On-Line Appendix

"Achieving Escape Velocity: Neighborhood and Social Interventions to Reduce Persistent Inequality"

Roland G. Fryer, Jr. and Lawrence F. Katz

Harvard University and NBER

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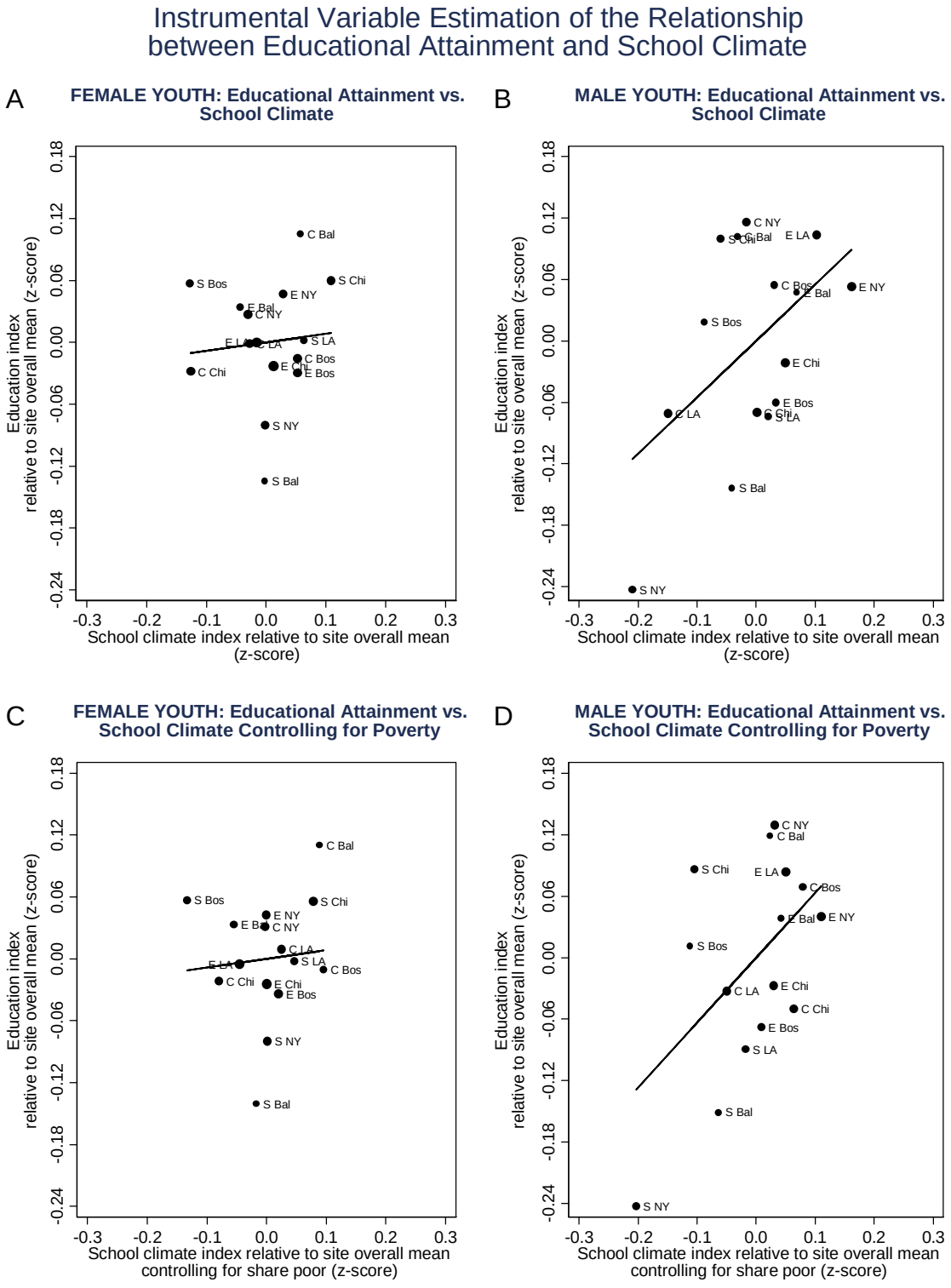
Appendix Table 1

