errors while keeping the baseline mechanism. See text for details.

Table A11: Distance-Metric Welfare: Benchmark and Counterfactuals, 2017

	Mean welfare			Welfare differences		
	Baseline	RatEx	DA	RatEx – Baseline	DA – Baseline	No Survey DA – Baseline
A1. Posterior distribution of mean distance-metric welfare						
Mean	18.899	22.811	22.809	3.912	3.910	–1.950
Median	17.479	21.271	21.074	3.585	3.601	–1.466
95% CI	[11.945, 33.064]	[14.251, 39.515]	[14.310, 39.742]	[2.185, 7.269]	[2.351, 6.987]	[–6.363, –0.778]
A2. High-SES mean minus low-SES mean						
Mean	–3.222	–3.795	–3.988	–0.573	–0.767	0.162
Median	–3.133	–3.623	–3.806	–0.530	–0.711	0.123
95% CI	[–6.054, –1.293]	[–7.084, –1.408]	[–7.363, –1.544]	[–1.704, 0.323]	[–1.936, 0.234]	[–0.453, 1.109]
	Truthful	Strategic	Drops	Stops		
B. DA-4 - baseline under different strategy types						
Mean	2.891	3.052	2.868	2.889		
Median	2.637	2.812	2.631	2.636		
95% CI	[1.829, 5.065]	[1.794, 5.507]	[1.826, 5.035]	[1.827, 5.061]		
	0%	25%	50%	75%	100%	
C. Share submitting baseline application under DA-4						
Mean	2.891	2.421	1.946	1.446	0.938	
Median	2.637	2.230	1.794	1.334	0.860	
95% CI	[1.829, 5.065]	[1.507, 4.223]	[1.156, 3.445]	[0.856, 2.522]	[0.545, 1.696]	
	Switch to DA		Keep baseline mechanism			
	School and priority	School	School and priority	School		
D. Eliminate specific error components under DA-4 and baseline						
Mean	1.451	1.447	0.218	0.228		
Median	1.325	1.325	0.200	0.214		
95% CI	[0.859, 2.606]	[0.852, 2.611]	[–0.007, 0.545]	[0.007, 0.541]		

Notes: This table describes the posterior distribution of mean welfare in the baseline case and under policy counterfactuals for 2017 households. Welfare is measured using miles traveled as the numeraire good. Panels A1 and A2: ‘Baseline’ is baseline mechanism given observed beliefs. ‘RatEx’ is the baseline mechanism under rational expectations beliefs. ‘DA’ is the strategy-proof deferred acceptance mechanism. ‘RatEx-baseline’ and ‘DA-baseline’ columns compare welfare differences under the listed mechanisms. ‘No survey DA-base’ column compares welfare under the sophisticated DA and baseline mechanisms using model estimates based on rational expectations beliefs. Panel A2 displays differences in each of these objects between high-SES and low-SES households. Panel B: difference between DA welfare and baseline welfare under ‘drop’ and ‘stop’ DA play (columns 1-4) and sophisticated truncated DA-4. See text for details. Panel C: Welfare gain from switch to DA from baseline by share of households continuing to submit ‘baseline’ applications. See text for details. Panel D: Welfare change from switch to DA from baseline under strategic truncated DA with school- and school by priority-specific errors (columns 1+2), and welfare change from switching to only school- and school by priority-specific errors while keeping the baseline mechanism. See text for details.

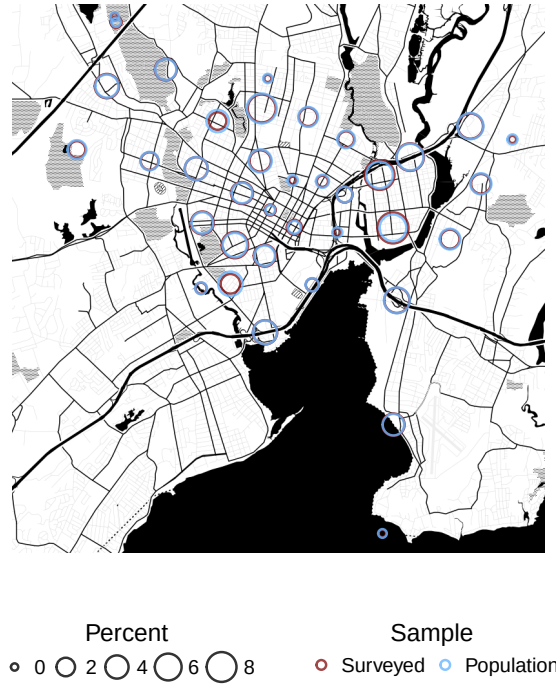
Table A12: Distance-Metric Welfare: Benchmark and Counterfactuals, Accurate Recall Only

	Mean welfare			Welfare differences		
	Baseline	RatEx	DA	RatEx – Baseline	DA – Baseline	No Survey DA – Baseline
<i>A1. Posterior distribution of mean distance-metric welfare</i>						
Mean	14.062	18.262	17.801	4.200	3.739	–1.801
Median	13.548	17.076	17.021	3.629	3.321	–1.211
95% CI	[5.481, 29.306]	[8.508, 37.679]	[7.876, 36.696]	[2.078, 9.137]	[2.143, 7.542]	[–6.165, –0.542]
<i>A2. High-SES mean minus low-SES mean</i>						
Mean	–2.814	–3.591	–3.601	–0.777	–0.788	0.644
Median	–2.503	–3.183	–3.231	–0.719	–0.725	0.410
95% CI	[–6.593, –1.011]	[–8.045, –1.420]	[–7.990, –1.414]	[–2.217, 0.305]	[–2.193, 0.126]	[–0.366, 2.228]
	Truthful	Strategic	Drops	Stops		
<i>B. DA-4 - baseline under different strategy types</i>						
Mean	3.498	3.505	3.481	3.499		
Median	3.071	3.051	3.052	3.073		
95% CI	[1.883, 7.381]	[1.780, 7.727]	[1.875, 7.381]	[1.882, 7.445]		
	0%	25%	50%	75%	100%	
<i>C. Share submitting baseline application under DA-4</i>						
Mean	3.498	2.749	1.988	1.211	0.424	
Median	3.071	2.406	1.777	1.135	0.274	
95% CI	[1.883, 7.381]	[1.484, 5.699]	[1.112, 3.939]	[0.512, 2.593]	[–0.315, 1.647]	
	Switch to DA		Keep baseline mechanism			
	School and priority	School	School and priority	School		
<i>D. Eliminate specific error components under DA-4 and baseline</i>						
Mean	2.324	2.327	1.767	1.775		
Median	1.945	1.945	1.368	1.368		
95% CI	[0.927, 5.433]	[0.923, 5.469]	[0.018, 5.633]	[0.025, 5.603]		

Notes: This table describes the posterior distribution of mean welfare in the baseline case and under policy counterfactuals. We restrict the survey data used for belief and preference estimation to the subset of respondents with correct recall of the submitted application. Welfare is measured using miles traveled as the numeraire good. Panels A1 and A2: ‘Baseline’ is baseline mechanism given observed beliefs. ‘RatEx’ is the baseline mechanism under rational expectations beliefs. ‘DA’ is the strategy-proof deferred acceptance mechanism. ‘RatEx-baseline’ and ‘DA-baseline’ columns compare welfare differences under the listed mechanisms. ‘No survey DA-base’ column compares welfare under the sophisticated DA and baseline mechanisms using model estimates based on rational expectations beliefs. Note that this is the same as reported in Table 7 because the survey is not used. Panel A2 displays differences in each of these objects between high-SES and low-SES households. Panel B: difference between DA welfare and baseline welfare under ‘drop’ and ‘stop’ DA play (columns 1-4) and sophisticated truncated DA-4. See text for details. Panel C: Welfare gain from switch to DA from baseline by share of households continuing to submit ‘baseline’ applications. See text for details. Panel D: Welfare change from switch to DA from baseline under strategic truncated DA with school- and school by priority-specific errors (columns 1+2), and welfare change from switching to only school- and school by priority-specific errors while keeping the baseline mechanism. See text for details.

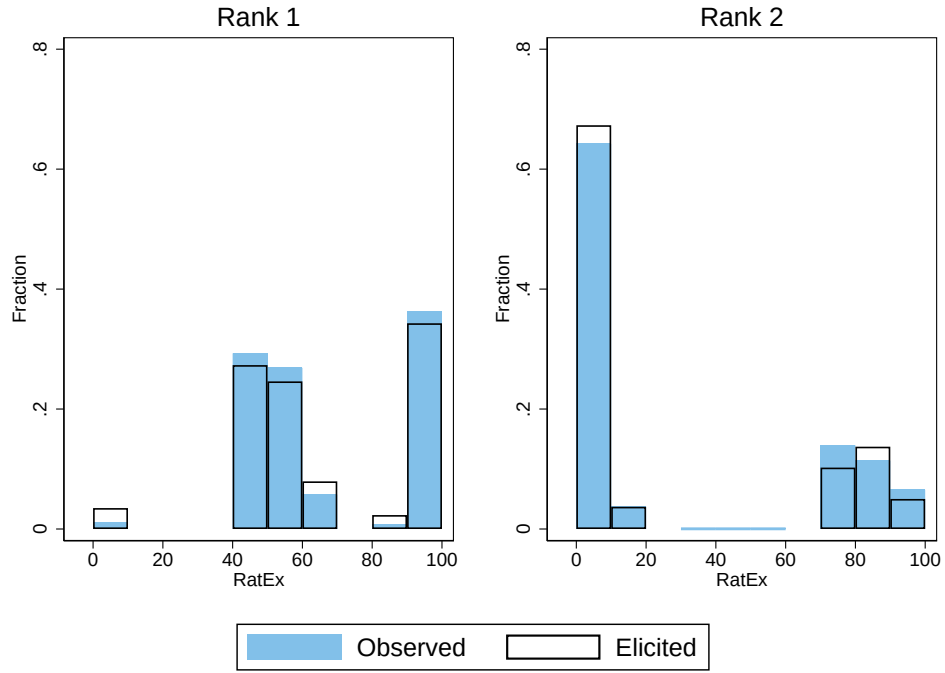
Figure A1: Share of Students within each School Zone

City of New Haven, CT
Distribution of populations



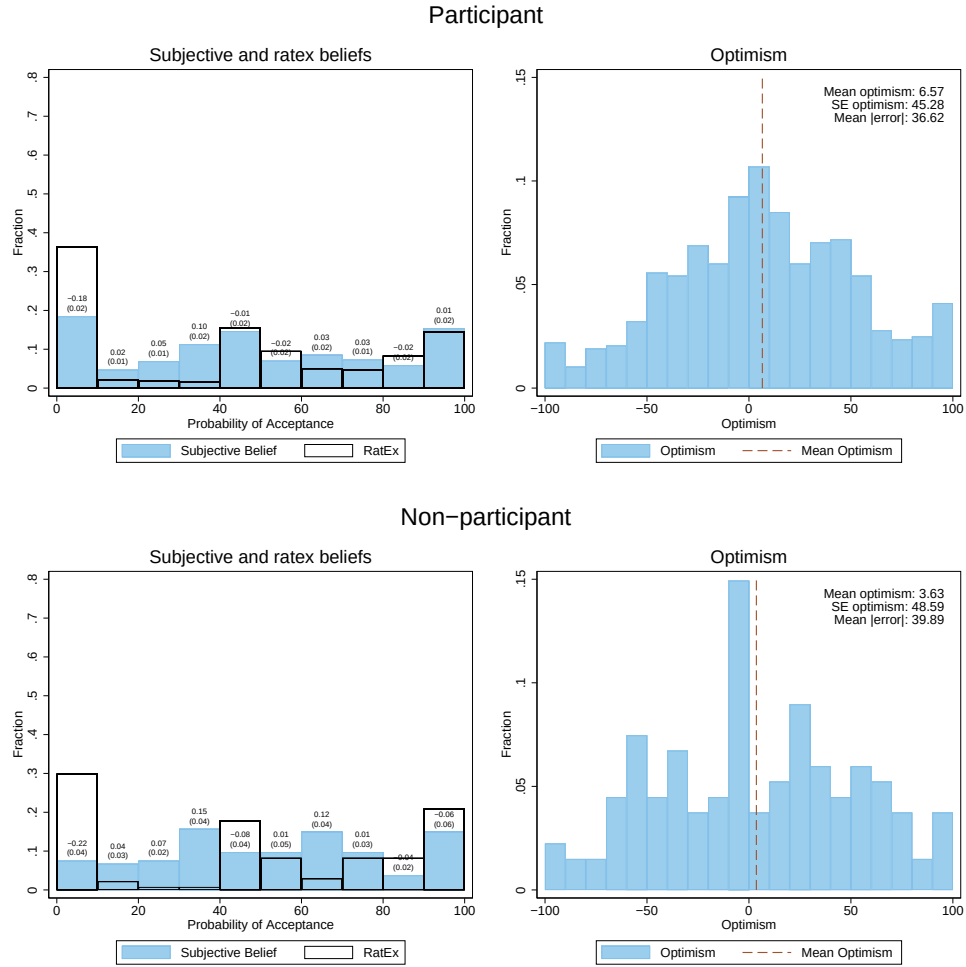
This figure displays the geographic distribution of sample universe and surveyed population. Size of circles reflect shares of population and surveyed individuals, respectively. Each point represents the physical centroid (as opposed to a within-tract population weighted centroid) of a census tract in the city of New Haven. Census tracts incorporate non-habitable features of the landscape and their centroids may lie in uninhabited areas.

Figure A2: Ratex admissions probabilities of actual and hypothetical applications



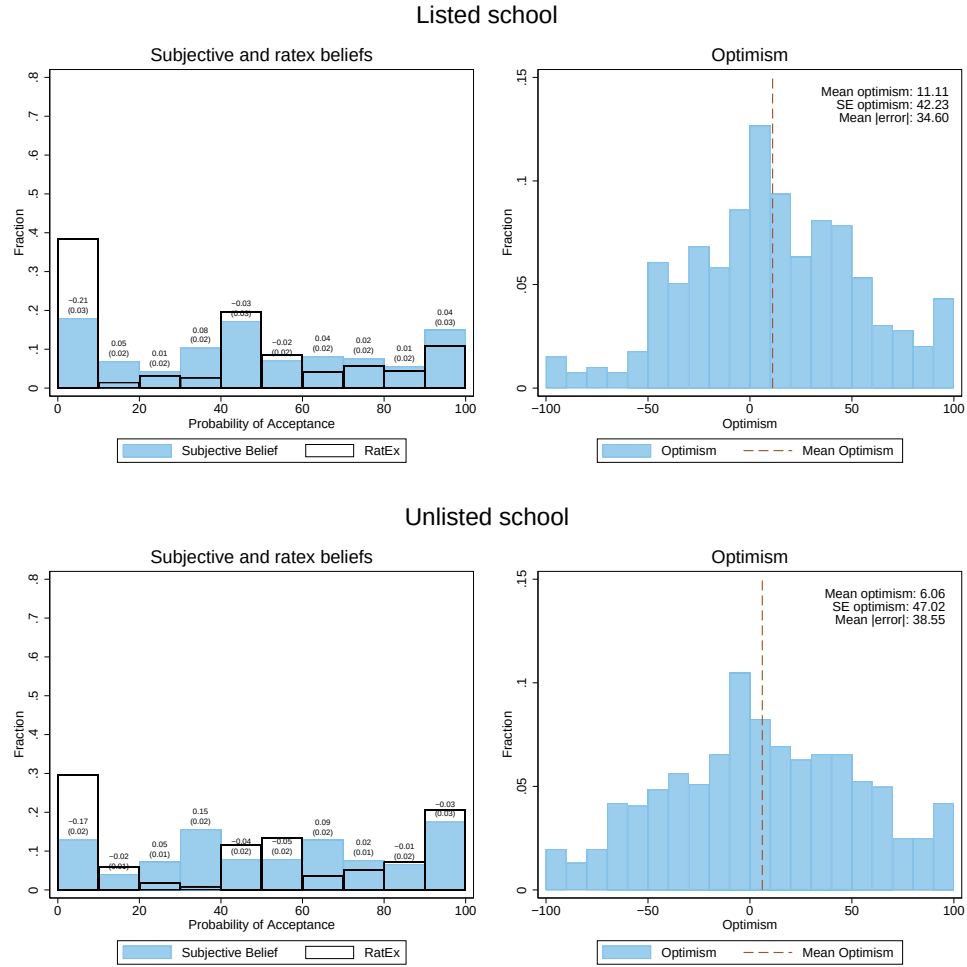
Notes: $N = 3,129$ for observed RatEx (1,567 for rank 1 schools, 1,562 for rank 2 schools), $N = 975$ for hypothetical RatEx (516 in rank 1 applications; 459 rank 2 applications). Sample of schools for which RatEx are tabulated is all schools except neighborhood schools and Co-Op Arts. For observed applications, the sample is the entire universe of lottery participants while the sample for elicited applications is hypothetical application-ranks in surveyed sample. Bins have width 0.10.

Figure A3: Ratex beliefs, subjective beliefs, and optimism by choice participation



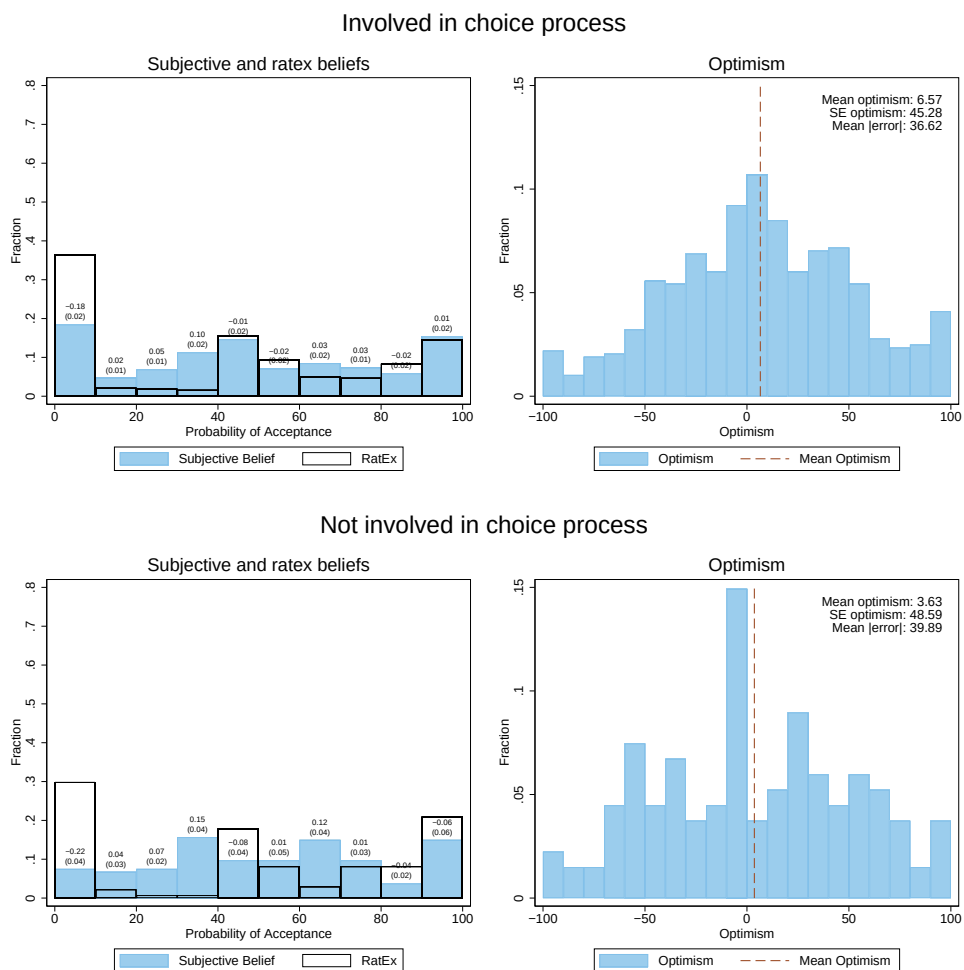
Upper graph: households participating in school choice. Lower graph: non-participants. Left panel: distribution of subjective and rational expectations assignment probabilities. Text reports gap in fraction of subjective reports and RatEx values in the bin, with standard errors clustered at the respondent level in parentheses below. Right panel: distribution of optimism. Bars show shares of population within bins of width 10. Red line indicates mean of the distribution. In both panels, beliefs for second-ranked options are conditional on non-admission to the first-ranked choice.

Figure A4: Ratex beliefs, subjective beliefs, and optimism by whether school was listed



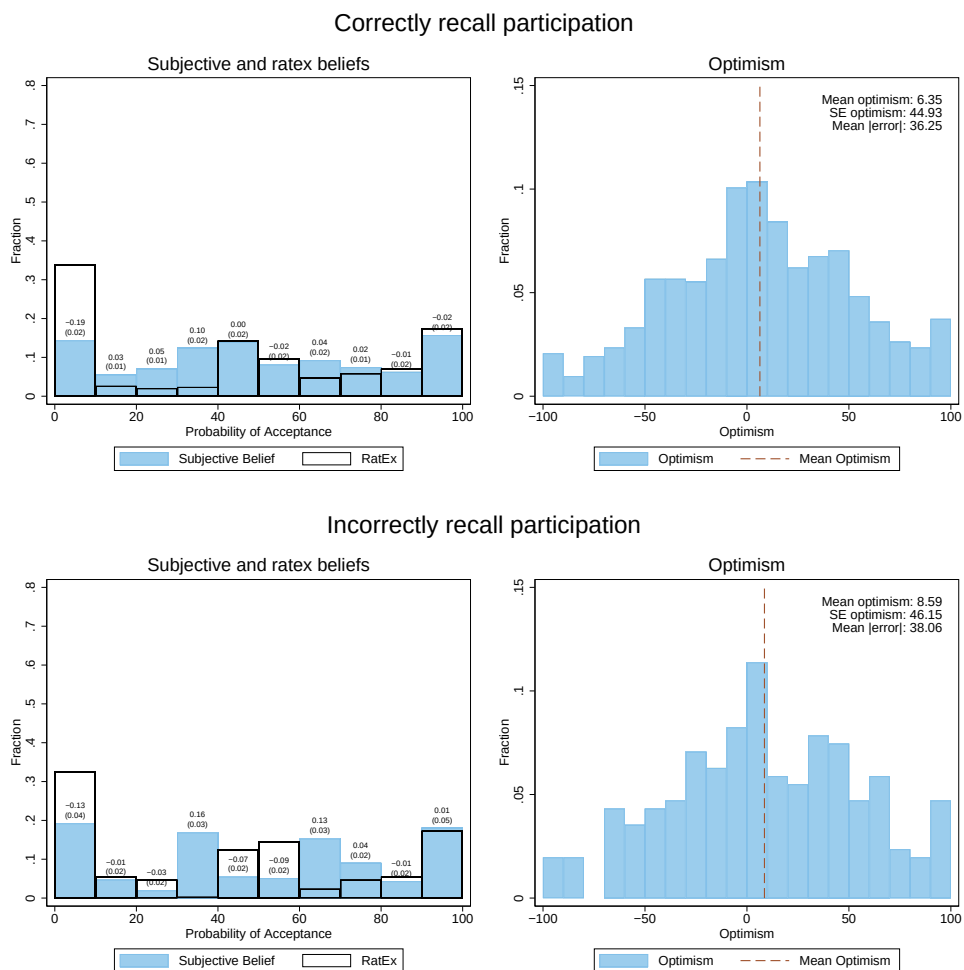
Upper graph: beliefs for schools listed on a household's school choice application. Lower graph: beliefs for unlisted schools. Left panel: distribution of subjective and rational expectations assignment probabilities. Text reports gap in fraction of subjective reports and and RatEx values in the bin, with standard errors clustered at the respondent level in parentheses below. Right panel: distribution of optimism. Bars show shares of population within bins of width 10. Red line indicates mean of the distribution. In both panels, beliefs for second-ranked options are conditional on non-admission to the first-ranked choice.

