The Medium-Term Impacts of High-Achieving Charter Schools on Non-Test Score Outcomes
Web Appendices

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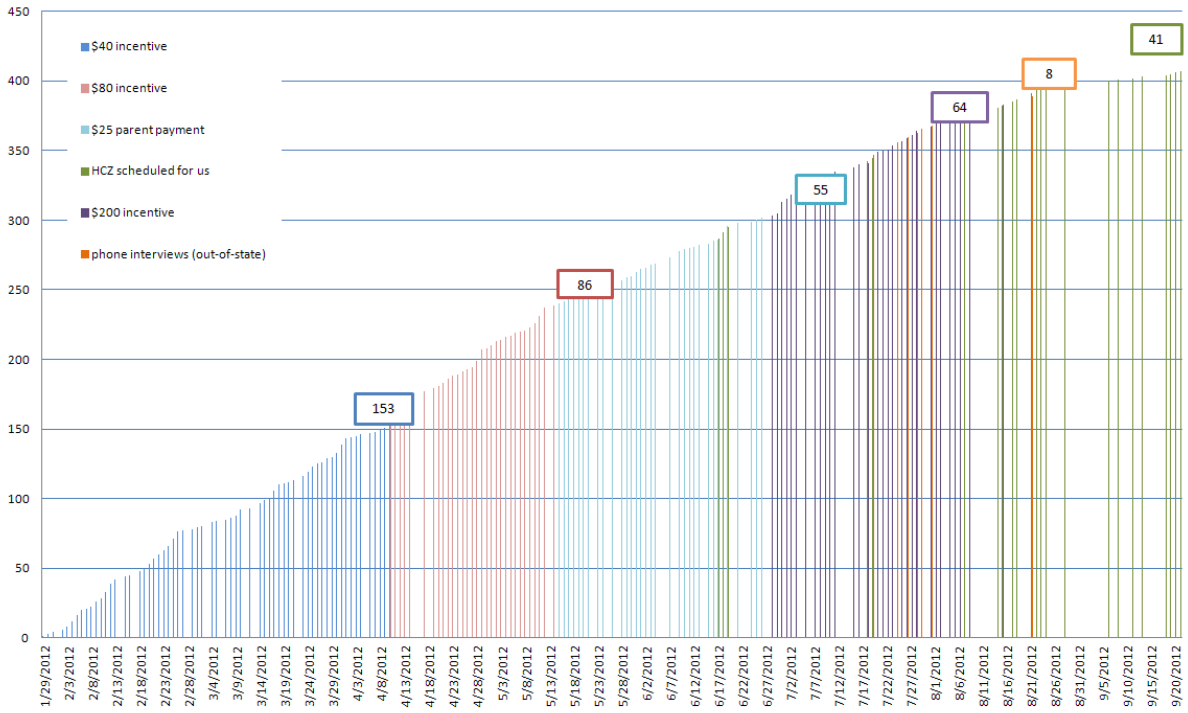

Web Appendix Table 1
The Impact of Attending the HCZ Promise Academy on Standardized Tests

	CM	ITT	LATE
Panel A. NYS Middle School Tests	(1)	(2)	(3)
8th Grade Math Score	−0.356	0.446***	0.699***
	(0.847)	(0.077)	(0.107)
	315	472	472
8th Grade ELA Score	−0.246	0.156***	0.243***
	(0.695)	(0.057)	(0.085)
	317	477	477
Panel B. College Readiness Tests			
Took SAT	0.371	0.309***	0.497***
	(0.484)	(0.048)	(0.073)
	256	404	404
Took PSAT	0.559	0.106**	0.170**
	(0.498)	(0.050)	(0.078)
	256	404	404
Panel C. NYS High School Regents Exams			
Number of Regents Passed	3.571	1.115***	1.788***
	(2.610)	(0.277)	(0.401)
	308	453	453
Passed Five Regents	0.451	0.156***	0.251***
	(0.498)	(0.050)	(0.074)
	308	453	453
Passed Integrated Algebra	0.643	0.163***	0.261***
	(0.480)	(0.042)	(0.063)
	308	453	453
Passed Living Environment	0.565	0.069	0.111
	(0.497)	(0.048)	(0.073)
	308	453	453
Passed World History	0.588	0.045	0.072
	(0.493)	(0.049)	(0.075)
	308	453	453
Passed Comprehensive English	0.649	0.060	0.097
	(0.478)	(0.045)	(0.069)
	308	453	453
Passed Geometry	0.237	0.248***	0.398***
	(0.426)	(0.048)	(0.072)
	308	453	453
Passed Trigonometry	0.068	0.126***	0.203***
	(0.252)	(0.036)	(0.054)
	308	453	453
Passed Environmental Science	0.192	0.095**	0.152**
	(0.394)	(0.046)	(0.071)
	308	453	453
Passed U.S. History	0.536	0.130***	0.209***
	(0.500)	(0.049)	(0.074)

	308	453	453
Passed Chemistry	0.058	0.113***	0.182***
	(0.235)	(0.034)	(0.051)
	308	453	453
Passed Physics	0.023	0.082***	0.132***
	(0.149)	(0.026)	(0.040)
	308	453	453
Took Integrated Algebra	0.883	0.060**	0.096**
	(0.322)	(0.029)	(0.044)
	308	453	453
Took Living Environment	0.740	0.077*	0.123*
	(0.439)	(0.042)	(0.065)
	308	453	453
Took World History	0.815	−0.001	−0.001
	(0.389)	(0.041)	(0.064)
	308	453	453
Took Comprehensive English	0.812	0.002	0.003
	(0.392)	(0.041)	(0.064)
	308	453	453
Took Environmental Science	0.396	0.042	0.067
	(0.490)	(0.052)	(0.081)
	308	453	453
Took Geometry	0.399	0.203***	0.326***
	(0.491)	(0.049)	(0.077)
	308	453	453
Took Trigonometry	0.149	0.070*	0.112*
	(0.357)	(0.039)	(0.060)
	308	453	453
Took U.S. History	0.760	−0.027	−0.043
	(0.428)	(0.048)	(0.075)
	308	453	453
Took Chemistry	0.127	0.126***	0.202***
	(0.333)	(0.041)	(0.063)
	308	453	453
Took Physics	0.052	0.091***	0.146***
	(0.222)	(0.030)	(0.046)
	308	453	453
Number of Regents Taken	4.763	0.742**	1.277**
	(3.779)	(0.348)	(0.570)
	410	572	572
Integrated Algebra Score	−0.309	0.477***	0.746***
	(0.836)	(0.099)	(0.139)
	272	409	409
Living Environment Score	−0.307	0.209**	0.318**
	(0.861)	(0.094)	(0.134)
	228	347	347
World History Score	−0.248	0.227**	0.354**
	(0.951)	(0.100)	(0.144)

	251	370	370
Environmental Science Score	−0.355	0.393**	0.569***
	(0.912)	(0.156)	(0.198)
	122	187	187
Comprehensive English Score	−0.149	0.380***	0.600***
	(0.943)	(0.086)	(0.119)
	250	367	367
Geometry Score	−0.319	0.472***	0.765***
	(0.863)	(0.118)	(0.156)
	123	210	210
Trigonometry Score	−0.307	0.900***	1.242***
	(0.913)	(0.190)	(0.203)
	46	80	80
U.S. History Score	−0.297	0.456***	0.678***
	(1.032)	(0.107)	(0.149)
	234	341	341
Chemistry Score	−0.512	0.496**	0.766***
	(0.825)	(0.236)	(0.274)
	39	78	78

Notes: This table reports estimates of the effect of attending the HCZ Promise Academy. Column (1) reports the mean of each variable for the control group. Column (2) reports ITT estimates of the impact of winning the admissions lottery. Column (3) reports LATE estimates of the impact of ever attending the Promise Academy using a winning lottery number as an instrument. All regressions control for the baseline demographic variables summarized in Table 2, a quadratic of 4th and 5th grade math and ELA test scores, lottery-year indicators, indicators for having a sibling enrolled in the same lottery, and a sibling-year interaction term. The sample includes all lottery entrants matched to the NYC data. Regents' scores and eighth grade scores are standardized to have mean zero and standard deviation one by year in the full NYC sample. Students are considered to have passed a given Regents' exam if they earn a score of 65 or better during any exam period. If a student has taken a given exam multiple times, we use her first score in the score regressions. Heteroskedasticity-robust standard errors are reported in parenthesis. The number of observations is reported below the standard error. ***, **, and * indicate statistical significance with 99%, 95%, and 90% confidence, respectively.

Web Appendix Table 2
The Impact of Attending the Promise Academy
by Gender and Economic Subgroups

	Male	Female	p-value	Free Lunch	Not Free Lunch	p-value
Panel A. Human Capital	(1)	(2)	(3)	(4)	(5)	(6)
Woodcock Johnson Math	0.352***	0.209		0.219**	0.574***	
	(0.104)	(0.128)	0.381	(0.093)	(0.173)	0.067
	188	197		297	68	
Woodcock Johnson Reading	0.110	0.130		0.133	0.119	
	(0.104)	(0.124)	0.900	(0.096)	(0.173)	0.945
	188	197		297	68	
Regents Passed	1.101***	1.060***		1.093***	0.464	
	(0.394)	(0.390)	0.940	(0.312)	(0.684)	0.402
	204	232		341	74	
Regents Test Scores	0.277**	0.250**		0.291***	0.033	
	(0.136)	(0.105)	0.870	(0.104)	(0.189)	0.231
	196	222		329	69	
College Enrollment	0.106	0.188**		0.156**	0.092	
	(0.082)	(0.090)	0.502	(0.067)	(0.178)	0.737
	142	158		238	46	
Human Capital Index	0.341***	0.192*		0.280***	0.212	
	(0.095)	(0.101)	0.273	(0.079)	(0.157)	0.698
	254	268		405	87	
Panel B. Risky Behaviors						
Ever Pregnant (Female)				−0.126**	−0.085	
	—	—		(0.053)	(0.125)	0.775
				164	32	
Drug/Alcohol Index	0.053	−0.091		−0.034	0.082	
	(0.089)	(0.095)	0.259	(0.076)	(0.159)	0.509
	195	210		316	68	
Criminal Behavior Index	0.020	−0.030		−0.039	0.154	
	(0.107)	(0.061)	0.676	(0.071)	(0.180)	0.308
	195	211		316	68	
Risky Behavior Index	−0.132	−0.138*		−0.187**	0.055	
	(0.109)	(0.081)	0.963	(0.086)	(0.147)	0.154
	233	211		345	75	

	Male	Female	p-value	Free Lunch	Not Free Lunch	p-value
Panel C. Health	(1)	(2)	(3)	(4)	(5)	(6)
Mental Health	0.058	−0.136		−0.043	−0.057	
	(0.132)	(0.156)	0.337	(0.121)	(0.199)	0.952
	194	208		313	67	
Physical Health Index	−0.044	−0.055		−0.031	−0.108	
	(0.084)	(0.094)	0.928	(0.071)	(0.135)	0.609
	195	211		316	68	
Health Behavior Index	0.083	−0.026		0.054	−0.033	
	(0.075)	(0.073)	0.299	(0.060)	(0.116)	0.501
	195	211		316	68	
Nutrition Index	0.222***	−0.016		0.083	0.097	
	(0.070)	(0.101)	0.054	(0.068)	(0.138)	0.927
	195	211		316	68	
Health Index	0.135**	−0.080		0.038	−0.034	
	(0.068)	(0.088)	0.048	(0.064)	(0.121)	0.590
	195	211		316	68	

Notes: This table reports ITT estimates of the effect of the Promise Academy for gender and economic subgroups. We use the specification and variable definitions described in Tables 4 and Appendix Table 5. There are no incarcerated males in the non-free-lunch sample, so we omit this outcome from the subgroup analysis. Heteroskedasticity-robust standard errors are reported in parenthesis. The number of observations is reported below the standard error. ***, **, and * indicate statistical significance with 99%, 95%, and 90% confidence, respectively.