MTO Impacts on Neighborhood and School Quality

		Experimental versus Control		Section 8 versus Control		
	Control mean	ITT	TOT	ITT	TOT	Sample Size
A. Neighborhood Quality						
Average Census Tract Poverty Rate, MTO Youth						
Share Poor	0.399	-0.090	-0.188	-0.076	-0.113	4,637
		(0.007)	(0.013)	(0.007)	(0.010)	
Share Poor, percentile units among U.S. tracts	91.85	-8.87	-18.38	-4.63	-6.90	4,637
		(0.64)	(1.09)	(0.53)	(0.76)	
Share Poor, z-score on U.S. tracts	2.102	-0.733	-1.520	-0.613	-0.914	4,637
		(0.057)	(0.102)	(0.056)	(0.079)	
B. School Quality for Average School Attended						
Share Eligible for Free- or Reduced-Price Lunch	0.752	-0.040	-0.083	-0.019	-0.029	5,043
		(0.007)	(0.014)	(0.008)	(0.012)	
School Percentile Ranking on State Exam	18.68	3.07	6.43	1.22	1.81	4,884
		(0.65)	(1.36)	(0.66)	(0.98)	
School Climate Index, All	0.797	0.020	0.043	-0.002	-0.003	3.328
		(0.011)	(0.023)	(0.012)	(0.017)	
School Climate Index, Female	0.786	0.025	0.052	0.006	0.010	1,694
		(0.015)	(0.032)	(0.016)	(0.025)	
School Climate Index, Male	0.807	0.016	0.034	-0.011	-0015	1,634
		(0.014)	(0.031)	(0.016)	(0.022)	

