

Appendix 1

Appendix Tables

Appendix Table 1

Comparison of Core Sample with Sample of Dropped Observations

	Core Sample	Dropped Sample		Difference
	(N=65,598)	N	Mean	t-test significance
Frequency of drinking alcohol in past 12 months	19.350	14,227	23.317	***
Frequency of drinking to intoxication in past 12 months	11.373	13,746	16.570	***
Frequency of smoking cigarettes in past 12 months	45.352	14,416	44.884	
Head of household's education	13.648	7,338	12.584	***
Relative deprivation ³	1.657	7,292	1.930	***
Male	0.482	19,495	0.562	***
Age	15.089	19,669	14.711	***
Black	0.168	20,029	0.268	***
Asian	0.065	20,029	0.086	***
Native American	0.053	20,029	0.061	***
Other race	0.085	20,029	0.133	***
Hispanic ethnicity	0.143	20,029	0.262	***
U.S.-born	0.899	20,029	0.794	***
Interviewed in spring	0.088	20,029	0.088	
Interviewed in winter	0.055	20,029	0.035	***
Grade size	262.614	20,029	258.853	***
Household size	4.292	17,145	4.380	***
Single father household	0.034	20,029	0.033	
Single mother household	0.189	20,029	0.172	***

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 2
Descriptive Statistics for Variables Used in the Sensitivity Checks

	Mean	Males Standard Deviation	Mean	Females Standard Deviation
<i>Parental characteristics</i>				
Parents' place of birth				
Father is U.S.-born ^a	0.685	0.465	0.660	0.474
Mother is U.S.-born ^b	0.793	0.405	0.816	0.388
Father's job characteristics ^a				
Father works for pay	0.778	0.416	0.741	0.438
Father is not working	0.042	0.200	0.043	0.202
Unknown if father works for pay	0.364	0.481	0.316	0.465
Father is white-collar worker	0.017	0.131	0.023	0.149
Unknown if father is white-collar worker	0.077	0.267	0.096	0.295
Mother's job characteristics ^b				
Mother works for pay	0.758	0.428	0.761	0.426
Unknown if mother works for pay	0.218	0.413	0.226	0.418
Mother is not working	0.548	0.498	0.535	0.499
Mother is white-collar worker	0.035	0.183	0.040	0.196
Unknown if mother is white-collar worker	0.075	0.264	0.083	0.276
<i>Individual's school characteristics</i>				
Tenure				
First year at current school	0.276	0.447	0.273	0.445
1-3 years at current school	0.784	0.412	0.788	0.409
Extracurricular school activities				
Arts club	0.187	0.390	0.339	0.473
Sports club	0.626	0.484	0.517	0.500
Other clubs	0.359	0.480	0.530	0.499
Social inclusion				
Number of friend nominations	4.144	3.677	4.576	3.555
Perception of social inclusion	3.674	0.887	3.592	0.891

Notes: a. Only for fathers living with the respondent. b. Only for mothers living with the respondent.

Appendix Table 3.1
Effects of Relative Deprivation on Drinking Frequency—Alternative Sets of Controls

