

Online Appendix:

Longer-term Impacts of
Mentoring, Educational Services, and Learning Incentives:
Evidence from a Randomized Trial in the United States

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TABLE A.1

QOP'S DEVELOPMENTAL ACTIVITIES, COMMUNITY SERVICE ACTIVITIES AND EDUCATIONAL SERVICES

Activity	Examples of such types of activities
Developmental	Life skills activities/ discussion topics (such as, family planning, nutrition, personal hygiene, managing anger, avoiding drug behaviors, among others); pre-employment training; cultural activities; and recreational activities.
Community service	Visits to the residents of a local nursing home, or volunteering at a local food bank.
Educational services	Academic assessment, development of individualized education plans, one-on-one tutoring, and computer-assisted instruction in specific coursework as well as basic reading and mathematics. Making the youth aware of, and helping them plan for, college and other post-secondary education or training.

TABLE A.2. DEVELOPMENT OF THE EVALUATION SAMPLE

	Cleveland	Washington, D.C.			Fort Worth	Houston			Memphis			Philadelphia	Yakima	All Sites	
	Collinwood	Anacostia	Easter	Total	Paschal	Austin	Yates	Total	Carver	Hamilton	Hillcrest	Total	Franklin	Davis	Total
QOP slots	100	40	40	80	100	50	50	100	35	27	38	100	50	50	580
GPA eligibles	175	130	165	295	398	523	305	828	82	225	108	415	210	229	2,550
Initial Sample	175	88	88	176	220	110	110	220	82	58	88	228	110	110	1,239
Ineligibles	9	11	4	15	18	5	7	12	0	0	1	1	9	0	64
Net Eligible Sample	166	77	84	161	202	105	103	208	82	58	87	227	101	110	1,175
Consenters	158	72	82	154	177	92	94	186	70	54	75	199	95	100	1,069
Denied Consenters	1	1	0	1	8	5	4	9	0	0	3	3	2	0	24
Did Not Respond	7	4	2	6	17	8	5	13	12	4	9	25	4	10	82
Consent Probability ^a	95	94	98	96	88	88	91	89	85	93	86	88	94	91	91
QOP Enrollees	100	40	40	80	100	50	50	100	35	27	38	100	50	50	580
Controls	58	32	42	74	77	42	44	86	35	27	37	99	45	50	489
QOP Probability ^b	63	56	49	52	56	54	53	54	50	50	51	50	53	50	54

^a100 x Consenters/Net Eligible Sample

^b100 x QOP Enrollees/Consenters

TABLE A.3. PARTICIPATION IN QOP ACTIVITIES

	<i>Cumulative Years 1 through 4</i>	<i>Year 1</i>	<i>Year 4</i>
Average Number of Hours	886	279	125
Average Hours on Educational Activities	245	97	26
Average Hours on Developmental Activities	302	114	27
Average Hours on Community Service Activities	109	37	14
No Hours of Participation (percent)	1	1	40
More Than 100 Hours (percent)	88	74	22
More Than 375 Hours (percent)	60	25	9
More Than 750 Hours (percent)	37	7	4
More Than 1,500 Hours (percent)	17	0	2
Total Amount Earned (dollars)	\$1,122	\$349	\$156

Note: Because QOP services in Period 5 differed substantially from those of the first four periods, we report hours over the first four periods. In Period 5, QOP offered enrollees who had graduated from high school only mentoring services, and hours spent being mentored were not recorded.