Web Appendix Table 3
Impacts on Indices and Their Components

	CM	ITT	LATE
	(1)	(2)	(3)
Woodcock Johnson Math	0.000	0.283***	0.439***
	(1.000)	(0.083)	(0.121)
	243	385	385
Applied Problems	0.000	0.129	0.202
	(1.000)	(0.090)	(0.135)
	244	387	387
Calculation	−0.000	0.384***	0.595***
	(1.000)	(0.087)	(0.127)
	243	385	385
Math Fluency	0.000	0.237**	0.366**
	(1.000)	(0.104)	(0.153)
	243	385	385
Woodcock Johnson Reading	−0.000	0.119	0.185
	(1.000)	(0.083)	(0.123)
	243	385	385
Letter-Word Identification	0.000	0.207**	0.325**
	(1.000)	(0.092)	(0.138)
	244	387	387
Passage Comprehension	−0.000	−0.066	−0.103
	(1.000)	(0.122)	(0.185)
	244	387	387
Reading Fluency	0.000	0.033	0.051
	(1.000)	(0.087)	(0.130)
	243	385	385

	CM	ITT	LATE
	(1)	(2)	(3)
Mental Health	−0.000	−0.034	−0.054
	(1.000)	(0.103)	(0.161)
	254	402	402
K6 Inconsolable (1-5)	1.778	−0.046	−0.073
	(0.915)	(0.095)	(0.147)
	257	405	405
K6 Nervous (1-5)	1.969	0.020	0.032
	(0.939)	(0.104)	(0.161)
	257	405	405
K6 Restless or Fidgety (1-5)	1.961	−0.011	−0.017
	(1.089)	(0.108)	(0.168)
	257	405	405
K6 Hopeless (1-5)	1.261	0.035	0.056
	(0.706)	(0.080)	(0.125)
	257	405	405
K6 Everything an Effort (1-5)	2.823	0.123	0.197
	(1.393)	(0.148)	(0.232)
	254	402	402
K6 Worthless (1-5)	1.222	0.019	0.030
	(0.620)	(0.074)	(0.116)
	257	405	405
Physical Health Index	0.000	−0.050	−0.079
	(0.599)	(0.063)	(0.098)
	257	406	406
Self Reported Health Poor/Fair	0.074	0.012	0.019
	(0.262)	(0.029)	(0.044)
	257	406	406
Had Asthma Attack in Last Year	0.156	0.027	0.044
	(0.363)	(0.041)	(0.064)
	257	406	406
BMI $>$ 95th Percentile	0.172	0.005	0.007
	(0.378)	(0.042)	(0.065)
	256	398	398
Chronic Health Problems (0-1)	0.307	0.020	0.032
	(0.462)	(0.051)	(0.079)
	257	406	406

	CM	ITT	LATE
	(1)	(2)	(3)
Health Behavior Index	−0.001	0.031	0.050
	(0.499)	(0.052)	(0.081)
	257	406	406
Physical Exam (0-1)	0.867	−0.038	−0.062
	(0.341)	(0.040)	(0.062)
	255	402	402
Freq Vigorous Activity (days/week) (0-1)	0.432	0.036	0.058
	(0.496)	(0.051)	(0.080)
	257	406	406
Freq Moderate Activity (days/week) (0-1)	0.479	−0.020	−0.032
	(0.501)	(0.055)	(0.086)
	257	405	405
Dental Exam (0-1)	0.735	0.064	0.102
	(0.442)	(0.047)	(0.073)
	257	406	406
Nutrition Index	0.000	0.108*	0.173*
	(0.572)	(0.061)	(0.095)
	257	406	406
Fruit and Vegetable Consumption (0-1)	0.595	0.014	0.023
	(0.492)	(0.054)	(0.083)
	257	406	406
Soft Drink Consumption (0-1)	0.572	0.009	0.014
	(0.496)	(0.054)	(0.084)
	257	406	406
Sweet Snack Consumption (0-1)	0.615	−0.166***	−0.266***
	(0.488)	(0.052)	(0.083)
	257	406	406
Fast Food Consumption (0-1)	0.272	−0.039	−0.063
	(0.446)	(0.046)	(0.071)
	257	406	406

	CM	ITT	LATE
	(1)	(2)	(3)
Drug/Alcohol Index	−0.001	−0.016	−0.025
	(0.692)	(0.067)	(0.103)
	256	405	405
Smoked Marijuana in Last 30 Days	0.220	0.023	0.036
	(0.415)	(0.047)	(0.072)
	255	404	404
Drank Alcohol in Last 30 Days	0.292	−0.024	−0.039
	(0.456)	(0.048)	(0.075)
	253	398	398
Used Hard Drugs in Last Year	0.004	−0.003	−0.006
	(0.062)	(0.004)	(0.006)
	256	405	405
Criminal Behavior Index	−0.000	−0.004	−0.007
	(0.618)	(0.065)	(0.101)
	257	406	406
Ever Destroyed Property	0.098	0.017	0.028
	(0.297)	(0.033)	(0.051)
	257	406	406
Ever stolen l.t. 50 dollar item	0.141	−0.003	−0.004
	(0.348)	(0.038)	(0.059)
	257	406	406
Ever stolen g.t. 50 dollar item	0.051	−0.019	−0.030
	(0.220)	(0.023)	(0.035)
	257	406	406
Other Property Crimes	0.027	−0.007	−0.011
	(0.163)	(0.017)	(0.026)
	257	406	406
Ever in Serious Fight	0.222	−0.000	−0.001
	(0.416)	(0.045)	(0.070)
	257	405	405
Ever Carried Handgun	0.035	−0.020	−0.032
	(0.184)	(0.017)	(0.026)
	257	405	405
Ever Been Gang Member	0.047	0.021	0.033
	(0.211)	(0.027)	(0.041)
	257	405	405

	CM	ITT	LATE
	(1)	(2)	(3)
Grit Index	−0.000	−0.254**	−0.402**
	(1.000)	(0.113)	(0.177)
	250	397	397
Distraction	2.494	0.049	0.079
	(1.008)	(0.118)	(0.182)
	257	406	406
Setbacks Don't Discourage Me	2.858	−0.172	−0.277
	(1.320)	(0.135)	(0.211)
	253	401	401
Obsessed Then Lost Interest	2.617	−0.133	−0.213
	(1.128)	(0.127)	(0.197)
	256	405	405
Hard Worker	4.268	−0.194**	−0.311**
	(0.821)	(0.091)	(0.143)
	257	406	406
Set Goal Then Change	2.872	0.137	0.220
	(1.203)	(0.129)	(0.201)
	257	406	406
Difficulty Maintaining Focus	2.492	0.209	0.332
	(1.214)	(0.135)	(0.210)
	256	405	405
Finish What Started	4.105	−0.245**	−0.393**
	(0.933)	(0.104)	(0.163)
	256	405	405
Diligent	3.949	−0.107	−0.170
	(0.920)	(0.099)	(0.154)
	254	402	402

	CM	ITT	LATE
	(1)	(2)	(3)
Self Esteem Index	−0.000	−0.138	−0.224
	(1.000)	(0.109)	(0.173)
	255	402	402
Satisfied with Self (1-4)	3.494	−0.110	−0.177*
	(0.650)	(0.067)	(0.107)
	257	405	405
Think I Am No Good (1-4)	1.650	0.083	0.132
	(0.686)	(0.075)	(0.118)
	257	406	406
Do Things Well (1-4)	3.568	−0.062	−0.100
	(0.576)	(0.059)	(0.091)
	257	406	406
Not Much to Be Proud Of (1-4)	1.568	0.111	0.177
	(0.653)	(0.074)	(0.115)
	257	406	406
Feel Useless (1-4)	1.650	0.033	0.052
	(0.730)	(0.081)	(0.126)
	257	405	405
Person of Worth (1-4)	3.242	0.031	0.049
	(0.759)	(0.074)	(0.115)
	256	404	404
Wish Could Respect Self (1-4)	1.941	0.117	0.188
	(0.881)	(0.094)	(0.147)
	256	405	405
Feel a Failure (1-4)	1.440	0.070	0.112
	(0.528)	(0.065)	(0.102)
	257	405	405
Positive Toward Self (1-4)	3.518	−0.137**	−0.219**
	(0.587)	(0.068)	(0.107)
	257	406	406

	CM	ITT	LATE
	(1)	(2)	(3)
Locus of Control	−0.000	0.041	0.067
	(1.000)	(0.106)	(0.166)
	254	397	397
My Own Doing (1-4)	3.370	0.035	0.057
	(0.901)	(0.092)	(0.144)
	257	405	405
Making Plans (1-4)	2.556	0.034	0.055
	(1.243)	(0.137)	(0.213)
	257	405	405
Nothing to Do With Luck (1-4)	3.373	−0.074	−0.119
	(0.846)	(0.095)	(0.148)
	255	403	403
Little Influence (1-4)	2.496	−0.067	−0.108
	(1.138)	(0.114)	(0.179)
	256	399	399

Notes: This table reports ITT estimates of the effect of the Promise Academy. Indices are reported in italics, and their components are indented and reported in plain text. We follow the specification described in Table 4 and Appendix Table 5. Heteroskedasticity-robust standard errors are reported in parenthesis. The number of observations is reported below the standard error. ***, **, and * indicate statistical significance with 99%, 95%, and 90% confidence, respectively.

2 Appendix B: Data Appendix

We merge information from lottery files at Harlem Children's Zone, administrative records on student demographics and outcomes from the New York City Department of Education (NYCDOE), information on college enrollment from the National Student Clearinghouse (NSC), and survey data collected from Promise Academy lottery participants for the purposes of this study. This appendix describes these data sets and details the procedures used to clean and match them.

2.1 Harlem Children's Zone

The first data from Harlem Children's Zone consist of lottery files from the 2005 and 2006 middle school lotteries. To ensure that all students in the lottery have an equal chance of being admitted to the Promise Academy, we follow the literature by dropping students who are automatically admitted because they have a sibling that received a winning lottery number in a previous year (Dobbie and Fryer 2011a, Abdulkadiroglu et al. 2011). When students enter more than one lottery, we only include them in the first lottery cohort. A typical student's data include her name, birth date, parents' or guardians' names, home address, and lottery outcome. Following Dobbie and Fryer (2011a), we define lottery winners as students who receive a winning lottery number or whose waitlist number was below the average highest number called across both years. Table 1 details the number of included applicants in each lottery.

We do not have data from the 2004 middle school lottery, and the Promise Academy did not enroll a new sixth-grade cohort in 2007. The 2008 middle school lottery was the moved back to 5th grade, with those students not included in the present study.

The second data from Harlem Children's Zone consist of "sign-in" sheets maintained by six of the largest HCZ programs: the College Success counseling program, the Cut Above after-school program, the Employment and Technology Center, the Learn to Earn after-school program, the Peacemakers neighborhood safety program, and the Truce Fitness and Nutrition Center. Each data file includes the participant's name, date of birth, program, and date of participation, and spans the 2006 through 2009 fiscal years. We linked these data to the lottery files at HCZ using name and date of birth. Information on each program is available at www.hcz.org.

2.2 New York Department of Education Data

The NYCDOE administrative records contain student-level administrative data on approximately 1.1 million students across the five boroughs of the NYC metropolitan area. The data include information on student race, gender, free and reduced-price lunch eligibility; attendance, and matriculation for all students; state math and ELA test scores for students in grades three through eight; and Regents exams for high school students. The data also include a student's first and last name, birth date, and address. We have NYCDOE data spanning the 2003-2004 to 2010-2011 school years.

State Assessments

The state math and ELA tests, developed by McGraw-Hill for the duration of our sampling period, are high-stakes exams conducted in the winters of third through eighth grade.[1] Sample tests can be found at `http://www.p12.nysed.gov/assessment/samplers/`. Students in third, fifth, and seventh grades must score level 2 or above (out of 4) on both tests to advance to the next grade without attending summer school. The math test includes questions on number sense and operations, algebra, geometry, measurement, and statistics. Tests in the earlier grades emphasize more basic content such as number sense and operations, while later tests focus on advanced topics such as algebra and geometry. The ELA test is designed to assess students on three learning standards – information and understanding; literary response and expression, and critical analysis and evaluation – and includes multiple-choice and short-response sections based on a reading and listening section, along with a brief editing task. Content breakdown by grade and additional exam information is available at `http://www.p12.nysed.gov/assessment/ei/eigen.html`.

All public-school students, including those attending charters, are required to take the math and ELA tests unless they are medically excused or have a severe disability. Students with moderate disabilities or who are English Language Learners must take both tests, but may be granted special accommodations (additional time, translation services, and so on) at the discretion of school or state administrators. In our analysis the test scores are normalized to have a mean of zero and a standard deviation of one for each grade and year across the entire New York City sample. For students who are retained and retake the same test, we use the first available test score.

[1] The contract between McGraw-Hill's and NYS DOE expired after the 2010-11 school-year; as of 2011-12, Pearson Education is developing State tests for grades 3-8.

Regents Exams

Regents test scores for high school subjects were pulled from the NYC Regents test score files for 1998-1999 through 2010-2011. For each subject we construct indicator variables for a student having taken the exam and for having passed the exam (65 out of 100). We also standardize the student's score to have a mean of zero and standard deviation of one.

Regents exams are administered within schools in January, June, and August of each calendar year and are given in a wide variety of subjects, but scores range from 0 to 100 for every Regents exam. Students typically take exams at the end of the corresponding course, so that most students take the exams in June. Unlike most other standardized exams, teachers grade the Regents exams for students in their own school. The State Education Department of New York provides explicit guidelines for how the teacher-based scoring of each Regents exam should be organized. Regents examinations contain both multiple-choice and open-response questions. The foreign language exams also contain a speaking component. Scoring materials provided to schools include the correct answers to multiple-choice questions and detailed, subject-specific instructions and procedures for evaluating open-ended and essay questions.

To graduate, students generally must score at least 65 on each of five core Regents examinations: English, Mathematics, Science, U.S. History and Government, and Global History and Geography. To earn an Advanced Regents Diploma, students must also score at least a 65 on three total math exams (Integrated Algebra, Geometry and Algebra 2/Trigonometry) and two total science exams (out of Earth Science, Biology, Chemistry, or Physics).[2]

Demographic Variables

Demographic variables that should not vary from year to year (race, gender) were pulled from New York City test score files from 2003-04 through 2010-2011, with precedence given to the most recent files. Race consisted of the following categories: black, Hispanic, Asian, and other race. These categories were considered mutually exclusive. Gender was coded as male, female, or missing.