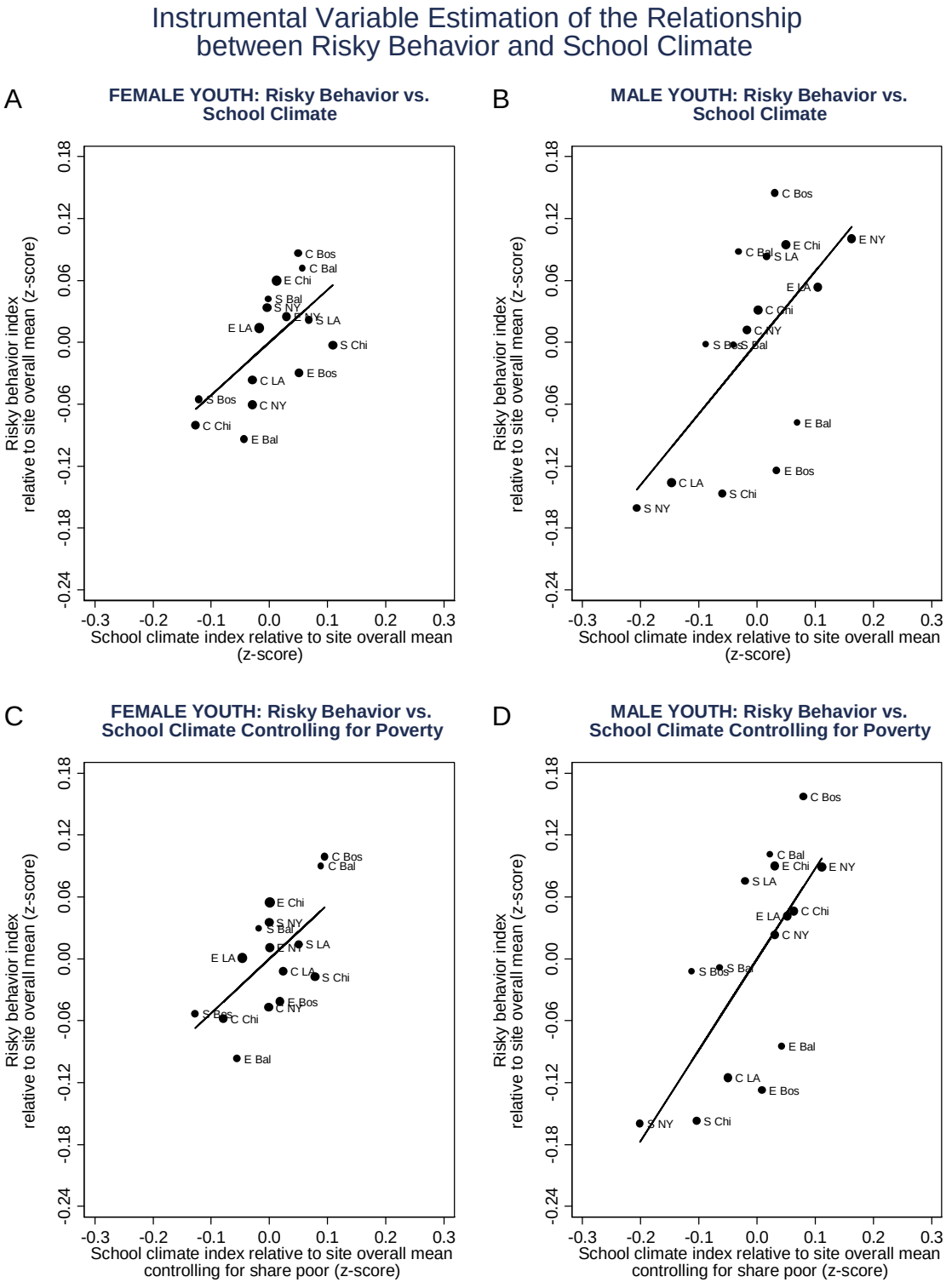
Notes and Sources: ITT are intent-to-treat estimates; TOT are treatment-on-treated estimates. Panel A presents the control group mean, ITT, and TOT estimates for average (duration-weighted) neighborhood (census tract) poverty rates in raw units, percentile units, and standardized (z-score) units for MTO youth ages 13-20 (as of December 2007) for all post-random assignment residential addresses. Census tract poverty rates in each year are interpolated using the 1990 Census, 2000 Census, and the 2005-09 American Community Surveys. Panel B present (duration-weighted) average characteristics for the schools attended by MTO youth ages 10-20 (with the school climate index covering youth ages 10 to 17). The School Climate Index is share of positive responses to five school climate questions: students get teased if they study hard, discipline in school is fair, feels safe in school, often feels put down by teachers, and teacher interested in students. The source for Panel B is Sanbonmatsu et al. (2011), Exhibits 7.3 and 7.5.