TABLE A.4. MEAN EFFECT SIZES FOR SUMMARY MEASURES OF OUTCOMES USING SAME RESPONSE RATES ACROSS TREATMENT

OUTCOMES	TREATMENT-CONTROL			
	Full sample		Males	Females
	School dummies	Full set of controls	Full set of controls	Full set of controls
Youths Were in their Late Teens				
High-school <i>N</i> = 848 (<i>males</i> = 447)	0.041 (0.040)	0.073** (0.037)	0.050 (0.054)	0.116** (0.053)
College and Post-Secondary <i>N</i> = 845 (<i>males</i> = 445)	0.108* (0.062)	0.127** (0.060)	0.139* (0.081)	0.116 (0.093)
Risky Behaviors <i>N</i> = 848 (<i>males</i> = 447)	-0.034 (0.042)	-0.028 (0.042)	0.001 (0.064)	-0.049 (0.053)
Youths Were in their Early Twenties				
High-school <i>N</i> = 728 (<i>males</i> = 368)	0.020 (0.037)	0.038 (0.036)	0.055 (0.056)	0.035 (0.047)
College and Post-Secondary <i>N</i> = 728 (<i>males</i> = 368)	0.117* (0.064)	0.135** (0.063)	0.127 (0.088)	0.140 (0.092)
Employment <i>N</i> = 727 (<i>males</i> = 368)	-0.102* (0.059)	-0.080 (0.059)	-0.136 (0.083)	-0.000 (0.084)
Risky Behaviors <i>N</i> = 727 (<i>males</i> = 368)	-0.000 (0.035)	0.0027 (0.036)	-0.018 (0.057)	0.030 (0.045)
Youths Were in their Mid-Twenties				
High-school <i>N</i> = 760 (<i>males</i> = 388)	0.0053 (0.036)	0.015 (0.035)	0.039 (0.054)	-0.012 (0.045)
College and Post-Secondary <i>N</i> = 759 (<i>males</i> = 387)	0.086 (0.052)	0.091* (0.051)	0.101 (0.068)	0.081 (0.080)
Employment <i>N</i> = 757 (<i>males</i> = 387)	-0.010 (0.056)	0.016 (0.056)	-0.045 (0.076)	0.089 (0.081)
Risky Behaviors <i>N</i> = 755 (<i>males</i> = 386)	-0.074** (0.035)	-0.076** (0.036)	-0.106* (0.057)	-0.023 (0.042)

Notes: Same response estimates were obtained by making the response rate equal across treatment and control groups within school. The table reports estimates of treatment effects on the dependent variables indicated in row headings. Robust standard errors are reported in parentheses. “Full set of controls” includes school dummies, an indicator for being male, an indicator for being 14 years old when entering ninth grade, an indicator for being over age 14 when entering ninth grade, an indicator for being in the middle third of the eighth-grade GPA distribution, an indicator for being in the top third of the eight-grade GPA distribution, an indicator for being black and an indicator for being Hispanic.

*, ** Estimate significantly different from zero at the 90%, or 95% confidence level.

