

SUPPLEMENT TO “THE EFFECT OF SCHOOL CHOICE ON PARTICIPANTS: EVIDENCE FROM RANDOMIZED LOTTERIES”
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APPENDIX C: TESTING FOR ATTRITION BIAS

Although we have demonstrated that there is little evidence of selective attrition at the point of enrollment in ninth grade (see the discussion in the text and Table III), there are other points at which students can be absent from our sample. Outcome data in the spring of the first and second years may be missing if a student has dropped out or does not attend on the day of the exam. Thus, if winning a lottery has positive (negative) attainment and attendance effects, winners may be more (less) likely to continue in our sample. Table C.I provides information on the rates at which outcome data are missing in ninth and tenth grade, and whether winners and losers with outcome information are systematically different according to predetermined characteristics. Even when data are missing at statistically significantly different rates for winners and losers, the differences in these rates are not large in practical terms. Furthermore, winners and losers with outcome information continue to appear comparable along important observable dimensions. We show the results for the subset of the background variables that a priori seemed the most compelling set to focus on, but find no systematic evidence of selective attrition across the other background variables either.

The fact that differential attrition over the first two years of high school is not great is further evidence that winning does not confer attainment gains. An interesting exception is the finding that winners of lotteries to high-achieving schools are significantly less likely to be missing English I scores in ninth grade and English II scores in tenth grade (but not TAP reading scores), which implies that they are more likely to take these courses. We have found that this apparent course-taking effect is greatest for Hispanic students, implying that lottery losers with limited English proficiency might be taking less rigorous courses.

To further support the proposition that selective attrition is unlikely to introduce much bias to our estimates, Table C.II examines the sensitivity of the ninth grade reading score results to a variety of sample selection correction methodologies. We use three bounding techniques:

1. *Generic bounding*: All missing test scores are set to the value at a specific percentile in the overall ninth grade reading test score distribution (or set to the student’s own eighth grade reading score plus the gain at a specific percentile in the overall distribution of gains).
2. *Worst case bounding*: This method treats lottery winners and losers with missing data asymmetrically. For example, an upper bound on the effect of

TABLE C.I
 ADDITIONAL EVIDENCE ON SAMPLE ATTRITION^a

Dependent Variable	Mean among Lottery Losers (1)	The Effect of Winning a Lottery to			
		Any School (2)	High- Achieving School (3)	High Value Added School (4)	High Popularity School (5)
<i>Panel A: Enrollment attrition between 8th and 9th grade</i>					
Enrolled in CPS in the 9th grade in the fall	0.895	0.020** (0.007)	0.039** (0.011)	0.022* (0.013)	0.046** (0.012)
Leaves for private high school in the fall	0.031	-0.008** (0.004)	-0.018** (0.006)	-0.012 (0.008)	-0.023** (0.006)
Number of observations	16,576	19,520	9,473	7,454	9,178
<i>Panel A: Is enrollment attrition between 8th and 9th grade selective?</i>					
8th grade math percentile score	0.522	-0.002 (0.006)	0.009 (0.009)	-0.004 (0.010)	0.016 (0.011)
8th grade reading percentile score	0.481	-0.004 (0.005)	0.000 (0.009)	-0.002 (0.010)	0.003 (0.011)
Free-lunch eligible	0.743	0.003 (0.011)	0.029 (0.019)	0.023 (0.021)	0.014 (0.022)
Receiving special ed. in 8th grade	0.112	0.009 (0.008)	0.014 (0.015)	0.006 (0.016)	0.017 (0.016)
Tract poverty rate	0.224	0.000 (0.003)	-0.003 (0.005)	0.002 (0.005)	-0.004 (0.006)
Parents' support for learning ^b	{1.550}	0.011 (0.060)	-0.042 (0.103)	0.077 (0.096)	-0.089 (0.122)
Degree of parental supervision ^b	{2.204}	0.157* (0.090)	0.161 (0.153)	0.312** (0.146)	-0.045 (0.182)
Attends religious services weekly ^b	0.416	0.011 (0.021)	-0.018 (0.037)	-0.024 (0.035)	0.010 (0.045)
Reports getting into trouble at school ^b	0.680	0.004 (0.019)	0.020 (0.033)	-0.019 (0.033)	0.003 (0.041)
Mother completed some college ^b	0.578	-0.006 (0.023)	0.023 (0.041)	-0.040 (0.040)	-0.023 (0.049)
Number of observations	14,830	17,492	8,459	6,613	8,191
Sample limited to students enrolled in CPS in fall of 9th grade	Yes	Yes	Yes	Yes	Yes

Continues

winning is attained by replacing missing values for losers to the bottom of the test score distribution and missing values for winners to the top, while the lower bound is based on the opposite assignment.

