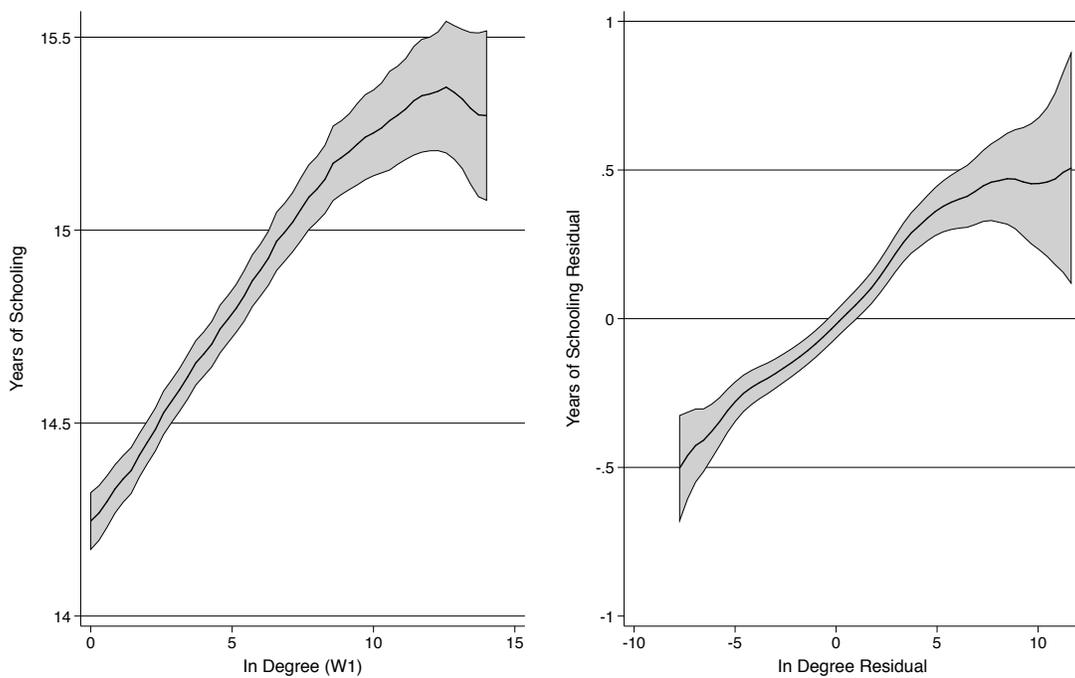


Tables and Figures

April 2, 2020

Appendix

Figure A.1: Education on In Degree



Data: Add Health restricted-use data

Table A.1: First Stage Estimates for Friendship Nomination cont'd (Receiver Controls)

	(1) All	(2) F-F	(3) M-M	(4) F-M
IQ (W1) Receiver	0.0000327*** [0.00000854]	0.0000378** [0.0000160]	0.0000188 [0.0000146]	0.0000340*** [0.00000887]
Extrovert Receiver	0.00144*** [0.000378]	0.000822 [0.000516]	0.000435 [0.000410]	0.00229*** [0.000470]
Age (W2) Receiver	-0.000636*** [0.000171]	-0.00111*** [0.000298]	-0.000941*** [0.000300]	-0.000370* [0.000195]
Female Receiver	0.000968*** [0.000330]	0 [.]	0 [.]	-0.000448 [0.000390]
White Receiver	0.00163* [0.000888]	0.00265* [0.00158]	0.00162 [0.00114]	0.00102** [0.000497]
Height Receiver	0.0000879** [0.0000343]	0.0000936 [0.0000649]	0.0000934 [0.0000596]	0.0000777* [0.0000429]
Weight Receiver	-0.0000456*** [0.00000750]	-0.0000558*** [0.00000828]	-0.0000286*** [0.00000658]	-0.0000518*** [0.0000102]
Physical Maturity Receiver	0.000883*** [0.000218]	0.000531** [0.000209]	0.000657*** [0.000194]	0.00114*** [0.000286]
Years at School Receiver	0.00217*** [0.000263]	0.00262*** [0.000420]	0.00298*** [0.000394]	0.00140*** [0.000221]
HH Income receiver	0.0000207*** [0.00000349]	0.0000189*** [0.00000680]	0.0000221*** [0.00000512]	0.0000213*** [0.00000364]
Food Stamp Recipient receiver	-0.00191*** [0.000489]	-0.00224*** [0.000661]	-0.00163** [0.000738]	-0.00182*** [0.000514]
Father in HH receiver	0.00117* [0.000646]	0.00167* [0.000948]	0.00249** [0.00105]	0.000441 [0.000828]
Mother in HH Receiver	0.00106* [0.000572]	-0.0000609 [0.00121]	0.00217** [0.00107]	0.000761 [0.000609]
Mother's Educ	0.0000210 [0.0000475]	-0.0000185 [0.0000667]	0.0000610 [0.0000637]	0.0000224 [0.0000601]
HH size receiver	-0.000211** [0.0000959]	-0.000303* [0.000177]	-0.000309* [0.000171]	-0.000166 [0.000104]
N	3,519,584	907,608	867,662	1,744,314
F stat of Instruments	14.88	15.92	16.23	16.23
P-value	0.0000	0.0000	0.0000	0.0000