TABLE A.5. MEAN STANDARDIZED TREATMENT EFFECTS UNDER VARYING MISSING DATA ASSUMPTIONS

OUTCOMES	TREATMENT-CONTROL					TREATMENT-CONTROL			
	LOWER BOUNDS					UPPER BOUNDS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Youths Were in their Late Teens</i>									
High-school	-0.327*** (0.035)	-0.012 (0.034)	0.027 (0.034)	0.040 (0.034)	0.056* (0.034)	0.067** (0.034)	0.080** (0.034)	0.119*** (0.034)	0.465*** (0.038)
College and Post-Secondary Education	-0.318*** (0.052)	0.0059 (0.055)	0.065 (0.055)	0.085 (0.055)	0.10* (0.059)	0.124** (0.055)	0.144*** (0.055)	0.202*** (0.055)	0.484*** (0.061)
Risky Behaviors	0.384*** (0.039)	0.067* (0.038)	0.0053 (0.038)	-0.016 (0.0376)	-0.031 (0.039)	-0.057 (0.038)	-0.078** (0.038)	-0.139*** (0.038)	-0.446*** (0.044)
<i>Youths Were in their Early Twenties</i>									
High-school	-0.317*** (0.033)	-0.043 (0.031)	0.008 (0.030)	0.026 (0.030)	0.044 (0.032)	0.060** (0.030)	0.078** (0.030)	0.129*** (0.031)	0.426*** (0.039)
College and Post-Secondary Education	-0.546*** (0.050)	-0.055 (0.053)	0.046 (0.053)	0.079 (0.053)	0.108* (0.060)	0.146*** (0.053)	0.180*** (0.053)	0.278*** (0.053)	0.931*** (0.066)
Employment	-0.752*** (0.050)	-0.300*** (0.050)	-0.204*** (0.050)	-0.171*** (0.050)	-0.102* (0.058)	-0.105** (0.050)	-0.072 (0.050)	0.027 (0.050)	0.779*** (0.060)
Risky Behaviors	0.638*** (0.041)	0.176*** (0.031)	0.077** (0.031)	0.044 (0.030)	0.012 (0.035)	-0.023 (0.030)	-0.056* (0.031)	-0.155*** (0.031)	-0.885*** (0.065)
<i>Youths Were in their Mid-Twenties</i>									
High-school	-0.298*** (0.036)	-0.055* (0.029)	-0.008 (0.028)	0.007 (0.028)	0.024 (0.030)	0.038 (0.028)	0.054* (0.028)	0.100*** (0.029)	0.349*** (0.037)
College and Post-Secondary Education	-0.530*** (0.044)	-0.062 (0.044)	0.033 (0.043)	0.065 (0.043)	0.083* (0.049)	0.129*** (0.043)	0.161*** (0.043)	0.254*** (0.044)	1.325*** (0.089)
Employment	-0.689*** (0.047)	-0.184*** (0.045)	-0.078* (0.048)	-0.043 (0.047)	0.011 (0.054)	0.028 (0.047)	0.064 (0.047)	0.170*** (0.047)	1.619*** (0.084)
Risky Behaviors	0.548*** (0.041)	0.073** (0.032)	-0.026 (0.031)	-0.060* (0.031)	-0.078** (0.035)	-0.126*** (0.031)	-0.159*** (0.031)	-0.257*** (0.032)	-1.146*** (0.074)

Notes: Sample size is 1,069 observations when bounds are used to estimate the impact. Column (5) presents estimates discussed in the main text and presented in Tables 3 to 6. Columns 1 and 9 present the lower and upper bounds obtained under the worst-case scenario. For the lower (upper) bound, we impute the minimum (maximum) value of each variable in the observed treatment distribution to the non-responders in the treatment group, and the maximum (minimum) value of the observed control distribution to the non-responders in the control group. Columns 2 and 8 impute to the lower (upper) bound the mean minus (plus) 0.25 standard deviations of the observed treatment distribution to the non-responders in the treatment group, the mean plus (minus) 0.25 standard deviations of the observed control distribution to non-responders in the control group. Columns 3 and 7 (and columns 4 and 6) repeat the previous scenario but with a 0.1 (0.05) standard deviations.

*, **, *** Estimate significantly different from zero at the 90%, 95%, or 99% confidence level.

TABLE A.6. TREATMENT EFFECT ON HIGH-SCHOOL OUTCOMES USING COMPLETE AND ATTRITED SAMPLES

OUTCOMES	COMPLETE SAMPLE			ATTRITED SAMPLE		
	Full sample	Males	Females	Full sample	Males	Females
	Full set of controls	Full set of controls	Full set of controls	Full set of controls	Full set of controls	Full set of controls
	(1)	(2)	(3)	(4)	(5)	(6)
Youths Were in their Late Teens						
Obtained high-school Diploma	0.053*	0.035	0.074*	0.046	0.027	0.067
	(0.029)	(0.040)	(0.043)	(0.031)	(0.043)	(0.045)
Obtained a GED	-0.009	-0.022	0.012	-0.009	-0.021	0.0097
	(0.017)	(0.028)	(0.020)	(0.017)	(0.028)	(0.021)
Sample size ^a	1,008	539	469	892	470	422
Youths Were in their Early Twenties						
Obtained high-school Diploma	0.032	0.032	0.037	0.031	0.030	0.039
	(0.030)	(0.043)	(0.042)	(0.033)	(0.048)	(0.045)
Obtained a GED	0.008	0.012	0.007	0.010	0.027	-0.0037
	(0.023)	(0.037)	(0.029)	(0.024)	(0.038)	(0.030)
Sample size	942	496	446	786	396	390
Youths Were in their Mid-Twenties						
Obtained high-school Diploma	0.021	0.029	0.007	0.039	0.074	-0.000
	(0.030)	(0.043)	(0.042)	(0.032)	(0.047)	(0.045)
Obtained a GED	0.002	0.017	-0.007	-0.016	-0.024	-0.008
	(0.024)	(0.037)	(0.032)	(0.025)	(0.039)	(0.033)
Sample size	919	485	434	792	407	385