3. *Optimistic bounds*: This technique is based on the trimming method developed by Lee (2002, 2005). Under a maintained assumption that winning a lottery only makes an individual less likely to have nonmissing outcome data,

TABLE C.I—Continued

Dependent Variable	Mean among Lottery Losers (1)	The Effect of Winning a Lottery to			
		Any School (2)	High- Achieving School (3)	High Value Added School (4)	High Popularity School (5)
<i>Panel B: Outcome attrition in 9th grade</i>					
Enrolled in CPS in the 9th grade in the spring	0.959	0.003 (0.005)	−0.003 (0.009)	0.002 (0.008)	0.003 (0.009)
Has complete outcome data	0.657	0.023** (0.012)	0.047** (0.019)	−0.001 (0.021)	0.045** (0.022)
Has reading exam score	0.864	0.003 (0.008)	0.004 (0.013)	−0.003 (0.014)	0.011 (0.015)
Has algebra score	0.743	0.015 (0.011)	0.028 (0.018)	−0.016 (0.020)	0.037 [†] (0.020)
Has English I score	0.762	0.018 [†] (0.010)	0.033** (0.017)	0.012 (0.018)	0.035 [†] (0.019)
Has transcript information	0.933	0.012** (0.006)	0.007 (0.011)	0.011 (0.011)	0.013 (0.012)
Number of observations	14,830	17,492	8,459	6,613	8,191
Sample limited to students enrolled in CPS in fall of 9th grade	Yes	Yes	Yes	Yes	Yes
<i>Panel B': Is outcome attrition in 9th grade selective?</i>					
8th grade math percentile score	0.555	−0.002 (0.007)	0.007 (0.011)	−0.005 (0.012)	0.013 (0.013)
8th grade reading percentile score	0.506	−0.004 (0.007)	−0.004 (0.011)	−0.001 (0.011)	0.001 (0.013)
Free-lunch eligible	0.723	0.009 (0.014)	0.033 (0.023)	0.022 (0.026)	0.018 (0.027)
Receiving special ed. in 8th grade	0.080	0.008 (0.010)	0.014 (0.017)	0.005 (0.018)	0.015 (0.017)
Tract poverty rate	0.220	0.002 (0.003)	−0.003 (0.006)	0.002 (0.006)	−0.006 (0.007)
Parents' support for learning ^b	{1.496}	−0.034 (0.072)	−0.196 [†] (0.118)	−0.014 (0.117)	−0.222 (0.140)
Degree of parental supervision ^b	{2.191}	0.159 (0.109)	0.124 (0.181)	0.381** (0.178)	−0.134 (0.218)
Attends religious services weekly ^b	0.426	−0.001 (0.026)	−0.27 (0.042)	−0.040 (0.043)	0.016 (0.054)
Reports getting into trouble at school ^b	0.659	0.021 (0.023)	0.028 (0.039)	−0.007 (0.040)	0.001 (0.049)
Mother completed some college ^b	0.567	−0.024 (0.029)	0.021 (0.048)	−0.036 (0.048)	−0.039 (0.059)
Number of observations	9,745	11,462	5,914	4,616	5,671
Sample limited to students with complete 9th grade outcome data	Yes	Yes	Yes	Yes	Yes