Demographic variables that may vary from year to year (free lunch status, English Language Learner status, and special education designation) were pulled from the relevant NYC enrollment file. For English Language Learner status, a student was given a value of one if he was coded as "Y" for the limited English proficiency variable. All other students in the enrollment file were

[2] As of the 2011-12 school year, foreign language Regents exams were no longer offered.

coded as zero for English Language Learner status. Special education was coded similarly. A student was considered eligible for free lunch if he was coded in the raw data as "A," which denotes students who receive TANF or SNAP benefits, "1," which denotes eligibility for such services based on reported income, or "2", which corresponds to eligibility for reduced-price lunch. A student was considered non-free lunch if the student was coded as a "3" in the NYC enrollment file, which corresponds to full price lunch. All other values, including blanks, were coded as missing. A student is income-eligible for free lunch if her family income is below 130 percent of the federal poverty guidelines, or categorically eligible if (1) the student's household receives assistance under the Food Stamp Program, the Food Distribution Program on Indian Reservations (FDPIR), or the Temporary Assistance for Needy Children Program (TANF), (2) the student was enrolled in Head Start on the basis of meeting that program's low-income criteria, (3) the student is homeless, (4) the student is a migrant child, or (5) the student is a runaway child receiving assistance from a program under the Runaway and Homeless Youth Act and is identified by the local educational liaison. A student is eligible for reduced-price lunch if family income is between 130 and 185 percent of federal poverty guidelines.

Distance to Zone Boundary

Using the student addresses provided by the NYCDOE, we also calculated the distance from each student's home to the nearest point on the boundary of the Harlem Children's Zone using arcGIS. When multiple addresses were available for a single student, we use the earliest available address. Note that for all students the earliest available address is 2003-2004, as enrollment data is not available before this year. Another approach is to use the student's address closest to the date of the lottery. The results are not sensitive to this alternative. A student is defined as living "in the Zone" if they live inside or within 400 meters of the original 24-block Zone, though the results are not sensitive to restricting this group to include only students inside the original Zone, or students within 800 meters.

Match from the Harlem Children's Zone Data to the NYCDOE Administrative Data

The HCZ data were matched to the New York City administrative data using the maximum amount of information available. Match keys were used in the following order: (1) last name, first name, date of birth with various versions of the names (abbreviations, alternative spellings, hyphenated vs. non-hyphenated); (2) last name, first name, and various versions of the date of birth (most often

the month and day reversed); (3) last name, first name, prior school, and prior grade with various likely adjustments to prior grade; (4) name, date of birth, and prior grade. Once these match keys had been run, the remaining data were matched by hand considering all available variables. Match rates were 95.8 percent for lottery winners (N=190) and 95.2 percent for lottery losers (N=415). These numbers are comparable to the match rates achieved by others using similar data (Hoxby and Murarka, 2009). Details of the match rates for each lottery cohort are reported in Table 1.

2.3 National Student Clearinghouse

Information on college attendance and graduation comes from the National Student Clearinghouse (NSC), a non-profit organization that maintains enrollment information for 92 percent of colleges nationwide. We provided each student's full name and date of birth, which the NSC used to match to its database. The NSC data contain information on enrollment spells for all covered colleges that a student attended. Information is available on full or part-time status and degree receipt in some cases.

We code a student as having enrolled in college if she ever attends a school in the NSC data. Two-year and four-year college results are coded similarly. To provide a measure of college quality, we match the NSC data to data on college characteristics from the U.S. News and World Report. The U.S. News and World Report collects data on college characteristics and statistics for four-year colleges in the U.S., including average class size, size of the faculty, graduation rates, tuition, room and board, average debt, loan size, percent of students receiving aid, acceptance rate, standardized test scores, high school GPA where available, demographic information on gender and the diversity index, freshman retention, and annual alumni donations. We use midpoint SAT score as our primary measure of college quality. When only ACT scores are available, we convert them to SAT scores using the ACT's offcial score concordance chart found at `http://www.act.org/aap/concordance`. We code a student as having attended a school with an SAT over 1000 if any of the four year schools attended by that student have a median two-subject SAT over that threshold.

2.4 Survey Data

Woodcock Johnson Exams

We administered the Woodcock Johnson Brief Battery Form C, a six-section test of students' math and reading ability. The Woodcock Johnson tests are designed to test general knowledge rather

than the subject-specific skills emphasized on New York State tests. The tests are designed to be appropriate for all grades and ability levels and to have a high degree of internal reliability. Sanbonmatsu et al. (2006) analyze test results in the Panel Study of Income Dynamics Child Development Supplement and find that the internal reliability of the test is strong for a population similar to ours, with scores for eight to seventeen year-old black students showing a correlation between 0.5 and 0.6 with the same test taken five years earlier. The correlation between students' Woodcock Johnson scores and their eighth-grade State test scores is approximately 0.6 in both math and reading.

The Woodcock Johnson Brief Battery that we use in our survey is an updated version of the Woodcock Johnson Revised Battery administered as a part of the MTO evaluation. Accordingly, there is not a perfect alignment between the subtests. We followed the advice of Woodcock Johnson staff and administered the four subtests included in the MTO follow-up – Letter-Word Identification, Passage Comprehension, Applied Problems, and Calculation – as well as the Math Fluency and Reading Fluency sections. Following Sanbonmatsu et al (2006) and Kling, Liebman, and Katz (2007), we omit the Writing sections to reduce the length of the survey. Treatment effects for each individual subtest can be found in Web Appendix Table 3.

Tests are administered in person during the survey process. The survey staff was trained to properly administer and score the exam. For the fluency exams, which require students to answer as many simple questions as possible in three minutes, students read and record their answers on a test sheet. For other sections, test administrators read directions and questions from a test book, occasionally referring to pictures, diagrams, or sentences in the reverse side of the test book pages. Students are provided with scrap paper, but all answers are provided orally and recorded by the administrator.

The following sections describe the content and scoring of each subtest. All raw scores were converted to Woodcock Johnson "W" Scores using the WJ III Compuscore program provided with the tests. W scores are normed by age such that the average ten-year old would score 500. As Sanbonmatsu et al (2006) note, W scores are equal interval measure, which makes them attractive for our purposes. In other words, a fixed increase in a student's W score implies a proportional increase in skill, interpreted as the relative odds of answering a given question correctly.

Math

The cumulative Woodcock Johnson Math score is composed of the Applied Problems, Calcu-

lation, and Math Fluency subscores. To construct the index, we average the W scores on each sub-component and standardize the result to have mean zero and standard deviation one in the control sample.

Applied Problems

This section is designed to test students' quantitative reasoning abilities and general math knowledge. Students are read a word problem, often with extraneous information, and must deduce the necessary numbers and methods to provide a correct answer. The test ends when a student has provided six incorrect answers in a row at the end of a test page. The raw score is the total number of questions answered correctly.

Calculation

This section consists of pure mathematical computational exercises with varying ranges of difficulty. The questions begin with addition and subtraction and – depending on a student's performance – continue through trigonometry and calculus-based operations. The test ends when a student has provided six incorrect answers in a row at the end of a test page. The raw score is the total number of questions answered correctly.

Math Fluency

This section requires students to correctly solve as many simple addition, substraction, and multiplication problems as they can in three minutes. The raw score is the total number of correct answers provided in this time.

Reading

The Woodcock Johnson Reading score is the sum of the Letter-Word Identification, Passage Comprehension, and Reading Fluency. The index is constructed in the same manner as the math index, described above.

Letter-Word Identification

This section requires students to read and correctly pronounce words displayed in the text booklet. Examples include, in order of increasing difficulty, family, diamond, poise, blasphemy, and inveigle. The test ends when a student has provided six incorrect answers in a row at the end of a test page. The raw score consists of the total number of correct answers.

Passage Comprehension

This section requires students to select an appropriate word to fill a blank in a sentence or passage. The exercises gradually increase in difficulty, with the test ending when a student has provided six incorrect answers in a row at the end of a test page. The raw score consists of the total number of correct answers.

Reading Fluency

This section requires students to correctly respond to as many simple true or false questions as they can in three minutes. The statements range from extremely simple, such as "Boys have wings," to moderately difficult, such as "Some people become exasperated when they lose their car keys." The raw score consists of the total number of correct answers minus the total number of incorrect answers.

2.5 Risky Behaviors

Pregnancy

Female interviewees were asked "Have you ever been pregnant? Consider all pregnancies, even if no child was born." We code a response of Yes as 1, a response of No as 0, and no response as missing.

Incarceration

During the interview process, eight students were identified as unavailable for interview owing to incarceration. We code a 1 for our incarcerated variable for these students. We enter a zero for our incarcerated variable for any student who completes an in-person interview (N=407), who refuses an interview after a successful contact attempt (N=61), who could not provide consent for an interview owing to a parent's lack of English and Spanish language ability (1), or who is unable to complete an interview due to health reasons (1). We consider incarceration status missing for students who were never successfully contacted (80) or were not interviewed for any other reason (23).

Drugs and Alcohol

We construct a Drug and Alcohol index out of the following variables. Each variable is first standardized to have mean zero and standard deviation one in the control sample. The index is the average of the resulting measures.

Alcohol

Students were asked "Have you ever had a drink of alcoholic beverage? By a drink we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink" and responded Yes or No. Students who responded Yes were then asked "During the past 30 days, on how many days did you have one or more drinks of an alcoholic beverage?" and responded with an integer between 0 and 30. Students who respond No to the first question or zero to the second question are coded as zero. Students who provide a non-zero response to the second question are coded as one.

Marijuana

Students were asked "Have you ever used marijuana – that is grass or pot – in your lifetime?" and responded Yes or No. Students who answered Yes were asked "On how many days have you used marijuana in the past 30 days?" and responded with an integer between 0 and 30. Students who respond No to the first question or zero to the second question are coded as zero. Students who provide a non-zero response to the second question are coded as one.

Hard Drugs

Students were asked "Excluding marijuana and alcohol, have you ever used any other drugs like cocaine or crack or heroin, or any other substance not prescribed for you by a doctor, in order to get high or to achieve an altered state?" and responded Yes or No. Students who answered Yes were asked "During the past 12 months, how many times have you used any of these drugs or other substances?" and responded with an integer between 0 and 365. Students who respond No to the first question or zero to the second question are coded as zero. Students who provide a non-zero response to the second question are coded as one.

Criminal Behaviors

We construct a Criminal Behavior index out of the following variables. Each variable is first standardized to have mean zero and standard deviation one in the control sample. The index is the average of the resulting measures.

Property Destruction

Students were asked "Have you ever purposefully damaged or destroyed property that did not belong to you?" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Minor Theft

Students were asked "Have you ever stolen something from a store or something that didn't belong to you worth less than $50??" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Major Theft

Students were asked "Have you ever stolen something from a store, person, or house, or something that did not belong to you worth $50 or more, including stealing a car?" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Other Property Crimes

Students were asked "Have you ever committed other property crimes such as fencing, receiving, possessing or selling stolen property, or cheated someone by selling them something that was worthless or worth much less than what you said it was?" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Serious Fight

Students were asked "Have you ever attacked someone with the idea of seriously hurting them, or have had a situation end up in a serious fight or assault of some kind?" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Hand Guns

Students were asked "Have you ever carried a hand gun? When we say hand gun, we mean any firearm other than a rifle or shotgun" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

Gang Membership

Students were asked "Have you ever belonged to a gang?" and responded Yes or No. We code a response of Yes as 1 and a response of No as 0.

2.6 Health

Physical Health

We construct a Criminal Behavior index out of the following variables. Each variable is first standardized to have mean zero and standard deviation one in the control sample. The mean of these measures is then multiplied by negative one to create the summary index.

Poor Self-Reported Health

Students were asked "In general, how is your health: excellent, very good, good, fair, or poor?" and responded with one of those options. We code students who respond "poor" as 1 and students who provide any other response as 0.

Asthma

Students were asked "During the past 12 months, have you had an episode of asthma or an asthma attack?" and responded Yes or No. Students were also asked "During the past 12 months, have you had a wheezing or whistling sound in your chest?" and responded Yes or No. We code our asthma variable as 1 if the student responds Yes to either question and 0 if the student responds No to both.

Obesity

Students were asked to report their height and weight, from which we calculated their Body Mass Index (BMI) according to the standard formula $BMI = weight/height^2$, where *weight* is measured in kilograms and *height* is measured in meters. Using this information, we used the Center for Disease Control's BMI-for-age charts available at `http://www.cdc.gov/growthcharts/html_charts/bmiagerev.htm` to match students to the 95th percentile of BMI according to their age in months and gender. Any student with a BMI at or above this threshold is considered obese, while students with a BMI below the threshold are considered to not be obese.

Chronic Health Problems

Sutdents were asked "Have you ever had any of the following: Chronic back or neck problems, frequent or very bad headaches or other chronic pain?" and responded Yes or No. We code students who respond Yes as 1 and students who respond No as 0.