Notes: The table reports estimates of treatment effects on the dependent variables indicated in row headings. Robust standard errors are reported in parentheses. "Full set of controls" includes school dummies, an indicator for being male, an indicator for being 14 years old when entering ninth grade, an indicator for being over age 14 when entering ninth grade, an indicator for being in the middle third of the eighth-grade GPA distribution, an indicator for being in the top third of the eighth-grade GPA distribution, an indicator for being black and an indicator for being Hispanic.

* Estimate significantly different from zero at the 90% level.

^a Sample size differs from that of Table 3 in the main paper because when estimating summary indices if an individual has a valid response to at least one component measure of an index, then any missing values for other component measures are imputed at the random assignment group mean (as in Jeffrey Kling, Jeffrey Liebman, and Lawrence Katz 2007).

TABLE A.7. MEAN EFFECT SIZES FOR SUMMARY MEASURES

OF OUTCOMES BY WHETHER QOP STUDENTS REPRESENT A SMALL OR LARGE SHARE OF GPA ELIGIBLE STUDENTS		
<i>TREATMENT-CONTROL</i>		
<i>Full sample</i>		
	<i>QOP students represent a large fraction of GPA eligible students</i>	<i>QOP students represent a small fraction of GPA eligible students</i>
OUTCOMES	<i>Full set of controls</i>	<i>Full set of controls</i>
	<i>(1)</i>	<i>(2)</i>
Youths Were in their Late Teens		
High-school	0.108*	0.025
$N_1=355$ ($N_2=659$)	(0.055)	(0.043)
College and Post-Secondary	0.149	0.077
$N_1=307$ ($N_2=582$)	(0.093)	(0.076)
Risky Behaviors	0.040	-0.064
$N_1=341$ ($N_2=638$)	(0.068)	(0.047)
Youths Were in their Early Twenties		
High-school	0.110*	0.010
$N_1=326$ ($N_2=616$)	(0.059)	(0.038)
College and Post-Secondary	0.211**	0.052
$N_1=275$ ($N_2=512$)	(0.096)	(0.076)
Employment	-0.060	-0.116*
$N_1=275$ ($N_2=511$)	(0.104)	(0.069)
Risky Behaviors	0.014	0.0099
$N_1=274$ ($N_2=511$)	(0.065)	(0.042)
Youths Were in their Mid-Twenties		
High-school	0.103*	-0.015
$N_1=316$ ($N_2=603$)	(0.056)	(0.036)
College and Post-Secondary	0.134	0.051
$N_1=275$ ($N_2=516$)	(0.089)	(0.059)
Employment	0.004	0.007
$N_1=274$ ($N_2=515$)	(0.094)	(0.067)
Risky Behaviors	-0.086	-0.073*
$N_1=274$ ($N_2=513$)	(0.069)	(0.041)

Notes: Column (1) includes Collinwood, Anacostia, Hillcrest, and Carver. In these four schools, QOP slots represent 57%, 31%, 35% and 43% of GPA eligible students in each school, respectively. The other seven schools are included in Column (2). In these seven schools QOP slots represent between 10% and 24% of GPA eligible students in each school. N_1 and N_2 report samples sizes for columns (1) and (2), respectively. The table reports estimates of treatment effects on the dependent variables indicated in row headings. Robust standard errors are reported in parentheses. "Full set of controls" includes school dummies, an indicator for being male, an indicator for being 14 years old when entering ninth grade, an indicator for being over age 14 when entering ninth grade, an indicator for being in the middle third of the eighth-grade GPA distribution, an indicator for being in the top third of the eighth-grade GPA distribution, an indicator for being black and an indicator for being Hispanic.

*, ** Estimate significantly different from zero at the 90%, or 95% confidence level.