Continues

TABLE C.I—Continued

Dependent Variable	Mean among Lottery Losers (1)	The Effect of Winning a Lottery to			
		Any School (2)	High- Achieving School (3)	High Value Added School (4)	High Popularity School (5)
<i>Panel C: 9th grade survey attrition (2000 cohort only)^c</i>					
Responded to the survey	0.534	0.062** (0.019)	-0.003 (0.035)	0.005 (0.045)	-0.009 (0.043)
Number of observations	4,367	5,492	1,413	345	1,524
Sample limited to students enrolled in a surveyed high school	Yes	Yes	Yes	Yes	Yes
<i>Panel C': Is 9th grade survey attrition selective (2000 cohort only)^c</i>					
8th grade math percentile score	0.536	-0.006 (0.012)	-0.014 (0.019)	-0.029 (0.022)	0.007 (0.029)
8th grade reading percentile score	0.473	-0.008 (0.011)	-0.015 (0.018)	-0.002 (0.025)	-0.015 (0.027)
Free-lunch eligible	0.804	0.018 (0.020)	0.041 (0.037)	0.015 (0.045)	0.048 (0.050)
Receiving special ed. in 8th grade	0.091	0.007 (0.016)	0.035 (0.031)	—	0.077 (0.048)
Tract poverty rate	0.231	-0.002 (0.005)	-0.012 (0.009)	-0.003 (0.011)	-0.010 (0.013)
Number of observations	2,333	3,014	863	280	828
Sample limited to students responding to the survey	Yes	Yes	Yes	Yes	Yes
<i>Panel D: Outcome attrition in 10th grade (2000 cohort only)</i>					
Enrolled in CPS in the 10th grade in the spring	0.890	-0.018 (0.013)	-0.010 (0.021)	-0.013 (0.026)	-0.000 (0.022)
Has complete outcome data	0.574	0.002 (0.018)	-0.015 (0.030)	-0.052 (0.039)	0.014 (0.034)
Has reading exam score	0.744	-0.007 (0.016)	0.006 (0.026)	0.033 (0.030)	0.008 (0.029)
Has geometry score	0.685	-0.012 (0.017)	-0.044 (0.029)	-0.090** (0.038)	-0.018 (0.033)
Has English II score	0.720	0.002 (0.017)	0.057** (0.025)	0.031 (0.033)	0.048 [†] (0.029)
Has transcript information	0.863	-0.007 (0.014)	0.001 (0.022)	0.008 (0.026)	0.007 (0.024)
Number of observations	7,144	8,356	4,071	3,079	4,177
Sample limited to students enrolled in CPS in spring of 9th grade	Yes	Yes	Yes	Yes	Yes

Continues

TABLE C.I—Continued

Dependent Variable	Mean among Lottery Losers (1)	The Effect of Winning a Lottery to			
		Any School (2)	High-Achieving School (3)	High Value Added School (4)	High Popularity School (5)
<i>Panel D': Is outcome attrition in 10th grade selective? (2000 cohort only)</i>					
8th grade math percentile score	0.578	0.003 (0.010)	0.014 (0.015)	-0.013 (0.020)	0.024 (0.019)
8th grade reading percentile score	0.512	0.007 (0.010)	0.013 (0.016)	0.012 (0.021)	0.011 (0.019)
Free-lunch eligible	0.740	-0.007 (0.022)	0.002 (0.038)	-0.038 (0.049)	0.008 (0.041)
Receiving special ed. in 8th grade	0.074	-0.008 (0.012)	-0.005 (0.020)	-0.005 (0.025)	-0.013 (0.021)
Tract poverty rate	0.213	-0.002 (0.005)	-0.012 (0.009)	-0.010 (0.010)	-0.013 (0.011)
Number of observations	4,103	4,783	2,469	1,895	2,516
Sample limited to students with complete 10th grade outcome data	Yes	Yes	Yes	Yes	Yes

^aColumn 1 reports the mean (or standard deviation { } for index measures) among losers for lotteries at all schools for the dependent variable indicated in the row heading and for the sample of students indicated. The remaining columns report results from separate regressions of the dependent variables on an indicator for being selected in a lottery and a full set of lottery fixed effects. Except for the binary variables, the models are estimated by ordinary least squares and the coefficient on the indicator for being selected is reported. The models with binary dependent variables are estimated using a Probit specification and we report the mean marginal effect of being selected. Eicker-White robust standard errors clustered by student are shown in parentheses. The results shown in column 2 are based on applications to all of our analysis schools, whereas columns 3-5 restrict the sample to the subset of applications to the type of lottery schools indicated. The number of observations shown is the total number of applications in the relevant sample. The number of observations in any given regression varies due to differences in data availability. A double asterisk (**) denotes significant at the 5 percent level; a single asterisk (*) denotes significant at the 10 percent level.

^bSample limited to the 2001 cohort because the 8th grade survey was not administered to the 2000 cohort.