Figure A5: Ratex beliefs, subjective beliefs, and optimism by whether respondent was involved in school choice process



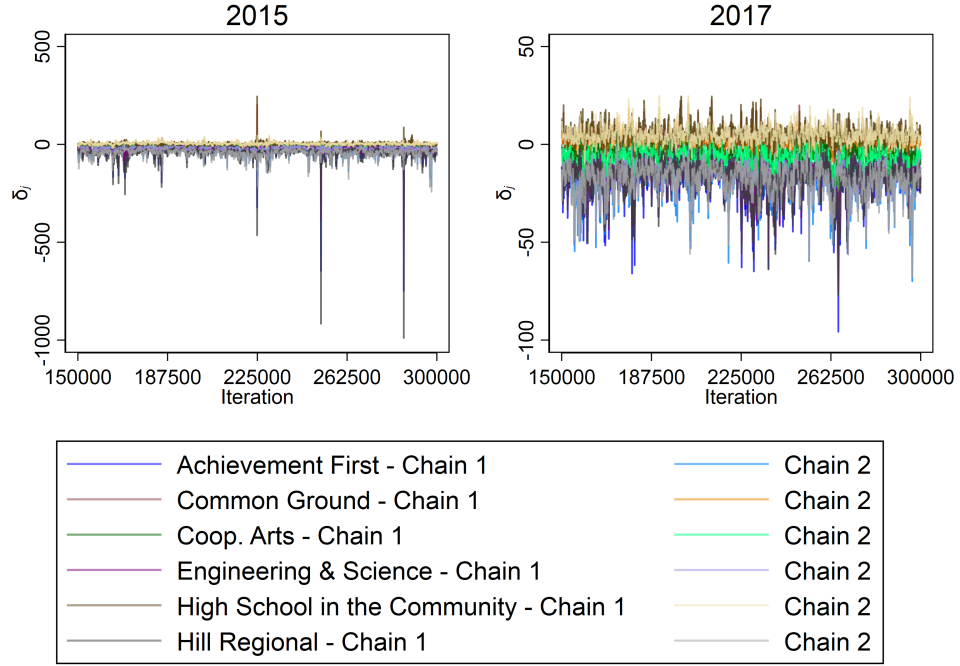
Upper graph: beliefs for respondents reporting personal involvement in school choice process. Lower graph: respondents not reporting personal involvement. Left panel: distribution of subjective and rational expectations assignment probabilities. Text reports gap in fraction of subjective reports and and RatEx values in the bin, with standard errors clustered at the respondent level in parentheses below. Right panel: distribution of optimism. Bars show shares of population within bins of width 10. Red line indicates mean of the distribution. In both panels, beliefs for second-ranked options are conditional on non-admission to the first-ranked choice.

Figure A6: Ratex beliefs, subjective beliefs, and optimism by whether respondent correctly recalled the submitted application



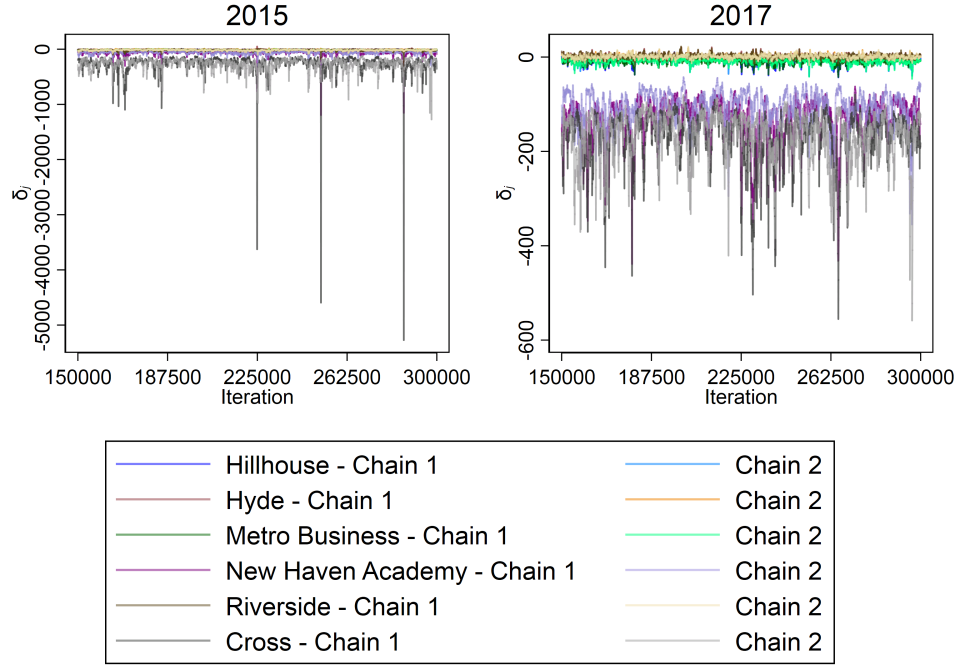
Upper graph: beliefs for respondents with correct recall of school choice application. Lower graph: respondents with incorrect recall. Left panel: distribution of subjective and rational expectations assignment probabilities. Text reports gap in fraction of subjective reports and and RatEx values in the bin, with standard errors clustered at the respondent level in parentheses below. Right panel: distribution of optimism. Bars show shares of population within bins of width 10. Red line indicates mean of the distribution. In both panels, beliefs for second-ranked options are conditional on non-admission to the first-ranked choice.

Figure A7: Trace plots: δ_j



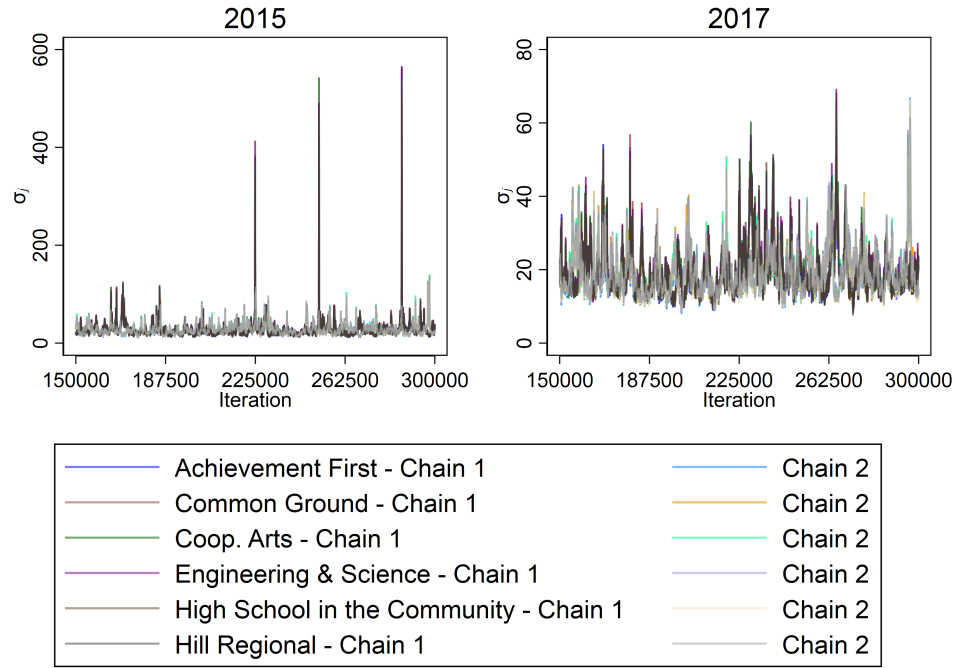
Trace plots for estimates of school-specific preference shifters δ_j split by year. For 2015, the Gelman-Rubin PSRF convergence statistics are, in order: 1.000, 1.010, 1.001, 1.002, 1.005, 1.000. For 2017, the Gelman-Rubin PSRF convergence statistics are, in order: 1.008, 1.003, 1.008, 1.009, 1.002, 1.012. See Section 5 for estimation details.

Figure A8: Trace plots: δ_j (con't)



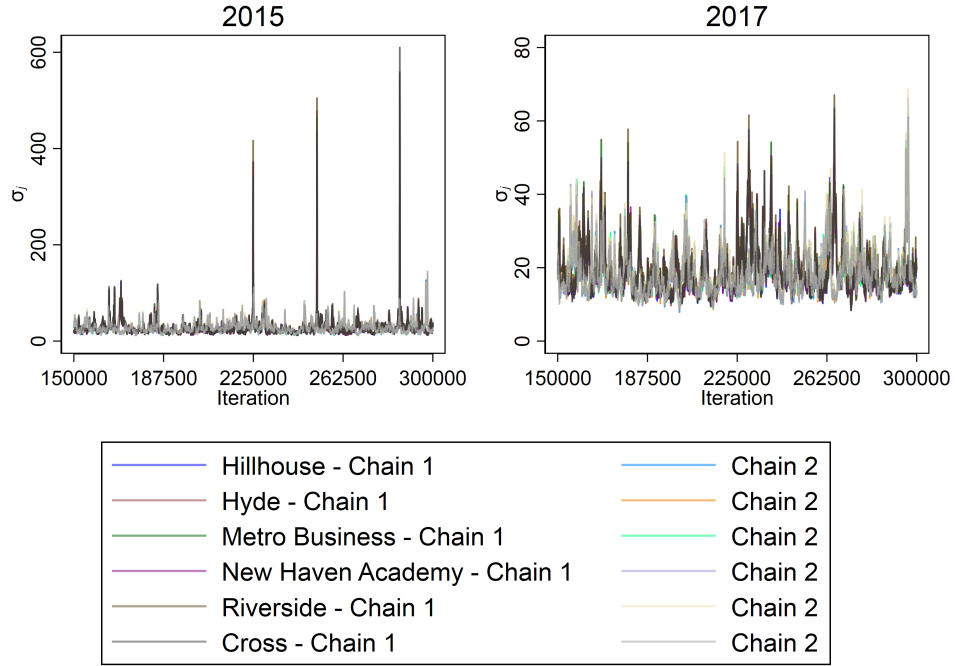
Trace plots for estimates of additional school-specific preference shifters δ_j split by year. For 2015, the Gelman-Rubin PSRF convergence statistics are, in order: 1.001, 1.003, 1.001, 1.000, 1.000, 1.000. For 2017, the Gelman-Rubin PSRF convergence statistics are, in order: 1.008, 1.005, 1.007, 1.045, 1.006, 1.010. See Section 5 for estimation details.

Figure A9: Trace plots: preference shocks $\sqrt{\Sigma_{(j,j)}}$



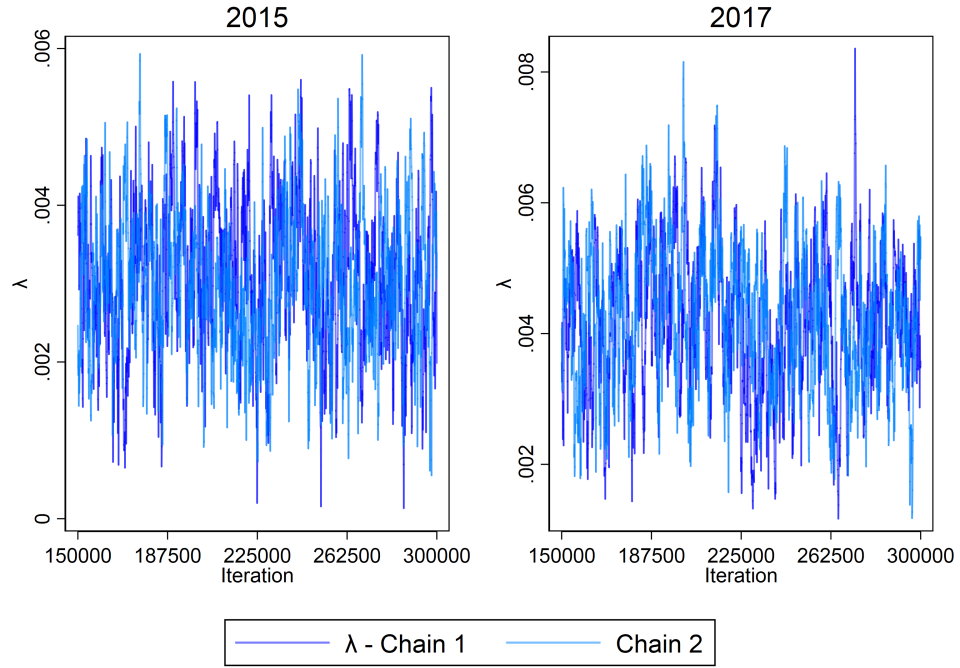
Trace plots for preference variance matrix terms $\sqrt{\Sigma_{j,j}}$ split by year. For 2015, the Gelman-Rubin PSRF convergence statistics are, in order: 1.000, 1.000, 1.000, 1.000, 1.000, 1.000. For 2017, the Gelman-Rubin PSRF convergence statistics are, in order: 1.010, 1.009, 1.011, 1.011, 1.009, 1.011. See Section 5 for estimation details.

Figure A10: Trace plots: preference shocks $\sqrt{\Sigma_{(j,j)}}$ (con't)



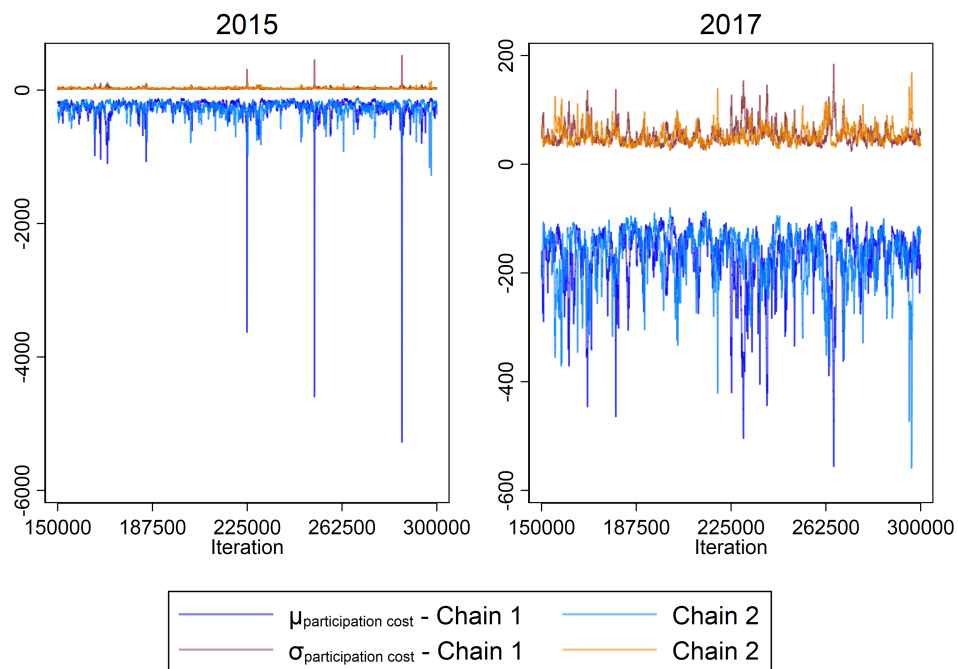
Trace plots for additional preference variance matrix terms $\sqrt{\Sigma_{j,j}}$ split by year. For 2015, the Gelman-Rubin PSRF convergence statistics are, in order: 1.000, 1.000, 1.000, 1.000, 1.000, 1.000. For 2017, the Gelman-Rubin PSRF convergence statistics are, in order: 1.011, 1.010, 1.009, 1.009, 1.012, 1.010. See Section 5 for estimation details.

Figure A11: Trace plots: enrollment shock parameter λ



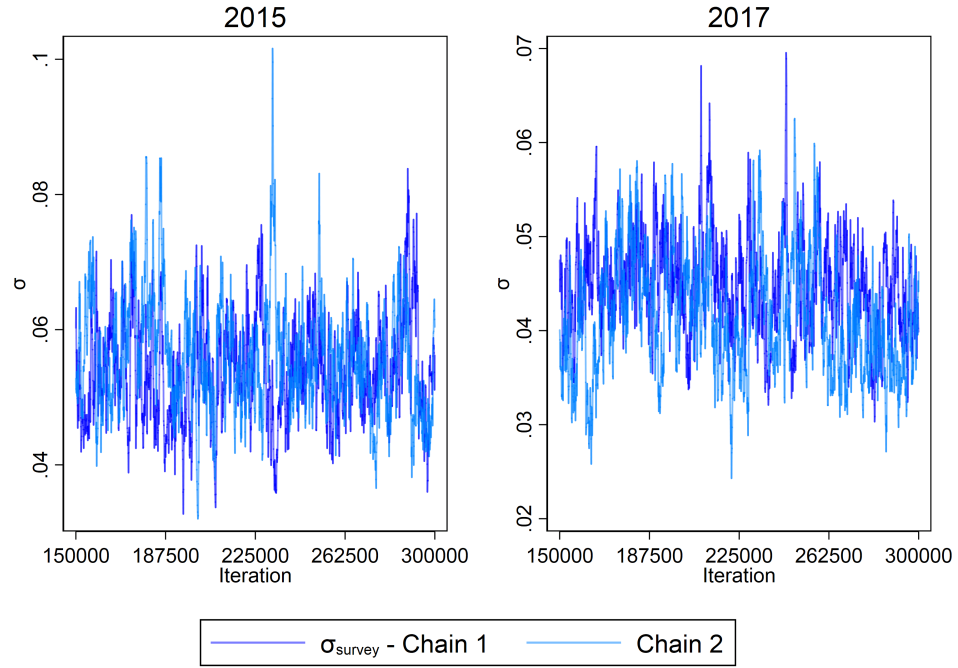
Trace plots for the enrollment shock scale parameter for the distribution of ϵ_{ij}^e , $\frac{1}{\lambda}$. The Gelman-Rubin PSRF convergence statistic for λ is 1.001 in 2015 and 1.013 in 2017. See section 5 for estimation details. See Section 4 for parameter definitions.

Figure A12: Trace plots: placement cost



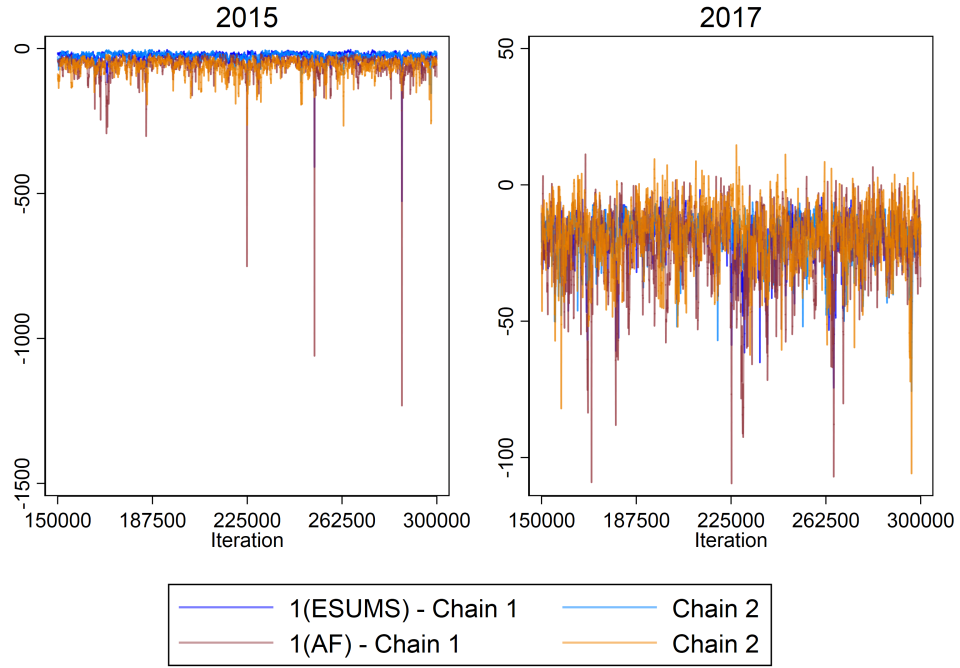
Trace plots for placement cost parameters split by year. The Gelman-Rubin PSRF convergence statistic for μ_b is 1.000 in 2015 and 1.010 in 2017. The Gelman-Rubin PSRF convergence statistic for σ_b is 1.000 in 2015 and 1.010 in 2017. See section 5 for estimation details. See Section 4 for parameter definitions.

Figure A13: Trace plots: measurement error σ_{survey}



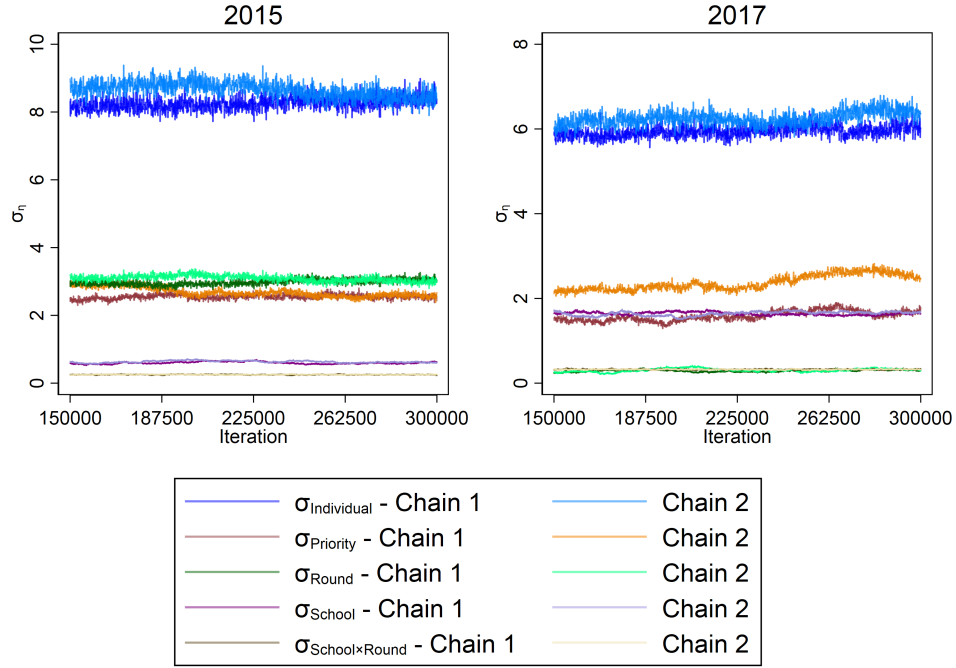
Trace plots for survey preference measurement error variance parameter split by year. The Gelman-Rubin PSRF convergence statistic for σ_{survey} is 1.010 in 2015 and 1.042 in 2017. See section 5 for estimation details. See Section 4 for parameter definitions.

Figure A14: Trace plots: other utility parameters



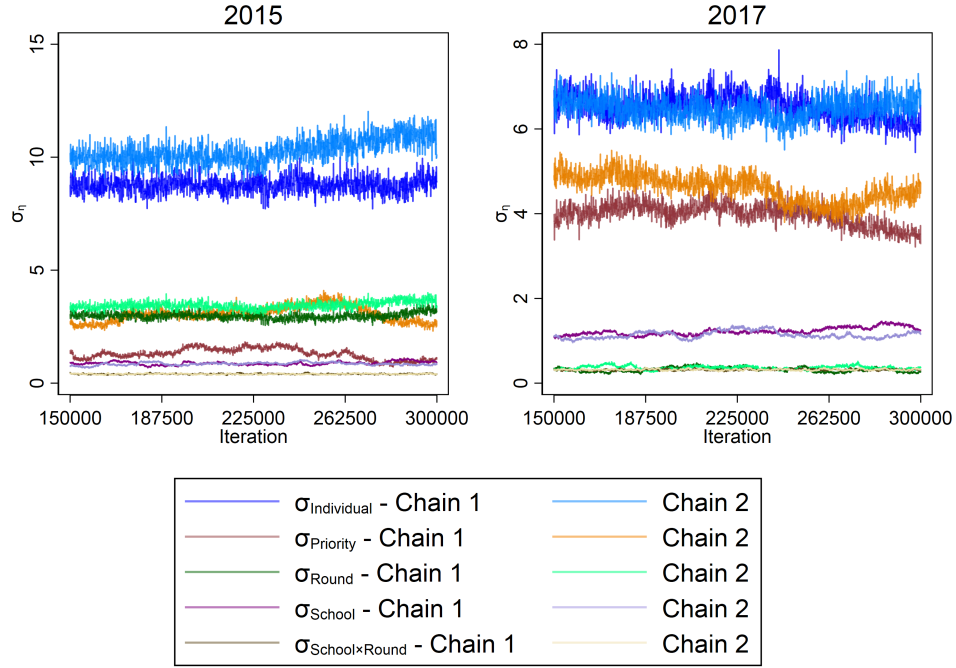
Trace plots for miscellaneous utility parameters split by year. The Gelman-Rubin PSRF convergence statistic for ESUMS is 1.000 in 2015 and 1.011 in 2017. The Gelman-Rubin PSRF convergence statistic for AF is 0.999 in 2015 and 1.015 in 2017. See [section 5](#) for estimation details. See [4](#) for parameter definitions.