Mental Health

Our Mental Health Index is the K6 Anxiety Scale. Students were asked a series of seven questions following the form "How much of the time during the past 30 days have you felt..." The seven questions were:

1. So sad that nothing could cheer you up
2. Nervous
3. Restless or fidgety
4. Hopeless
5. That everything was an effort
6. Worthless
7. Calm and peaceful

For each question, they responded with one of the following options: (1) None of the time, (2) A little of the time, (3) Some of the time, (4) Most of the time, or (5) All of the time. To construct the mental health index, we sum the numerical value of each of these responses, with none of the time having a value of 1 and all of the time having a value of 5, and then multiply the result by negative one for all responses except for "calm and peaceful." This sum is then standardized to have mean zero and standard deviation one in the control sample.

Health Behaviors

We construct a Health Behavior index out of the following variables. Each variable is first standardized to have mean zero and standard deviation one in the control sample. The index is the average of the resulting measures.

Physical Exam

Students were asked "In the past year have you had a routine physical examination?" We code students who respond Yes as 1 and students who respond No as 0.

Vigorous Physical Activity

Students were asked "On how many of the past seven days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming, fast bicycling, fast dancing, or similar aerobic activities." Students responded with an integer between 1 and 7.

Moderate Physical Activity

Students were asked "On how many of the past seven days did you participate in physical activity for at least 30 minutes that did not make you sweat and breathe hard, such as fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors?" Students responded with an integer between 1 and 7.

Dental Exam

Students were asked "In the past year have you had a dental examination by a dentist or hygienist?" We code students who respond Yes as 1 and students who respond No as 0.

Nutrition

We construct a Nutrition index out of the following variables. Each variable is first standardized to have mean zero and standard deviation one in the control sample, We invert the sign on all variables except for Fruits and Vegetables. The mean of these measures is our index.

Fruits and Vegetables

Students were asked "In a typical week, how many times do you eat fruit and vegetables other than french fries or potato chips?" and responded with one of the following options: I do not typically drink/eat, 1 to 3 times per week, 4 to 6 times per week, 1 time per day, 2 times per day, 3 times per day, and 4 times or more per day. We code each variable in units of times/week, taking the midpoint where students respond with a range of values.

Soft Drinks

Students were asked "In a typical week, how often do you drink regular, carbonated soda, soft drinks or juice? Do not include diet soda" and responded with one of the following options: I do not typically drink/eat, 1 to 3 times per week, 4 to 6 times per week, 1 time per day, 2 times per day, 3 times per day, and 4 times or more per day. We code each variable in units of times/week, taking the midpoint where students respond with a range of values.

Sugary Snacks

Students were asked "In a typical week, how often do you eat sweet snacks, such as cookies, chocolate bars, or candy?" and responded with one of the following options: I do not typically drink/eat, 1 to 3 times per week, 4 to 6 times per week, 1 time per day, 2 times per day, 3 times per day, and 4 times or more per day. We code each variable in units of times/week, taking the midpoint where students respond with a range of values.

Fast Food

Students were asked "In a typical week, how often do you eat at a fast food type place – such as McDonald's, Kentucky Fried Chicken, Pizza Hut, Taco Bell, or a local fast food restaurant?" and responded with one of the following options: I do not typically drink/eat, 1 to 3 times per week, 4 to 6 times per week, 1 time per day, 2 times per day, 3 times per day, and 4 times or more per day. We code each variable in units of times/week, taking the midpoint where students respond with a range of values.

2.7 Non-Cognitive Measures

Self Esteem

The Rosenberg Self Esteem Index is constructed from students' responses to the following ten questions (Rosenberg 1965). Students were read each of the following statements in turn and asked to indicate whether they strongly agree, agree, disagree, or strongly disagree. The ten statements were:

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

We code responses on a four point scale, with one indicating strongly disagree and four indicating strongly agree. To form the index, we sum the responses to each question, inverting the sign on

responses 2, 5, 6, 8, and 9. This sum is then standardized to have mean zero and standard deviation one in the control sample.

Grit

The Grit Index is measured by the eight-question Short Grit Scale developed by Duckworth and Quinn (2009). Students were read each of the following ten statements in turn and asked to indicate whether the concept is very much like me, mostly like me, somewhat like me, not much like me, or not like me at all. The eight statements were:

1. New ideas and projects sometimes distract me from previous ones.
2. Setbacks don't discourage me.
3. I have been obsessed with a certain idea or project for a short time but later lost interest.
4. I am a hard worker.
5. I often set a goal but later choose to pursue a different one.
6. I have difficulty maintaining my focus on projects that take more than a few months to complete.
7. I finish whatever I begin.
8. I am diligent.

We code responses on a five point scale, with one indicating not like me at all and five indicating very much like me. To form the index, we sum the responses to each question, inverting the sign on responses 1, 3, 5, and 6. This sum is then standardized to have mean zero and standard deviation one in the control sample.

Locus of Control

The Locus of Control Index is constructed from students' levels of agreement with four pairs of questions, as developed by Rotter (1966) and adapted for use in the National Longitudinal Survey of Youth (NLSY). Students were read each of the following pairs of questions; after both were completed, they were asked to "Select one statement which is closer to your opinion." After each response, students were then asked whether the statement was much closer to their opinion or slightly closer. The four pairs of questions were:

Pair 1

What happens is my own doing (IC).

Sometimes I feel that I don't have enough control over the direction my life is taking (EC).

Pair 2

When I make plans, I am almost certain that I can make them work (IC).

It's not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow (EC).

Pair 3

In my case, getting what I want has little or nothing to do with luck (IC).

Many times we might just as well decide what to do by flipping a coin (EC).

Pair 4

Many times I feel that I have little influence over things that happen to me (EC).

It is impossible for me to believe that chance or luck plays an important role in my life (IC).

In each pair, one statement is considered the *internal control (IC)* question, and the other the *external control (EC)* question. We code responses on a four point scale such that higher responses indicate a greater degree of internal control. Students who strongly agree with the IC statement are coded as 4, those who slightly agree with the IC statement are coded as 3, those who slightly agree with the EC statement are coded as 2, and those who strongly agree with the EC statement are coded as 1. The index is the sum of these measures, standardized to have mean zero and standard deviation one in the control sample.

2.8 Social Networks

Academic Activities

To construct an index of academic activities in students' social networks, students were read a series of four statements constructed as "Among most of your close friends you hang out with, how important is it to your friends to...", where students indicated whether the activity was: (1) Not important at all, (2) somewhat important, or (3) very important to his or her friends. The four prompts were:

1. Study

2. Continue their education past high school

3. Attend class regularly

4. Get good grades

Their responses are coded on a three-point scale, with 3 representing "very important." We standardize each response to have mean zero and standard deviation one in the control sample. The index is the average of the resulting measures.

Risky Behaviors

To construct an index of risky behaviors in students' social networks, we asked youth the following eight yes or no questions:

1. Have your close friends ever used marijuana – that is, grass, pot or weed – or other drugs?

2. Have your close friends ever smoked a cigarette?

3. Have your close friends ever had a drink of alcoholic beverage? By a drink, we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink.

4. Have your close friends ever stolen something from a store or something that didn't belong to (him/her) worth less than $50?

5. Have your close friends ever stolen something from a store, person, or house, or something that didn't belong to (him/her) worth $50 or more, including stealing a car?

6. Have your close friends ever attacked someone with the idea of seriously hurting them, or have had a situation end up in a serious fight or assault of some kind?

7. Have your close friends ever carried a handgun? When we say handgun, we mean any firearm other than a rifle or shotgun.

8. Have your close friends ever belonged to a gang?

For each of these questions, a Yes response is coded as 1, and a No response is coded as zero. To create our risky behavior index, these variables are standardized to have mean zero and standard deviation one in the control sample. The index is the average of the resulting measures.

2.9 Risk Aversion and Discount Rates

Risk Aversion

Risk aversion is measured by asking students to make choices through a fixed series of comparisons to infer an indifference point (Hardisty et al. 2011). Specifically, students were read the following prompt:

> "Suppose you have a choice between two, equally good summer jobs. The first would pay you $600 for the summer for sure. The second job would pay you an amount that depends on how the company as a whole did for the summer. It is possibly better paying, but your earnings will be less certain. There is a 50-50 chance that the second job will pay $1200, and a 50-50 chance it will pay $400. Which would you choose – the job that pays $600 for sure, or the job with an equal chance of paying either $1200 or $400?"

In what follows, we refer to the first contract as the "safe option" and the second as the "risky option." To simplify further, let Y denote the payment received in the bad state of the world (in the prompt above, $Y = \$400$). If the student initially chose "$600 for sure," the choice was repeated with Y increased to $480. If the student still selected the sure offer, the choice was offered one final time with Y increased to $540. If the student initially chose the uncertain outcome, the choice was repeated with Y reduced to $300. If the student still selected the risky offer, the choice was offered one final time with Y reduced to $150. Letting Y_i^* be the value of Y that makes student i indifferent between the safe offer and the risky offer, we can use each student's responses to impute an appropriate value for Y_i^*. For students who take the risky option when $Y = 150$, the least risk-averse students in the sample, we set $Y_i^* = \$75$. For those who take the safe option when $Y = 540$, the most risk-averse students, we set $Y_i^* = \$570$. For all other students, we set Y_i^* equal to the midpoint of the range we identify. meaning that if a student chooses the safe option when $Y = 150$ but chooses the risky option when $Y = 300$, we impute $Y_i^* = 225$.

We then use the implied values of Y_i^* to calculate each student's Pratt-Arrow measure of absolute risk aversion, defined as $A_i(w_i) = -\frac{u_i''(w_i)}{u_i'(w_i)}$, where $u_i(w_i)$ is the mapping from individual i's wealth

w to her utility.[3] Note that, given Y_i^*, we can write the following equality:

$$U(w_0 + 6) = 0.5U(w_0 + Y_i^*) + 0.5U(w_0 + 12)$$

where the left-hand side represents the utility resulting from choosing the safe option, and the right-hand side describes the expected utility from choosing the risky option, where all variables are denominated in hundreds of dollars. Calculating the second-degree Taylor approximation around w_0 yields:

$$\begin{aligned} U(w_0) + U'(w_0) * 6 + \frac{1}{2}U''(w_0) * 6^2 = \frac{1}{2}[U(w_0) + U'(w_0) * Y_i^* + \frac{1}{2}U''(w_0) * (Y_i^*)^2] \\ + \frac{1}{2}[U(w_0) + U'(w_0) * 12 + \frac{1}{2}U''(w_0) * 12^2] \end{aligned}$$

Finally, re-arranging terms yields the following expression for absolute risk aversion as a function of the student's indifference point.

$$A_i(Y_i^*) = \frac{2Y_i^*}{(Y_i^*)^2 + 72}$$

To maintain consistency with the rest of the results in this paper, we then standardize this measure to have mean zero and standard deviation one in the control sample.

Discount Rates

Discount rate is measured by asking students to make choices through a fixed series of comparisons to infer an indifference point (Hardisty et al. 2011). Specifically, students were read the following prompt:

> "Suppose that after having helped a relative with some chores, they offer to send you a small amount of money in return for your help. They tell you that they can either send you something now, or send you a little more if you are willing to wait one month. If they pay you now, they will put $40 in the mail tomorrow. If they pay you one month from now, they will send you slightly more than that. Suppose that you trust them to pay you what they promise, when they promise it, and that either payment is

[3]The Pratt-Arrow measure of *relative* risk aversion is defined as $C_i(w_i) = -\frac{w_i u_i''(w_i)}{u_i'(w_i)} = w_i A_i(w_i)$. Note that, we cannot recover $C_i(w)$ without knowing students' wealth (however, if we were to assume that students are all equally wealthy, then we would simply have $C_i(w_i) = k * A_i(w_i)$, where k is a constant term that does not vary by student.

equally convenient for them. Would you rather they mailed you $40 tomorrow or $47 one month from now?"

If the student initially chose $40 tomorrow, the choice was repeated with the second amount increased to $50. If the student still chose $40 tomorrow, the choice was offered one final time with the second amount increased to $55. If the student initially chose $47 one month from now, the choice was repeated with second amount reduced to $45. If the student then selected $45 one month from now, the choice was offered one final time with the second amount reduced to $42.

The implied annual discount rate for a student indifferent between $40 now and $\$X$ in one month is $r = \left(1 + \frac{X-40}{40}\right)^{12}$. As above, when we obtain bounds for the value of X that makes a student indifferent, we impute the midpoint of these bounds. We code students who turn down $55 (which implies that their discount rate is at least 4,467%) as having a discount rate of 6,000%. We code $r = 39.5\%$ for students who accept $42 in one month, which implies that their true rate is at most 79%. We then standardize this measure to have mean zero and standard deviation one in the control sample to maintain consistency with the rest of the paper.

Sexual Behaviors

Sex

Students were asked "Have you ever had sexual intercourse, that is, made love, had sex, or gone all the way?" Students who responded Yes are coded as 1, and students who responded No were coded as 0.

Condom Usage

Students were asked "The last time you had sexual intercourse, did you or your partner use a condom?" Students who responded Yes are coded as 1, students who responded No were coded as 0, and students who either refused to respond or had never had sex are coded as missing.

Other Contraceptive Usage

Immediately following the question on condom usage, students were asked "The last time you had sexual intercourse, did you or your partner use any other method to prevent pregnancy?" Students who responded Yes are coded as 1, students who responded No were coded as 0, and students who either refused to respond or had never had sex are coded as missing.