Appendix Figure 1



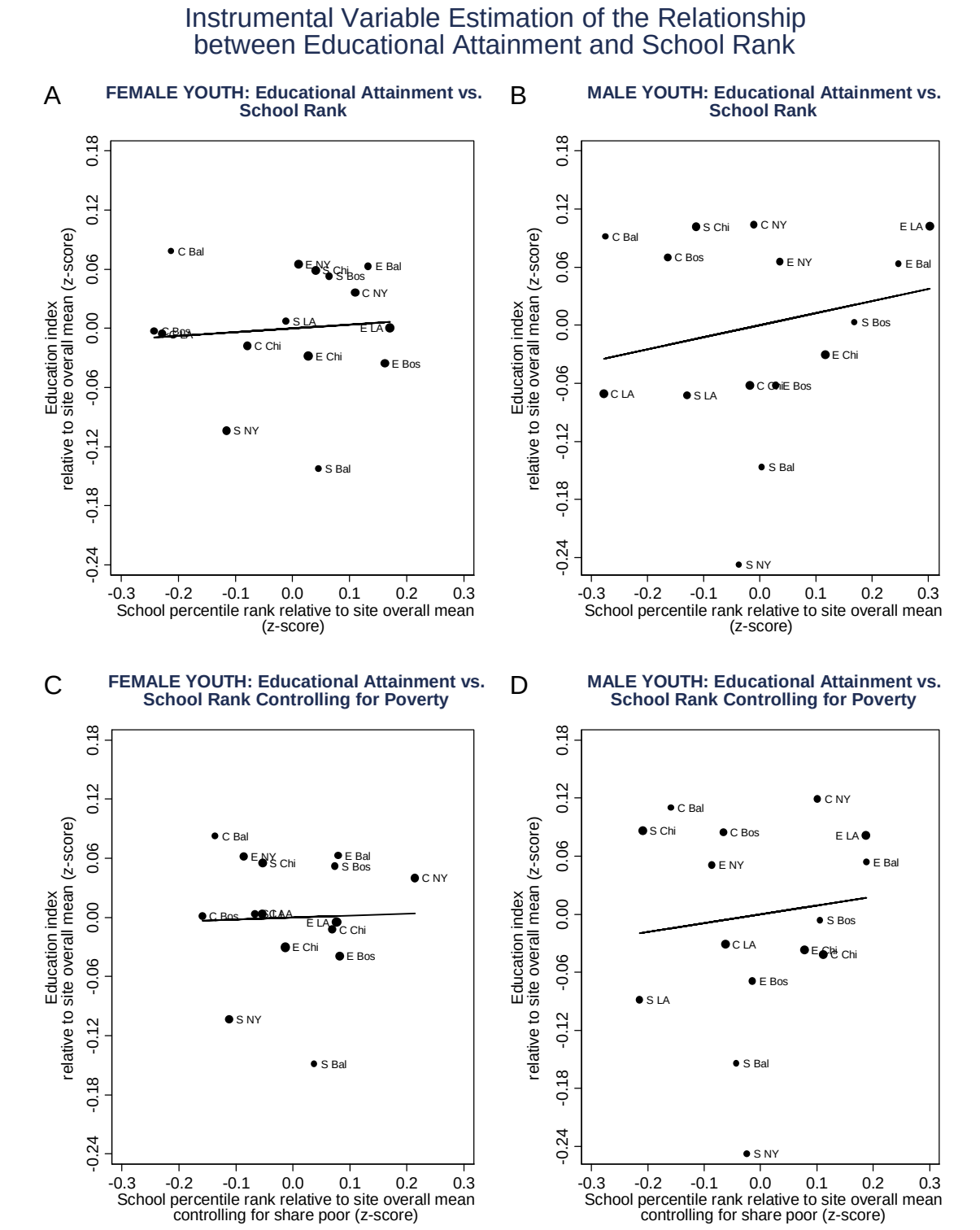
Notes to Appendix Figure 1: Instrumental variable estimation of the relationship between educational attainment and school climate for females (Panel A) and males (Panel B) and school climate controlling for poverty for females (Panel C) and males (Panel D). The y-axis is the education index expressed in standard deviation units relative to the sample control group standard deviation. The index has the following components: graduated high school/received certificate of General Educational Development (GED) or still in school, in school or working, ECLS-K reading score, and ECLS-K math score. Each component was standardized using the mean and standard deviation for the control group. The index is the average of its components, restandardized using the control mean and standard deviation after averaging. Negative components were flipped so that higher index values represent "better" outcomes. School climate is the ratio of positive responses on five school quality items: safety, discipline, feeling "put down" by teachers, teasing of students who study hard, and teacher interest in students. Poverty (share poor), controlled for in panels C and D, is the fraction of census tract residents living below the poverty threshold, linearly interpolated from the 1990 and 2000 decennial census and 2005-09 American Community Survey and weighted by the amount of time respondents lived at each of their addresses from random assignment through May 2008. School climate and share poor are expressed as z-scores standardized by the control group mean and standard deviation. The points represent the site (Bal = Baltimore, Bos = Boston, Chi = Chicago, LA = Los Angeles, NY = New York City) and treatment group (E = Experimental voucher, S = Section 8 voucher, C = control group). The line through the data points is equivalent to a two-stage least-squares estimate of the relationship between educational attainment and school climate, using site-group interactions as instruments (conditional on site main effects). The size of each point is proportional to the sum of the weights for that group and, correspondingly, to the weight that the point receives in the two-stage least squares regression. The estimated impact of a 1 standard deviation (sd) improvement in school climate is a 0.082sd increase in educational attainment for females (Panel A; N=2367, SE=0.432, P=0.849) and a 0.550sd increase for males (Panel B; N=2271, SE=0.241, P=0.022). When controlling for poverty, the estimated impact of a 1sd improvement in school climate is a 0.084sd increase in educational attainment for females (Panel C; N=2364, SE=0.454, P=0.852), and a 0.633sd increase for males (Panel D; N=2267, SE=0.315, P=0.044).