Figure A15: Trace plots: belief variances, low SES



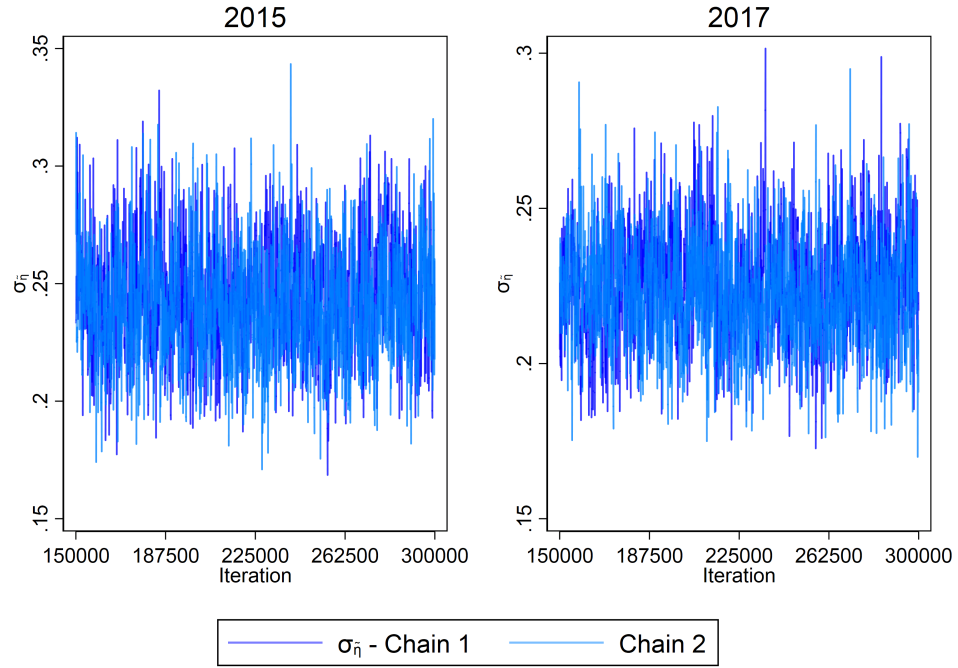
Trace plots for estimates of belief variance parameters for low SES households, split by year (left and right panels, respectively). The Gelman-Rubin PSRF convergence statistics for σ_{η_0} (low SES), $\sigma_{\eta_{pri}}$ (low SES), $\sigma_{\eta_{round}}$ (low SES), σ_{η_j} (low SES), $\sigma_{\eta_{jr}}$ (low SES), are, in order: 1.476, 1.339, 1.389, 1.142, and 1.015 in 2015 and 1.424, 3.890, 1.021, 1.269, and 1.004 in 2017. See Section 5 for estimation details.

Figure A16: Trace plots: belief variances, high SES



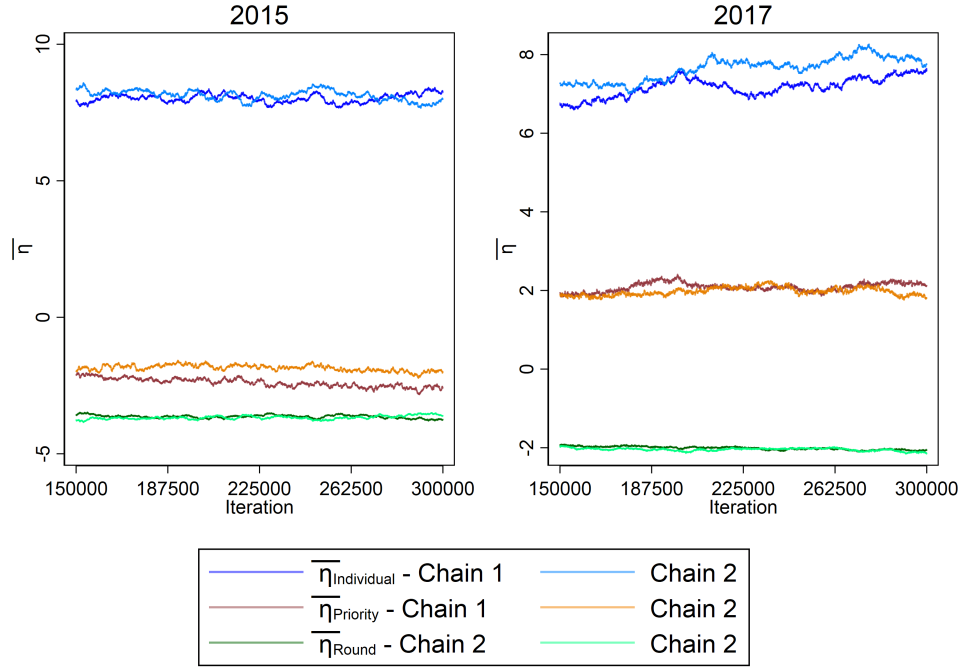
Trace plots for estimates of belief variance parameters for high SES households, split by year (left and right panels, respectively). The Gelman-Rubin PSRF convergence statistics for σ_{η_0} (high SES), $\sigma_{\eta_{pri}}$ (high SES), $\sigma_{\eta_{round}}$ (high SES), σ_{η_j} (high SES), $\sigma_{\eta_{jr}}$ (high SES), are, in order: 1.987, 2.974, 1.714, 1.039, and 1.004 in 2015 and 1.021, 1.697, 1.089, 1.214, and 1.014 in 2017. See Section 5 for estimation details.

Figure A17: Trace plots: measurement error $\sigma_{\tilde{\eta}}$



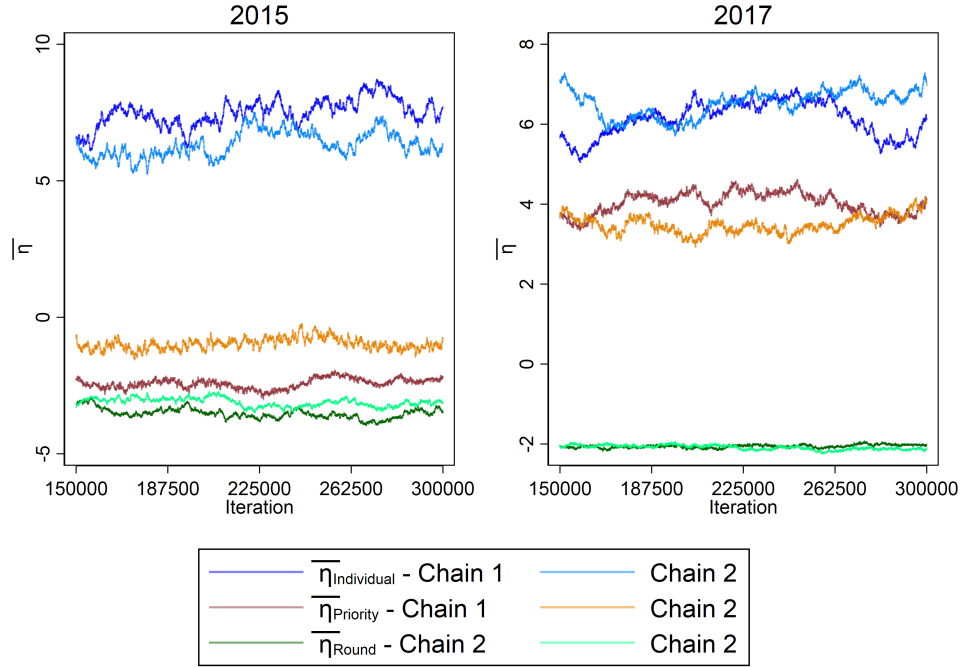
Trace plots for survey belief measurement error variance parameter split by year. The Gelman-Rubin PSRF convergence statistic for $\sigma_{\tilde{\eta}}$ is 1.003 in 2015 and 1.006 in 2017. See section 5 for estimation details. See Section 4 for parameter definitions.

Figure A18: Trace plots: belief means, low SES



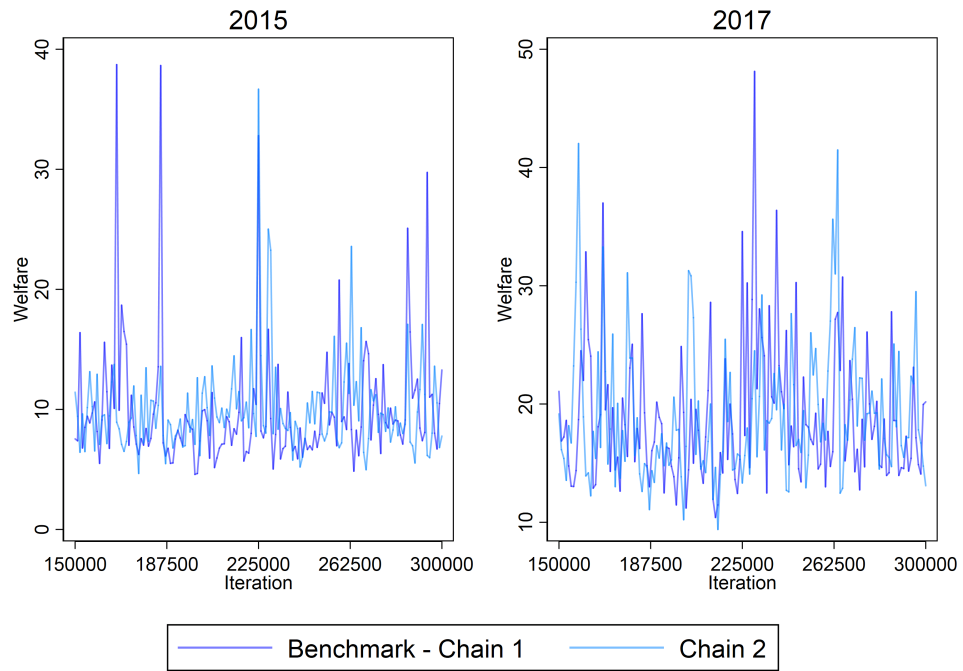
Trace plots for estimates of belief mean parameters for low SES households, split by year (left and right panels, respectively). The Gelman-Rubin PSRF convergence statistics for $\bar{\eta}_0$ (low SES), $\bar{\eta}_{\text{priority}}$ (low SES), $\bar{\eta}_{\text{round}}$ (low SES), 1.053, 2.873, and 1.056 in 2015 and 1.541, 1.128, and 1.329 in 2017. See Section 5 for estimation details.

Figure A19: Trace plots: belief means, high SES



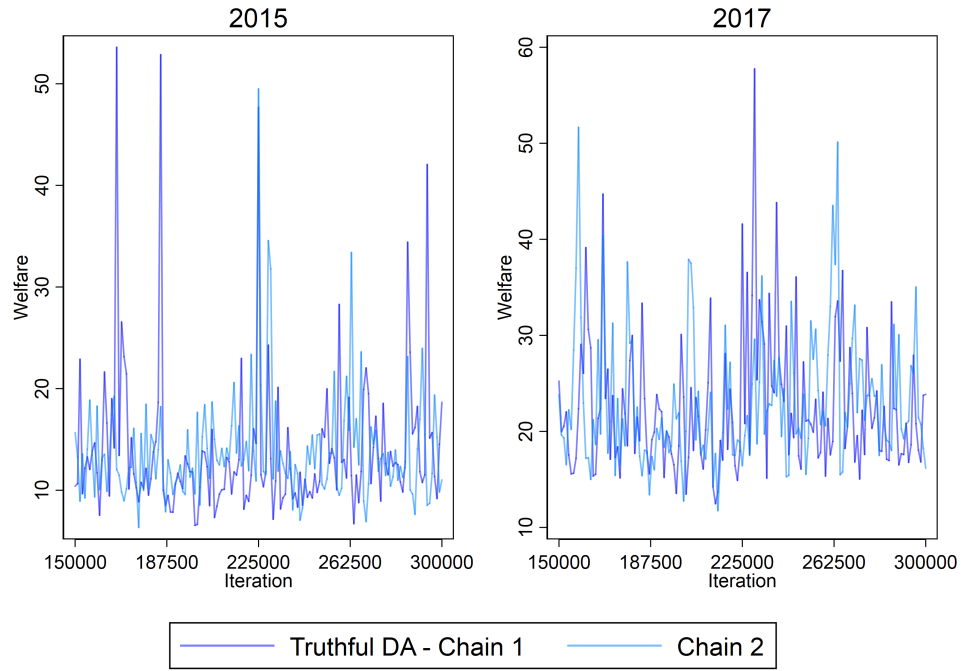
Trace plots for estimates of belief mean parameters for high SES households, split by year (left and right panels, respectively). The Gelman-Rubin PSRF convergence statistics for $\bar{\eta}_0$ (high SES), $\bar{\eta}_{priority}$ (high SES), $\bar{\eta}_{round}$ (high SES), 1.690, 3.637, and 1.660 in 2015 and 1.183, 1.403, and 1.360 in 2017. See Section 5 for estimation details.

Figure A20: Trace plots: welfare in the baseline model



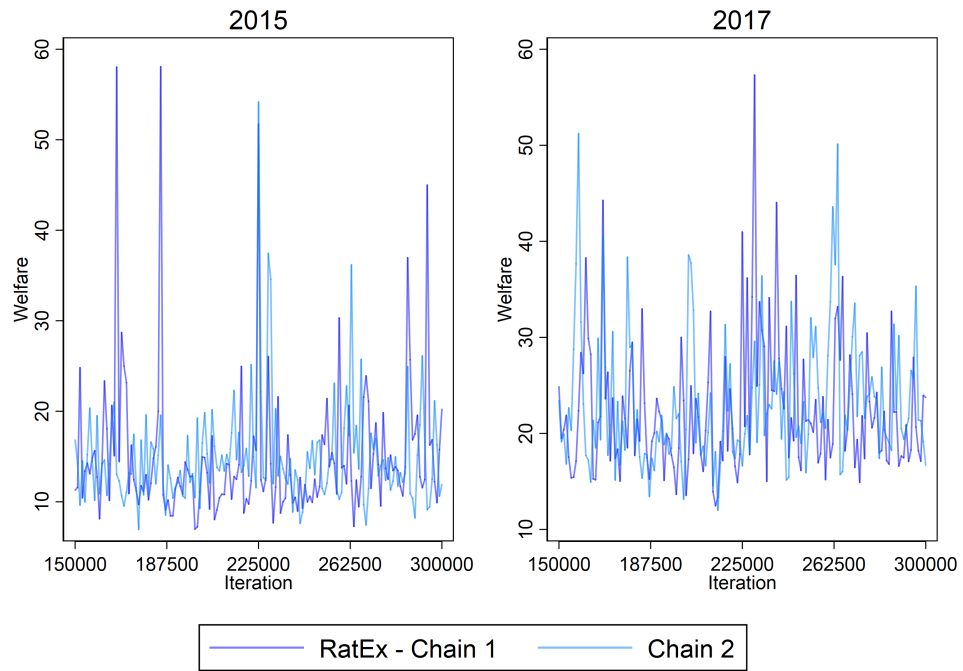
Trace plots for estimates of welfare in the baseline model. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.004 in 2017. See [section 5](#) for estimation details.

Figure A21: Trace plots: welfare in the ‘DA’ model



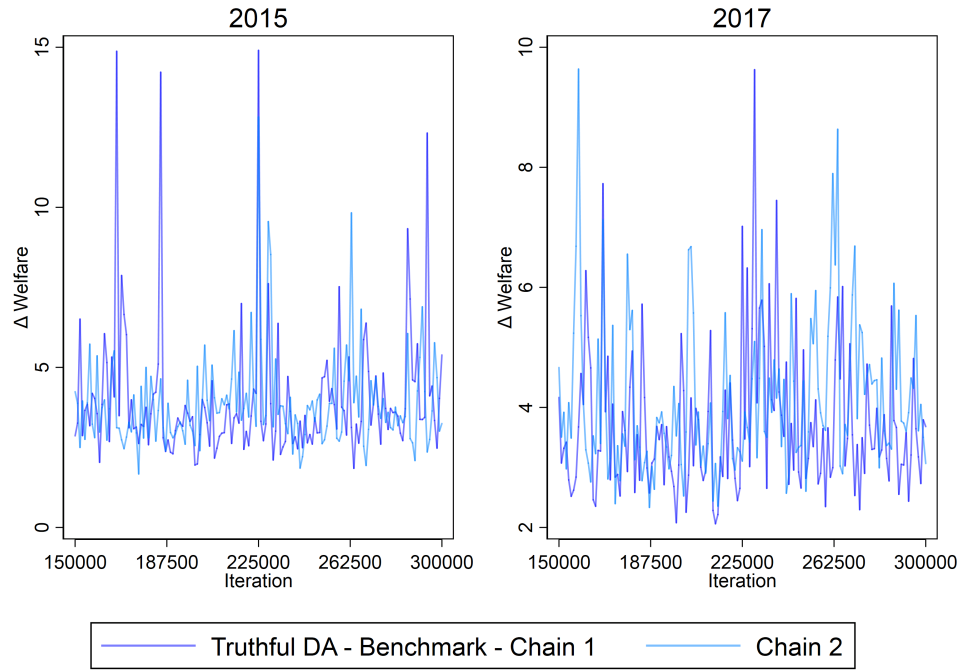
Trace plots for estimates of welfare in the ‘DA’ model. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.005 in 2017. See [section 5](#) for estimation details.

Figure A22: Trace plots: welfare in the ‘RatEx’ model



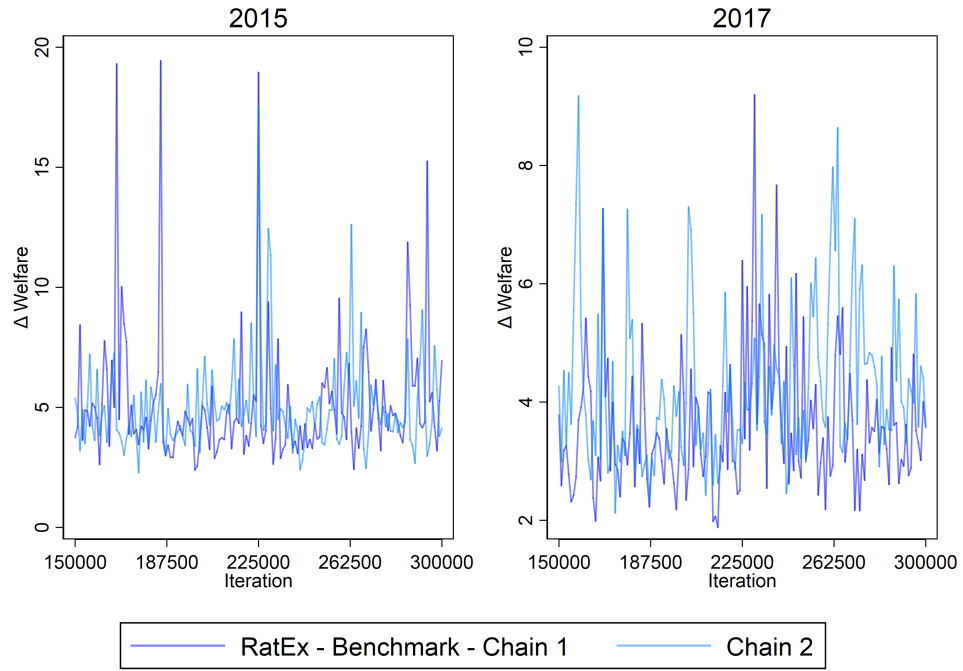
Trace plots for estimates of welfare in the ‘RatEx’ model. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.007 in 2017. See [section 5](#) for estimation details.

Figure A23: Trace plots: Δ welfare ‘DA’–baseline



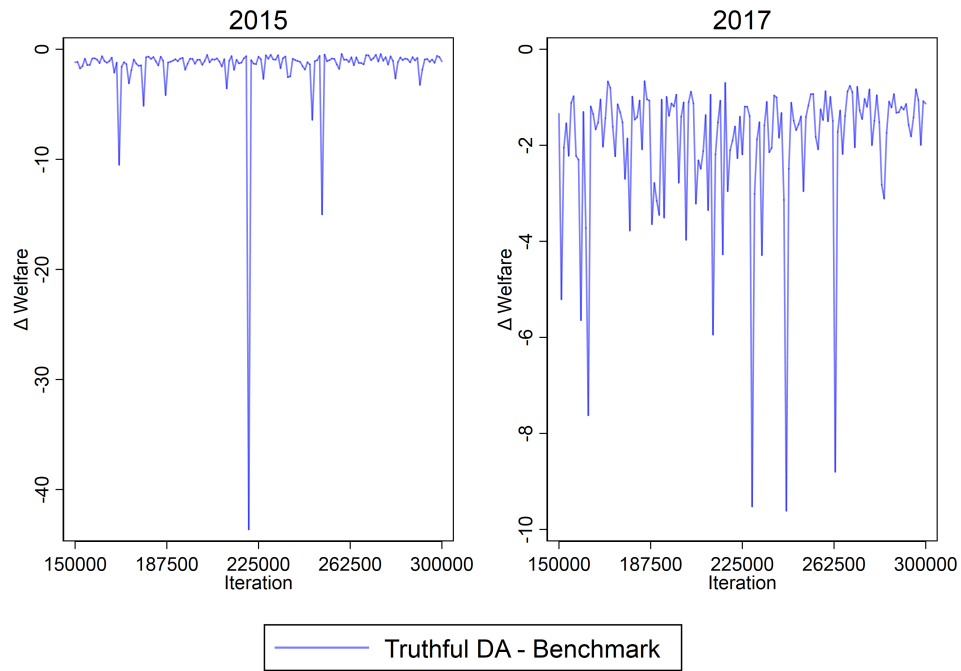
Trace plots for estimates of Δ welfare, ‘DA’–baseline. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.007 in 2017. See section 5 for estimation details.

Figure A24: Trace plots: Δ welfare ‘RatEx’–baseline



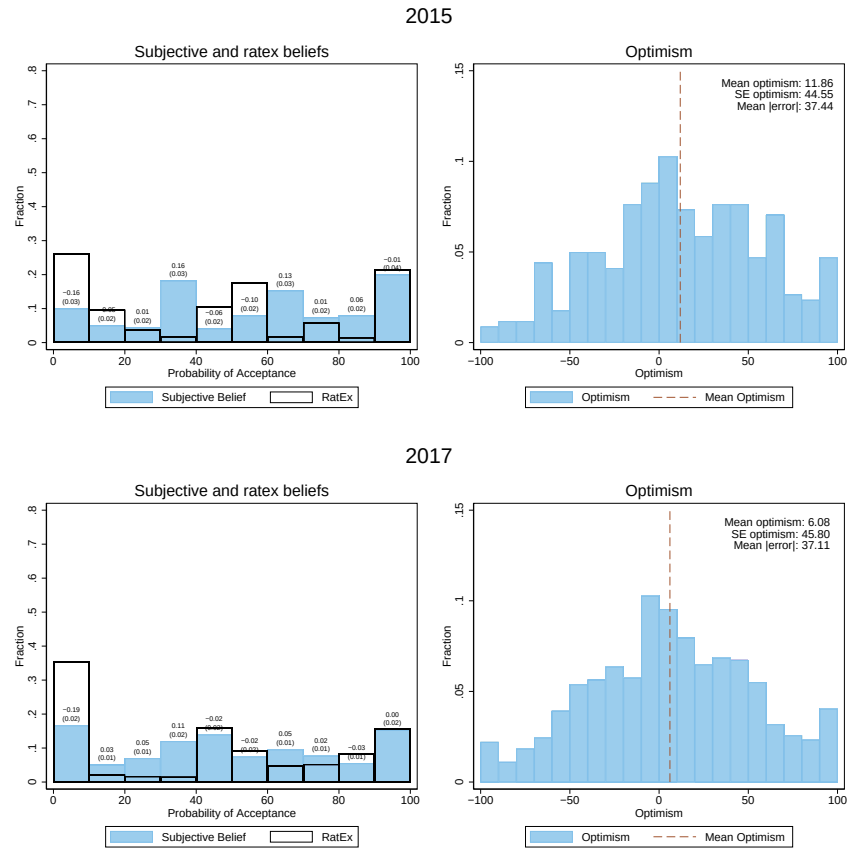
Trace plots for estimates of Δ welfare, ‘RatEx’–baseline. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.040 in 2017. See section 5 for estimation details.

Figure A25: Trace plots: Δ welfare, ‘No survey’ ‘DA’–baseline



Trace plots for estimates of Δ welfare, ‘No survey’ ‘DA’–baseline. The Gelman-Rubin PSRF convergence statistic is 0.996 in 2015 and 1.007 in 2017. See section 5 for estimation details.

Figure A26: Ratex beliefs, subjective beliefs, and optimism by survey year



Upper graph: 2015. Lower graph: 2017. Left panel: distribution of subjective and rational expectations assignment probabilities. Text reports gap in fraction of subjective reports and and RatEx values in the bin, with standard errors clustered at the respondent level in parentheses below. Right panel: distribution of optimism. Bars show shares of population within bins of width 10. Red line indicates mean of the distribution. In both panels, beliefs for second-ranked options are conditional on non-admission to the first-ranked choice.

B Appendix B: Estimation details

B.1 Constraints implied by optimal behavior

We can write the constraints implied by reported preferences and the optimality of enrollment decisions in matrix form as follows:

$$\Lambda'_{i,(shock)} \begin{pmatrix} u_i \\ \epsilon_i^{survey} \\ \epsilon_i^e \end{pmatrix} \geq 0.$$

If i reported first and second choices j_1 and j_2 , respectively, then the first column of $\Lambda_{i,(shock)}$ contains 1's in the j_1 th and $(J + j_1)$ th places, and -1 in the j_2 th and $(J + j_2)$ th places.¹ The next $J - 1$ columns similarly require

$$u_{i,j_2} + \epsilon_{i,j_2}^{survey} > u_{i,j} + \epsilon_{i,j}^{survey} \quad \text{for } j \neq j_1, j_2.$$

If i was placed in school j and enrolled there, then the final column of $\Lambda_{i,(shock)}$ contains 1 in the j th place and -1 in the $2J + 1$ th place. If i was placed in j but did not enroll there, the final column contains -1 in the j th place and 1 in the final place.

When i receives a placement $j > 0$, then $\epsilon_i^e \equiv \epsilon_{ij}^e - \epsilon_{i0}^e$ denotes the difference between his shock for school j and his shock for his outside option. Because both of these shocks are distributed T1EV, their difference ϵ_i^e has a logistic distribution.