^cThe samples in panels C and C' include only students in the 2000 cohort and exclude students who applied to three schools (Von Steuben Metro, Roosevelt, and Lake View) that did not administer the 9th grade survey.

TABLE C.II
SENSITIVITY OF 9TH GRADE READING SCORE ESTIMATES TO ALTERNATIVE SELECTION CORRECTION METHODS^a

Method	The Effect of Winning a Lottery to			
	Any School (1)	High-Achieving School (2)	High Value Added School (3)	High Popularity School (4)
<i>Baseline estimates (Table V)</i>	-0.013** (0.005)	-0.009 (0.007)	-0.010 (0.008)	-0.010 (0.009)

Continues

TABLE C.II—*Continued*

Method	The Effect of Winning a Lottery to			
	Any School	High-Achieving School	High Value Added School	High Popularity School
	(1)	(2)	(3)	(4)
<i>Generic bounding</i>				
Assign students with missing scores the score at the 10th percentile of the full sample	−0.003 (0.004)	0.004 (0.008)	0.007 (0.010)	0.003 (0.009)
Assign the score at the 25th percentile	−0.005 (0.004)	−0.001 (0.007)	0.004 (0.008)	−0.003 (0.008)
Assign the score at the 75th percentile	−0.011** (0.005)	−0.013** (0.007)	−0.002 (0.007)	−0.017** (0.009)
Assign the score at the 90th percentile	−0.014** (0.007)	−0.019** (0.009)	−0.005 (0.010)	−0.025** (0.011)
Assign a score equal to own prior 8th grade score plus the gain at the 10th percentile	−0.006 (0.005)	0.001 (0.008)	−0.004 (0.010)	0.002 (0.010)
Assign the gain at the 25th percentile	−0.008** (0.004)	−0.003 (0.006)	−0.007 (0.008)	−0.003 (0.008)
Assume the gain at the 75th percentile	−0.012** (0.004)	−0.011* (0.006)	−0.011* (0.006)	−0.012 (0.008)
Assume the gain at the 90th percentile	−0.014** (0.005)	−0.014** (0.007)	−0.012* (0.007)	−0.017** (0.009)
<i>Worst case bounding</i>				
Losers with missing scores set to the 10th percentile; winners with missing scores set to the 90th percentile	0.143** (0.014)	0.119** (0.018)	0.134** (0.015)	0.117** (0.018)
Vice versa	−0.160** (0.011)	−0.135** (0.015)	−0.133** (0.014)	−0.139** (0.014)
Losers with missing scores assigned gains at the 10th percentile; winners with missing scores assigned gains at the 90th percentile	0.091** (0.009)	0.078** (0.012)	0.080** (0.010)	0.078** (0.013)
Vice versa	−0.111** (0.008)	−0.091** (0.011)	−0.097** (0.012)	−0.093** (0.012)
<i>Optimistic bounds</i>				
Trim the lowest scoring winners to eliminate any excess attrition among losers	−0.006 (0.006)	−0.007 (0.010)	0.000 (0.008)	−0.010 (0.012)
Trim the highest scoring winners	−0.029** (0.005)	−0.023** (0.011)	−0.017* (0.009)	−0.030** (0.013)

^aEach cell reports results from a separate regression. All regressions, other than those generating the estimates for the optimistic bounds, include a set of lottery fixed effects as well as the student and neighborhood characteristics detailed in the notes to Table IV. The regressions for the optimistic bounds include a full set of lottery quintile indicators, where the lottery-specific quintiles are based on the predicted values from an initial regression of ninth grade reading test scores on the student and neighborhood characteristics detailed in the notes to Table IV. The models are estimated by ordinary least squares and the coefficient on the indicator for being selected is reported. Eicker–White robust standard errors clustered by high school are shown in parentheses. A double asterisk (**) indicates significant at the 5 percent level; a single asterisk (*) indicates significant at the 10 percent level.

upper and lower bounds on the effect of winning (for those whose outcomes would be observed irrespective of the lottery outcome) can be attained by selectively trimming the sample of winners with nonmissing data to eliminate excess attrition among losers within the same lottery. If the fraction of winners within a given lottery with nonmissing test scores is x and the fraction of losers with nonmissing scores is y , then excess attrition among losers is equal to $p = (x - y)/x$. To provide an upper bound on the effect of winning, we trim from the sample winners whose ninth grade test scores fall below the p th quantile in the test score distribution observed for the lottery's winners. The lower bound is found by trimming winners whose test scores fall above the $(1 - p)$ th quantile. Following Lee (2005), we condition the trimming on observable characteristics to increase precision by running an initial regression of ninth grade reading scores on our set of student and neighborhood covariates, and then applying the trimming procedure within lottery-specific quintiles of this predicted score. After trimming the sample, we then regress ninth grade reading score on an indicator for being selected in the lottery and a full set of lottery-quintile indicators.¹

Table C.III presents optimistic bounds for all our outcome measures, conditioning the trimming on covariates using the method described above.