3 Appendix C: Survey Procedures

3.1 Sample Selection

We began with the files from the Harlem Children's Zone 2005 and 2006 6th grade lottery. These cohorts were selected because these are the first classes from the Harlem Children's Zone Promise Academies to graduate high school. There were 605 unique entrants in the 2005 and 2006 Promise Academy admissions lotteries. We randomly selected 25 lottery losers to test and calibrate the survey instrument, leaving 190 lottery winners and 390 lottery losers in the potential survey sample.

3.2 Passive Tracking Efforts

In fall 2011, we began with passive tracking for the remaining sample, using a LexisNexis database. We did a batch update through Accurint via a paid subscription that ISR has with LexisNexis to either confirm or update the last address and phone number. This last address and phone number would have come the from the 2011 enrollment file from the NYC Department of Education, which was shared directly with ISR through an NDA signed by both the University of Michigan and the NYC Department of Education. This would have been the most recent information on file with the DOE, and not necessarily the most recent information.

Approximately 300 addresses were determined to be solid leads. This includes 175 records that were matched such that the name/address combination were also found in the database with no new, updated address association. This also includes 145 records with an updated address, including 21 out-of-state lines. Eventually, after initial mailings and outreach, it was determined that a total of 66 lines were out of state. These lines were put aside until the end of the fieldwork, when we implemented a phone interview protocol that could be performed long-distance. There were 164 records with no match, meaning they were not found in the database and so were subjected to further tracking before the start of the field work in January 2012.

3.3 Active Tracking Efforts

Rather than implementing a general mailing effort before field work began, we used the first batch of recruitment letters as a test for viable addresses as well. Initial recruitment letters went out

in January, and following this effort, letters that were returned with forwarding information or returned with no forwarding information were subjected to the same process above for address confirmation or updating.

From all the above efforts, 193 addresses in total emerged as needing further outreach and tracking efforts. More rigorous tracking consists of the interviewers doing active investigating in the field, following up on any physical addresses, calling past phone numbers and attempting to gather any new information on respondents' whereabouts from old neighbors, building superintendents, family members (who may have been identified with the Internet tracking) and, in some cases, referrals to schools or other institutions where they youth may have transferred.

3.4 Data Collection

Data for this work were collected from two main sources: a 45-minutes survey, compiled from various sources, and a math and reading assessment, known for its adaptability.

3.5 Survey Development

In summer 2011, we began work with the Institute for Social Research at the University of Michigan (ISR) to set up the technical systems that would support the administration and data collection for the field period, which would extend from January 2012 to September 2012. The Survey Research Operations team was employed to help us develop the questionnaire, establish secure data collection and storage procedures for field interviews, and to track, locate, and recruit participants from the cohorts.

In order to provide convenient benchmarks for our results, the interview questionnaire was mostly developed by combining questions from many different nationally representative studies, including the Moving to Opportunity baseline and follow-up surveys, the National Education Longitudinal Study, and the Panel Study of Income Dynamics. The interview asked youth about their general health and health habits; their living situation, relationships with adults, and social networks; educational aspirations and college plans; mental health; risky behaviors; and employment and wages. Mediating factors that may be triggered by HCZ and may affect these outcomes – such as self-esteem, locus of control, persistence and determination, and discount rates – were also examined.

After the questionnaire was compiled, the entire interview was programmed using the Blaise Computer Assisted Interviewing software. After an address update from the New York City De-

partment of Education and after 150 hours of internet tracking was done on the sample, sample cases were loaded into SurveyTrak, a survey point management system designed to track the sample, geographic location, and other relevant, real-time data points resulting from outreach. This helps to coordinate field procedures and, specifically, the assignment of sample lines to interviewers.

In addition to the questionnaire, an additional instrument was used to measure the academic impact of the Harlem Children's Zone Promise Academies. Using another assessment besides standardized tests allows for a measure of academic skill that is not subjected to a test prep environment. We administered the Woodcock-Johnson Brief Battery Form C, a six-section test of students' math and reading ability. This achievement battery is highly adaptive, reliable, and suitable for many ages. The Woodcock-Johnson tests achievement, as opposed to general cognitive ability, in both reading and math. The Woodcock-Johnson was also used in the interim evaluation of the Moving to Opportunity experiment.

3.6 Training and Pre-Test

Prior to the launch of the survey, the interviewers were trained in the survey instrument and to properly administer the Woodcock-Johnson Brief Battery. Interviewers were also trained to recognize any alarming or concerning incidents of abuse, neglect, and other evidence of harm in the children's homes and relationships. To protect the confidentiality and privacy of the participants, a Certificate of Confidentiality was obtained from the National Institute of Child Health and Human Development (NICHD), which ensures permanent confidentiality for subjects. This certificate, however, did not prevent us from disclosing instances of abuse and neglect if we were to encounter any such evidence during the field procedures.

We conducted a pretest in Fall 2011 in order to test outreach methods and the survey tools. Based on these interviews, we made changes to the survey instrument, like adjusting the wording of some questions to make the concept more easily understood. We determined that the 222-question survey took approximately 45 minutes to administer, and the items that were the most sensitive - questions about sexual behavior, drug use, and relationships - should be conducted on a headset and computer, limiting the discomfort students might have felt admitting to or explaining that information to the interviewer. In total, the questionnaire plus assessment took an average of 108 minutes to complete.

3.7 Initial Outreach

The research protocol for this work, including the survey instrument, consent forms, outreach methods, and incentives were approved by both the University of Michigan Institutional Review Board and the Harvard University Committee on the Use of Human Subjects in Research. After the first few approvals and modifications, both universities agreed and signed an agreement stating, that the duration of Institutional Review Board approvals would go solely through the University of Michigan IRB.

To begin, a letter was sent to the Non-Promise Academy households (NPA) from the University of Michigan Institute for Social Research explaining the broad purpose of the study and the requirements to participate. The text of these letters is available from the authors upon request. We began with students not currently enrolled in the Promise Academy since that portion of the sample was a smaller group and could be located, tracked, and scheduled quickly. As inducement, youth were offered a financial incentive to participate. Initially, students were offered $40 to participate in the survey. All interviews had to be conducted at home with a parent/guardian present. The incentive offered was a Target giftcard.

Parents were asked to call a 1-800 phone number if they wanted their child to participate, which featured a voicemail system in both English and Spanish. If recruits didn't respond to the initial letter, phone outreach began. Simultaneous to the letter, tracking had been done to ensure that the phone number was accurate and connected to the proper household and the parent name on file. Once confirmed, the interviewer personally reached out to the family to confirm the students' identity. Interviewers confirmed that the student was in the lottery and in which year, and interviewers confirmed that the student still lived in that household. Initial attempts were made to schedule appointments.

If initial resistance was expressed, a second attempt was made, usually face-to-face. If a refusal was expressed face-to-face, another letter was sent explaining the importance of participation. Phone follow-ups were completed, and only if the parents expressed a compelling reason that the interview could not happen soon, such as the student traveling, being busy at school, preparing for Regents, or having a work conflict, would we take a break from contacting the parent/youth. Eventually, however, a second face-to-face attempt would be made. Approximately 153 interviews were completed with these methods.

3.8 Changes to Incentives, Parent Consent, and Other Field Procedures

Less than two months into the field work, we increased the incentive to participate. The incentive was increased to $80, still in the form of a Target giftcard. This increase in incentives had to be reviewed by both institutional review boards at University of Michigan and Harvard, as the agreement for Harvard to cede review to University of Michigan had not yet been finalized. An additional 86 interviews were completed with this increased incentive.

At this same time, the current Promise Academy students were released for tracking and outreach. These students were offered $40 to participate, initially. Staff at HCZ helped with scheduling by providing updated contact information beyond what had been included in the most recent update from NYCDOE in 2011.

As soon as this protocol change was approved we initiated three changes to procedures regarding parent consent. Initial interviews had all been conducted at home with parents present, but this presented many scheduling challenges. We revised procedures so that, as long as the parent provided consent, any adult could be present during the interviews. Additionally, to accommodate students' work schedules and to address the concerns that many parents expressed about having interviews take place in their homes, we established that interviews could take place in a relatively public place provided that the interviewer and respondent were not completely isolated.

Additionally, parents were offered an incentive to review the consent form. They were paid $25 cash to review the form, and that payment was not tied to whether they gave consent or not. If they declined participation, they were still paid.

Households that had initially expressed resistance were reached out to again with all these changes in mid-May 2012: increased incentive, flexible parent consent, flexible locations, and parent incentive. Initially, PA lines were not included in any of these changes, since they were still in the first phase of outreach.

By June, however, all lines were being offered the same incentives and being interviewed under the same protocols. Additionally, HCZ staff coordinated and scheduled interviews that took place in a private location within the Harlem Children's Zone Promise Academy charter schools.

3.9 Outreach: June/July 2012

To close out field procedures, we tried additional forms of outreach and we made two additional changes to the protocol through June and July.

As a new mode of outreach, we spent special mailings all NPA students who were above 18 who could consent on their own to participate in the research. Additionally, we recruited HCZ staff members that manage HCZ community programs (outside of the Promise Academy Charter Schools) to recruit participants from their enrolled students. These interviews were conducted at the community program site.

Also, in mid-June, we changed the incentive from a giftcard to cash, and we increased the amount from $80 to $200. Additionally, we began drafting a phone protocol to contact, recruit, and interview students who were confirmed to have moved out of state. The interviewers conducted over the phone consisted of the questionnaire only and did not include the Woodcock-Johnson assessment.

Appendix Figure 1 depicts the response pattern across time and by recruitment method.

3.10 Final Sample and Response

A total of 407 students were interviewed in their home, community or by phone over the 9-month field period. The table below tabulates the interview codes. 28 students were coded as "Lost," meaning we could never verify their contact information and no additional methods of tracking their current location were ever successful. We observed outdated contact information for an additional 35 students and were unable to update the information through other efforts. Students who were incarcerated or otherwise unable to complete the interview due to health reasons were coded out and removed from outreach efforts. Despite efforts to convert many of the confirmed out-of-state cases into completes using our phone protocol and procedures, many out-of-state cases had to be retired because of incomplete or inaccurate contact information. Despite the increased incentives and the location and consent flexibility that we tried to grant participants and their parents, 61 students still refused to participate and were removed from outreach procedures.

Reasons for Non-Response

	Lottery Winner	Lottery Loser	Total
	(1)	(2)	(3)
No Contact Information	8	20	28
Contact Information Insufficient	10	25	35
Ignored Contact Attempts	1	5	6
Refused Interview Request	11	50	61
Permanent Condition	1	0	1
Language Barrier	1	0	1
Incarcerated	1	7	8
Deceased	1	0	1
Moved Out Of State, and Other Reasons	6	16	22
Total	40	123	163

4 Appendix D: Complete List of Survey Questions

4.1 Physical Health

Q1-1 Now I'd like to ask you some questions about your health. In general, how is your health: excellent, very good, good, fair, or poor?

Q1-2 Have you ever been told by a doctor or other health professional that you had asthma?

Q1-3 During the past 12 months, have you had an episode of asthma or an asthma attack?

Q1-4 During the past three months, have you used prescription inhalers? Do not include over-the-counter inhalers like Primatene Mist.

Q1-5 During the past 12 months, have you had a wheezing or whistling sound in your chest?

Q1-6 During the past 12 months, how many times have you gone to the doctor's office or the hospital emergency room for one or more of these attacks of wheezing or whistling?

Q1-7 During the past 12 months, how much did you limit your usual activities due to wheezing or whistling? Would you say not at all, a little, a fair amount, a moderate amount, or a lot?

Q1-8 During the past 12 months, how many days of work and school did you miss due to wheezing or whistling?

Q1-9 In the past year have you had a routine physical examination?

Q1-10 Where did you have this examination?

Q1-11 How would you describe the condition of your teeth: excellent, very good, good, fair or poor?

Q1-12 In the past year have you had a dental examination by a dentist or hygienist?

Q1-13 In the past year, what kept you from seeing a health professional when you really needed to? If there was more than one reason, choose more than one answer. [This question is presented only

to those who answer NO to either 1-9 ("In the past year have you had a routine physical exam?", OR 1-12 ("In the past year have you had a dental examination by a dentist or hygienist?"]

Q1-14 The next few questions are about health problems you might have had at any time in your life. Have you ever had any of the following: Chronic back or neck problems, frequent or very bad headaches or other chronic pain? [If respondent says "migraines," please code as "yes."]

Q1-15 Did a doctor or other health professional ever tell you that you have diabetes or high blood sugar, or a serious stomach or bowel problem like an ulcer or colitis?

Q1-16 Now I'd like to ask about the exercise you get. On how many of the past seven days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming, fast bicycling, fast dancing, or similar aerobic activities. [The time periods in the question (20 minutes) refer to continuous periods of time. That is two separated ten-minute periods would not be considered 20 minutes of activity in question 1-16.]

Q1-17 On how many of the past seven days did you participate in physical activity for at least 30 minutes that did not make you sweat and breathe hard, such as fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors? [The time periods in the question (30 minutes) refer to continuous periods of time. That is two separated 15-minute periods would not be considered 30 minutes of activity in question 1-17.]