B.2 Starting values

We first construct feasible belief shifts $shift_{ijr}$ for all i, j , and r . Where the survey provides no constraints, we start at $shift_{ijr} = 0$, i.e. at the rational-expectations value. We pick points interior to the relevant intervals when households report beliefs. Given these values of $shift_{ijr}$, we set initial measurement error $\tilde{\eta}_{ijr} = 0$ for all i, j, r .

Next, given the feasible beliefs, we use linear programming techniques to construct strictly feasible utilities $u_i \in \mathbb{R}^J$ and placement payoff terms $b_i \in \mathbb{R}$. A utility vector u_i and benefit b_i are (strictly) feasible if the observed report a_i is optimal conditional on the beliefs p_i , that is if $\Gamma_i(v_i + b_i)' > 0$, where Γ_i is the matrix of constraints induced by the optimality of the observed report, given the cutoff distribution and shift terms $shift_{ijr}$ for all schools $j \in J$ and rounds

¹If i reported a first but not a second choice, we similarly construct $\Lambda_{i,(shock)}$ using the resulting inequalities.

$r \in \{1, 2, 3, 4\}$. We allow the set of possible reports to include an empty list, which we interpret as nonparticipation.

Finally, we use linear programming again to pick strictly feasible enrollment-time shocks ϵ_i^e and measurement errors ϵ_i^{survey} .

To obtain a starting value, we choose $\lambda = 1$.

We now describe the prior distributions and the MCMC procedure that we use to estimate the model parameters.

B.3 Prior distributions

We begin with prior distributions over the preference parameters and belief parameters. We place priors directly on β , Σ , μ_b , σ_b , and σ_{survey} as well as on the belief parameters separately by SES category. In order to minimize the priors' influence on our estimates, we choose the following diffuse priors:

$$\begin{aligned}\lambda &\sim \text{Gamma}(2, .5) \\ (\beta_{-dist}, \mu_b) | \lambda &\sim N(0, 100 * I / \lambda) \\ \Sigma | \lambda &\sim IW(100, I / \lambda) \\ \sigma_{survey}^2, \sigma_b^2 | \lambda &\sim \text{InverseGamma}(1, \lambda^{-2}) \text{ iid} \\ \bar{\eta} &\sim N(0, 100 * I) \\ \Sigma^\eta &\sim IW(4, I) \\ \sigma_{\eta_{school}}^2, \sigma_{\eta_{school \times round}}^2, \sigma_{\bar{\eta}}^2 &\sim \text{InverseGamma}(1, 1) \text{ iid}\end{aligned}$$

Here, β_{-dist} denotes the coefficients on all preference shifters other than *distance*. Other than the stated dependence on λ , we assume that the priors are independent.

Let $\tilde{\beta} = \beta\lambda$. Because $\beta_{distance}$ is normalized to -1 , we have $\tilde{\beta}_{distance} = -\lambda$. Similarly, define $\tilde{\Sigma} = \Sigma\lambda$, $\tilde{\sigma}_b = \sigma_b\lambda$, and $\tilde{\sigma}_{survey} = \sigma_{survey}\lambda$. Let $\tilde{\mu}_b = \mu_b\lambda$. We then have $\tilde{\beta}_{-dist} \sim N(0, 100 * I)$, $\tilde{\Sigma} \sim IW(100, I)$, $\tilde{\sigma}_{survey}^2 \sim \text{InverseGamma}(1, 1)$, and $\tilde{\sigma}_b^2 \sim \text{InverseGamma}(1, 1)$, independently.

B.4 MCMC iteration

Let u_i denote the vector $\{u_{ij}\}_{j \in J}$. Similarly, let ϵ_i denote the vector of preference measurement errors, η_i the random coefficients in beliefs, and $shift_i$ the matrix of shift terms for household i .

Let $u = \{u_i\}_{i \in I}$ denote the matrix of utilities of all households.

For each i , let $\tilde{u}_i = u_i \lambda$. Let $\tilde{b}_i = b_i \lambda$. Let $\tilde{\epsilon}_i^e = \epsilon_i^e \lambda$. We augment the data with $\tilde{u}_i, \tilde{b}_i, \tilde{\epsilon}_i^e, \tilde{\epsilon}_i^{survey}, \eta_i, \tilde{\eta}_i$, and $shift_i$ for each household i .

We iterate through the following steps, which consist of sampling from the conditional posterior distributions of utilities, utility shocks, beliefs, belief measurement error, application costs, and model parameters:

1. Draw λ from its posterior distribution conditional on the data, augmented data, and parameters.
2. Draw mean-utility parameters $\tilde{\beta}^{(s+1)}$ and mean benefit $\tilde{\mu}_b^{(s+1)}$ from the distribution of $\tilde{\beta}|\tilde{u}^{(s)}, \tilde{\Sigma}^{(s)}$ and $\tilde{\mu}_b|\tilde{b}^{(s)}, \tilde{\sigma}_b^{(s)}$.
3. Draw variance of benefit term $(\tilde{\sigma}_b^2)^{(s+1)}$ from the distribution of $\tilde{\sigma}_b^2|\tilde{\mu}_b^{(s+1)}, \tilde{b}^{(s)}$.
4. Draw variance of shocks to reported preferences $\tilde{\sigma}_{survey}^2$ from the distribution of $\tilde{\sigma}_{survey}^2|\tilde{\epsilon}^{survey}$.
5. Draw covariance matrix $\tilde{\Sigma}^{(s+1)}$ from the distribution of $\tilde{\Sigma}|\tilde{\beta}^{(s+1)}, \tilde{u}^{(s)}$.
6. Draw the parameters of the belief distribution from their posterior conditional on $shift_i$ and belief random effects $\eta_i^0, \eta_i^{priority}, \eta_i^{round}$, and $\{\eta_{ij}\}_{j \in J}$ for all i . Draw belief measurement error variance $\sigma_{\tilde{\eta}}^2$ from its posterior distribution given $\tilde{\eta}$.
7. For each individual in the dataset:
 - (a) Draw utility $\tilde{u}_i^{(s+1)}$ from the posterior distribution of $\tilde{u}_i$ given $\tilde{\beta}, \tilde{\Sigma}$, i 's decision to accept or decline his placement (if offered one), and constraints implied by the optimality of i 's report.
 - (b) Draw $\tilde{b}_i^{(s+1)}$ from the posterior distribution of $\tilde{b}_i$ given $v_i(\tilde{u}_i^{(s+1)})$ and constraints implied by the optimality of i 's report.
 - (c) Draw shock realizations $\tilde{\epsilon}_i^{survey}$ and $\tilde{\epsilon}_i^e$ from their posterior distributions given $\tilde{u}_i$ and the household's decisions.
 - (d) Draw belief random effects $\eta_i^0, \eta_i^{priority}, \eta_i^{round}$, and $\{\eta_{ij}\}_{j \in J}$ from their posterior distribution given $shift_i, \bar{\eta}, \Sigma_{\eta}, \sigma_{\eta_{school \times round}}^2$, and $\sigma_{\eta_{school}}^2$.
 - (e) Draw belief measurement error $\tilde{\eta}_i$ from its posterior given $shift_i$, belief random effects, and the constraints imposed by the elicited belief measures.
 - (f) Draw $shift_i$ from its posterior distribution conditional on $\tilde{\eta}_i, \eta_i^0, \eta_i^{priority}, \eta_i^{round}, \{\eta_{ij}\}_{j \in J}, v_i, b_i$, and the constraints imposed by the survey.

B.5 Updating λ

Under the data augmentation strategy outlined above, λ enters the likelihood only via the transformed coefficient on distance, $\tilde{\beta}_{distance} = -\lambda$. Each time we update λ , we use a sequence of 10 Metropolis-Hastings steps with symmetric normal proposal densities with variance 0.01.² Observe that $\lambda\epsilon_{ij} = \tilde{u}_{ij} - x'_{ij}\tilde{\beta}_{-dist} + distance_{ij}\lambda$. The likelihood of λ conditional on $\tilde{\Sigma}$, $\tilde{u}$, and observables (distance, x) is therefore given by

$$\phi(\tilde{u}_i - x'_i\tilde{\beta}_{-dist} + distance_i\lambda; \mathbf{0}, \tilde{\Sigma}),$$

where $\phi(v; m, \Sigma)$ is the density of a multivariate normal distribution $MVN(m, \Sigma)$ evaluated at v .

B.6 Updating utilities

In order to update utilities, for each individual we iterate through the various schools, updating the terms $\tilde{u}_{ij}$ sequentially. Because $\tilde{u}_i$ is jointly normal, the distribution of $\tilde{u}_{ij}|\tilde{u}_{i,-j}, \beta, \Sigma$ is normal with known mean and variance.

The restriction $\Gamma'_i(\tilde{v}_i + \tilde{b}_i) \geq 0$ implies that $\tilde{v}_{ij}$ must belong to a (known) interval whose endpoints depend on $\tilde{v}_{i,-j}$ and $\tilde{b}_i$.³ Recall that $\tilde{v}_{ij} = \log(1 + \exp(\tilde{u}_{ij}))$ is a monotone transformation of $\tilde{u}_{ij}$. Therefore, conditional on the optimality of the report and the current values of other variables and parameters, updating $\tilde{u}_{ij}$ consists of drawing from a truncated normal distribution.

B.7 Updating preference shocks

We draw shock realizations $\tilde{\epsilon}_i^{survey}$ and $\tilde{\epsilon}_i^e$ from their posterior distributions given $\tilde{u}_i$ and the household's decisions. The procedure is analogous to drawing utilities subject to linear constraints represented by a matrix Γ . Here we have:

$$\Lambda'_{i,(shock)} \begin{pmatrix} \tilde{u}_i \\ \tilde{\epsilon}_i^{survey} \\ \tilde{\epsilon}_i^e \end{pmatrix} \geq 0.$$

B.8 Updating beliefs

The remaining steps are standard Gibbs-sampler steps, with the exception of the updates to belief shift terms $shift_{ijr}$ and belief measurement error $\tilde{\eta}_i$.

²In principle, one step per iteration would suffice. We find that more steps lead to faster convergence.

³Similarly, $\tilde{b}_i$ must belong to an interval with known endpoints that depend on $\tilde{v}_i$.

To update each of these parameters we take a sequence of Metropolis-Hastings steps with normal proposal densities. We tune the variance of the proposal density so that roughly a third of the draws are accepted. In particular, we take a sequence of 5 Metropolis-Hastings steps within each update of $\tilde{\eta}_i$ or $shift_i$. A single Metropolis-Hastings step to update $shift_i$ is as follows.

$shift_i$ can be represented as a $(J \times R)$ matrix. We draw a $(J \times R)$ matrix of iid normal shocks, $\Delta(shift_{ijr}) \sim N(0, \sigma_{proposal})$, and construct a new proposal $shift'_i = shift_i + \Delta(shift_i)$. We then compute the likelihood ratio $a = \frac{\ell(shift_i + \Delta(shift_i))}{\ell(shift_i)}$, where

$$\ell(shift_i) = \prod_{j,r} \phi(shift_{ijr} - \eta_i^0 - \eta_i^{priority} * priority_{ij} - \eta_i^{round} * r - \eta_{ij}; \sigma_{\eta_{school \times round}}^2)$$

where $\phi(x; \sigma)$ is the density of a normal distribution with mean zero and variance σ^2 evaluated at x . To understand this expression, observe that

$$\eta_{ijr} = shift_{ijr} - \eta_i^0 - \eta_i^{priority} * priority_{ij} - \eta_i^{round} * r - \eta_{ij}.$$

$shift_i + \Delta(shift_i)$ is consistent with the survey iff

$$shift_{ijr} + \Delta(shift_{ijr}) + \tilde{\eta}_{ijr} \in I_{ijr}$$

where I_{ijr} is the reported interval.

If $a > 1$ and the proposal is consistent with the survey and with the observed report, the proposal is accepted and we set

$$shift_i := shift_i + \Delta(shift_i).$$

If $a < 1$ and the proposal is consistent with the survey and observed report, we accept it with probability a . We reject the proposal with probability 1 if it violates the constraints imposed by the survey or causes the observed report to become non-optimal.

Once $shift_i$ is updated, we recalculate Γ_i accordingly.

The update to belief measurement error $\tilde{\eta}_i$ similarly consists of sequence of 5 Metropolis-Hastings steps. A key distinction is that we update each element of belief measurement error $\tilde{\eta}_{ijr}$ separately. We keep track of measurement error only for schools and rounds at which we elicited beliefs. For these schools and rounds, in each MH step we draw a proposal $\tilde{\eta}_{ijr} + \Delta_{ijr}$ where $\Delta \sim N(0, \sigma_{proposal}^2)$ and accept with the appropriate MH acceptance probability.

B.9 Convergence properties

Trace plots for parameter estimates are reported in Online Appendix Figures A7 through A19. The trace plots show that mean and variance parameters from the preference model are precisely estimated with potential scale reduction factors (PSRFs) close to one in every case. Belief model estimates also show evidence of convergence. The notable exception is for the $\sigma_{\eta_{pri}}$ and $\bar{\eta}_{priority}$ parameters. These parameters affect beliefs for the relatively small share of households with sibling priority, and their estimation relies on data from the smaller group of surveyed households who were asked about schools at which they have a sibling. Any non-convergence in belief parameter estimates that may exist does not lead to convergence issues for our core estimates of counterfactual welfare effects. As shown in Figures A20 through A25, the estimates of welfare levels and differences reported in the next section all have PSRFs of almost exactly one.

C Appendix C: Alternate model

This section describes our alternative specification, which treats as exogenous students' enrollment decisions following the choice process. This specification is close to that of Agarwal and Somaini (2018), but integrates belief and preference data from our survey.

C.1 Model

Our alternative model consists of three stages. First, applicants learn their preferences over schools and costs of applying to schools. Second, they choose whether to participate in the school choice process and, if they participate, what report to submit. Third, the lottery runs and participants receive placements. Utility is realized as a function of students' placements.

Students $i \in I$ have underlying preferences over schools $j \in J$ according to:

$$u_{ij} = \delta_j + X_{ij}\beta + \epsilon_{ij},$$

where X_{ij} are observed school and student characteristics. The errors ϵ_i are distributed according to

$$\epsilon_i \sim MVN(0, \Sigma),$$

iid across households, where Σ is unrestricted. X_i consists of the same observables as in our main specification: distance, a full set of school dummies, a low-SES indicator, distance to the zoned school, and identity of the zoned school.

Household i chooses an application portfolio a to solve

$$\max_a \left(\sum_j \tilde{p}_{ija} u_{ij} \right).$$

Subjective beliefs $\tilde{p}_{ija}$ are modeled as in our main specification.

C.2 Estimation

As before, we normalize $\beta_{dist} = -1$. We use the same priors as our main specification, the same number of draws, and the same burn-in period. Our estimation procedure is modified as follows. There is no matriculation-time shock ϵ_i^e or accept/decline cost b_i , so we do not track these variables.

Let u_i denote the vector $\{u_{ij}\}_{j \in J}$. Similarly, let ϵ_i denote the vector of preference measurement

errors, η_i the random coefficients in beliefs, and $shift_i$ the matrix of shift terms for household i . Let $u = \{u_i\}_{i \in I}$ denote the matrix of utilities of all households.

1. Draw mean-utility parameters $\beta^{(s+1)}$ from the distribution of $\beta|u^{(s)}, \Sigma^{(s)}$.
2. Draw variance of shocks to reported preferences σ_{survey}^2 from the distribution of $\sigma_{survey}^2|\epsilon^{survey}$.
3. Draw covariance matrix $\Sigma^{(s+1)}$ from the distribution of $\Sigma|\beta^{(s+1)}, u^{(s)}$.
4. Draw the parameters of the belief distribution from their posterior conditional on $shift$ and belief random effects η_i^0 , $\eta_i^{priority}$, η_i^{round} , and $\{\eta_{ij}\}_{j \in J}$ for all i . Draw belief measurement error variance $\sigma_{\tilde{\eta}}^2$ from its posterior distribution given $\tilde{\eta}$.
5. For each individual in the dataset:
 - (a) Draw utility $u_i^{(s+1)}$ from the posterior distribution of u_i given β, Σ and constraints implied by the optimality of i 's report.
 - (b) Draw shock realizations ϵ_i^{survey} from their posterior distributions given u_i and the household's decisions.
 - (c) Draw belief random effects η_i^0 , $\eta_i^{priority}$, η_i^{round} , and $\{\eta_{ij}\}_{j \in J}$ from their posterior distribution given $shift_i$, $\tilde{\eta}$, Σ_η , $\sigma_{\eta_{school \times round}}^2$, $\sigma_{\eta_{school}}^2$, and measurement error $\tilde{\eta}_i$.
 - (d) Draw belief measurement error $\tilde{\eta}_i$ from its posterior given $shift_i$, belief random effects, and the constraints imposed by the elicited belief measures.
 - (e) Draw $shift_i$ from its posterior distribution conditional on η_i^0 , $\eta_i^{priority}$, η_i^{round} , $\{\eta_{ij}\}_{j \in J}$, u_i , and the constraints imposed by the survey and optimality of i 's report.

C.3 Results

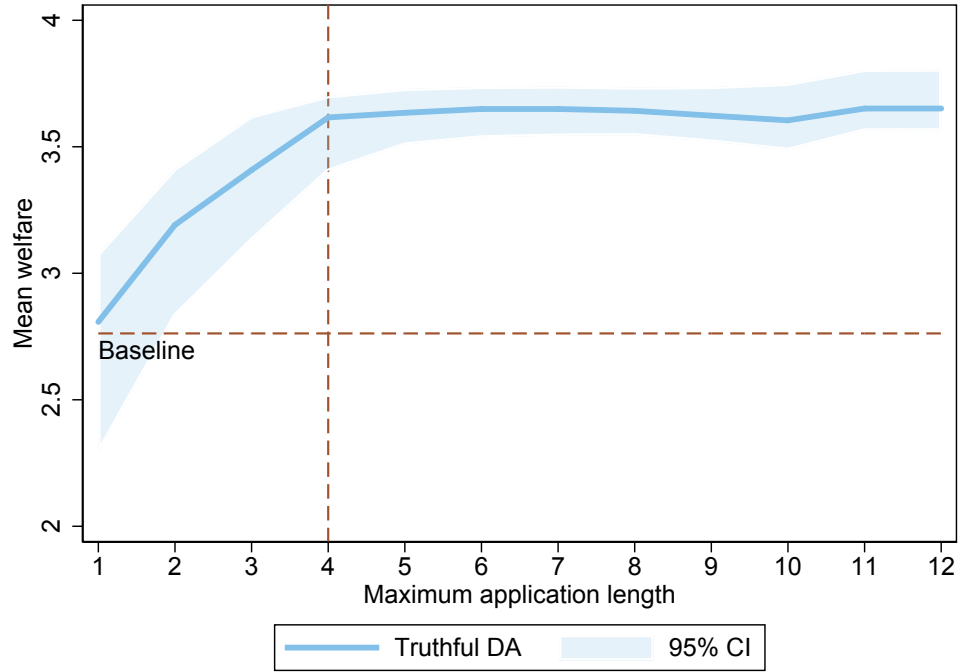
In this section we provide the analogues of Table 6, Table 7, and Figures 5, 6, and C3. Our findings are qualitatively identical to our main findings in terms of welfare ordering of counterfactuals. Quantitatively, welfare gains from the switch to DA are similar in percentage terms to those reported in Table 6. Welfare levels relative to the outside option are lower across all specifications. See section 6.3 for additional discussion.

Table C1: Distance-Metric Welfare: Benchmark and Counterfactuals

	Mean welfare			Welfare differences		
	Baseline	RatEx	DA	RatEx – Baseline	DA – Baseline	No Survey DA – Baseline
<i>A1. Mean distance metric</i>						
Mean	2.840	3.741	3.749	0.901	0.909	−0.198
Median	2.762	3.629	3.651	0.939	0.900	−0.198
95% CI	[1.449, 4.256]	[2.437, 5.183]	[2.347, 5.257]	[0.640, 1.116]	[0.784, 1.113]	[−0.284, −0.125]
<i>A2. SES gap</i>						
Mean	−0.600	−0.819	−0.819	−0.219	−0.219	0.081
Median	−0.576	−0.811	−0.808	−0.225	−0.218	0.075
95% CI	[−1.074, −0.199]	[−1.235, −0.350]	[−1.237, −0.312]	[−0.416, −0.001]	[−0.412, −0.026]	[0.010, 0.168]
	Truthful	Strategic	Drops	Stops		
<i>B. Mistakes under DA</i>						
Mean	0.792	0.838	0.819	0.791		
Median	0.795	0.855	0.814	0.795		
95% CI	[0.619, 0.964]	[0.667, 1.022]	[0.679, 0.966]	[0.618, 0.963]		
	0%	25%	50%	75%	100%	
<i>C. Share submitting baseline application under DA-4</i>						
Mean	0.792	0.634	0.464	0.288	0.111	
Median	0.795	0.632	0.463	0.294	0.099	
95% CI	[0.619, 0.964]	[0.539, 0.747]	[0.382, 0.540]	[0.184, 0.389]	[−0.008, 0.240]	
	Switch to DA		Keep baseline mechanism			
Quantile	School and priority	School	School and priority	School		
<i>D. Error components</i>						
Mean	0.557	0.559	0.355	0.359		
Median	0.549	0.551	0.356	0.360		
95% CI	[0.343, 0.810]	[0.343, 0.814]	[0.028, 0.731]	[0.034, 0.730]		

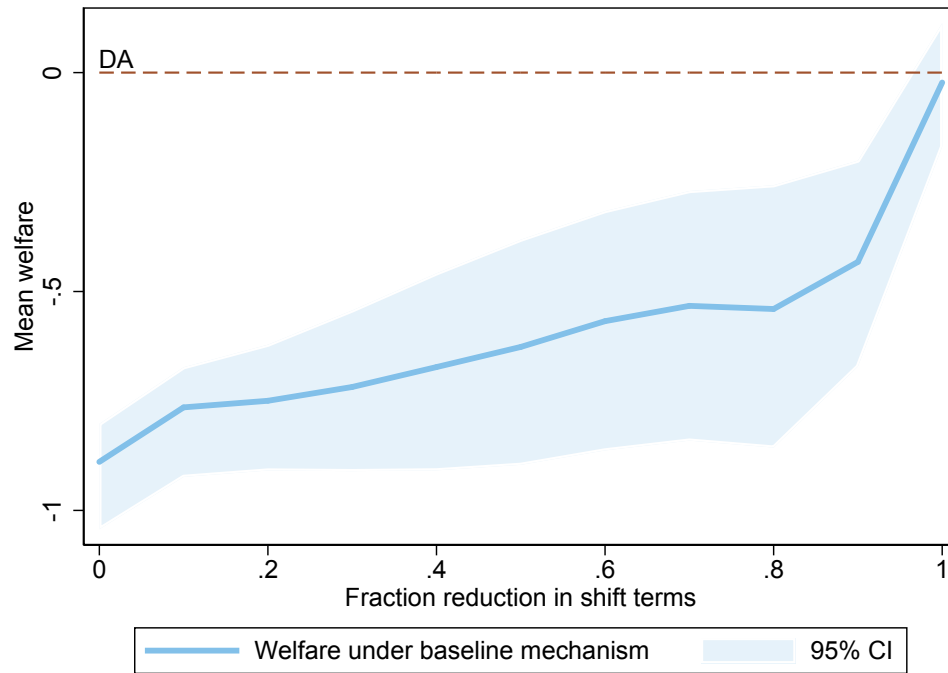
Notes: This table describes the posterior distribution of mean welfare in the baseline case and under policy counterfactuals. Welfare is measured using miles traveled as the numeraire good. Panels A1 and A2: ‘Baseline’ is baseline (New Haven or Boston) mechanism given observed beliefs. ‘RatEx’ is the baseline mechanism under rational expectations beliefs. ‘DA’ is the strategy-proof deferred acceptance mechanism. ‘RatEx-baseline’ and ‘DA-baseline’ columns compare welfare differences under the listed mechanisms. ‘No survey DA-base’ column compares welfare under the DA and baseline mechanisms using model estimates based on rational expectations beliefs. Panel A2 displays differences in each of these objects between high-SES and low-SES households. Panel B: difference between DA welfare and baseline welfare under ‘drop’ and ‘stop’ DA play (columns 1–4) and sophisticated truncated DA-4. See text for details. Panel C: Welfare gain from switch from baseline to truncated DA-4 by share of households continuing to submit ‘baseline’ applications. See text for details. Panel D: Welfare change from switch from baseline to strategic truncated DA with school- and school by priority-specific errors (columns 1+2), and welfare change from switching to only school- and school by priority-specific errors while keeping the baseline mechanism. See text for details. Calculations use alternative model.