Source: Add Health restricted-use data. Includes school fixed effects. Estimation sample includes all of the pairwise combinations of students in the in-home survey with all students in the cohort. Pairwise distance variables are constructed by taking the absolute value of the distance between student i (sender) and student j (receiver). Total distance measures sum up the pairwise distances over the receiver (j). Additional controls include receiver covariates (IQ, extraversion, age, white, physical maturity, father in HH, mother's edu,) and peer means of these measures. Sender covariates are not included because nominations from students who were not included in the in-home survey have missing covariates. Standard errors are clustered at the school level.

* $p < .1$, ** $p < 0.05$, *** $p < 0.01$

Table A.2: First Stage Estimates for Friendship Nomination cont'd (Peer Means)

	(1) All	(2) F-F	(3) M-M	(4) F-M
Mean IQ	0.000152 [0.000113]	0.000148 [0.000171]	0.000230* [0.000138]	0.000134 [0.000114]
Mean Extroverted	0.00184 [0.00176]	0.00138 [0.00295]	0.00238 [0.00191]	0.00154 [0.00171]
Fraction White	0.0150 [0.00967]	0.00781 [0.0124]	0.0248** [0.0117]	0.0146 [0.00974]
Fraction Female	-0.00433 [0.00899]	-0.0431*** [0.0141]	0.0320*** [0.0103]	-0.00287 [0.0100]
Mean Age	-0.000811 [0.00120]	-0.000564 [0.00206]	-0.00171 [0.00140]	-0.000450 [0.00112]
Mean Yrs at School	-0.000143 [0.00120]	-0.0000907 [0.00238]	-0.000441 [0.00142]	0.0000686 [0.00112]
Fraction Food Stamp Recipient	0.00272 [0.00409]	-0.00129 [0.00674]	0.00399 [0.00566]	0.00368 [0.00348]
Mean HH Income	0.0000243* [0.0000133]	0.0000380 [0.0000354]	0.0000213 [0.0000200]	0.0000180 [0.0000112]
Fraction Father Present	-0.0102 [0.00881]	-0.00654 [0.0131]	-0.0145 [0.0119]	-0.00988 [0.00895]
Mean Mother's Education	0.00110 [0.00120]	0.00159 [0.00193]	0.000527 [0.00141]	0.00112 [0.00126]
Mean Physical Development	-0.00136 [0.00113]	0.00179 [0.00195]	-0.00325** [0.00152]	-0.00189 [0.00123]
N	3,519,584	907,608	867,662	1,744,314
F stat of Instruments	14.88	15.92	16.23	16.23
P-value	0.0000	0.0000	0.0000	0.0000

Source: Add Health restricted-use data. Includes school fixed effects. Estimation sample includes all of the pairwise combinations of students in the in-home survey with all students in the cohort. Pairwise distance variables are constructed by taking the absolute value of the distance between student i (sender) and student j (receiver). Total distance measures sum up the pairwise distances over the receiver (j). Additional controls include receiver covariates (IQ, extraversion, age, white, physical maturity, father in HH, mother's edu,) and peer means of these measures. Sender covariates are not included because nominations from students who were not included in the in-home survey have missing covariates. Standard errors are clustered at the school level.