Q1-18 In a typical week, how many times do you eat fruit and vegetables other than french fries or potato chips? [Do not count fruit juice]

Q1-19 In a typical week, how often do you drink regular, carbonated soda, soft drinks or juice that contain sugar? [Do not include diet soda. Count the number of times R ate item, not servings. Do not include diet or sugar-free fruit drinks. Do not include tea in cans. Do not include diet mineral water or diet flavored waters]

Q1-20 In a typical week, how often do you eat sweet snacks, such as cookies, chocolate bars, or candy?

Q1-21 In a typical week, how often do you eat at a fast food type place – such as McDonald's, Kentucky Fried Chicken, Pizza Hut, Taco Bell, or a local fast food restaurant?

Q1-22 On a typical weeknight, what time do you usually go to sleep?

Q1-23 On a typical weekday, what time do you usually get up?

Q1-24 In a typical week, how many hours do you watch television or movies on DVDs or videos?

Q1-25 In a typical week, how many hours total do you use a computer, or play computer or video games?

Q1-26 How tall are you?

Q1-27 How much do you weigh?

4.2 Youth Household

Q2-1 What is your current living arrangement - are you living with a parent, living with another adult guardian, living alone, or are you living with others?

Q2-2 Do you live with your biological or adoptive mother, your biological or adoptive father, your stepmother, or your stepfather, or your mother or father's partner?

Q2-3 Do you live with a female relative, a male relative, grandparents, foster parents, or another unrelated adult?

Q2-4 Who do you live with? Do you live with your husband/wife, with your partner, with friends, with other relatives, or with your own or someone else's children?

Q2-5 Who is the adult who lives with you and knows the most about your activities?

Q2-6 Is he/she in school now?

Q2-7 Has he/she graduated from high school or does he/she have a GED?

Q2-8 Has he/she ever attended any college? [Do not include trade or vocational school here.]

Q2-9 Is he/she now working full-time or part-time?

Q2-10 What is his/her marital status? Never married, married, separated, divorced, or widowed? [If R does not know what widowed means, you can say, "was married to someone who died."]

Q2-11 How many biological children does he/she have? [If R does not know what biological means, you can say, "children who were born to them" or "children they had as babies."]

Q2-12 In what year was his/her first child born?

Q2-13 How old were you when you were left alone for a week or longer without other adults in the household?

Q2-14 How many older sisters do you have? [This includes both biological and non-biological siblings.]

Q2-15 How many older brothers do you have? [This includes both biological and non-biological siblings.]

Q2-16 How many younger sisters do you have? [This includes both biological and non-biological siblings.]

Q2-17 How many younger brothers do you have? [This includes both biological and non-biological siblings.]

Q2-18 How many of your brothers and sisters left high school before graduating? Would you say none are in high school yet, none have left school, one has left school, or two or more have left school?

Q2-19 Do you babysit or take care of your own child, younger brothers or sisters or other relatives?

Q2-20 On average, how many hours per day are you responsible for their care? Would you say less than 1 hour, more than 1 hour but less than 3, more than 3 hours but less than 5, more than 5 hours but less than 7, more than 7 hours but less than 10, or more than 10 hours a day?

Q2-21 In a typical month, how many school days do you miss because of taking care of your own child, your brothers and sisters, or other relatives? Would you say none, 1 - 2 days, 3 - 6 days, 7 - 9 days, or 10 days or more?

Q2-22 What is your birthdate?

4.3 Youth Neighborhood, Social Network, Outlook

Q3-1 About how many close friends do you have these days? These are people with whom you feel at ease or can hang out with, and, can talk to about private matters, or call on for help. [If necessary, probe: Would you say that you have no close friends, one, two, three to five, six to ten, or more than ten?]

Q3-2 How many of your close friends live in your neighborhood? [Neighborhood is defined as whatever the respondent considers to be his or her neighborhood.]

Q3-3 Among most of your close friends you hang out with, how important is it to your friends to study? Would you say this is very important, somewhat important, or not important at all?

Q3-4 Among most of your close friends you hang out with, how important is it to your friends to continue their education past high school? Would you say this is very important, somewhat important, or not at all important?

Q3-5 Among most of your close friends you hang out with, how important is it to your friends to attend class regularly? Would you say this is very important, somewhat important, or not at all important?

Q3-6 Among most of your close friends you hang out with, how important is it to your friends to play sports? Would you say this is very important, somewhat important, or not at all important?

Q3-7 Among most of your close friends you hang out with, how important is it to your friends to get good grades? Would you say this is very important, somewhat important, or not at all important?

Q3-8 Among most of your close friends you hang out with, how important is it to your friends to be popular? Would you say this is very important, somewhat important, or not at all important?

Q3-9 Among most of your close friends you hang out with, how important is it to your friends to have a steady boyfriend or girlfriend? Would you say this is very important, somewhat important, or not at all important?

Q3-10 Which of the following things have your close friends done? Have your close friends ever been involved in school activities like school clubs, teams, or projects?

Q3-11 Have your close friends ever used marijuana – that is, grass, pot or weed – or other drugs?

Q3-12 Have your close friends ever smoked a cigarette?

Q3-13 Have your close friends ever had a drink of alcoholic beverage? By a drink, we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink.

Q3-14 Have your close friends ever stolen something from a store or something that didn't belong to (him/her) worth less than $50?

Q3-15 Have your close friends ever stolen something from a store, person, or house, or something that didn't belong to (him/her) worth $50 or more, including stealing a car?

Q3-16 Have your close friends ever attacked someone with the idea of seriously hurting them, or have had a situation end up in a serious fight or assault of some kind?

Q3-17 Have your close friends ever carried a handgun? When we say handgun, we mean any firearm other than a rifle or shotgun.

Q3-18 Have your close friends ever had sexual intercourse, that is, made love, had sex, or gone all the way?

Q3-19 Have your close friends ever belonged to a gang?

Q3-20 Have your close friends ever dropped out of school?

Q3-21 How did you meet or come to know your friend(s). Through family/relatives, school, the neighborhood, work, church, a club or group you belong to, from childhood, online, or other ways?

Q3-22 How often does your family discuss news events, including watching TV and then talking about it – often, sometimes, rarely, or never?

Q3-23 How often is each of the following true for you? I speak proper English with my friends outside school. Is this true of you very often, somewhat often, or not at all?

Q3-24 (How often is each of the following true for you?) People would describe my behavior as ghetto. Is this true of you very often, somewhat often, or not at all?

Q3-25 Now I have some questions about how you think about yourself. I am going to read you some statements and for each, please tell me if you strongly agree, agree, disagree, or strongly disagree. I feel good about myself. Would you strongly agree, agree, disagree, or strongly disagree?

Q3-26 I am able to do things as well as most other people. Would you strongly agree, agree, disagree, or strongly disagree?

Q3-27 Chance and luck are very important for what happens in my life. Would you strongly agree, agree, disagree, or strongly disagree?

Q3-28 Most people think about how other people see them. How often do you think people see you as popular? Do you think people see you this way never, sometimes, or all of the time?

Q3-29 How often do you think people see you as athletic? Do you think people see you this way never, sometimes, or all of the time?

Q3-30 How often do you think people see you as a good student? Do you think people see you this way never, sometimes, or all of the time?

Q3-31 How often do you think people see you as a trouble maker? Do you think people see you this way never, sometimes, or all of the time?

Q3-32 Taken all together, how would you say things are these days. Would you say that you are very happy, pretty happy, or not too happy?

Q3-33 Now I have a few questions about discrimination. Sometimes people feel like they are discriminated against, or treated badly or differently because of their race or ethnicity. Can you think of one or more occasions in the last 6 months when you felt you were treated unfairly because of your race or ethnicity in the following places? At your school or work?

Q3-34 Were you treated unfairly because of your race or ethnicity... In a store where you were shopping or a restaurant where you wanted to eat?

Q3-35 Were you treated unfairly because of your race or ethnicity... When you met someone for the first time?

Q3-36 Were you treated unfairly because of your race or ethnicity... In dealing with the police?

Q3-37 Sometimes people feel they are discriminated against, or treated badly or differently because they might not have quite as much money as other people, or because of the way they dress or talk. Can you think of one or more occasions in the last 6 months when you felt you were treated unfairly because of how much money your family has or the way you dress or talk?

At your school or work?

Q3-38 Were you treated unfairly because of how much money your family has or the way you dress or talk... In a store where you were shopping or a restaurant where you wanted to eat?

Q3-39 Were you treated unfairly because of how much money your family has or the way you dress or talk... When you met someone for the first time?

Q3-40 Were you treated unfairly because of how much money your family has or the way you dress or talk... In dealing with the police?

4.4 Education

Q4-1 [Only asked of non-Promise-Academy students.] The next questions are about your educational experiences. Are you currently attending or enrolled in regular school? [Regular school is one that offers an academic diploma or degree; e.g., elementary school, high school, college, graduate school, law school, or nursing program leading to an RN degree. Not included as regular school are: training at a technical institute, license trade programs, etc., unless the credits obtained are transferable to a regular school and could count toward an academic diploma or degree. In these questions about school, we are referring to a student's main school, not to extra school or courses (e.g. language, culture, religion, enrichment.)]

Q4-2 What is the main reason you left school?

Q4-3 During the last complete school year you attended, how many times did you cut classes or skip school – never, less than once a month, once a month, once every two weeks, once a week, several times a week, or every day? [If R is currently enrolled in school, they should still answer for the previous full year of school. The definitions of "Once every two weeks, Once a week, and

Several times a week" are included in the answer categories. These are provided so that you may record a response such as "3 times a week" without any additional probes.]

Q4-4 Which of the following happened the last time you cut classes or skipped school – the school did not do anything, someone from the school called your home, someone from the school visited your home, the school sent a letter to your home, the school made you see a counselor, or something else?

Q4-5 Overall, what grades did you receive the last year of school you completed? Would you say mostly A's, about half A's and half B's, mostly B's, about half B's and half C's, mostly C's, about half C's and half D's, mostly D's, or mostly below D? [If R is currently enrolled in school, they should still answer for the previous full year of school.]

Q4-6 What is the lowest grade you could get without your parents or caregiver getting upset? Would you say mostly A's, about half A's and half B's, mostly B's, about half B's and half C's, mostly C's, about half C's and half D's, mostly D's, or mostly below D?

Q4-7 Thinking about school, in general, how much do you agree with each of the following statements about your school and teachers: The teachers are/were interested in students. Do you strongly agree, agree, disagree, or strongly disagree?

Q4-8 In this school, students get/got teased if they studied hard to get good grades. Do you strongly agree, agree, disagree, or strongly disagree?

Q4-9 When homework is/was assigned, how much do/did you usually complete? All plus some extra, all, most of it, some of it, none, or was homework never assigned? [If the respondent refuses to choose one of the response categories, but he or she provides a percentage estimate of how much homework he or she typically completed, use this guideline: Over 100% choose "All plus some extra"; 89-100% choose "All"; 64-88% choose "Most of it"; 13-63% choose "Some of it"; Less than 13% choose "None of it."]

Q4-10 Overall about how much total time do/did you spend on homework each week in school? Would you say 1 hour or less, 2 to 3 hours, 4 to 6 hours, 7 to 9 hours, 10 to 12 hours, 13 to 15 hours, or over 15 hours?

Q4-11 Overall about how much total time do/did you spend on homework each week out of school? Would you say 1 hour or less, 2 to 3 hours, 4 to 6 hours, 7 to 9 hours, 10 to 12 hours, 13 to 15 hours, or over 15 hours?

Q4-12 How much additional reading do/did you do each week on your own outside of school – not in connection with schoolwork? Do not count any assigned reading. [If the respondent answers in terms of number of books, magazines, newspapers, etc. ask for the amount of time he or she spends reading outside of what is required for school.]

Q4-13 Which of these is closest to the amount of time you usually spend/spent reading on your own outside of school or work each week? No reading, 1-4 hours, 5-9 hours, 10-14 hours, 15-19 hours, 20 or more hours per week?

Q4-14 Do you use a computer at home?

Q4-15 In a typical week, how many hours total do you use the Internet at any location (such as your home, work, the local library, a coffee shop or a community center)? Would you say none, less than 1 hour a week, 1 to 3 hours a week, 4 to 6 hours a week, 7 to 9 hours a week, or 10 or more hours per week?

Q4-16 Have you ever taken or do you plan to take the pre SAT? Choose one: I haven't thought about it; No, I don't plan to take it; Yes, I have taken it; or I plan to take it in the future. [The pre SAT test is usually given in special sessions outside the child's regular classroom. There are 3 components: reading, math and writing.]

Q4-16a1 Have you received your PSAT results yet?

Q4-16a What was your best or highest PSAT score for math?

Q4-16b What was your best or highest PSAT score for writing?

Q4-17 Have you ever taken or do you plan to take the SAT? Choose one: I haven't thought about it; No, I don't plan to take it; Yes, I have taken it; or I plan to take it in the future. [The SAT test is usually given in special sessions outside the child's regular classroom. There are 3 components: reading, math and writing.]

Q4-17a1 Have you received your SAT results yet?

Q4-17a What was your best or highest SAT score for critical reading?

Q4-17b What was your best or highest SAT score for math?

Q4-17c What was your best or highest SAT score for writing?