Figure C1: Welfare under naive DA by list length



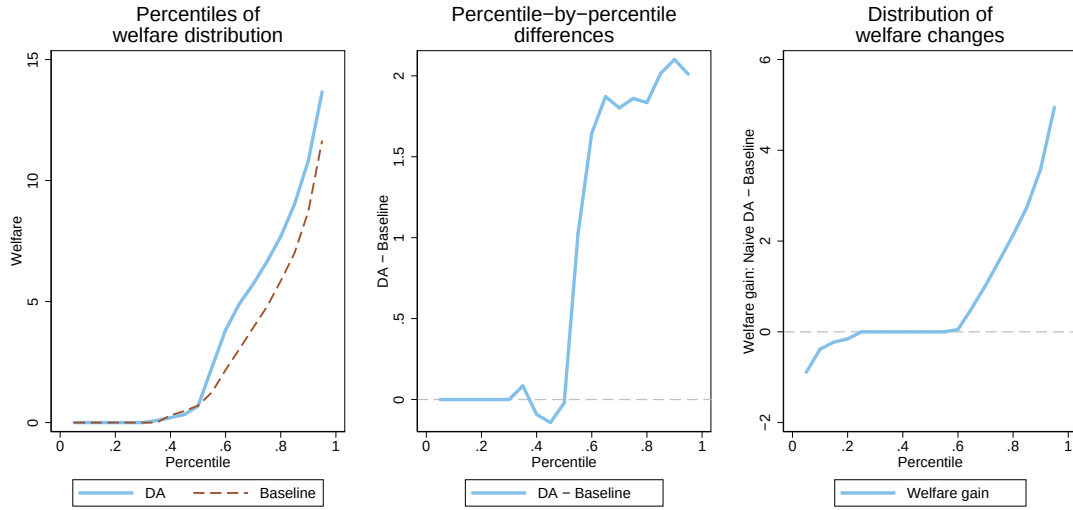
Notes: median of posterior mean welfare distribution (vertical axis) under truthful DA policy counterfactual by application length (horizontal axis). ‘Baseline’ line is median of posterior mean welfare under the baseline mechanism and observed beliefs with an application length of four. Calculations use alternative model.

Figure C2: Mean welfare by reduction in scale of shift term



Notes: median of posterior distribution of differences in mean welfare between baseline and DA (vertical axis) by fraction reduction in $shift_{ijr}$ terms (horizontal axis). Calculations use alternative model.

Figure C3: Percentiles of the welfare distribution



Notes: Left panel: posterior mean welfare by centile of welfare distribution under baseline and strategy-proof DA. Middle panel: centile-by-centile differences in welfare between DA and baseline policies. Right panel: percentiles of welfare gain distribution from switch to strategy-proof DA from baseline. Calculations use alternative model.

D Appendix D: Back of the envelope calculation

We have shown that the welfare effects of changes in choice mechanism and informational environment represent large shares of mean utility relative to students’ outside options. To place welfare effects in broader context, we conduct a back of the envelope calculation that maps distance-metric utility to travel time, and travel time to dollars. There were 18,947 students enrolled in NHPS grades Kindergarten through 12 in the 2014-2015 academic year. All were assigned to schools through the placement process or following a decision not to participate. There are 180 school days in the year, and each student must travel both to and from school, for an estimated 6.8 million trips per year. From Table 7, students receive per-trip welfare gains equivalent to 3.9 fewer miles traveled per trip from a switch to the DA mechanism, for a total welfare gain of 27 million fewer miles per year. Using Google Maps walk- and drive-time measures and assuming that students who live within one mile of a school choose to walk, we compute average hours per mile of travel time to the enrolled school as 0.21, for a total time gain of 5.7 million hours. Valuing students’ time at \$10 per hour, the total dollar value of the welfare gain from the switch is roughly \$57 million, or 70% of the \$82 million NHPS spent on teachers in 2014-2015 (NHPS, 2014). These are large effects for a change that is close to costless. For a benchmark, the well-known Project STAR experiment reduced class size by about 30%, from 22 students per class to 15 (Krueger, 1999; Chetty et al., 2011).⁴

⁴Our one-mile walk zone threshold is conservative relative to state guidelines for high school students; see Lohman (2014). We are also conservative in several other dimensions. Drive-times are based on car travel; buses are slower. Students in cars and younger walking students are often accompanied by adults, whose welfare we do not include in our calculation. Our \$10 per hour valuation of time is based on the minimum wage in Connecticut, which was \$10.10 in January 2017. For the average student, the present value of an hour of school attendance is likely higher. Finally, we do not include Pre-K students even though many Pre-K students also use the choice process.

E Appendix E: Fieldwork overview

The survey was implemented in 2015 and then again in 2017. The two surveys were similar in scope and objectives. We present the details of each survey below.

E.1 2015 Survey Procedures

E.1.1 Data

Administrative student-level data was procured in coordination with the New Haven Public Schools (NHPS). The data contained information for approximately 20,000 students present in the NHPS' enrollment records, and included student race, gender, school lunch status, test scores, and other information. Similar to the city of New Haven's resident population, the NHPS has a majority-minority student body, where nearly 60% of students are eligible for free lunch and more than 80% of students are black or Hispanic.

E.1.2 Sample Selection

The survey universe was sampled from the population of enrolled students in the New Haven Public Schools. The students were observed in enrollment administrative records. Only households with students that applied for either Kindergarten or 9th grade were selected for the survey. 1,589 households with children applying to Kindergarten were selected, while 1,423 households with children applying to 9th grade were selected.

E.1.3 Survey Implementation

Survey Overview The survey asked the parents or guardians of past school choice applicants questions about:

- Their knowledge of the administrative aspects of the school placement process.
- Their own involvement in both the school placement, and school choice process.
- How they obtained information about the process.
- Their preferences regarding school attributes

The survey was programmed using SurveyCTO and loaded on Samsung Galaxy Tab 7s tablets. The survey was also tested in small focus groups on three occasions during the two months prior to the field work.

Survey Team The team of surveyors was composed by ten active members who were recruited using online advertisement and Yale University’s physical bulletin boards. All the surveyors received a two-day training that prepared them for the use of the tablet and regulation regarding interacting with human subjects. Almost half of the surveyors were bilingual English, and Spanish speakers which was useful given that a significant proportion of the population in New Haven is Hispanic.

Surveyor Training The two day training covered the following topics:

- Day 1: Introduction regarding data confidentiality and safety. Logistics procedures were discussed.
- Day 2: Practical training of the instrument in a random neighborhood where we tested their skills to approach the families and their accuracy while using the instrument.
- CITI Certificate: All surveyors had to complete an online course for IRB purposes where they learned about dealing with human research subjects, and confidential information.

Outreach Parent’s participation was voluntary, and there was no compensation (neither monetary, nor non-monetary) for their participation.

- In partnership with the NHPS, the district contacted the households via phone-calls to announce their participation in the project.
- When the surveyors visited each house, they announced the project and handed in a business card (See Figure E2) with the study’s contact information. Parents or guardians who agreed to participate signed an informed consent form.
- In case of finding no one at home, a door hanger (See Figure E4) was left with contact information.
- Surveyors also had the chance to reschedule the interview if the respondent had time issues at the moment.

Administration Survey personnel followed a pre-defined protocol while out on the field:

- Surveyors wore branded t-shirts and IDs identifying them as part of the survey team.
- If the surveyor was attempting a door-to-door survey:
- Surveyors approached selected households and introduced themselves. They asked if the person answering is the parent or guardian of an NHPS student eligible for the kindergarten school choice.

- If the parent or guardian was present, the surveyor went through the remainder of the introduction, and then through the consent script. The script identified the surveyor as a member of the team and briefly describes the project. Respondents also received a business card containing the survey team's contact information.
- Parents who agreed to continue were administered the survey with the surveyor, knowing from the consent form that they are free to interrupt their participation at any time.

E.2 2017 Survey Procedures

E.2.1 Data

For the 2017 fieldwork, administrative data was procured in the same fashion as the 2015 process. The NHPS gave the project access to student enrollment records (26,780 actively enrolled), which include race, gender, English-language learner (ELL) status, and special education status. Similar to the 2015 process, more than 80% of the student body is either black or Hispanic, while about 15% of the actively enrolled students were in an ELL program.

E.2.2 Sample Selection

The survey universe corresponds to the population of enrolled students in the NHPS. From this sample universe the following conditions were applied to select the sample:

- Keep only 8th grade students.
- Keep only New Haven residents.
- Keep only students with current enrollment status.

The sample universe consisted of 1,589 students.

E.2.3 Survey Implementation

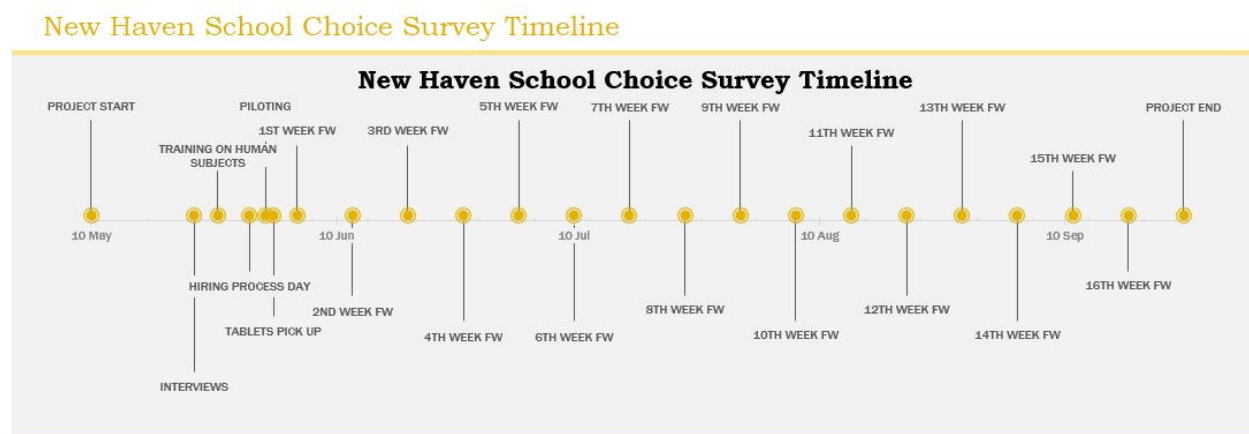


Figure E1: 2017 Fieldwork Timeline

Survey Overview The survey asked the parents or guardians of school choice eligible kindergarten children questions about:

- Their knowledge of the administrative aspects of the school placement process.
- The things parents are most interested in when choosing a school.
- What their perceptions are regarding the process.
- Their knowledge about the New Haven Promise program for college funding.

Two surveys were programmed using SurveyCTO and loaded onto tablets, which the surveyors used to administer the surveys. The first survey was administered to parents, while the second one was administered to students, under the parent's consent. Both surveys were piloted, and tested in two instances: first on a group of surveyors surveying each other, and secondly, on a small field pilot. Both surveys were administered during the household visit, given the parent's consent. The parent's survey took approximately 25 minutes to complete while the student's survey took approximately 15 minutes. Surveys were administered from early June 2017 until late September 2017. However, due to a SurveyCTO coding error, beliefs questions were not asked to households who did not participate in the NHPS' School Choice process (62 households). These households were resurveyed from late December 2017 to late January 2018, resulting in 20 re-surveyed households.

Survey Team Surveyors were recruited via open job calls posted on both physical, and digital university job boards, and online job websites. Additionally, local universities' social sciences departments were contacted so that a notice about the position was sent to their respective mailing lists.

The goal was to build a team of six surveyors that are representative of the NHPS' student population, and organize them into three teams of two. Three Spanish speaking surveyors were hired, and matched with non-Spanish speaking surveyors who were also representative of the student population. Each surveyor worked a total of 21 hours per week, which amounts to three 7-hour work days. Surveyor remuneration was as follows: The hourly rate for surveyors was \$12, plus a bonus of \$20 per completed survey. The requirements and details of the position included:

- Age: 21 years and above.
- Language requirements: Good Communication skills and ability to clearly read and write in English. Spoken and written Spanish is a plus.

- Additional requirements: A responsible, reliable dependable worker, who preferably lives in or is familiar with New Haven.
- Mandatory training session: Firstly, surveyors will attend a one-day compulsory, on-site training session. Secondly, surveyors will have to complete both the CITI Training’s ‘National Bureau of Economic Research (NBER) Responsible Conduct of Research (RCR) for Social & Behavioral’, and the National Institutes of Health’s (NIH) ‘Protecting Human Research Participants’ (PHRP) online trainings.
- Work Schedule: 21 hours per week.

Surveyor Training Training consisted of a two-part program led by the fieldwork coordinators. The first part consisted of two training sessions: The first was an on-site training, with the purpose of going over surveying and data collection best practices, while the second one was the completion of both the National Bureau of Economic Research (NBER) CITI Training for RCR and the National Institute of Health’s (NIH) Protecting Human Research Participants (PHRP) online training courses. The second part consisted of a guided field exercise designed to reinforce concepts learned during the first training session. All coordinators and surveyors were compelled to attend, and complete all parts of the training program in order to be qualified for the data collection process.

Outreach The main criteria for recruitment was that families have children who are eligible for participating in the 9th grade School Choice program ran by the NHPS during the 2017-2018 school year.

Outreach was implemented over two dimensions:

- **Phone contact**

The fieldwork coordinators established a call center at office space used by the project’s team. This call center would emit calls attempting to recruit survey participants using the confidential contact information that was shared by the NHPS - which was done after surveyors were administered the required training. The initial phone call attempted to inform potential survey participants about the study, while also attempting to schedule a home visit. Depending on the outcome of the phone call, contacts were categorized into different priority groups, i.e. the participant’s phone is out of service, the call went straight to voicemail, or the call rang but there’s no voicemail set up. If the call was not successful, but leaving a voicemail was an option, a voicemail was left. It included a contact phone number, and an email address so potential participants wishing to schedule an appointment or decline their participation could

do so at their own convenience. All households were called three times, except for when on one of these calls participation was declined.

- **Door to door**

Parallel to the call center, surveyors were in the field visiting households. Households were visited mostly during the work week, with a pair of surveyors working throughout the week-ends. Door-to-door surveying was also mostly done in the afternoon and into the evening as an attempt to coincide with the work schedule of potential participants. However, surveyors were mostly using their time going to appointments scheduled over the phone, and only did door-to-door attempts in between scheduled appointments. Whenever surveyors were visiting households, business cards were used (See Figure E3) when potential participants were not home. All households were visited three times, except for when one of these attempts resulted in a decline.

Potential participants were also informed that participation in the study was completely voluntary, and without compensation.

Administration Survey personnel followed a pre-defined protocol while out on the field:

- Surveyors wore branded t-shirts and IDs identifying them as part of the survey team.
- If the surveyor was fulfilling a previous phone scheduled appointment:
 - Surveyors approached the scheduled household during the specified time and introduced themselves. They asked if the person answering is the parent or guardian of an NHPS student eligible for the kindergarten school choice.
- If the surveyor was attempting a door-to-door survey:
 - Surveyors approached selected households and introduced themselves. They asked if the person answering is the parent or guardian of an NHPS student eligible for the kindergarten school choice.
- If the parent or guardian was present, the surveyor went through the remainder of the introduction, and then through the consent script. The script identified the surveyor as a member of the team and briefly describes the project. Respondents also received a business card containing the survey team’s contact information.
- Parents who agreed to continue were administered the survey with the surveyor, knowing from the consent form that they are free to interrupt their participation at any time.

E.2.4 Field Materials Used

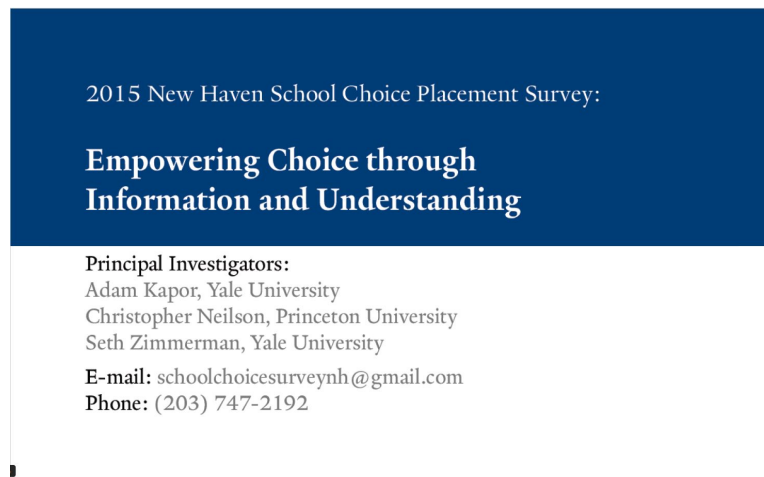


Figure E2: Business card used during 2015 process

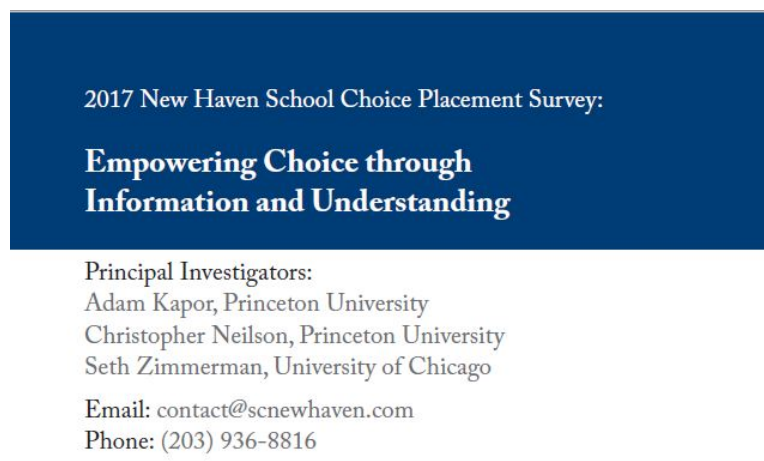


Figure E3: Business card used during 2017 process



Figure E4: Door hanger used during fieldwork

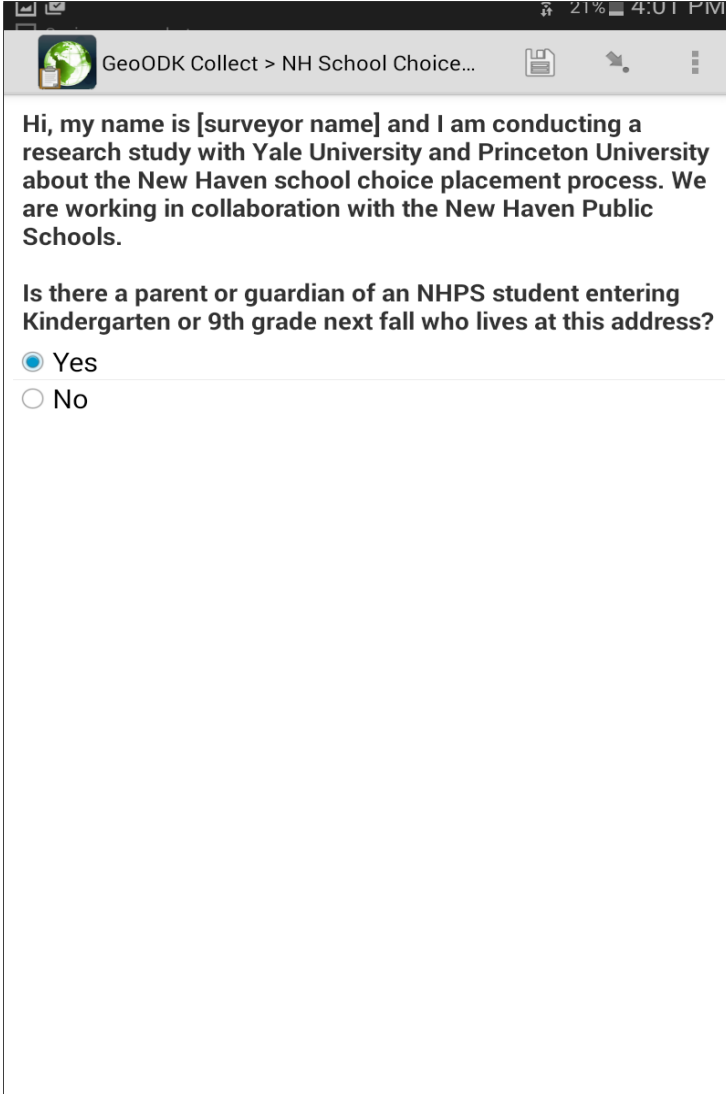
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F Appendix F: Survey Questionnaire

F.1 2015 Survey Form

F.2 Introduction and Consent

1

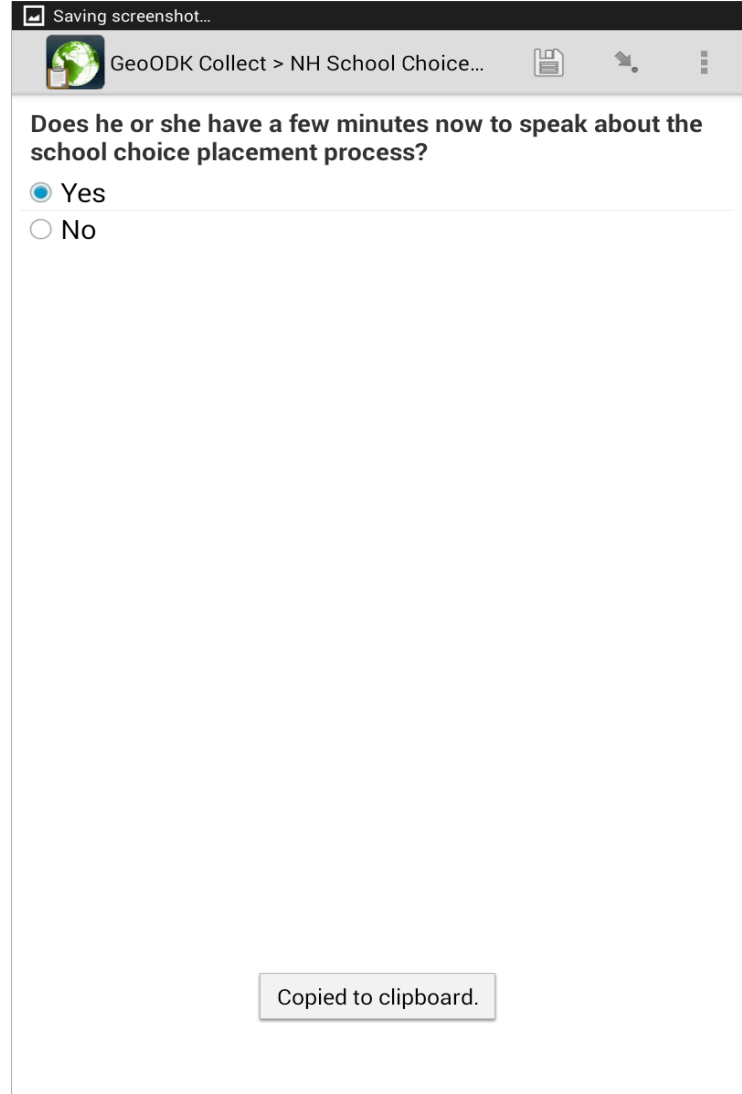


Hi, my name is [surveyor name] and I am conducting a research study with Yale University and Princeton University about the New Haven school choice placement process. We are working in collaboration with the New Haven Public Schools.

Is there a parent or guardian of an NHPS student entering Kindergarten or 9th grade next fall who lives at this address?

☒ Yes

☐ No



Does he or she have a few minutes now to speak about the school choice placement process?

☒ Yes

☐ No

Copied to clipboard.

Saving screenshot...

GeoODK Collect > NH School Choice...

Empowering Choice through Information and Understanding

[If new person, read intro again, if not continue. The intro is:

Hi, my name is [surveyor name] and I am conducting a research study with Yale University and Princeton University about the New Haven school choice placement process. We are working in collaboration with the New Haven Public Schools.

]

Thanks for your cooperation. Let me tell you a little a bit about this study.

Participation in this study will involve completing a 15 minute survey. The survey is completely voluntary. You are free to not participate, to end participation at any time, or to refuse to answer any individual question.

This is an independent study of the choice placement process. Your decision to participate and any answers you provide will not influence school choice placement, or be provided to anyone at your child's current or future school. If you choose to participate, you may find some of the questions challenging to answer. We hope that our results will add to knowledge about school choice programs and help future school choice participants.

researchers involved in this study and those responsible for research oversight will have access to the information you provide.

If you have any questions about this study, you may contact the investigators using the information on this card.

Do you have any questions at this time?

☐ Yes

☒ No

21% 4:02 PM

GeoODK Collect > NH School Choice...

Do you agree to participate in the survey?

☒ Yes

☐ No

21% 4:02 PM



GeoODK Collect > NH School Choice...



[Surveyor says: okay, that's great. can you just confirm that for us by signing the statement below?]

The New Haven School Choice Lottery Survey has been explained to me. I consent to participate. I have had a chance for my questions to be answered. I know that I may refuse to participate or to stop the interview at any time without repercussions of any kind. I understand that if I have questions about this survey or my rights in taking it, I may contact the Primary Investigator Adam Kapor, at 203-710-0527.

Signature

Gather Signature



F.3 Basic Information

Saving screenshot...

GeoODK Collect > NH School Choice...

Guardian's information

1- What is your relationship to the student?