* $p < .1$, ** $p < 0.05$, *** $p < 0.01$

Table A.3: Test for Coordination in Friendship Formation

	(1) School Sample	(2) In Home Sample
Pairwise White Distance	-0.00881*** [0.00107]	-0.00948*** [0.00168]
Pairwise Female Distance	-0.00565*** [0.000484]	-0.00616*** [0.000866]
Pairwise Age Distance	-0.00205*** [0.000198]	-0.00263*** [0.000342]
Pairwise Years-at-School Distance	-0.00294*** [0.000245]	-0.00352*** [0.000361]
Total White Distance (Sender)	0.0000181*** [0.00000338]	0.0000167*** [0.00000431]
Total Female Distance (Sender)	-0.0000267*** [0.00000517]	-0.0000340*** [0.00000711]
Total Age Distance (Sender)	0.00000210*** [0.000000547]	0.00000344*** [0.000000865]
Total Yrs at School Distance (Sender)	0.00000243*** [0.000000595]	0.00000275*** [0.000000846]
Total White Distance (Receiver)	0.0000180*** [0.00000338]	0.0000166*** [0.00000458]
Total Female Distance (Receiver)	-0.0000107** [0.00000476]	-0.0000114 [0.00000692]
Total Age Distance (Receiver)	0.00000188*** [0.000000564]	0.00000415*** [0.000000961]
Total Yrs at School Distance (Receiver)	0.00000190*** [0.000000604]	0.00000213** [0.000000844]
N	21,944,154	3,524,859
F stat of Sender Homophily	18.51	13.82
P-value	0.0000	0.0000

Source: Add Health restricted-use data. Includes school fixed effects. The estimation sample in Column 1 consists of all of the pairwise combinations of students within a given cohort, which is derived from the school survey of all students. The in school sample is larger than our main analytic sample (Column 2) because because not all students surveyed in school were selected for the in home survey, which included additional survey questions. To make estimates comparable, we limit covariates to variables that can be constructed from questions in the school survey. Controls include sender and receiver covariates (female, age, white, yrs at school, and peer means of these measures. Pairwise distance variables are constructed by taking the absolute value of the distance between student i (sender) and student j (receiver). Variables labeled as total distance (receiver) sum up the pairwise distances over the receiver (j). Variables labeled as total distance (sender) sum up the pairwise distances over the sender (i)

Standard errors are clustered at the school level.