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¹We condition on covariates (by assigning students to quintiles based on the predicted outcome) for lotteries with more than 100 participants. For smaller lotteries, the trimming takes place without any conditioning on covariates. Also, the robust standard errors for the optimistic bounds that we report do not specifically account for the fact that the degree of excess attrition is estimated and not known, and for this reason they are likely to be somewhat understated.

TABLE C.III
 THE IMPACT OF WINNING A LOTTERY ON STUDENT OUTCOMES BY SCHOOL TYPE—OPTIMISTIC BOUNDS^a

Dependent Variable	The Effect of Winning a Lottery to															
	Any School			High-Achieving School			High Value Added School			High Popularity School						
	Upper Bound Coeff.	S.E.	Lower Bound Coeff.	Upper Bound Coeff.	S.E.	Lower Bound Coeff.	Upper Bound Coeff.	S.E.	Lower Bound Coeff.	Upper Bound Coeff.	S.E.	Lower Bound Coeff.	Upper Bound S.E.			
Graduated ^b	-0.023	0.019	-0.056	0.018	0.003	0.031	-0.029	0.030	0.038	0.047	0.010	0.043	-0.028	0.039	-0.057	0.038
Enrolled in the CPS ^b	0.002	0.010	-0.014	0.010	-0.001	0.015	-0.014	0.014	-0.029	0.011	-0.035	0.010	0.009	0.018	-0.002	0.017
Dropped out ^b	0.027	0.016	-0.000	0.015	0.012	0.024	-0.012	0.026	-0.006	0.031	-0.034	0.038	0.031	0.030	0.016	0.031
Transferred to a private school	0.005	0.007	-0.000	0.006	-0.005	0.008	-0.007	0.008	0.002	0.011	0.002	0.011	-0.006	0.009	-0.008	0.009
in the Chicago MSA ^b	0.027	0.010	0.005	0.010	0.017	0.020	-0.005	0.020	0.030	0.026	0.004	0.025	0.020	0.028	0.010	0.025
Moved out of the district ^b					<i>9th grade outcomes</i>											
Reading percentile score	-0.006	0.006	-0.029	0.005	-0.007	0.010	-0.023	0.011	0.000	0.008	-0.017	0.009	-0.010	0.012	-0.030	0.013
Algebra end-of-course	0.013	0.008	-0.023	0.007	0.013	0.012	-0.032	0.010	0.012	0.012	-0.020	0.012	0.014	0.015	-0.029	0.013
English I end-of-course	0.009	0.004	-0.013	0.004	0.008	0.006	-0.015	0.006	0.021	0.006	0.001	0.007	0.005	0.007	-0.017	0.007
Spring semester fraction of days																
absent	0.006	0.004	-0.004	0.004	0.002	0.004	-0.004	0.005	-0.002	0.004	-0.010	0.004	0.006	0.005	0.001	0.006
Spring semester credits earned	0.094	0.095	-0.142	0.101	0.123	0.162	-0.050	0.168	0.128	0.111	-0.026	0.126	0.070	0.200	-0.122	0.201
Class percentile rank (1 = best)	-0.003	0.011	-0.036	0.010	-0.035	0.024	-0.062	0.023	-0.011	0.027	-0.037	0.028	-0.055	0.025	-0.085	0.024
					<i>10th grade outcomes</i>											
Reading percentile score ^b	0.008	0.008	-0.035	0.008	-0.010	0.010	-0.045	0.012	-0.005	0.013	-0.038	0.015	-0.012	0.019	-0.059	0.016
Geometry end-of-course	0.041	0.009	-0.005	0.009	0.041	0.019	-0.001	0.020	0.069	0.022	0.046	0.023	0.036	0.021	-0.021	0.025
exam score ^b																
English II end-of-course	0.017	0.006	-0.016	0.006	0.004	0.009	-0.031	0.009	0.003	0.012	-0.020	0.013	0.006	0.008	-0.036	0.008
exam score ^b																
Spring semester fraction of days																
absent	0.013	0.005	-0.006	0.006	0.004	0.006	-0.010	0.006	0.001	0.007	-0.011	0.006	0.010	0.007	-0.008	0.008
Cumulative spring semester																
credits earned	-0.001	0.250	-0.518	0.225	0.374	0.312	-0.151	0.288	0.279	0.191	-0.094	0.201	0.258	0.382	-0.259	0.351
Class percentile rank (1 = best)	-0.002	0.010	-0.047	0.009	-0.021	0.021	-0.065	0.019	0.003	0.023	-0.028	0.023	-0.041	0.020	-0.094	0.016
					<i>11th grade outcomes</i>											
Dropped out by spring	0.018	0.009	0.000	0.008	0.010	0.011	-0.004	0.011	-0.011	0.010	-0.025	0.009	0.017	0.013	0.005	0.012
Retained (enrolled in grade																
below 11th grade)	0.010	0.014	-0.026	0.011	0.015	0.035	-0.012	0.027	0.003	0.035	-0.032	0.026	0.033	0.036	0.001	0.028