☒ Father

☐ Mother

☐ Brother

☐ Sister

☐ Grand-father

☐ Grand-mother

☐ Uncle

☐ Aunt

☐ Other

GeoODK Collect > NH School Choice...

2- If it is other, what is your relationship to the student?

Cousin

1 2 3 4 5 6 7 8 9 0

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M , ! . ? ↑

Sym English(US)

Only if previous answer is "Other".

GeoODK Collect > NH School Choice...

3- Is the student a boy or a girl?

☒ Boy

☐ Girl

4- Which grade is the student entering next fall?

☐ Kindergarten

☒ 9th grade

5- What year was your child born?

☐ 1998

☐ 1999

☐ 2000

☒ 2001

☐ 2002

☐ 2003

☐ 2004

☐ 2005

☐ 2006

☐ 2007

☐ 2008

☐ 2009

☐ 2010

☐ 2011

☐ 2012

GeoODK Collect > NH School Choice...

6- What school did he or she attend last year?

☐ Amistad Academy Elementary & Middle Charter

☐ Augusta Lewis Troup School

☐ Barnard Environmental Studies School

☐ Beecher Museum School of Arts & Sciences

☐ Bishop Woods Executive Academy

☐ Brennan Rogers: The Arts of Communications and Media

☐ Celentano Biotech Health and Medical

☐ Christopher Columbus Family Academy

☐ Clinton Avenue School

☐ Conte-West Hills: A School of Exploration and Innovation

☐ Davis Street Arts and Academics

☐ East Rock Community

☐ Edgewood

☐ Elm City College Preparatory Charter

☐ Fair Haven School

☐ Hill Central School

☐ Jepson Multi-Age

☐ John C. Daniels School of International Communication

☐ John S. Martinez

☐ King-Robinson Interdistrict Magnet School: an IB World School

☐ Mauro-Sheridan Science- Technology and Communications

☐ Nathan Hale School

☐ Roberto Clemente Leadership Academy

☐ Ross Woodward Classical Studies

☐ Truman School

☐ Wexler-Grant Community School

☐ Wintergreen

☐ Worthington Hooker School

☒ Betsy Ross Arts

☐ Engineering & Science University - Middle School

☐ Other

Only if Question 4's answer is "9th grade"

6

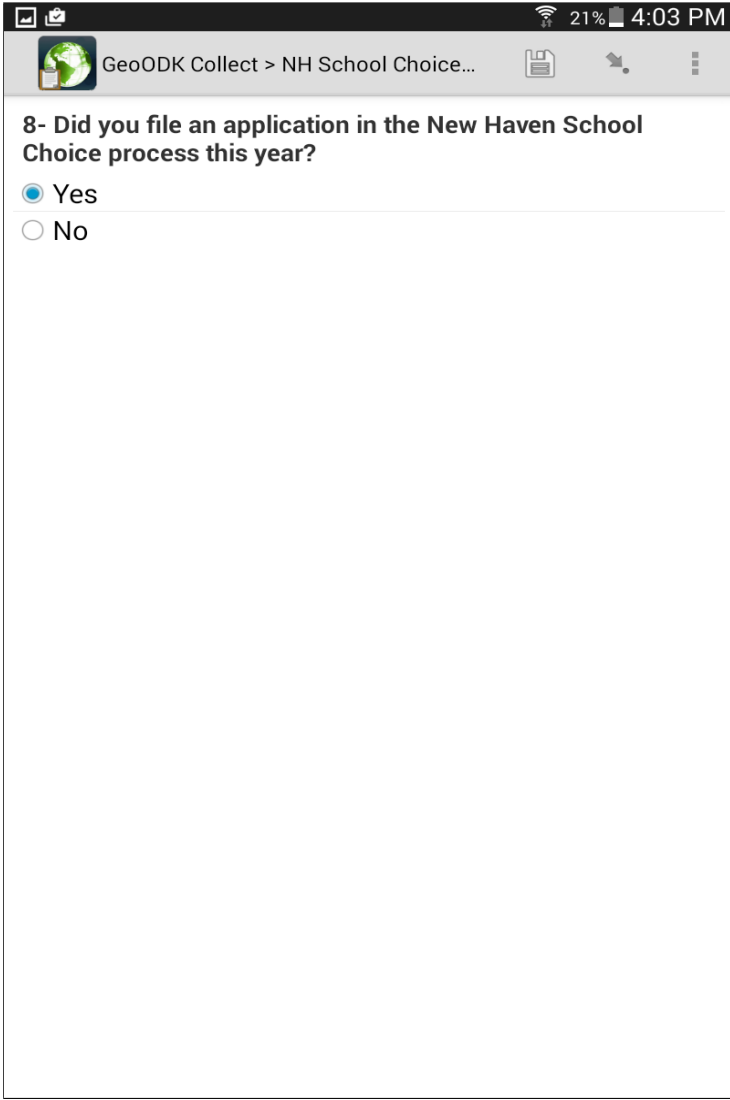
GeoODK Collect > NH School Choice...

7- If other, what was the name of the school he or she attended last year?

1 2 3 4 5 6 7 8 9 0
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M , . ?
Sym English(US)

Only if Question 6's answer is "Other".

F.4 Application Process

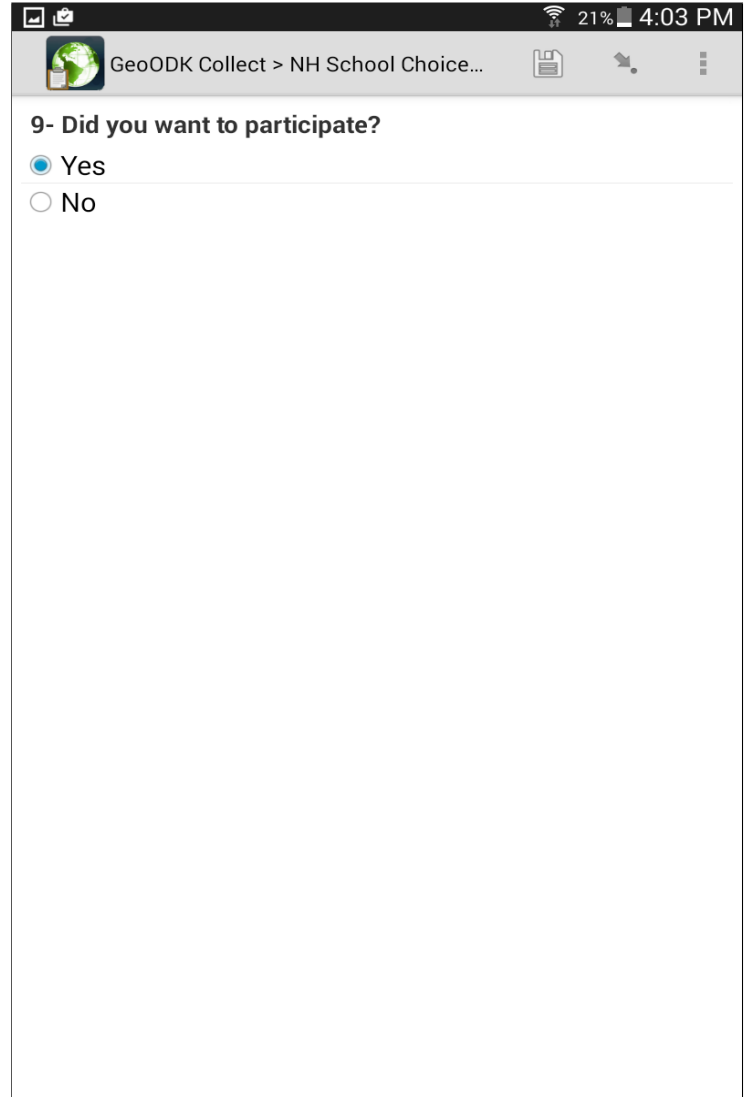


GeoODK Collect > NH School Choice...

8- Did you file an application in the New Haven School Choice process this year?

☒ Yes

☐ No



GeoODK Collect > NH School Choice...

9- Did you want to participate?

☒ Yes

☐ No

Only if Question 8's answer is "No".

8

GeoODK Collect > NH School Choice...

10- Why didn't you submit an application?

- ☒ My preferred school is my neighborhood school.
- ☐ My preferred school is not a New Haven public school.
- ☐ There are no good options.
- ☐ The good options are impossible to get into.
- ☐ None of the above.
- ☐ I prefer not to answer.

Only if Question 8's answer is "No".

GeoODK Collect > NH School Choice...

11- How easy or difficult was it for you to complete the choice process?

- ☐ Very difficult
- ☐ Difficult
- ☒ Moderate
- ☐ Easy
- ☐ Very easy

Only if Question 8's answer is "Yes".

GeoODK Collect > NH School Choice...

12- Who participated in deciding how to fill out your child's application?

☒ You

☒ Your child

☒ Your child's teacher

☐ Another parent or guardian

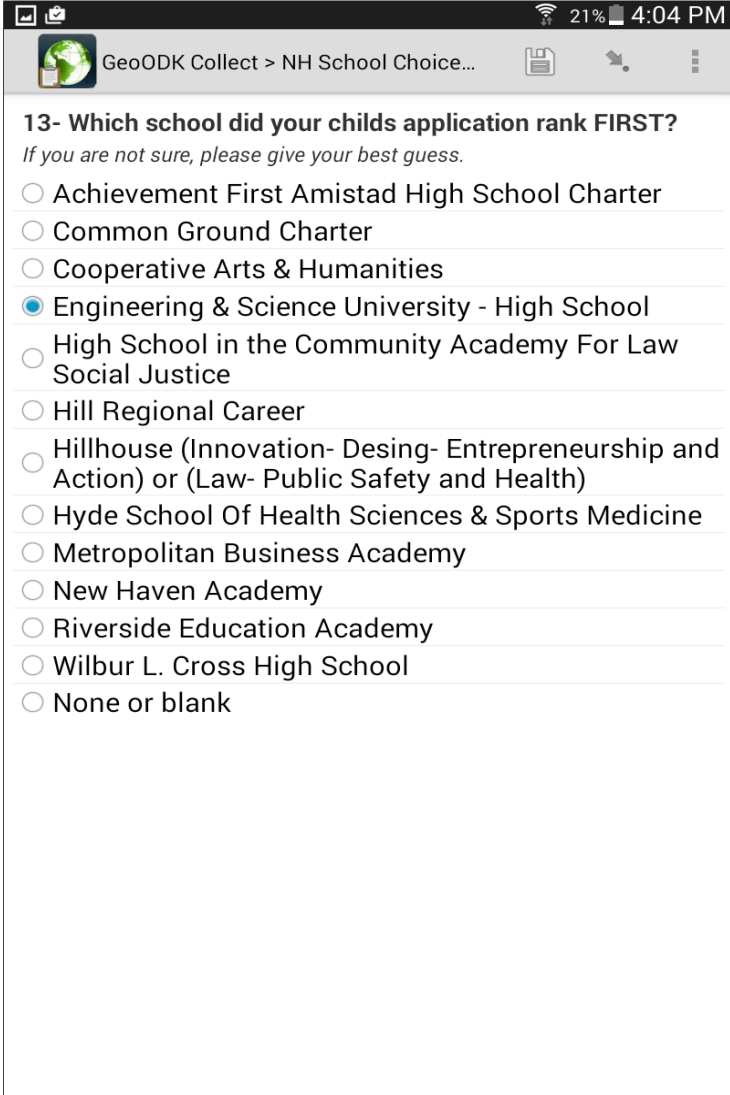
☐ None of the above

☐ No response / I prefer not to answer

Only if Question 8's answer is "Yes".

F.5 Schools Ranking

10

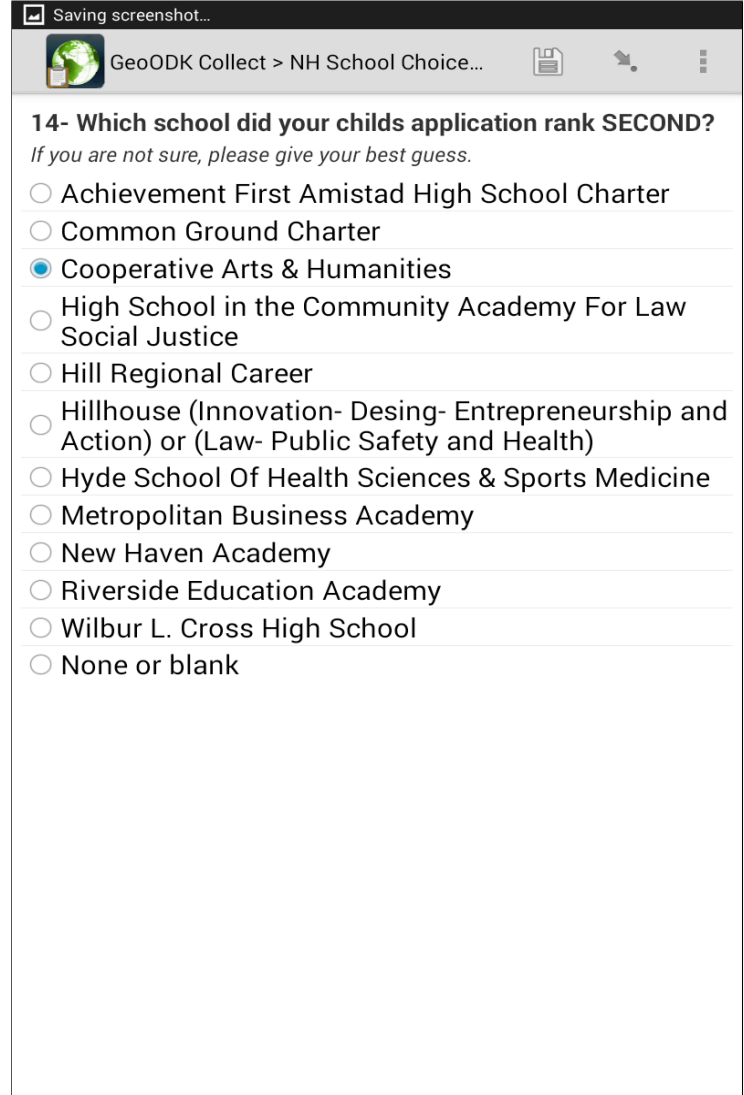


GeoODK Collect > NH School Choice...

13- Which school did your childs application rank FIRST?
If you are not sure, please give your best guess.

- ☐ Achievement First Amistad High School Charter
- ☐ Common Ground Charter
- ☐ Cooperative Arts & Humanities
- ☒ Engineering & Science University - High School
- ☐ High School in the Community Academy For Law Social Justice
- ☐ Hill Regional Career
- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Hyde School Of Health Sciences & Sports Medicine
- ☐ Metropolitan Business Academy
- ☐ New Haven Academy
- ☐ Riverside Education Academy
- ☐ Wilbur L. Cross High School
- ☐ None or blank

Only if Question 8's answer is "Yes".



Saving screenshot...

GeoODK Collect > NH School Choice...

14- Which school did your childs application rank SECOND?
If you are not sure, please give your best guess.

- ☐ Achievement First Amistad High School Charter
- ☐ Common Ground Charter
- ☒ Cooperative Arts & Humanities
- ☐ High School in the Community Academy For Law Social Justice
- ☐ Hill Regional Career
- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Hyde School Of Health Sciences & Sports Medicine
- ☐ Metropolitan Business Academy
- ☐ New Haven Academy
- ☐ Riverside Education Academy
- ☐ Wilbur L. Cross High School
- ☐ None or blank

Only if Question 8's answer is "Yes".

GeoODK Collect > NH School Choice...

15- Which school did your child's application rank THIRD?
If you are not sure, please give your best guess.

- ☐ Achievement First Amistad High School Charter
- ☐ Common Ground Charter
- ☐ High School in the Community Academy For Law Social Justice
- ☐ Hill Regional Career
- ☐ Hillhouse (Innovation- Design- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Hyde School Of Health Sciences & Sports Medicine
- ☐ Metropolitan Business Academy
- ☒ New Haven Academy
- ☐ Riverside Education Academy
- ☐ Wilbur L. Cross High School
- ☐ None or blank

Only if Question 8's answer is "Yes".

F.6 Source of Information

GeoODK Collect > NH School Choice...

Source of Information

We would now like to ask some questions about what information sources you were able to use when thinking about schools for next year.

GeoODK Collect > NH School Choice...

When thinking about whether to apply and/or which schools to apply to, did you or your child:

	Yes	No
16- Visit a city-wide school choice fair?	☐	☐
17- Visit an open house at a school?	☐	☐
18- Attend a community information session?	☐	☐
19- Read the New Haven School Choice Enrollment Catalog?	☐	☐
20- Visit the New Haven Magnet School website?	☐	☐
21- Read newspaper or online articles about the Choice Placement System?	☐	☐
22- "Shadow" a student at a particular school?	☐	☐
23- Talk to a teacher at your child's current school?	☐	☐
24- Talk to a guidance counselor?	☐	☐
25- Talk to your child's friends at school?	☐	☐
26- Talk to parents of your child's friends?	☐	☐

Note that Question 22 to Question 26 are asked only if they are in 9th grade.

GeoODK Collect > NH School Choice...

27- Did you ever obtain information about the number of available seats and/or number of applicants in previous years?

☒ Yes

☐ No

F.7 Placement Process

GeoODK Collect > NH School Choice...

28- First, we want to ask what characteristics of schools are most valuable to you.

Please choose the FIRST most important attribute to you.

- ☐ Academic quality
- ☐ Close to my house/easy to get there and back
- ☐ School hours convenient for me
- ☐ After school or before school programs available
- ☒ The theme or specialization of the school, like science or art
- ☐ Extracurricular activities or sports
- ☐ School climate and safety
- ☐ Availability of health or counseling resources
- ☐ None of those are important
- ☐ These are all equally important

GeoODK Collect > NH School Choice...

29- Out of those same options, which attribute was SECOND most valuable to you?

- ☐ Academic quality
- ☐ Close to my house/easy to get there and back
- ☒ School hours convenient for me
- ☐ After school or before school programs available
- ☐ Extracurricular activities or sports
- ☐ School climate and safety
- ☐ Availability of health or counseling resources
- ☐ None of those are important
- ☐ These are all equally important

GeoODK Collect > NH School Choice...

30- Out of those same options, which attribute was **THIRD** most valuable to you?

- ☐ Academic quality
- ☐ Close to my house/easy to get there and back
- ☐ After school or before school programs available
- ☐ Extracurricular activities or sports
- ☐ School climate and safety
- ☐ Availability of health or counseling resources
- ☐ None of those are important
- ☒ These are all equally important

GeoODK Collect > NH School Choice...

31- There are a number of schools in New Haven and not everyone knows about all of them. We're now going to ask whether you've heard about a number of different schools. Please say yes if this is a school you've heard of before, and no if not.

- ☒ Achievement First Amistad High School Charter
- ☒ Common Ground Charter
- ☒ Cooperative Arts & Humanities
- ☒ Engineering & Science University - High School
- ☐ High School in the Community Academy For Law Social Justice
- ☒ Hill Regional Career
- ☒ Hillhouse (Innovation- Design- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Hyde School Of Health Sciences & Sports Medicine
- ☐ Metropolitan Business Academy
- ☒ New Haven Academy
- ☐ Riverside Education Academy
- ☐ Wilbur L. Cross High School

GeoODK Collect > NH School Choice...

32- Have you applied to other schools outside New Haven Public Schools?
(Such as religious or private schools.)

☐ Yes

☒ No

GeoODK Collect > NH School Choice...

33- How many schools outside NHPS have you applied to?

☐ 1

☒ 2

☐ 3

☐ 4

☐ 5 or more

Only if Question 32's answer is "Yes".

GeoODK Collect > NH School Choice...

34- Which schools were these?

School's name 1

School 101

School's name 2

School 102

Only if Question 32's answer is "Yes".

Saving screenshot...

GeoODK Collect > NH School Choice...

35- Sometimes, because there are limited spots in each school, a lottery is used to assign students to schools and not all students can go to their most preferred option. However, if your child was guaranteed a spot at any school in the district, which would have been your or your child's first choice?

☐ Achievement First Amistad High School Charter
☐ Common Ground Charter
☐ Cooperative Arts & Humanities
☐ Engineering & Science University - High School
☐ High School in the Community Academy For Law Social Justice
☐ Hill Regional Career
☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
☐ Hyde School Of Health Sciences & Sports Medicine
☐ Metropolitan Business Academy
☐ New Haven Academy
☐ Riverside Education Academy
☒ Wilbur L. Cross High School
☐ None or blank

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GeoODK Collect > NH School Choice...

36- If the school you just listed was for some reason not available, but you could still attend any of the other schools if you wanted to, which school would you and your child choose?

- ☐ Achievement First Amistad High School Charter
- ☐ Common Ground Charter
- ☐ Cooperative Arts & Humanities
- ☒ Engineering & Science University - High School
- ☐ High School in the Community Academy For Law Social Justice
- ☐ Hill Regional Career
- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Hyde School Of Health Sciences & Sports Medicine
- ☐ Metropolitan Business Academy
- ☐ New Haven Academy
- ☐ Riverside Education Academy
- ☐ None or blank

GeoODK Collect > NH School Choice...

37- I'm going to read to you the names of five schools. To the best of you knowledge, which of these schools are most convenient for you get to and from?

[Surveyor reads five schools]

Please rank the top three schools that are easiest to get to and from.

The FIRST-easiest to get to is:

- ☒ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☐ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

Saving screenshot...

GeoODK Collect > NH School Choice...

38- The SECOND-easiest to get to is:

- ☐ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☒ New Haven Academy
- ☐ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

Copied to clipboard.

Saving screenshot...

GeoODK Collect > NH School Choice...

39- The THIRD-easiest to get to is:

- ☐ Engineering & Science University - High School
- ☒ Cooperative Arts & Humanities
- ☐ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

Copied to clipboard.

GeoODK Collect > NH School Choice...

40- Think about the same five schools. To the best of your knowledge, which of these schools have the highest average scores on statewide standardized tests? Please rank the top three schools.

The FIRST-highest average score is:

- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☒ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☐ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

Saving screenshot...

GeoODK Collect > NH School Choice...

41- The SECOND-highest average score is:

- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☐ Wilbur L. Cross High School
- ☐
- ☒ Not Sure
- ☐ All about the same

GeoODK Collect > NH School Choice...

43- Sticking with the same five schools, which do you think have the best school climate for your son/daughter? Again, please rank the top 3.

The school with the BEST climate is:

☒ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)

☐ Engineering & Science University - High School

☐ Cooperative Arts & Humanities

☐ New Haven Academy

☐ Wilbur L. Cross High School

☐

☐ Not Sure

☐ All about the same

Saving screenshot...

GeoODK Collect > NH School Choice...

44- The school with the SECOND-BEST climate is:

☐ Engineering & Science University - High School

☐ Cooperative Arts & Humanities

☐ New Haven Academy

☐ Wilbur L. Cross High School

☐

☐ Not Sure

☒ All about the same

Copied to clipboard.

GeoODK Collect > NH School Choice...

46- Given what you know now, which schools do you think were the hardest to get into for students who listed them first on the school choice application, but didn't have a sibling in the school or live in school's neighborhood?

The HARDEST school to get into:

- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☒ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

Saving screenshot...

GeoODK Collect > NH School Choice...

47- The SECOND-HARDEST school to get into:

- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☒ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☐
- ☐ Not Sure
- ☐ All about the same

Copied to clipboard.

Saving screenshot...

GeoODK Collect > NH School Choice...

48- The THIRD-HARDEST school to get into:

- ☐ Hillhouse (Innovation- Design- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Cooperative Arts & Humanities
- ☒ New Haven Academy
- ☐
- ☐ Not Sure
- ☐ All about the same

19% 4:35 PM

GeoODK Collect > NH School Choice...

49- The FOURTH-HARDEST school to get into:

- ☐ Hillhouse (Innovation- Design- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☒ Cooperative Arts & Humanities
- ☐
- ☐ Not Sure
- ☐ All about the same

GeoODK Collect > NH School Choice...

50- Now, taking all of the different features of the schools into account, which would you most like to send your son or daughter to?

- ☐ Hillhouse (Innovation- Desing- Entrepreneurship and Action) or (Law- Public Safety and Health)
- ☐ Engineering & Science University - High School
- ☐ Cooperative Arts & Humanities
- ☐ New Haven Academy
- ☒ Wilbur L. Cross High School
- ☐
- ☐ Not Sure
- ☐ All about the same

GeoODK Collect > NH School Choice...

51- For your most preferred school, what was the most important reason you prefer it?

- ☐ Distance
- ☐ Test results
- ☐ School climate
- ☐ Ease of entry
- ☒ Other

GeoODK Collect > NH School Choice...

52- Which other reason?

Best teachers

English(US)

Only if Question 51's answer is "Other"

Saving screenshot...

GeoODK Collect > NH School Choice...

Now I'm going to ask a few questions about the chances of being placed in various schools.

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Saving screenshot...

GeoODK Collect > NH School Choice...

Think back to the time you were filling out your own application, or deciding whether to fill one out.

Copied to clipboard.

19% 4:36 PM

GeoODK Collect > NH School Choice...