* $p < .1$, ** $p < 0.05$, *** $p < 0.01$

Table A.4: First Stage Estimates

	(1) Schooling	(2) GPA	(3) In-deg	(4) In-grade
IQ	0.033*** [0.002]	0.011*** [0.001]	0.004 [0.003]	0.007*** [0.002]
Extrovert	0.001 [0.044]	-0.019 [0.017]	0.582*** [0.091]	0.434*** [0.081]
Total Female Distance	0.003*** [0.001]	-0.000 [0.001]	0.008*** [0.002]	0.008*** [0.002]
Total White Distance	-0.000 [0.000]	0.000 [0.000]	-0.002*** [0.000]	-0.001*** [0.000]
Total Yrs at School Distance	-0.000 [0.000]	-0.000 [0.000]	-0.001*** [0.000]	-0.001*** [0.000]
Total Age Distance	-0.001*** [0.000]	-0.000 [0.000]	-0.001* [0.000]	-0.001** [0.000]
Total Mother's Edu Distance	-0.000*** [0.000]	-0.000 [0.000]	0.000 [0.000]	0.000 [0.000]
Total Father in HH Distance	-0.001*** [0.000]	-0.000 [0.000]	-0.002** [0.001]	-0.002* [0.001]
Total Physical Maturity Distance	-0.001*** [0.000]	-0.000*** [0.000]	0.000 [0.000]	0.000 [0.000]
White-Teacher Distance	-0.175 [0.115]	-0.217*** [0.043]	-0.139 [0.155]	-0.251* [0.138]
Grade Cohort Size	0.000 [0.001]	-0.000 [0.001]	-0.002 [0.002]	-0.002 [0.002]
Mean Extroverted	-0.037 [0.147]	0.017 [0.124]	0.682* [0.347]	0.471 [0.316]
Mean IQ	0.003 [0.010]	0.004 [0.005]	0.019 [0.017]	0.017 [0.015]
Fraction White	-0.884* [0.488]	-0.004 [0.259]	0.541 [1.065]	-0.105 [0.992]
Fraction Female	-0.793* [0.471]	-0.093 [0.251]	0.548 [0.893]	1.384* [0.811]
Mean Age	0.582*** [0.061]	0.105*** [0.029]	0.311*** [0.111]	0.051 [0.097]
Mean Yrs at School	-0.025 [0.051]	-0.031 [0.033]	-0.079 [0.124]	-0.077 [0.110]
Fraction Food Stamp Recipient	-0.773** [0.348]	-0.289 [0.216]	1.086 [0.861]	0.491 [0.777]
Mean HH Income	0.001 [0.001]	-0.001 [0.001]	0.001 [0.002]	0.001 [0.002]
Fraction Father Present	0.304 [0.524]	-0.159 [0.285]	-1.066 [1.251]	-0.762 [1.043]
Mean Mother's Education	0.215*** [0.071]	0.019 [0.049]	0.089 [0.158]	0.169 [0.138]
Mean Physical Development	-0.022 [0.105]	-0.153** [0.068]	-0.076 [0.263]	-0.310 [0.250]
Mean of Dep. Var.	14.80	2.84	4.47	3.45
N	9,148	6,297	9,148	9,148
F stat of Instruments	9.83	6.42	14.68	17.30
P-value	0.000	0.000	0.000	0.000

Source: Add Health restricted-use data. W1 stands for Wave I, etc. Includes school fixed effects. Individual controls include age, years at school, household income, mother's education, height, weight, physical development, and indicators for whether the student is white, female, and father is present in the household. Standard errors are clustered at the school level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.5: Variance Covariance Matrix of Network Measures

	In Degree	In Degree (within-grade)	High Engagement Nominations (within-grade)
In Degree	11.60		
In Degree (within-grade)	8.99	8.28	
High Engagement Nominations (within-grade)	3.16	2.33	1.94

Note: This table presents the variance covariance matrix of residualized in-degree, in-degree (within grade), and within grade in degree (restricting to high engagement nominations).

Table A.6: Adult Social Capital on In Degree

	(1)	(2)	(3)	(4)	(5)
	Extraversion(W4)	Friends(W4)	Depress(W4)	Ever Marry(W4)	Work(W4)
Years of schooling	0.0319*	0.1744***	-0.1453***	0.0021	0.0117***
	[0.0180]	[0.0197]	[0.0170]	[0.0028]	[0.0017]
In Degree	0.0804***	0.0494***	0.0059	0.0025	0.0010
	[0.0089]	[0.0093]	[0.0070]	[0.0015]	[0.0007]
IQ	-0.0090**	0.0051**	-0.0052**	-0.0010**	0.0002
	[0.0037]	[0.0025]	[0.0020]	[0.0004]	[0.0002]
Extrovert	1.3863***	0.1165*	-0.1640**	0.0205	-0.0067
	[0.0760]	[0.0664]	[0.0696]	[0.0134]	[0.0058]
Mean of Dep. Var.	13.26	4.76	2.47	0.50	0.93
R-squared	0.06	0.05	0.04	0.04	0.03
N	9,141	9,037	9,148	9,143	9,823

Source: Add Health restricted-use data. Includes school fixed effects. Extraversion and the CESD Depression scores are variables constructed by ADD Health. Adult Friendships refers to the number of reported friends in Wave 4. Additional controls include age, years at school, household income, mother's education, height, weight, physical development, and indicators for whether the student is white, female, and father is present in the household. Cohort level controls include mean extrovert, mean IQ, mean age, mean years at school, mean HH income, mean mother's schooling, fraction female, fraction live withfather, and fraction food stamp recipients. Standard errors are clustered at the school level.

* $p < .1$, ** $p < 0.05$, *** $p < 0.01$