Q4-18 Have you ever taken or do you plan to take the ACT? Choose one: I haven't thought about it; No, I don't plan to take it; Yes, I have taken it; or I plan to take it in the future. [The ACT test is usually given in special sessions outside the child's regular classroom. There are 4 components: English, math reading and science.]

Q4-18a1 Have you received your ACT results yet?

Q4-18a What was your best or highest ACT score for English?

Q4-18b What was your best or highest ACT score for math?

Q4-18c What was your best or highest ACT score for reading?

Q4-18d What was your best or highest ACT score for science?

[CHECKPOINT: Respondents who have not taken any of these tests go to Q4-21]

Q4-19 To prepare for any of these tests, did any of your teachers build test preparation into class?

Q4-20 To prepare for any of these tests, did you: study concepts or vocabulary that are on these tests?

Q4-20a Did you study concepts or vocabulary that are on these tests on your own, or did your school facilitate this?

Q4-20b To prepare for any of these tests, did you: buy a book of practice problems and/or tests?

Q4-20c Did you buy a book of practice problems and/or tests on your own, or did your school facilitate this?

Q4-20d To prepare for any of these tests, did you: Take a class?

Q4-20e Did you take a class on your own, or did your school facilitate this?

Q4-21a At your high school, have you received/did you receive: Help filling out vocational or technical school or college applications?

Q4-21b At your high school, have you received/did you receive: Help filling out financial aid forms?

Q4-21c At your high school, have you received/did you receive: Assistance in writing essays for vocational or technical school or college applications?

Q4-21d At your high school, have you received/did you receive: Days off from school to visit vocational or technical schools or colleges?

Q4-22 Have you applied to college?

Q4-22a Do you plan to apply to college?

[CHECKPOINT: Respondents who answer "no" to both Q4-22 and Q4-22a skip to Q4-26]

Q4-23 To which colleges did you apply or do you plan to apply?

Q4-24 What was the main reason you selected...(College Name?) Would you say close to home, good school, my teacher or principal recommended it, program or course of study I wanted, or something else?

Q4-25 Have you heard back from this/these college(s)?

Q4-25 What did you hear back from (College Name?) Accepted, declined, waitlisted, or haven't heard back yet?

Q4-26 Whatever your plans, do you think you have the ability to complete college? Would you say: yes, definitely; yes, probably; not sure; I doubt it; or definitely not?

[CHECKPOINT: Respondents who answer "no" to both Q4-22 and Q4-22a skip to Q4-30]

Q4-27 How do you plan to pay for college? Would you say work, financial aid, loans, scholarships, or something else?

Q4-28 Have you filled out any loan applications? [This means student loan applications, not scholarship applications or some other type of loan.]

Q4-29 Have you filled out any scholarship applications?

Q4-30 What job or occupation do you expect or plan to have when you are 30 years old?

Q4-31 How much education do you think you need to have in order to get a job in the area that you chose in the last question? Would you say some high school, a high school diploma, some vocational education, some college education, a college degree, or a graduate degree (e.g. a Master's degree or Ph.D)?

Q4-32 As things stand now, how far in school do you think you will get?

Q4-33 How far in school do you think your mother wants or would have wanted you to go? [R should answer specifically for mother, even if she is the not primary caregiver.]

4.5 Mental Health

Q5-1 Now I am going to ask you some questions about feelings that you may have experienced during the past 30 days. How much of the time during the past 30 days have you felt so sad that nothing could cheer you up? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-2 How much of the time during the past 30 days have you felt nervous? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-3 How much of the time during the past 30 days have you felt restless or fidgety? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-4 How much of the time during the past 30 days have you felt hopeless? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-5 How much of the time during the past 30 days have you felt that everything was an effort? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-6 How much of the time during the past 30 days have you felt worthless? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-7 How much of the time during the past 30 days have you felt calm and peaceful? Would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

Q5-8 The next questions are about your general behavior. For each question, please tell me if the statement is not true, somewhat true, or very true. I am generally obedient, I usually do what adults request.

Q5-9 I have many worries, I often feel worried. Is this statement not true, somewhat true, or very true?

Q5-10 I am often unhappy, depressed, or tearful. Is this statement not true, somewhat true, or very true?

Q5-11 I get along better with adults than with people my own age. Is this statement not true, somewhat true, or very true?

Q5-12 I see tasks through to the end, I have a good attention span. Is this statement not true, somewhat true, or very true?

4.6 Risky Behaviors and Behavioral Problems

Q6-1 I am going to read a list of items that describe feelings or thoughts people sometimes have. Thinking about the last six months, please tell me if each item is true or often true, sometimes true, or not true of you. I have trouble concentrating or paying attention. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-2 I lie or cheat. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-3 I tease others a lot. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-4 I disobey my parents. Is this true or often true, somewhat or sometimes true, or not true of you? [If R does not live with parents, say "How true is this statement about you in general?"]

Q6-5 I have trouble sitting still. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-6 I have a hot temper. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-7 I would rather be alone than with others. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-8 I hang around with kids who get into trouble. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-9 I disobey at school. Is this true or often true, somewhat or sometimes true, or not true of you? [If R is no longer in school, say "How true is this statement about you in general?"]

Q6-10 I don't get along with other kids. Is this true or often true, somewhat or sometimes true, or not true of you?

Q6-11 I have trouble getting along with teachers. Is this true or often true, somewhat or sometimes true, or not true of you? [If R is no longer in school, say "How true is this statement about you in general?"

Q6-12 Now I'm going to read some statements and I'd like you to tell me if the statement is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all? New ideas and projects sometimes distract me from previous ones.

Q6-13 Setbacks don't discourage me. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-14 I have been obsessed with a certain idea or project for a short time but later lost interest. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-15 I am a hard worker. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-16 I often set a goal but later choose to pursue a different one. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-17 I have difficulty maintaining my focus on projects that take more than a few months to complete. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-18 I finish whatever I begin. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

Q6-19 I am diligent. Would you say that is: very much like me, mostly like me, somewhat like me, not much like me, or not like me at all?

[REMAINDER OF SECTION ADMINISTERED VIA HEADSET]

The next few questions you can do yourself. You can listen to the questions with a headset, or read them on the screen.

Q6-20 First, I would like to ask you about smoking habits. Have you ever smoked a cigarette?

Q6-20a During the past 30 days, on how many days did you smoke a cigarette?

Q6-20b When you smoked a cigarette during the past 30 days, how many cigarettes did you usually smoke each day? A pack contains 20 cigarettes.

Q6-21 Next I would like to ask you some questions about drinking alcoholic beverages, including beer, wine, or liquor. Have you ever had a drink of alcoholic beverage? By a drink we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink.

Q6-21a During the past 30 days, on how many days did you have one or more drinks of an alcoholic beverage?

Q6-21b In the last 30 days, on the days that you drank alcohol, about how many drinks did you usually have?

Q6-21c On how many days did you have 5 or more drinks on the same occasion during the past 30 days? By occasion, we mean at the same time or within hours of each other.

Q6-22 Have you ever used marijuana – that is grass or pot – in your lifetime?

Q6-22a On how many days have you used marijuana in the last 30 days?

Q6-23 Excluding marijuana and alcohol, have you ever used any other drugs like cocaine or crack or heroin, or any other substance not prescribed for you by a doctor, in order to get high or to achieve an altered state?

Q6-23a During the past 12 months, how many times have you used any of these drugs or other substances?

Q6-24 Have you ever sold or helped sell marijuana, hashish or other drugs such as heroin, cocaine, or LSD?

Q6-24a During the past 12 months, how many times have you sold or helped sell marijuana, hashish, or other hard drugs?

Q6-25 The next few questions are about fighting, violence, and gangs. Again, remember all your responses are confidential. Have you ever purposefully damaged or destroyed property that did not belong to you?

Q6-25a How many times has this happened in the past 12 months?

Q6-26 Have you ever stolen something from a store or something that didn't belong to you worth less than $50?

Q6-26a How many times has this happened in the past 12 months?

Q6-27 Have you ever stolen something from a store, person, or house, or something that did not belong to you worth $50 or more, including stealing a car?

Q6-27a How many times has this happened in the past 12 months?

Q6-28 Have you ever committed other property crimes such as fencing, receiving, possessing or selling stolen property, or cheated someone by selling them something that was worthless or worth much less than what you said it was?

Q6-28a How many times has this happened in the past 12 months?

Q6-29 Have you ever attacked someone with the idea of seriously hurting them, or have had a situation end up in a serious fight or assault of some kind?

Q6-29a How many times has this happened in the past 12 months?

Q6-30 Have you ever carried a hand gun? When we say hand gun, we mean any firearm other than a rifle or shotgun.

Q6-30a How many times have you carried a gun in the past 12 months?

Q6-30b [ONLY for respondents who get but cannot answer 30a] Which category best describes the number of times you've carried a hand gun in the last 12 months: never, once, 2 or 3 times, 4 to 10 times, or more than 10 times?

Q6-31 Are there any gangs in your neighborhood or where you go to school? By gangs, we mean a group that hangs out together, wears gang colors or clothes, has set clear boundaries of its territory or turf, and protects its members and turf against other rival gangs through fighting or threats.

Q6-32 Have you ever belonged to a gang?

Q6-32a In the past 12 months, have you been a member of a gang?

Q6-33 Have you ever had sexual intercourse, that is, made love, had sex, or gone all the way?

Q6-33a How old were you when you had sexual intercourse for the first time?

Q6-33b How many partners have you had sexual intercourse with in the past 12 months - that is since this time last year?

Q6-33c The last time you had sexual intercourse, did you or your partner use a condom?

Q6-33d The last time you had sexual intercourse, did you or your partner use any other method to prevent pregnancy?

[Q-34 through Q-34c presented only to female interviewees.]

Q6-34 Have you ever been pregnant? Consider all pregnancies, even if no child was born.

Q6-34a Are you pregnant now?

Q6-34b Not counting a current pregnancy how many times have you been pregnant? •Please include pregnancies that did not result in live births.

Q6-34c Now we would like to ask about the outcomes of your previous pregnancies. How many of your pregnancies have resulted in children born alive to you?

[Q-35 through Q-35c presented only to male interviewees.]

Q6-35 Have you ever gotten someone pregnant?

Q6-35a How many times have you gotten someone pregnant?

Q6-35b Is someone pregnant with your child now?

Q6-35c How many children have you ever fathered? Please only count live births and do not count current pregnancy.

Q6-36 Which of these three is most effective for pregnancy prevention: condom, withdrawal, or birth control pills?

Q6-37 Which of these three is most effective for prevention of sexually transmitted diseases or STDs: condom, withdrawal, or birth control pills?

Q6-38 Now I'd like to ask you about cash assistance for which some families receive money on a regular basis. For example, they may get a monthly check. Some people call this assistance "welfare," AFDC, TANF or "public aid." I will use the word "welfare." Are you regularly receiving welfare benefits now?

Q6-39 What is the percent chance that you would be arrested if you stole a car?

Q6-40 Suppose you were arrested for stealing a car, what is the percent chance that you would serve time in jail?

4.7 Relationships with Adults

Q7-1 How many adults do you have in your life who you feel comfortable talking to about personal problems?

Q7-2 How many adults do you have in your life who care a lot about how you turn out and who will help you if you get into trouble?

Q7-3 Now we would like to know about your relationship with your [caregiver named in Q2-5]. This is the person you named earlier who lives with you and knows the most about your activities. When you think about how your [Caregiver] acts toward you, in general, would you say your [Caregiver] is very supportive, somewhat supportive, or not very supportive? [Supportive is defined as being helpful or encouraging, not including financial or monetary support.]

Q7-4 How much does your [Caregiver] know about who you are with when you are not at home: nothing, just a little, some things, most things, or everything?

Q7-5 Please tell me how often your [Caregiver] does each of the following things: How often does your [Caregiver] limit your privileges because of poor grades – often, sometimes, rarely, or never?

Q7-6 How often does your [Caregiver] check on whether you have done your homework?

Q7-7 How often does your [Caregiver] help you with your homework?

Q7-8 How often does your [Caregiver] limit you from leaving home to hang out with your friends?

Q7-9 [Not shown to R's who answer Q2-5 with #2, father] Now I'd like to talk with you about your father. When you were growing up, in general, was he very supportive, somewhat supportive, or not very supportive of you? [This question refers to R's biological or adoptive father. If R still lives with biological or adoptive father, then R should respond based on how things are currently. Supportive is defined as being helpful or encouraging, not including financial or monetary support.]

Q7-10 [Not shown to respondents who answer Q7-9 with choice 5 - deceased.] In the past 12 months, how often have you seen your father – almost every day, once a week, once a month,(never) in the past 12 months, or does he live with you? [This question refers to R's biological or adoptive father.]
Q7-11 How far in school do you think your father wants you to go? [This question refers to R's biological or adoptive father.]

Q7-12 In a typical week, what is/was the latest you can/could stay out on school nights (Sunday through Thursday)? [If R is no longer in school, they may answer for week nights. If R no longer lives with parent ask in past tense.]

Q7-12 If your [Caregiver] found out that you had come home an hour late for no good reason, would he/she discuss it calmly with you? [If R no longer lives with adult caregiver, ask about time when R did live with adult caregiver.]

Q7-13 If your [Caregiver] found out that you had come home an hour late for no good reason, would he/she ignore it, pretend that it didn't happen or let you get away with it? [If R no longer lives with adult caregiver, ask about time when R did live with adult caregiver.]