Appendix Figure 2



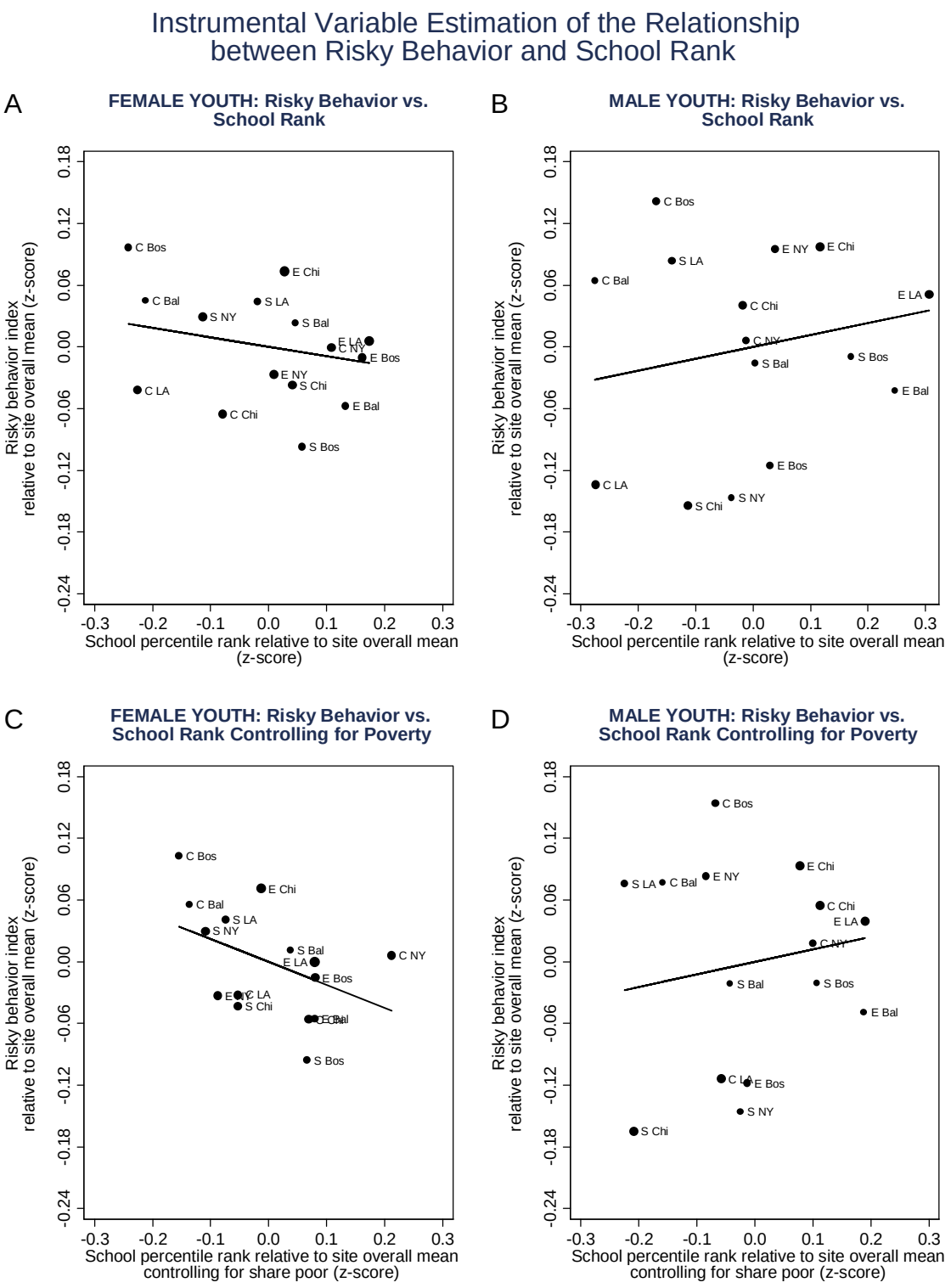
Notes to Appendix Figure 2: Instrumental variable estimation of the relationship between risky behavior and school climate for females (Panel A) and males (Panel B) and school climate controlling for poverty for females (Panel C) and males (Panel D). The y-axis is the risky behavior index expressed in standard deviation units relative to the sample control group standard deviation. The index has the following components: used marijuana in the past 30 days, smoked in the past 30 days, used alcohol in the past 30 days, and ever been pregnant or gotten someone pregnant. Each component was standardized using the mean and standard deviation for the control group. The index is the average of its components, restandardized using the control mean and standard deviation after averaging. Negative components were flipped so that higher index values represent "better" outcomes. School climate is the ratio of positive responses on five school quality items: safety, discipline, feeling "put down" by teachers, teasing of students who study hard, and teacher interest in students. Poverty (share poor), controlled for in panels C and D, is the fraction of census tract residents living below the poverty threshold, linearly interpolated from the 1990 and 2000 decennial census and 2005-09 American Community Survey and weighted by the amount of time respondents lived at each of their addresses from random assignment through May 2008. School climate and share poor are expressed as z-scores standardized by the control group mean and standard deviation. The points represent the site (Bal = Baltimore, Bos = Boston, Chi = Chicago, LA = Los Angeles, NY = New York City) and treatment group (E = Experimental voucher, S = Section 8 voucher, C = control group). The line through the data points is equivalent to a two-stage least-squares estimate of the relationship between risky behavior and school climate, using site-group interactions as instruments (conditional on site main effects). The size of each point is proportional to the sum of the weights for that group and, correspondingly, to the weight that the point receives in the two-stage least squares regression. The estimated impact of a 1 standard deviation (sd) improvement in school climate is a 0.512sd decrease in risky behavior for females (Panel A; N=2361, SE=0.434, P=0.239) and a 0.691sd decrease for males (Panel B; N=2267, SE=0.266, P=0.009). When controlling for poverty, the estimated impact of a 1sd improvement in school climate is a 0.529sd decrease in risky behavior for females (Panel C; N=2358, SE=0.441, P=0.231) and a 0.882sd decrease for males (Panel D; N=2263, SE=0.348, P=0.011).