Continues

TABLE C.III—Continued

Dependent Variable	The Effect of Winning a Lottery to											
	Any School			High-Achieving School			High Value Added School			High Popularity School		
	Upper Bound Coeff.	S.E.	Coef.	Lower Bound S.E.	Coef.	Upper Bound S.E.	Lower Bound Coef.	S.E.	Coef.	Upper Bound S.E.	Lower Bound Coef.	S.E.
<i>Parental support and supervision</i>												
Parents regularly help with schoolwork ^b	0.076	0.028	-0.120	0.023	-0.071	0.043	-0.141	0.040				
Parents regularly discuss class- and school-related issues with student ^b	0.115	0.017	-0.042	0.029	0.146	0.024	0.086	0.030				
Degree of parental supervision ^b	0.488	0.132	-0.529	0.126	0.234	0.205	-0.172	0.228				
<i>Other outcome measures</i>												
Student's liking for school ^b	0.415	0.086	-0.182	0.121	0.431	0.131	-0.111	0.098				
Degree of student-teacher trust ^b	0.342	0.077	-0.295	0.055	0.155	0.110	-0.182	0.096				
Positive classroom behavior of peers ^b	0.138	0.079	-0.167	0.064	0.153	0.106	-0.033	0.090				
Reports getting into trouble at school ^b	0.056	0.036	-0.086	0.034	-0.039	0.044	-0.120	0.053				
Arrested by police in past year ^b	0.004	0.020	-0.068	0.021	-0.050	0.025	-0.067	0.019				
Expects to graduate college ^b	0.082	0.011	-0.030	0.022	0.044	0.037	-0.005	0.029				
Reports classrooms/hallways are safe ^b	0.125	0.022	-0.033	0.030	0.062	0.041	0.002	0.045				
Reports school has enough computers for students to use ^b	0.121	0.035	-0.032	0.028	0.161	0.035	0.077	0.032				

^aEach cell reports the results from a separate regression estimated for the sample of lotteries indicated by the column heading. The dependent variable is indicated in the row heading. Except for the binary variables, the models are estimated by ordinary least squares and the coefficient on the indicator for being selected is reported. The models with binary dependent variables are estimated using a Probit specification and we report the mean marginal effect of being selected. Eicker-White robust standard errors clustered by high school are shown in parentheses. All specifications include a full set of indicators for each lottery-specific predicted-outcome quintile. Outcomes for lottery winners have been replaced to missing either at the bottom of the distribution (in the columns labeled "Upper Bound") or at the top of the distribution (in the columns labeled "Lower Bound") at the rate that eliminates excess attrition among losers who participate in the same lottery within the same lottery-specific predicted-outcome quintile. Quintiles for the predicted outcome are determined from an initial ordinary least squares or Probit regression of the outcome in question on the student and neighborhood characteristics detailed in the notes to Table IV. The results for the outcomes based on the ninth grade survey are only shown for lotteries at all schools and lotteries at high-achieving schools, as in Table VIII.

^bSample limited to the 2000 cohort due to data availability.