53- Say that you had submitted the following application:

1°. Engineering & Science University - High School
 2°. Cooperative Arts & Humanities
 3°. New Haven Academy
 4°. Blank

From 0 to 100, how likely you would be placed in the FIRST school on the list: Engineering & Science University - High School?

[SURVEYOR: SHOW TABLET TO RESPONDENT]

☐ 0-10 [Very unlikely]
☐ 10-20
☐ 20-30
☐ 30-40 [Somewhat likely]
☐ 40-50
☐ 50-60
☒ 60-70 [Quite likely]
☐ 70-80
☐ 80-90
☐ 90-100 [Very likely]

GeoODK Collect > NH School Choice...

54- Continuing with the same application:

1°. Engineering & Science University - High School
 2°. Cooperative Arts & Humanities
 3°. New Haven Academy
 4°. Blank

From 0 to 100, how likely you would be placed in the **SECOND** school on the list: Cooperative Arts & Humanities?

☐ 0-10 [Very unlikely]
☒ 10-20
☐ 20-30
☐ 30-40 [Somewhat likely]
☐ 40-50
☐ 50-60
☐ 60-70 [Quite likely]
☐ 70-80
☐ 80-90
☐ 90-100 [Very likely]

GeoODK Collect > NH School Choice...

53- Say that you had submitted the following application:

1°. Engineering & Science University - High School
 2°. Cooperative Arts & Humanities
 3°. New Haven Academy
 4°. Blank

From 0 to 100, how likely you would be placed in the **FIRST** school on the list: Engineering & Science University - High School?

[SURVEYOR: SHOW TABLET TO RESPONDENT]

☐ 0-10 [Very unlikely]
☐ 10-20
☐ 20-30
☐ 30-40 [Somewhat likely]
☐ 40-50
☐ 50-60
☒ 60-70 [Quite likely]
☐ 70-80
☐ 80-90
☐ 90-100 [Very likely]

Note: survey enumerators verbally elicited the conditional probabilities by stating that respondents should assume that they were not admitted to the first school. Focus groups showed that text explanations often confused respondents, and that the chosen approach was more effective in eliciting conditional probabilities.

GeoODK Collect > NH School Choice...

55- Now say that you had submitted a different application:

1°. Cooperative Arts & Humanities
 2°. Engineering & Science University - High School
 3°. New Haven Academy
 4°. Blank

From 0 to 100, how likely you would be placed in the FIRST school on the list: Cooperative Arts & Humanities?

☐ 0-10 [Very unlikely]
☐ 10-20
☐ 20-30
☐ 30-40 [Somewhat likely]
☐ 40-50
☐ 50-60
☐ 60-70 [Quite likely]
☐ 70-80
☒ 80-90
☐ 90-100 [Very likely]

GeoODK Collect > NH School Choice...

56- Continuing with the new application:

1°. Cooperative Arts & Humanities
 2°. Engineering & Science University - High School
 3°. New Haven Academy
 4°. Blank

From 0 to 100, how likely you would be placed in the SECOND school on the list: Engineering & Science University - High School?

☒ 0-10 [Very unlikely]
☐ 10-20
☐ 20-30
☐ 30-40 [Somewhat likely]
☐ 40-50
☐ 50-60
☐ 60-70 [Quite likely]
☐ 70-80
☐ 80-90
☐ 90-100 [Very likely]

Note: survey enumerators verbally elicited the conditional probabilities by stating that respondents should assume that they were not admitted to the first school. Focus groups showed that text explanations often confused respondents, and that the chosen approach was more effective in eliciting conditional probabilities.

GeoODK Collect > NH School Choice...

57- Now let's think about a different question. Suppose that your child had listed school A as his or her first choice. Would he have been more likely to be placed in school A if he left his second choice blank?

☒ Yes

☐ No

☐ I don't know

☐ I prefer not to answer

GeoODK Collect > NH School Choice...

58- Imagine that your child ranked school A first on his or her application, and listed school B second. If your child is not admitted to school A, are his or her chances of being admitted to school B.

☐ More likely than if he ranked B first

☒ The same as if he ranked B first

☐ Less likely than if he ranked B first

GeoODK Collect > NH School Choice...

59- Who would be more likely to get in to a popular school?

- ☒ A student with a sibling in the school, but who lived outside the neighborhood
- ☐ A student living in the neighborhood, but who did not have a sibling in the school
- ☐ I don't know
- ☐ I prefer not to answer

GeoODK Collect > NH School Choice...

60- I'm going to ask you one last question. Have your beliefs about the chances of placement at different schools changed since the school choice placement process were due in March?

- ☒ Yes
- ☐ No

GeoODK Collect > NH School Choice...

61- How have your beliefs changed? Please check all that apply

- ☐ I learned that chances at schools on my child's application were lower than I thought when I applied.
- ☒ I learned that chances at schools on my child's application were higher than I thought when I applied.
- ☐ I learned that chances at schools we did not list were lower than I thought.
- ☒ I learned that chances at schools we did not list were higher than I thought.

Only if Question 60's answer is "Yes"

Saving screenshot...

GeoODK Collect > NH School Choice...

Thank you for taking our survey. Your response is very important to us.

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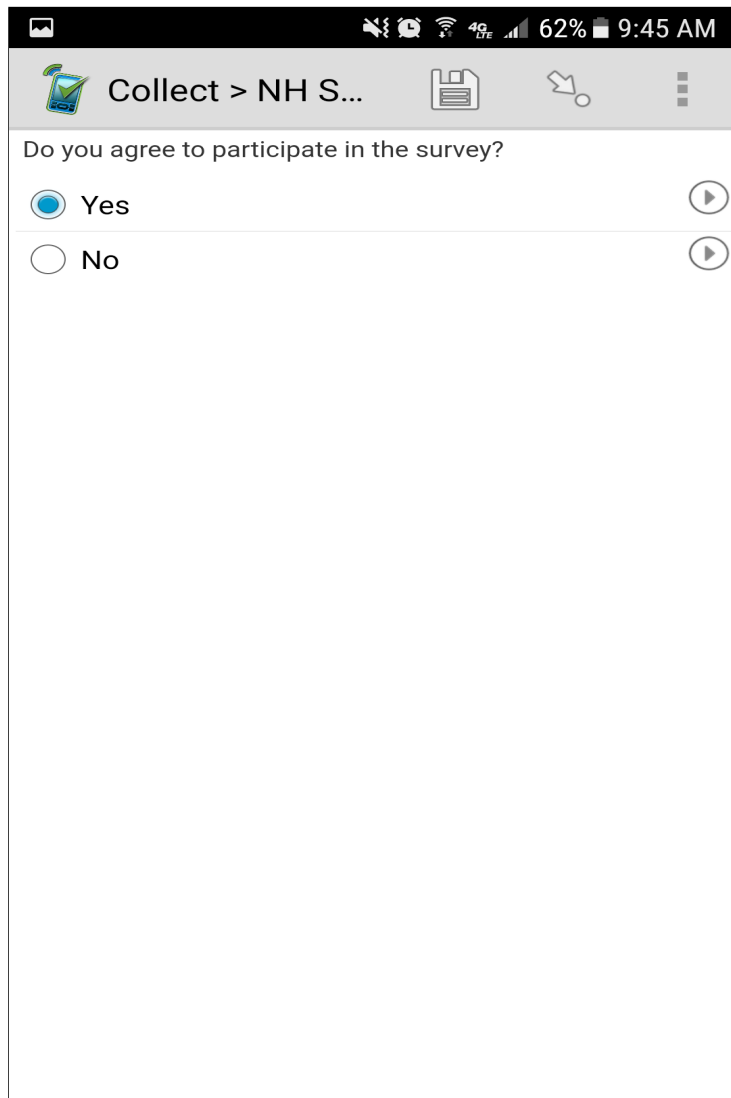
F.8 2017 Survey Form

F.9 Introduction and Consent

32

Figure F1: Introduction

Figure F2: Informed Consent 1



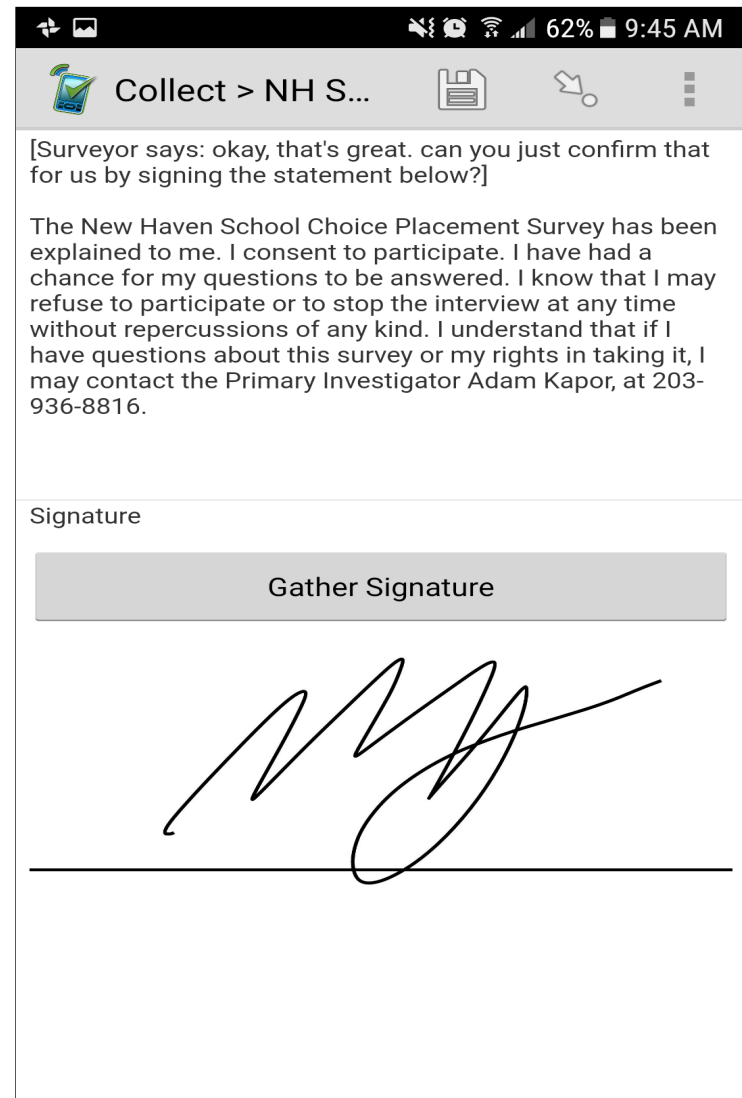
Collect > NH S...

Do you agree to participate in the survey?

☒ Yes

☐ No

Figure F3: Informed Consent 2



Collect > NH S...

[Surveyor says: okay, that's great. can you just confirm that for us by signing the statement below?]

The New Haven School Choice Placement Survey has been explained to me. I consent to participate. I have had a chance for my questions to be answered. I know that I may refuse to participate or to stop the interview at any time without repercussions of any kind. I understand that if I have questions about this survey or my rights in taking it, I may contact the Primary Investigator Adam Kapor, at 203-936-8816.

Signature

Gather Signature

[Handwritten Signature]

Figure F4: Informed Consent 3

F.10 Basic Information

34

Collect > NH S...

Guardian's Information

1- What is your relationship with the student?

☐ Father

☐ Mother

☐ Brother

☐ Sister

☐ Grand-father

☐ Grand-mother

☐ Uncle

☐ Aunt

☒ Other

1a- If it is other, what is your relationship with the student?

Cousin

Figure F5: If relationship to student is not specified in answer choice set

Collect > NH S...

Guardian's Information

1- What is your relationship with the student?

☒ Father

☐ Mother

☐ Brother

☐ Sister

☐ Grand-father

☐ Grand-mother

☐ Uncle

☐ Aunt

☐ Other

Figure F6: If relationship to student is specified within answer choice set

Collect > NH S...

Information about the Student

2- Is the student a boy or a girl?

☒ Boy

☐ Girl

3- Which grade is the student entering next fall?

☐ 8th Grade

☒ 9th grade

4- In which year was your child born?

☐ 1998

☐ 1999

☐ 2000

☒ 2001

☐ 2002

☐ 2003

☐ 2004

☐ 2005

☐ 2006

☐ 2007

☐ 2008

Figure F7: Student's information

Collect > NH S...

5- What school did he or she attend last year?

☐ Amistad Academy Elementary & Middle Charter

☐ Augusta Lewis Troup School

☒ Barnard Environmental Studies School

☐ Beecher Museum School of Arts & Sciences

☐ Bishop Woods Executive Academy

☐ Brennan Rogers: The Arts of Communications and Media

☐ Celentano Biotech Health and Medical

☐ Christopher Columbus Family Academy

☐ Clinton Avenue School

☐ Conte-West Hills: A School of Exploration and Innovation

☐ Davis Street Arts and Academics

☐ East Rock Community

☐ Edgewood

☐ Elm City College Preparatory Charter

☐ Fair Haven School

☐ Hill Central School

Figure F8: School attended last year

F.11 Application Process

CLARO   60%  9:51 AM

 Collect > NH S...   

7- Did you participate in the process of choosing a school for your child in the coming academic year?

☒ Yes 

☐ No 

☐ I prefer not to respond \ I don't know 

F.11.1 If respondent did not fill an application with the New Haven School Choice process

37

Collect > NH S...

8- Did you file an application in the New Haven School Choice process this year?

☐ Yes

☒ No

Figure F10: File school choice application

Collect > NH S...

9- If not, why didn't you participate?

You can select more than one

☐ My preferred school is my neighborhood school.

☐ My preferred school is not a New Haven public school.

☐ There are no good options.

☐ The good options are impossible to get into.

☐ I don't know much about the different options

☒ I didn't understand how to submit an application

☐ I meant to apply but I forgot or missed the date.

☐ None of the above.

☐ I prefer not to answer.

Figure F11: Reason for not participating

The screenshot shows a mobile application interface for data collection. At the top is a black status bar with icons for signal, battery, and time (10:26 AM). Below this is a grey header bar containing a green checkmark icon, the text "Collect > NH S...", and three icons: a floppy disk, a hand cursor, and a vertical ellipsis. The main content area is white and displays the question "10- Do you plan to live in the same location next year?". There are two radio button options: "Yes" (unselected) and "No" (selected). Each option has a circular play button icon to its right.

Collect > NH S...

10- Do you plan to live in the same location next year?

☐ Yes

☒ No

Figure F12: Moving plans

F.11.2 If respondent not planning to live in the same location next year

39

11- Are you moving out of the state or New Haven Area?

☒ Yes

☐ No

Figure F13: Moving Plans

16- How many schools outside NHPS have you applied to?

If you don't remember well, please give your best guess. Consider 5 as 5 or more. Also, we are considering charter schools.

☒ 0

☐ 1

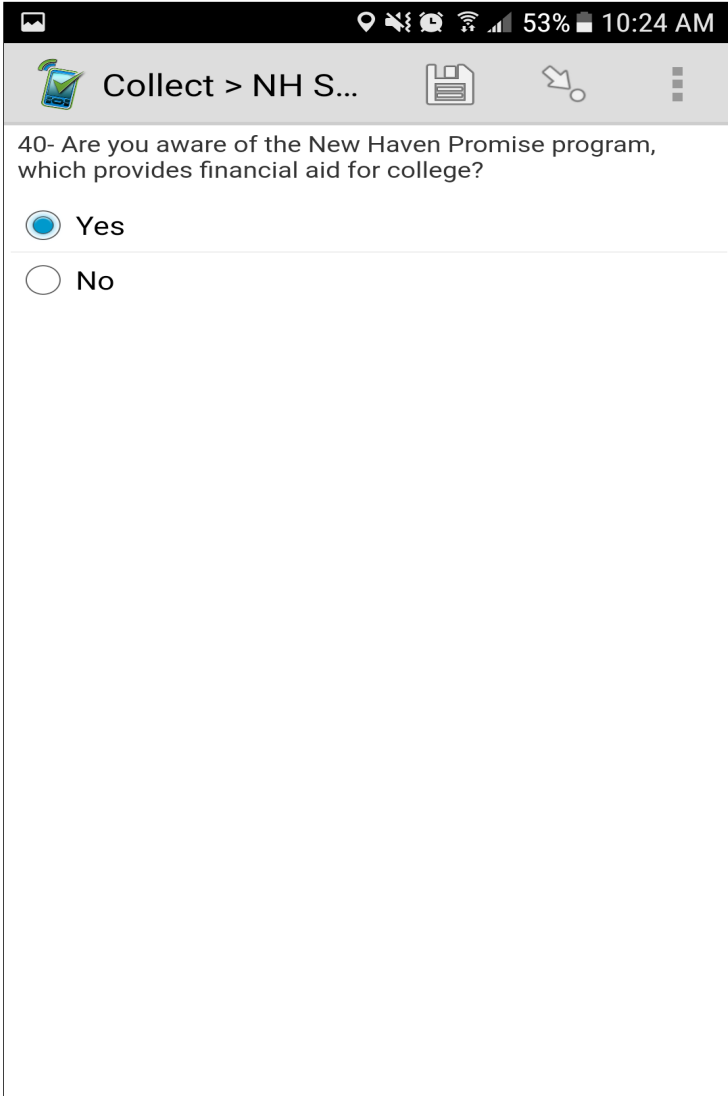
☐ 2

☐ 3

☐ 4

☐ 5 or more

Figure F14: Number of schools applied to beyond New Haven Public Schools



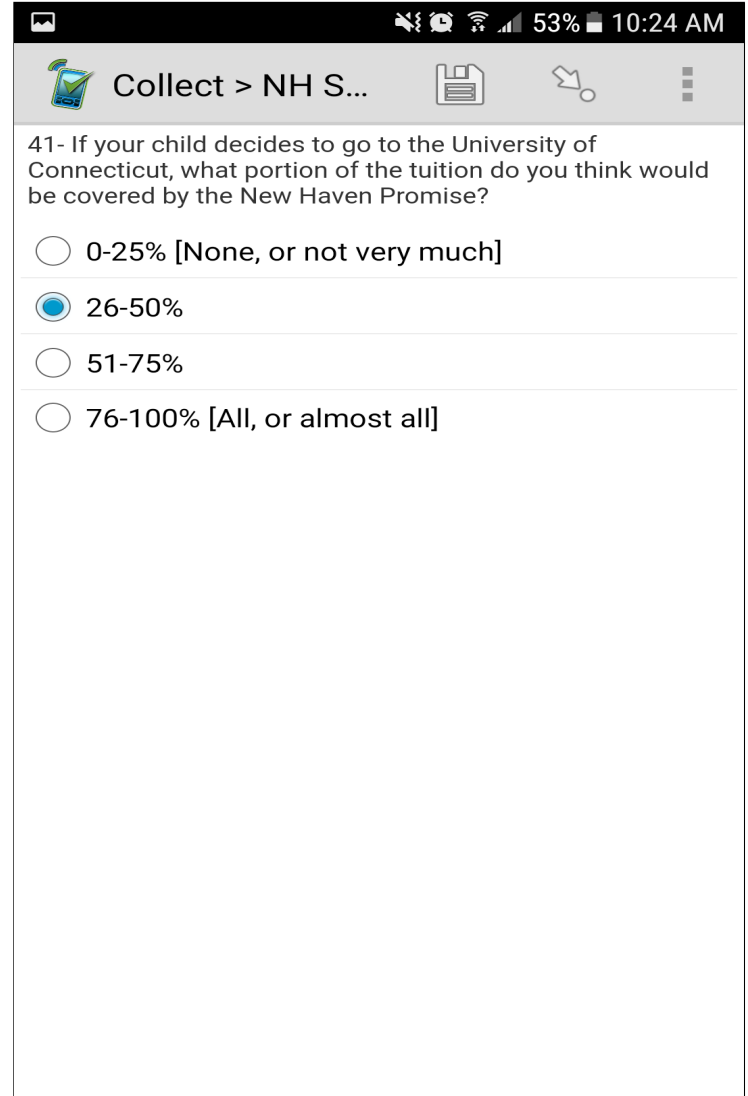
The screenshot shows a mobile app interface with a black status bar at the top displaying icons for location, signal, and battery (53%) along with the time 10:24 AM. Below the status bar is a grey header bar with a green checkmark icon, the text "Collect > NH S...", and three icons: a floppy disk, a hand cursor, and a vertical ellipsis. The main content area is white and contains the question "40- Are you aware of the New Haven Promise program, which provides financial aid for college?". Below the question are two radio button options: "Yes" (selected) and "No".

40- Are you aware of the New Haven Promise program, which provides financial aid for college?

☒ Yes

☐ No

Figure F15: New Haven Promise awareness



The screenshot shows a mobile app interface with a black status bar at the top displaying icons for location, signal, and battery (53%) along with the time 10:24 AM. Below the status bar is a grey header bar with a green checkmark icon, the text "Collect > NH S...", and three icons: a floppy disk, a hand cursor, and a vertical ellipsis. The main content area is white and contains the question "41- If your child decides to go to the University of Connecticut, what portion of the tuition do you think would be covered by the New Haven Promise?". Below the question are four radio button options: "0-25% [None, or not very much]", "26-50%" (selected), "51-75%", and "76-100% [All, or almost all]".

41- If your child decides to go to the University of Connecticut, what portion of the tuition do you think would be covered by the New Haven Promise?

☐ 0-25% [None, or not very much]

☒ 26-50%

☐ 51-75%

☐ 76-100% [All, or almost all]

Figure F16: If respondent is aware of New Haven Promise

Collect > NH S...

42- Is the New Haven Promise a factor in which high school you choose?

☒ Yes

☐ No

Figure F17: New Haven Promise factor in school choice

Collect > NH S...

Additional Question for Surveyor: Was anyone else in the room while you were administering the survey who influenced the answers given?

☒ No, no one else was in the room

☐ No, there was someone else in the room but he\she did not influence

☐ Yes, the child was in the room and influenced

☐ Yes, someone else was in the room and influeced (but it was not the child)

Figure F18: Individuals present in survey

F.11.3 If respondent did fill an application with the New Haven School Choice process

Collect > NH S...

8- Did you file an application in the New Haven School Choice process this year?

☒ Yes

☐ No

Figure F19: File school choice application

Collect > NH S...

About the process

9- How easy or difficult was it for you to complete the choice process?

☐ Very easy

☐ Easy

☐ Moderate

☐ Difficult

☒ Very difficult

Figure F20: Process difficulty

Collect > NH S...

About the process

10- What was the most challenging part of participation for you?

You can select more than one

- ☐ The platform was confusing and I did not understand the rules.
- ☒ I could not visit all the schools I was interested in.
- ☐ The information was not available in my native language
- ☒ I found it hard to rank my preferred schools.

Figure F21: Most challenging part of participation

Collect > NH S...

About the process

11- Who participated in deciding how to fill out your child's application?

You can select more than one

- ☒ You
- ☐ Your child
- ☐ Your child's teacher
- ☒ Another parent or guardian
- ☐ None of the above
- ☐ No response / I prefer not to answer

Figure F22: Who made the decision

The screenshot shows a mobile application interface. At the top is a black status bar with icons for signal, Wi-Fi, battery (59%), and time (9:52 AM). Below this is a grey header bar containing a green checkmark icon, the text "Collect > NH S...", a floppy disk icon, a hand icon, and a three-dot menu icon. The main content area has a light grey background. It starts with the text "About the process" in a small font, followed by the question "12-Of these people, who was most important in deciding which schools to list?". Below the question are two radio button options: "You" (which is selected with a blue dot) and "Another parent or guardian". Each option has a right-pointing arrow icon to its right.

Collect > NH S...

About the process

12-Of these people, who was most important in deciding which schools to list?

☒ You

☐ Another parent or guardian

Figure F23: Most important decision maker

F.12 School Choice Process

45

Collect > NH S...

About the process

13- Which school did your child's application rank FIRST?

If you are not sure, please give your best guess.

- ☐ Cooperative Arts & Humanities Interdistrict
- ☐ Cortland V.R. Creed Health and Sport Sciences High School
- ☐ Engineering & Science University Interdistrict High
- ☐ High School in the Community Academy for Law & Social Justice Interdistrict
- ☐ Hill Regional Career Interdistrict
- ☒ James Hillhouse High School
- ☐ Metropolitan Business Academy Interdistrict
- ☐ New Haven Academy Interdistrict
- ☐ Riverside Education Academy
- ☐ Willbur Cross Academies - All
- ☐ Achievement First Amistad HS Charter
- ☐ Common Ground
- ☐ ACES Educational Center for the Arts (ECA)

Figure F24: First ranked school

Collect > NH S...

About the process

14- What is the name of the school into which you were placed?

If you are not sure, please give your best guess.

- ☐ Cooperative Arts & Humanities Interdistrict
- ☐ Cortland V.R. Creed Health and Sport Sciences High School
- ☐ Engineering & Science University Interdistrict High
- ☐ High School in the Community Academy for Law & Social Justice Interdistrict
- ☐ Hill Regional Career Interdistrict
- ☒ James Hillhouse High School
- ☐ Metropolitan Business Academy Interdistrict
- ☐ New Haven Academy Interdistrict
- ☐ Riverside Education Academy
- ☐ Willbur Cross Academies - All
- ☐ Achievement First Amistad HS Charter
- ☐ Common Ground
- ☐ ACES Educational Center for the Arts (ECA)
- ☐ Booker T. Washington Academy Charter
- ☐ Elm City Montessori

Figure F25: Name of school placed

15- Did you ever obtain information about the number of available seats and/or number of applicants at any of the NHPS schools in previous years?