Appendix Figure 3



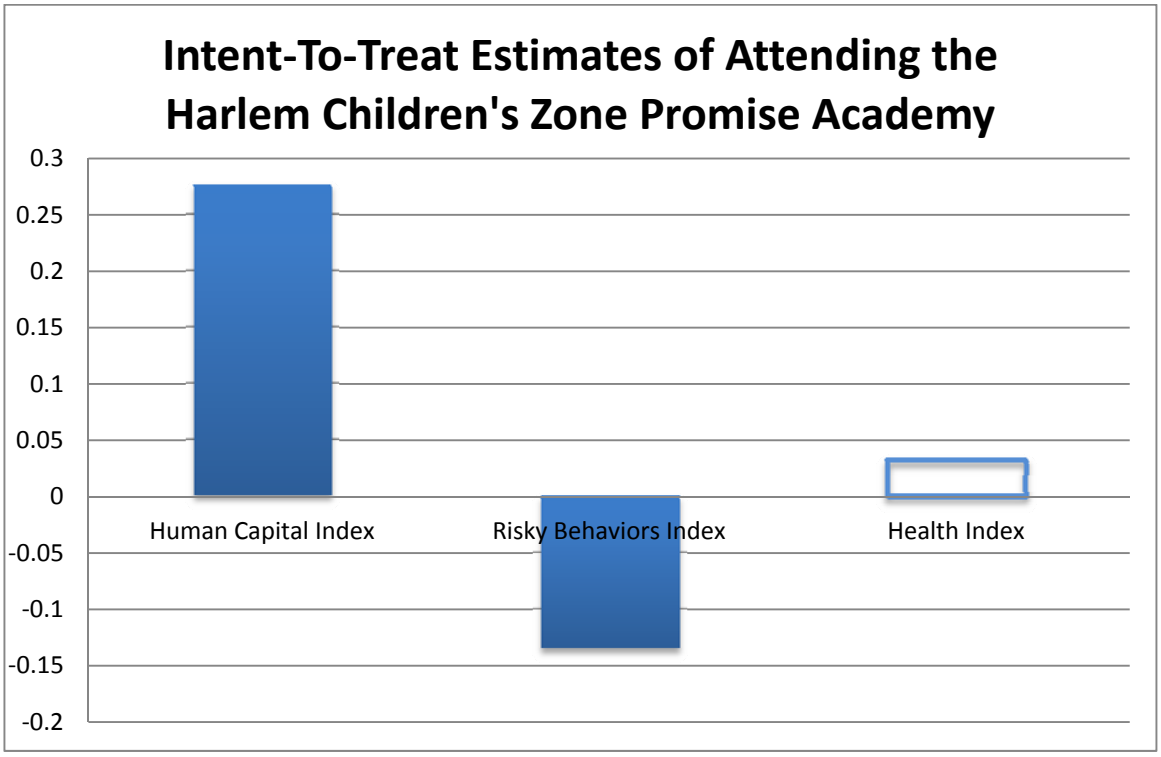
Notes to Appendix Figure 3: Instrumental variable estimation of the relationship between educational attainment and school rank for females (Panel A) and males (Panel B) and school rank controlling for poverty for females (Panel C) and males (Panel D). The y-axis is the education index expressed in standard deviation units relative to the sample control group standard deviation. The index has the following components: graduated high school/received certificate of General Educational Development (GED) or still in school, in school or working, ECLS-K reading score, and ECLS-K math score. Each component was standardized using the mean and standard deviation for the control group. The index is the average of its components, restandardized using the control mean and standard deviation after averaging. Negative components were flipped so that higher index values represent "better" outcomes. School rank is the percentile rank of the youth's average school (weighted by the number of years spent in each school) on state-level math and reading assessments. Poverty (share poor), controlled for in panels C and D, is the fraction of census tract residents living below the poverty threshold, linearly interpolated from the 1990 and 2000 decennial census and 2005-09 American Community Survey and weighted by the amount of time respondents lived at each of their addresses from random assignment through May 2008. School rank and share poor are expressed as z-scores standardized by the control group mean and standard deviation. The points represent the site (Bal = Baltimore, Bos = Boston, Chi = Chicago, LA = Los Angeles, NY = New York City) and treatment group (E = Experimental voucher, S = Section 8 voucher, C = control group). The line through the data points is equivalent to a two-stage least-squares estimate of the relationship between educational attainment and school rank, using site-group interactions as instruments (conditional on site main effects). The size of each point is proportional to the sum of the weights for that group and, correspondingly, to the weight that the point receives in the two-stage least squares regression. The estimated impact of a 1 standard deviation (sd) increase in school rank is a 0.038sd increase in educational attainment for females (Panel A; N=2266, SE=0.184, P=0.837) and a 0.125sd increase for males (Panel B; N=2192, SE=0.132, P=0.344). When controlling for poverty, the estimated impact of a 1sd increase in school rank is a 0.020sd increase in educational attainment for females (Panel C; N=2263, SE=0.277, P=0.941), and a 0.092sd increase for males (Panel D; N=2188, SE=0.188, P=0.626).