Q7-14 If your [Caregiver] found out that you had come home an hour late for no good reason, would he/she take away a privilege, ground you, or give you a chore? [If R no longer lives with adult caregiver, ask about time when R did live with adult caregiver.]

Q7-15 If your [Caregiver] found out that you had come home an hour late for no good reason, would he/she yell, shout, or scream at you? [If R no longer lives with adult caregiver, ask about time when R did live with adult caregiver.]

Q7-16 If your [Caregiver] found out that you had come home an hour late for no good reason, would he/she use physical punishment? [If R no longer lives with adult caregiver, ask about time when R did live with adult caregiver. Physical punishment means hit or slap you.]

4.8 Other Mediating Factors

Q8-1 Now I'd like to ask a few questions about any jobs you may have. Last week, did you do any work for pay?

Q8-2 What is the main reason that you did not work for pay last week?

1. Disabled [GO TO 8-5]
2. Unable to work [GO TO 8-5]
3. Have job but temporarily absent [GO TO 8-5]
4. Couldn't find any work [GO TO 8-5]
5. Child care problems [GO TO 8-5]
6. Family responsibilities [GO TO 8-5]

7. In school or other training [GO TO 8-5]

8. Waiting for a new job to begin [GO TO 8-5]

9. Other - specify [GO TO 8-5]

[Probe with "Was that the main reason?" Being disabled refers to a specific physical or mental condition that prevents the individual from working. Unable to work refers to the person having a medical condition that prevents him or her from doing any kind of work, not just the type of work at his or her last job, for the next six months. Has job but is temporarily absent includes being on vacation or sick leave.]

Q8-3 Last week, did you have more than one job, including part-time and weekend work? [This question is asked of all employed persons. Multiple jobholders could hold two or more wage or salary jobs or be self-employed on one job and be a wage or salary employee on another job. Also included are people who started and ended jobs in the same week.]

Q8-4 How many hours per week do you usually work at your [main job]? [Although you may select "hours vary," try to keep this response to a minimum. Use this category only if the respondent is unable to provide an estimate of usual hours (half of his or her time or more.]

Q8-5 The next few questions are about how you see your future. What are the chances that you will live to age 35? Would you say very low, low, about 50-50, high, or very high?

Q8-6 What are the chances that you will complete college by age 25? Would you say very low, low, about 50-50, high, or very high?

Q8-6a What are the chances that you will complete college by age 35? Would you say very low, low, about 50-50, high, or very high?

Q8-7 What are the chances that tou will find a stable, well-paid job as an adult? Would you say very low, low, about 50-50, high, or very high?

Q8-8 [ONLY presented to respondents who answered either 6-26c or 6-27c with "0".] At about what age do you think you will have your first child?

Q8-9 How many children do you think you will have?

Q8-10 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement about your future: most people in my neighborhood will be better off than me.

Q8-11 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: on the whole, I am satisfied with myself.

Q8-12 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: at times, I think I am no good at all.

Q8-13 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I feel that I have a number of good qualities.

Q8-14 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I am able to do things as well as most other people.

Q8-15 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I feel I do not have much to be proud of.

Q8-16 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I certainly feel useless at times.

Q8-17 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I feel that I'm a person of worth, at least on an equal plane with others.

Q8-18 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I wish I could have more respect for myself.

Q8-19 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: All in all, I am inclined to feel that I am a failure.

Q8-20 Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statement: I take a positive attitude toward myself.

Q8-21 Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much. I have a hard time breaking bad habits.

Q8-22 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I am lazy.

Q8-23 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I say inappropriate things.

Q8-24 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I do certain things that are bad for me, if they are fun.

Q8-25 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are.) One indicates not at all, and 5 indicates very much. I refuse things that are bad for me.

Q8-26 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I wish I had more self-discipline.

Q8-27 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) People would say that I have iron self-discipline. [This means you have a lot of self control.]

Q8-28 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) Pleasure and fun sometimes keep me from getting work done.

Q8-29 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I have trouble concentrating.

Q8-30 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I am able to work effectively toward long-term goals.

Q8-31 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) Sometimes I can't stop myself from doing something, even if I know it is wrong.

Q8-32 (Please indicate, on a scale of 1-5, how much each of the following statements reflects how you typically are. One indicates not at all, and 5 indicates very much.) I often act without thinking through all the alternatives.

Q8-33 For each pair, please select one statement which is closer to your opinion. "What happens to me is my own doing" or "Sometimes I feel that I don't have enough control over the direction my life is taking." [Only repeat statement if R asks.]

Q8-33a You chose: [xxx]. Is that statement much closer to your opinion, or slightly closer?

Q8-34 For each pair, please select one statement which is closer to your opinion. "When I make plans, I am almost certain that I can make them work" or "It's not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow." [Only repeat statement if R asks.]

Q8-34a You chose: [xxx]. Is that statement much closer to your opinion, or slightly closer?

Q8-35 For each pair, please select one statement which is closer to your opinion. "In my case, getting what I want has little or nothing to do with luck" or "Many times we might just as well decide what to do by flipping a coin." [Only repeat statement if R asks.]

Q8-35a You chose: [xxx]. Is that statement much closer to your opinion, or slightly closer?

Q8-36 For each pair, please select one statement which is closer to your opinion. "Many times I feel that I have little influence over things that happen to me" or "It is impossible for me to believe that chance or luck plays an important role in my life." [Only repeat statement if R asks.]

Q8-36a You chose: [xxx]. Is that statement much closer to your opinion, or slightly closer?

Q8-37 Suppose that after having helped a relative with some chores, they offer to send you a small amount of money in return for your help. They tell you that they can either send you something now, or send you a little more if you are willing to wait one month. If they pay you now, they will put $40 in the mail tomorrow. If they pay you one month from now, they will send you slightly more than that. Suppose that you trust them to pay you what they promise, when they promise it, and that either payment is equally convenient for them. Would you rather they mailed you

$40 tomorrow or $47 one month from now? [If R selects $40, go to Q8-38. If R selects $47, go to Q-37a-b.]

Q8-37a Now suppose the choice were between $40 now and $45 one month from now. Would you rather they mailed you $40 tomorrow or $45 one month from now?

Q8-37b Now suppose the choice were between $40 now and $42 one month from now. Would you rather they mailed you $40 tomorrow or $42 one month from now?

Q8-38 Now suppose the choice were between $40 now and $50 one month from now. Would you rather they mailed you $40 tomorrow or $50 one month from now?

Q8-39 Now suppose the choice were between $40 now and $55 one month from now. Would you rather they mailed you $40 tomorrow or $55 one month from now?

Q8-40 Suppose you have a choice between two equally good summer jobs. The first would pay you $600 for the summer for sure. The second job would pay you an amount that depends on how the company as a whole did for the summer. It is possibly better paying, but your earnings will be less certain. There is a 50-50 chance that the second job will pay $1200, and a 50-50 chance it will pay $400. Which would you choose – the job that pays $600 for sure, or the job with an equal chance of paying either $1200 or $400? [If R selects $600 for sure, go to Q8-41. Otherwise, go to Q8-40a-b.]

Q8-40a Now suppose there is a 50-50 chance that the second job will pay $1200, and a 50-50 chance that it will pay $300. Which would you choose – the job that pays $600 for sure, or the job with an equal chance of paying either $1200 or $300? [If R selects $600 for sure, end survey.]

Q8-40b Now suppose there is a 50-50 chance that the second job will pay $1200, and a 50-50 chance that it will pay $150. Which would you choose – the job that pays $600 for sure, or a job with an equal chance of paying either $1200 or $150? [End survey.]

Q8-41 Now suppose there is a 50-50 chance that the second job will pay $1200, and a 50-50 chance that it will pay $480. Which would you choose – the job that pays $600 for sure, or a job with an equal chance of paying either $1200 or $480? [If R selects equal $600 for sure, go to Q8-42. Otherwise, end survey.]

Q8-42 Now suppose there is a 50-50 chance that the second job will pay $1200, and a 50-50 chance that it will pay $540. Which would you choose – the job that pays $600 for sure, or a job with an equal chance of paying either $1200 or $540?

5 Appendix E: Calculation of Adjusted p-values

This appendix describes the algorithm we use to adjust p-values for multiple hypothesis testing, following the procedures outlined by Westfall and Young (1993), Kling, Liebman, and Katz (2007), and Anderson (2008). The procedure described here controls for the Familywise Error Rate (FWER), or the probability of making a single Type 1 error when testing K hypotheses under the null of no treatment effect, using a free step-down resampling process.

Let τ_k denote the treatment effect on outcome $y_k, k \in \{1...K\}$. Then p_k^u is the unadjusted per-comparison p-value on the null hypothesis that $\tau_k = 0$, derived from a traditional t-test. We wish to compute p_k^{FWER}, equal to the adjusted p-value that gives the probability that the observed effect on outcome k is at least as large as the equivalently ranked effect that would be observed due to random variation.

We implement the procedure in six steps:

1. Sort outcomes by their per-comparison p-values p_k^u, thereby ordering the hypotheses in order of statistical significance. Let y_1 denote the outcome with the lowest per-comparison p-value and y_K the highest.

2. Randomly assign treatment, following the assignment mechanism used in the original lottery. We therefore randomly select 97 youths from the 2005 cohort and 93 from the 2006 cohort to be considered lottery winners.

3. Use the randomly-assigned treatments to calculate a simulated p-value p_k''.

4. To ensure that the simulated p-values produce the same ranking as the original unadjusted p-values, replace $p_k' = \min\{p_k'', p_{k+1}''...p_K''\}$.

5. Repeat steps two through four 100,000 times, tracking the proportion of iterations in which the simulated p-value p_k' is less than the unadjusted p-value p_k^u. Call this proportion p_k^*.

6. Calculate $p_k^{FWER} = \min\{p_k^*, p_{k+1}^*, ...p_K^*\}$.

6 Appendix F: Data Appendix for Charter High School Sample

We merge information from lottery files at the Denver School of Science and Technology, the Match Charter School of Boston, the Noble Network of Charter Schools, and the Summit Preparatory High School in Redwood California and data on college enrollment from the National Student Clearinghouse (NSC). This appendix describes these data sets and details the procedures used to clean and match them.

6.1 Recruitment

In the spring of 2013, we approached 16 charter schools identified by the Charter School Growth Fund – a non-profit that attempts to help the highest performing charter schools expand – as particularly high-performing schools with at least one cohort of students in college. Eligible schools were invited to participate via email and phone. We also hosted two informational webinars to explain the project to interested schools. Schools were offered a $5000 stipend to be received conditional on providing all of the appropriate lottery data.

Of the 16 eligible charter schools, seven schools agreed to participate. Of these seven schools, three were able to provide the required admissions lottery information: the Denver School of Science and Technology, the Noble Network of Charter Schools, and the Summit Preparatory High School in Redwood California. A fourth school – the Match Charter School of Boston – was a previous research partner and also agreed to participate in the study.

6.2 Lottery Data

Lottery files from each school consist of high school lotteries for incoming ninth graders. Following our cleaning of the Harlem Children's Zone files, we drop students who are automatically admitted because they have a sibling that received a winning lottery number in a previous year. When students enter more than one lottery, we only include them in the first lottery cohort. A typical student's data include her name, birth date, lottery outcome, and an indicator for fall enrollment. Noble, Denver School of Science and Technology, and Match also provided gender data for at least some lottery cohorts. When gender data was not available, we attempted to code gender from student name. Following Dobbie and Fryer (2011a), we define lottery winners as students who

receive a winning lottery number or whose waitlist number was below the average highest number called across all available years. Consistent with the lotteries being random, there is no statistically significant relationship between lottery outcome and either student gender or student age.

Appendix Table 6 lists each participating school and the number of applicants for each school. The Denver School of Science and Technology contributes three years of lottery data and 952 students to the sample. The Noble Network contributes three years and 958 students, Summit Preparatory contributes three years and 554 students, and Match contributes ten years of lottery files and 4,362 students to the sample.

6.3 National Student Clearinghouse

Following our earlier results, information on college attendance and graduation comes from the National Student Clearinghouse (NSC), a non-profit organization that maintains enrollment information for 92 percent of colleges nationwide. We provided each student's full name and date of birth, which the NSC used to match to its database. The NSC data contain information on enrollment spells for all covered colleges that a student attended. Information is available on full or part-time status and degree receipt in some cases.

We code a student as having enrolled in college if she ever attends a school in the NSC data. Two-year and four-year college results are coded similarly. To provide a measure of college quality, we match the NSC data to data on college characteristics from the U.S. News and World Report. The U.S. News and World Report collects data on college characteristics and statistics for four-year colleges in the U.S., including average class size, size of the faculty, graduation rates, tuition, room and board, average debt, loan size, percent of students receiving aid, acceptance rate, standardized test scores, high school GPA where available, demographic information on gender and the diversity index, freshman retention, and annual alumni donations. We use midpoint SAT score as our primary measure of college quality. When only ACT scores are available, we convert them to SAT scores using the ACT's offcial score concordance chart found at `http://www.act.org/aap/concordance`. We code a student as having attended a school with an SAT over 1000 if any of the four year schools attended by that student have a median two-subject SAT over that threshold.