☐ Yes

☒ No

☐ I prefer not to respond \ I don't know

Figure F26: Obtain process information

16- How many schools outside NHPS have you applied to?

If you don't remember well, please give your best guess. Consider 5 as 5 or more. Also, we are considering charter schools.

☒ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5 or more

Figure F27: Number of schools applied to beyond New Haven Public Schools

F.13 Family's Preferences

47

The screenshot shows a mobile app interface with a status bar at the top displaying location, signal, and battery (58%) at 9:53 AM. The app header is 'Collect > NH S...' with icons for a checklist, save, and a menu. The main text asks: '18-Which of the following best represents the way you and your family chose which schools to list on your child's application?'. There are two radio button options. The first option, 'We listed the schools we would prefer my child to attend in the order in which we prefer them (we listed our favorite first, our second favorite second, etc).', is selected. The second option is 'Because of some knowledge we have about the way students are assigned to schools, we did not list the schools in the order in which we prefer them.'

Figure F28: Family's school choice method

The screenshot shows the same mobile app interface at 9:54 AM. The main text asks: '19- Sometimes, because there are limited spots in each school, a lottery is used to assign students to schools and not all students can go to their most preferred option. However, if your child was guaranteed a spot at any school in the district, which would have been your or your child's first choice?'. Below the text is a list of 14 schools, each with a radio button and a right-pointing arrow. The first school, 'Cooperative Arts & Humanities Interdistrict', is selected. The other schools are: Cortland V.R. Creed Health and Sport Sciences High School, Engineering & Science University Interdistrict High, High School in the Community Academy for Law & Social Justice Interdistrict, Hill Regional Career Interdistrict, James Hillhouse High School, Metropolitan Business Academy Interdistrict, New Haven Academy Interdistrict, Riverside Education Academy, Willbur Cross Academies - All, Achievement First Amistad HS Charter, Common Ground, ACES Educational Center for the Arts (ECA), and Booker T. Washington Academy Charter.

Figure F29: Unconstrained first choice

Collect > NH S...

20- If the school you just listed was for some reason not available, but your child could still attend any of the other schools if you wanted to, which school would you and your child choose?

- ☐ Cortland V.R. Creed Health and Sport Sciences High School
- ☒ Engineering & Science University Interdistrict High
- ☐ High School in the Community Academy for Law & Social Justice Interdistrict
- ☐ Hill Regional Career Interdistrict
- ☐ James Hillhouse High School
- ☐ Metropolitan Business Academy Interdistrict
- ☐ New Haven Academy Interdistrict
- ☐ Riverside Education Academy
- ☐ Willbur Cross Academies - All
- ☐ Achievement First Amistad HS Charter
- ☐ Common Ground
- ☐ ACES Educational Center for the Arts (ECA)
- ☐ Booker T. Washington Academy Charter
- ☐ Elm City Montessori
- ☐ Lincoln-Boscott Community School

Figure F30: Unconstrained second choice

F.14 Hypothetical Questions

49

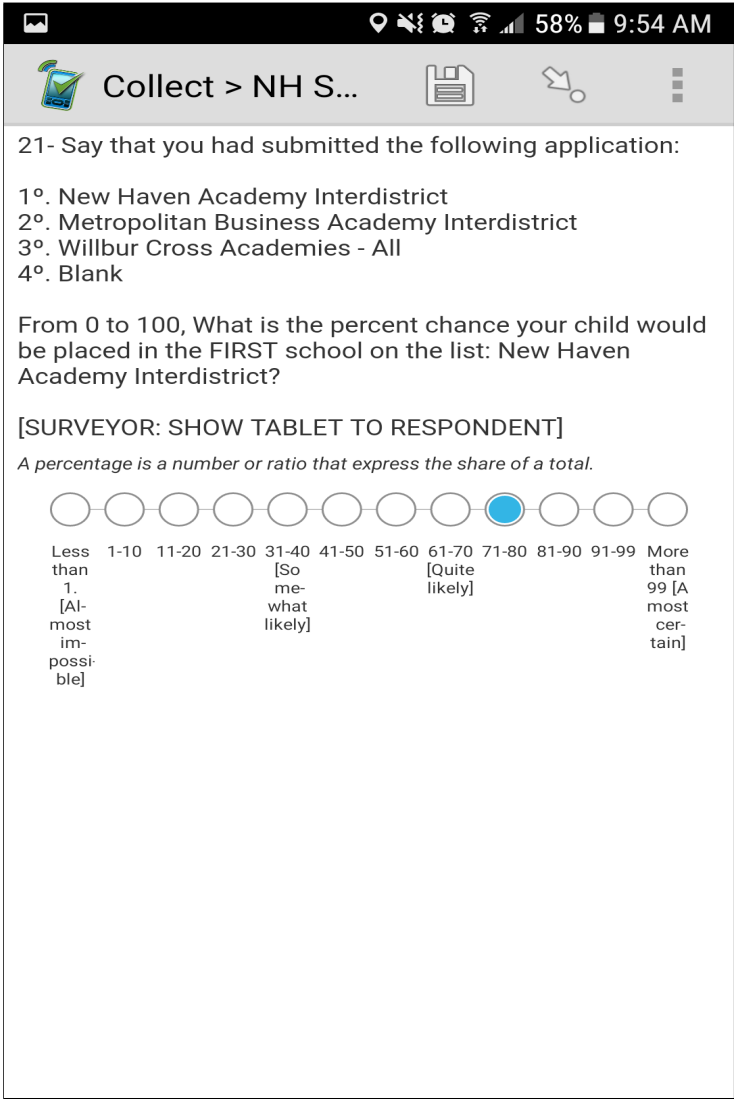


Figure F31: Placement likelihood, ranked first

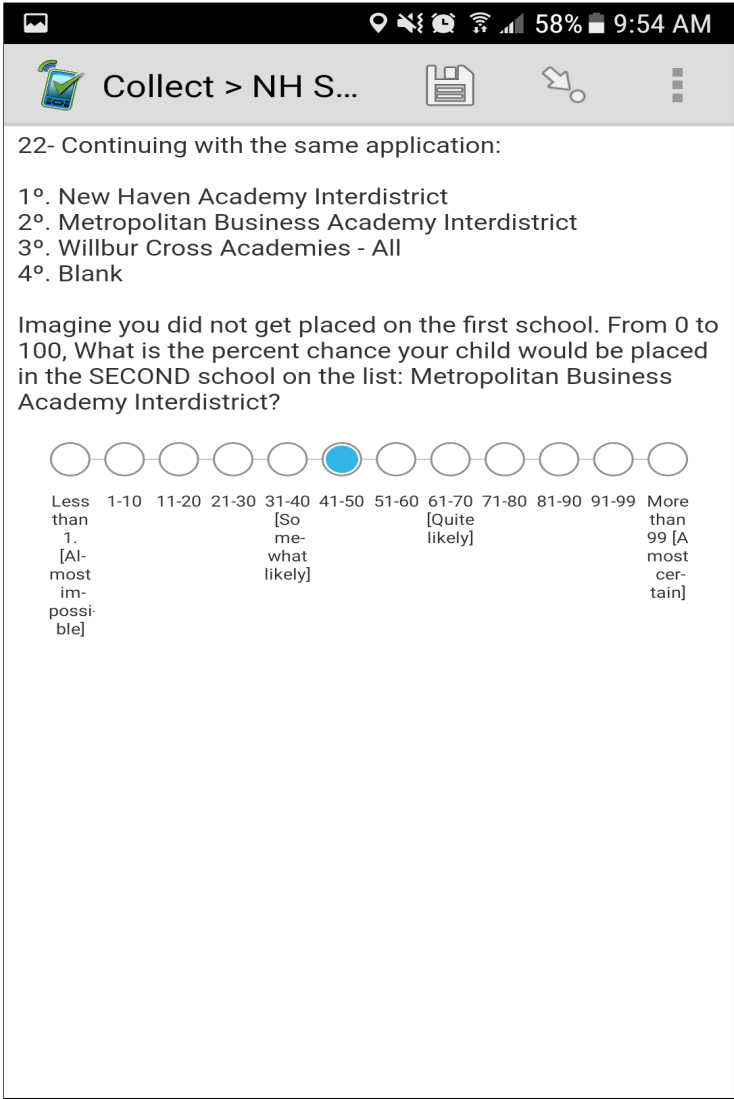


Figure F32: Placement likelihood, ranked second

Collect > NH S...

23- Now say that you had submitted a different application:

- 1°. Metropolitan Business Academy Interdistrict
- 2°. New Haven Academy Interdistrict
- 3°. Willbur Cross Academies - All
- 4°. Blank

From 0 to 100, What is the percent chance your child would be placed in the FIRST school on the list: Metropolitan Business Academy Interdistrict?

Less than 1. [Almost impossible]	1-10	11-20	21-30	31-40 [Somewhat likely]	41-50	51-60	61-70 [Quite likely]	71-80	81-90	91-99	More than 99 [Almost certain]
			●								

Figure F33: Reshuffled placement likelihood, ranked first

Collect > NH S...

24- Continuing with the new application:

- 1°. Metropolitan Business Academy Interdistrict
- 2°. New Haven Academy Interdistrict
- 3°. Willbur Cross Academies - All
- 4°. Blank

Imagine you did not get placed in the first school. From 0 to 100, What is the percent chance your child would be placed in the SECOND school on the list: New Haven Academy Interdistrict?

Less than 1. [Almost impossible]	1-10	11-20	21-30	31-40 [Somewhat likely]	41-50	51-60	61-70 [Quite likely]	71-80	81-90	91-99	More than 99 [Almost certain]
		●									

Figure F34: Reshuffled placement likelihood, ranked second

Collect > NH S...

25-Now that we're thinking about admissions chances, let's consider the application below again as a whole. If they ran the choice process 100 times, how many times would each of the following occur?

1°. New Haven Academy Interdistrict
 2°. Metropolitan Business Academy Interdistrict
 3°. Willbur Cross Academies - All
 4°. Blank

Remember that these should all add up to 100.

Your child is placed in New Haven Academy Interdistrict .

1-10

Your child is placed in Metropolitan Business Academy Interdistrict.

31-40 [Somewhat likely]

Your child is placed in Willbur Cross Academies - All.

11-20

Your child is not placed in any of the listed schools

Figure F35: Placement likelihood, considered as a whole

Collect > NH S...

26- Now let's think about a different question. Suppose that your child had submitted this application:

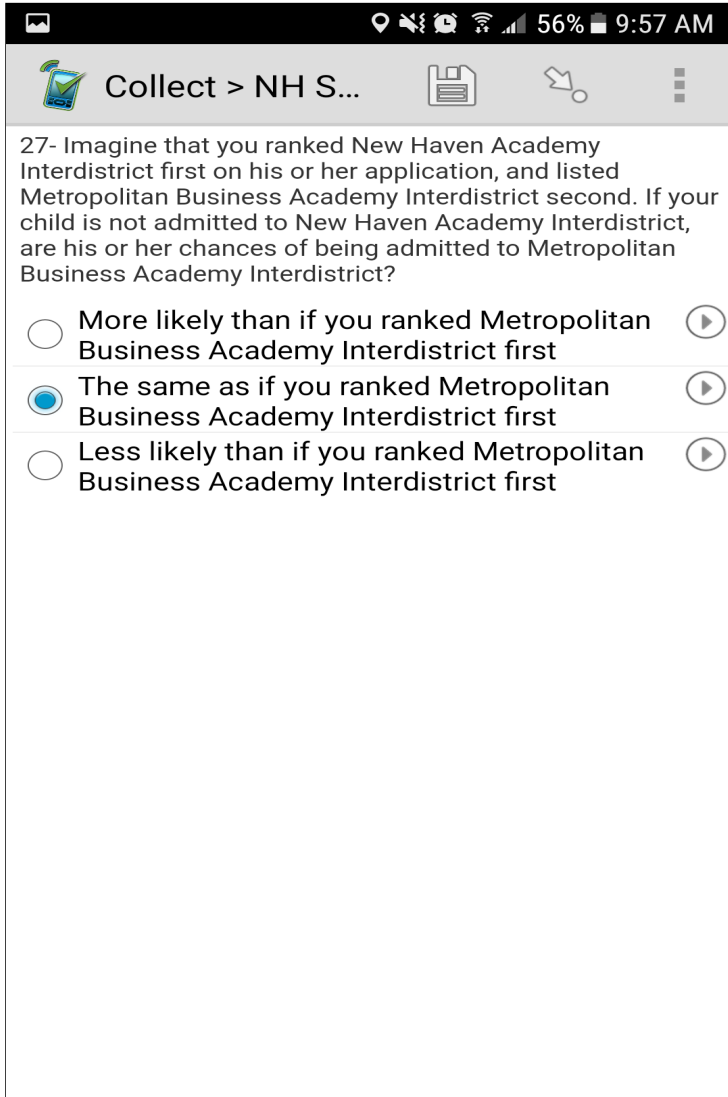
1°. New Haven Academy Interdistrict
 2°. Blank
 3°. Blank
 4°. Blank

From 0 to 100. What is the percent chance your child would be placed in New Haven Academy Interdistrict?

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒

Less than 1. [Almost impossible] 1-10 11-20 21-30 31-40 [Somewhat likely] 41-50 51-60 61-70 [Quite likely] 71-80 81-90 91-99 More than 99 [Almost certain]

Figure F36: Placement likelihood, single selection

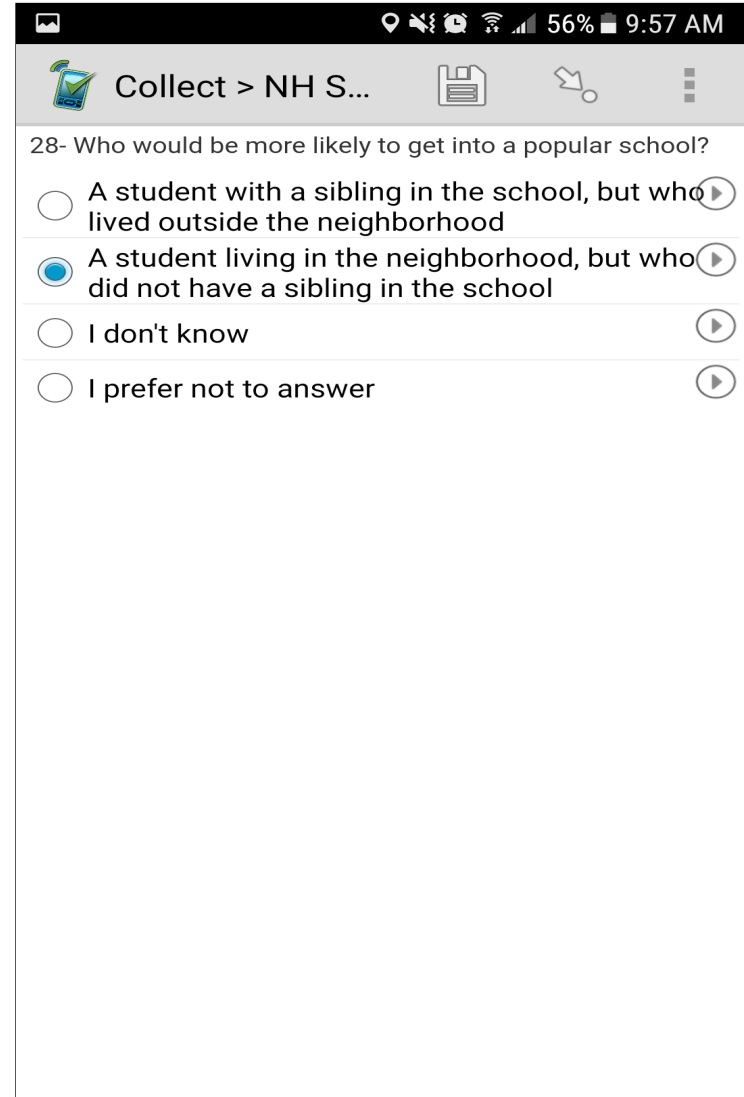


Collect > NH S...

27- Imagine that you ranked New Haven Academy Interdistrict first on his or her application, and listed Metropolitan Business Academy Interdistrict second. If your child is not admitted to New Haven Academy Interdistrict, are his or her chances of being admitted to Metropolitan Business Academy Interdistrict?

- ☐ More likely than if you ranked Metropolitan Business Academy Interdistrict first
- ☒ The same as if you ranked Metropolitan Business Academy Interdistrict first
- ☐ Less likely than if you ranked Metropolitan Business Academy Interdistrict first

Figure F37: Placement likelihood, double selection



Collect > NH S...

28- Who would be more likely to get into a popular school?

- ☐ A student with a sibling in the school, but who lived outside the neighborhood
- ☒ A student living in the neighborhood, but who did not have a sibling in the school
- ☐ I don't know
- ☐ I prefer not to answer

Figure F38: Priority rank

Collect > NH S...

29- Have your beliefs about the chances of placement at different schools changed since the school choice placement process applications were due in March?

☐ Yes

☒ No

Figure F39: Updated beliefs

Collect > NH S...

31- Say that you had submitted an application which gave you the following chances of a placement:

1°. Cooperative Arts & Humanities Interdistrict, 50%

2°. Not be placed in any of the choices I listed on my application , 50%

But you could submit a different application instead which would guarantee placement in Engineering & Science University Interdistrict High.

Which would you prefer?

[SURVEYOR: SHOW TABLET TO RESPONDENT]

☒ I will choose the listed application.

☐ I will choose the different application thats guarantees a placement.

Figure F40: Risk preference 1

Collect > NH S...

32- Say that you had submitted an application which gave you the following chances of a placement:

1°. Cooperative Arts & Humanities Interdistrict, 25%
2°. Not be placed in any of the choices I listed on my application, 75%

But you could submit a different application instead which would guarantee placement in Engineering & Science University Interdistrict High.

Which would you prefer?

[SURVEYOR: SHOW TABLET TO RESPONDENT]

☒ I will choose the listed application.

☐ I will choose the different application that guarantees a placement.

Figure F41: Risk preference 2

Collect > NH S...

33- Say that you had submitted an application which gave you the following chances of a placement:

1°. Cooperative Arts & Humanities Interdistrict, 75%
2°. Not be placed in any of the choices I listed on my application, 25%

But you could submit a different application instead which would guarantee placement in Engineering & Science University Interdistrict High.

Which would you prefer?

[SURVEYOR: SHOW TABLET TO RESPONDENT]

☒ I will choose the listed application.

☐ I will choose the different application that guarantees a placement.

Figure F42: Risk preference 3

Collect > NH S...

34- On a scale of one to five, with five being a great deal and one being not at all. How much do you prefer each of the following to James Hillhouse High School?

Cooperative Arts & Humanities Interdistrict

3

New Haven Academy Interdistrict

5 [Big Deal]

Metropolitan Business Academy Interdistrict

1 [No big deal]

Willbur Cross Academies - All

4

Figure F43: School preferences over neighborhood school

F.15 Aftermarket Questions

56

Collect > NH S...

35- What is your current plan for enrollment this fall?

- ☒ Enroll in placed school.
- ☐ Attend NHPS school where I'm currently waitlisted
- ☐ Leave school district NHPS and go to private school
- ☐ Attend other NHPS school.
- ☐ I'm planning to move away from New Haven

Figure F44: Enrollment plan

CLARO

Collect > NH S...

36- Taking your plans into account, how likely is your child to be enrolled in James Hillhouse High School this coming fall?

- ☒ Less than 1. [Almost impossible]
- ☐ 1-10
- ☐ 11-20
- ☐ 21-30
- ☐ 31-40 [Somewhat likely]
- ☐ 41-50
- ☐ 51-60
- ☐ 61-70 [Quite likely]
- ☐ 71-80
- ☐ 81-90
- ☐ 91-99
- ☐ More than 99 [Almost certain]

Figure F45: Likelihood of enrolling student in placed school

Collect > NH S...

37- How likely is your child to leave the New Haven school district and not be enrolled in NHPS this coming October?

☒ Less than 1. [Almost impossible]

☐ 1-10

☐ 11-20

☐ 21-30

☐ 31-40 [Somewhat likely]

☐ 41-50

☐ 51-60

☐ 61-70 [Quite likely]

☐ 71-80

☐ 81-90

☐ 91-99

☐ More than 99 [Almost certain]

Figure F46: Likelihood of leaving school district

Collect > NH S...

40- Are you aware of the New Haven Promise program, which provides financial aid for college?

☒ Yes

☐ No

Figure F47: New Haven Promise awareness

F.16 New Haven Promise Section

58

41- If your child decides to go to the University of Connecticut, what portion of the tuition do you think would be covered by the New Haven Promise?

☐ 0-25% [None, or not very much]

☒ 26-50%

☐ 51-75%

☐ 76-100% [All, or almost all]

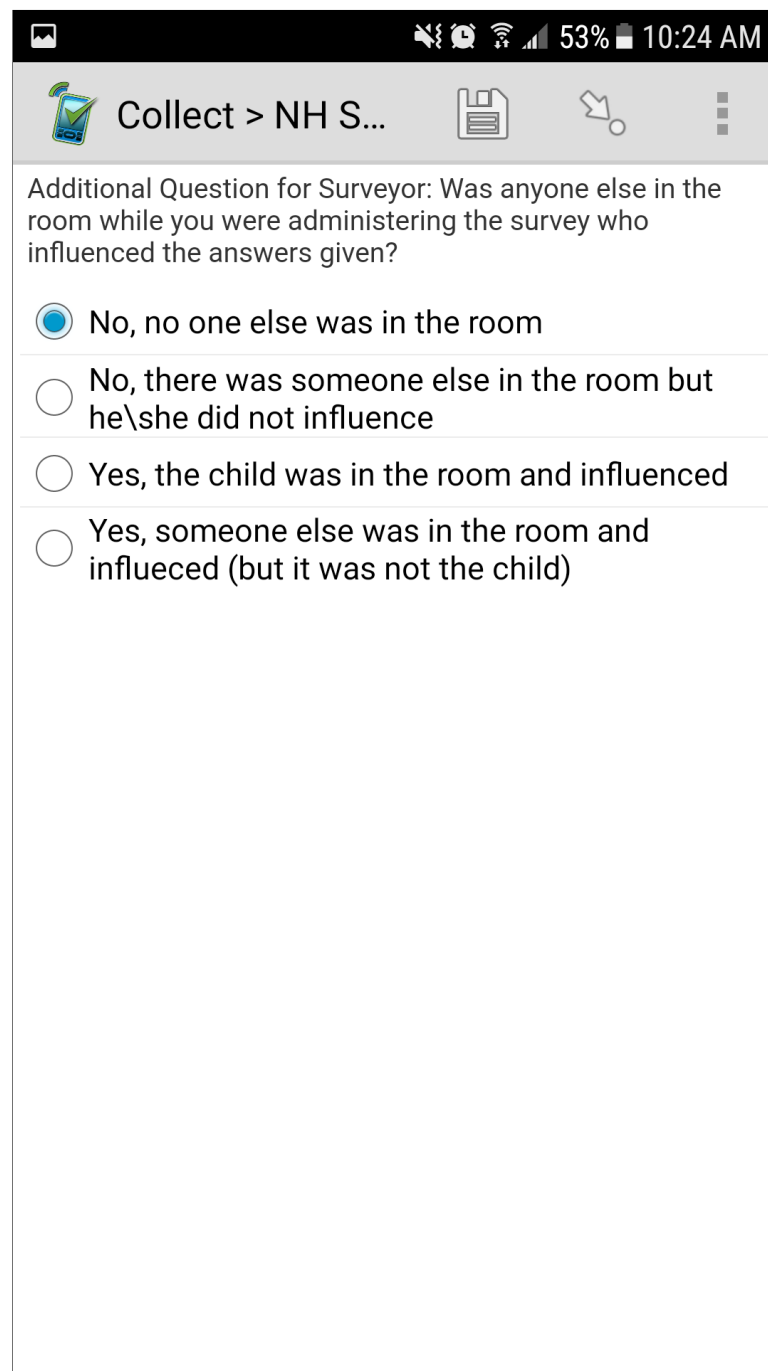
Figure F48: If respondent is aware of New Haven Promise

42- Is the New Haven Promise a factor in which high school you choose?

☒ Yes

☐ No

Figure F49: New Haven Promise factor in school choice



The screenshot shows a mobile application interface for a survey. At the top, there is a black status bar with icons for signal, battery, and time (10:24 AM). Below this is a grey header bar with a green checkmark icon, the text "Collect > NH S...", and three icons: a document, a hand pointing to a circle, and a vertical ellipsis. The main content area is white and contains the following text and options:

Additional Question for Surveyor: Was anyone else in the room while you were administering the survey who influenced the answers given?

- ☒ No, no one else was in the room
- ☐ No, there was someone else in the room but he\she did not influence
- ☐ Yes, the child was in the room and influenced
- ☐ Yes, someone else was in the room and influeced (but it was not the child)

Figure F50: Individuals present in survey