Appendix Figure 4



Notes to Appendix Figure 4: Appendix Figure 4. Instrumental variable estimation of the relationship between risky behavior and school rank for females (Panel A) and males (Panel B) and school rank controlling for poverty for females (Panel C) and males (Panel D). The y-axis is the risky behavior index expressed in standard deviation units relative to the sample control group standard deviation. The index has the following components: used marijuana in the past 30 days, smoked in the past 30 days, used alcohol in the past 30 days, and ever been pregnant or gotten someone pregnant. Each component was standardized using the mean and standard deviation for the control group. The index is the average of its components, restandardized using the control mean and standard deviation after averaging. Negative components were flipped so that higher index values represent "better" outcomes. School rank is the percentile rank of the youth's average school (weighted by the number of years spent in each school) on state-level math and reading assessments. Poverty (share poor), controlled for in panels C and D, is the fraction of census tract residents living below the poverty threshold, linearly interpolated from the 1990 and 2000 decennial census and 2005-09 American Community Survey and weighted by the amount of time respondents lived at each of their addresses from random assignment through May 2008. School rank and share poor are expressed as z-scores standardized by the control group mean and standard deviation. The points represent the site (Bal = Baltimore, Bos = Boston, Chi = Chicago, LA = Los Angeles, NY = New York City) and treatment group (E = Experimental voucher, S = Section 8 voucher, C = control group). The line through the data points is equivalent to a two-stage least-squares estimate of the relationship between risky behavior and school rank, using site-group interactions as instruments (conditional on site main effects). The size of each point is proportional to the sum of the weights for that group and, correspondingly, to the weight that the point receives in the two-stage least squares regression. The estimated impact of a 1 standard deviation (sd) increase in school rank is a 0.092sd increase in risky behavior for females (Panel A; N=2260, SE=0.175, P=0.600) and a 0.116sd decrease for males (Panel B; N=2189, SE=0.140, P=0.408). When controlling for poverty, the estimated impact of a 1sd increase in school rank is a 0.223sd increase in risky behavior for females (Panel C; N=2257, SE=0.257, P=0.386) and a 0.882sd decrease for males (Panel D; N=2263, SE=0.348, P=0.011).

Appendix Figure 5



Notes to Appendix Figure 5: This figure reports the effects of winning the lottery to attend the Harlem Children's Zone Promise Academy reported by Dobbie and Fryer (2012). Each index is the average its subcomponents, after they were standardized using the mean and standard deviation in the control group. The human capital index has the following components: Woodcock Johnson Math, Woodcock Johnson Reading, number of high school Regents exams passed, average Regents score, and an indicator for enrolling in college. The risky behaviors index has the following components: ever pregnant (females only), incarcerated (males only), an index of drug and alcohol usage, and an index of criminal behaviors. The health index has the following components: mental health, an index of healthy eating, an index of physical health, and an index of health behaviors. See Dobbie and Fryer (2012) for more precise variable definitions. The effect of winning the Promise Academy lottery on human capital is 0.277 standard deviations (sd) (N= 552, SE=0.068, P=0.000). The effect on risky behaviors is -0.135 sd (N=445, SE=0.072, P=0.063). The effect on health is 0.032 sd (N=407, SE=0.057, P=0.573).