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	-0.849 (1.562)	-0.248 (1.581)	0.546 (1.687)	-1.814 (1.249)	-1.832 (1.202)	-1.583 (1.182)
Head of household's education squared	0.052 (0.041)	0.038 (0.041)	0.022 (0.044)	0.040 (0.033)	0.045 (0.032)	0.043 (0.031)
Relative deprivation	2.789*** (1.026)	3.121*** (1.045)	3.559*** (1.112)	-0.587 (0.805)	-0.485 (0.791)	-0.386 (0.775)
Father is U.S.-born	---	2.892 (1.799)	2.619 (1.872)	---	1.701 (1.179)	2.176* (1.160)
Father works for pay	---	-3.935 (3.364)	-2.081 (3.278)	---	-0.254 (2.179)	1.153 (2.161)
Father is not working	---	0.565 (3.113)	0.584 (3.161)	---	2.533 (1.821)	2.908 (1.894)
Father is white-collar worker	---	-0.539 (1.234)	-0.777 (1.250)	---	-0.891 (0.674)	-0.645 (0.691)
Unknown if father works for pay	---	4.559 (4.932)	5.437 (4.857)	---	-5.451** (2.605)	-4.189 (2.747)
Unknown if father is white-collar worker	---	2.755 (2.019)	2.221 (2.060)	---	-0.618 (1.021)	-0.703 (1.123)
Mother is U.S.-born	---	1.292 (1.913)	1.894 (1.929)	---	1.480 (1.094)	2.064* (1.096)
Mother works for pay	---	-0.716 (2.244)	0.329 (2.288)	---	1.408 (1.155)	1.046 (1.182)
Mother is not working	---	0.648 (2.121)	1.866 (2.177)	---	-0.510 (1.197)	-1.267 (1.225)
Mother is white-collar worker	---	0.358 (1.347)	0.629 (1.379)	---	-1.399* (0.762)	-1.661** (0.821)
Unknown if mother works for pay	---	1.748 (2.924)	1.701 (2.999)	---	2.640 (1.645)	2.161 (1.697)
Unknown if mother is white-collar worker	---	-3.840 (2.345)	-4.076* (2.451)	---	-0.194 (1.126)	-0.418 (1.210)
First year at current school	---	1.891 (1.372)	2.020 (1.423)	---	1.607** (0.789)	1.844** (0.836)
1-3 years at current school	---	-3.106** (1.381)	-3.422** (1.400)	---	0.481 (0.804)	0.011 (0.815)
Arts club	---	---	-3.926*** (1.398)	---	---	-4.510*** (0.664)
Sports club	---	---	0.808 (1.035)	---	---	1.619*** (0.625)
Other clubs	---	---	-1.375 (1.092)	---	---	-3.291*** (0.640)
Number of friend nominations	---	---	0.817*** (0.127)	---	---	0.382*** (0.092)
Perception of social inclusion	---	---	-5.712*** (0.600)	---	---	-3.633*** (0.346)

Other controls (age, race/ethnicity, place of birth, season of interview, grade-level characteristics, household size, family structure)	yes	yes	yes	yes	yes	yes
Number of observations	26,128	6,128	26,128	28,529	8,529	28,529

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 3.2
Effects of Relative Deprivation on Frequency Drinking to Intoxication —Alternative Sets of Controls

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	-2.220 (1.659)	-1.755 (1.687)	-1.614 (1.841)	-0.867 (1.114)	-1.257 (1.082)	-1.069 (1.118)
Head of household's education squared	0.093** (0.044)	0.081* (0.045)	0.081* (0.049)	0.020 (0.030)	0.034 (0.029)	0.031 (0.030)
Relative deprivation	2.335** (1.020)	2.520** (1.036)	2.682** (1.122)	0.050 (0.695)	0.031 (0.690)	0.068 (0.703)
Father is U.S.-born	---	2.725 (1.857)	3.218* (1.932)	---	2.540*** (0.908)	2.948*** (0.956)
Father works for pay	---	-4.971* (2.962)	-2.984 (2.953)	---	-3.137* (1.775)	-1.723 (1.766)
Father is not working	---	0.797 (2.612)	0.616 (2.795)	---	0.994 (1.339)	1.201 (1.522)
Father is a white-collar worker	---	0.452 (1.238)	0.388 (1.256)	---	-0.260 (0.627)	0.004 (0.670)
Unknown if father works for pay	---	2.218 (4.598)	3.194 (4.434)	---	-5.604** (2.178)	-3.689 (2.404)
Unknown if father is white-collar worker	---	1.373 (1.765)	0.790 (1.850)	---	0.499 (0.870)	0.064 (1.005)
Mother is U.S.-born	---	-0.275 (1.892)	-0.456 (1.978)	---	1.874** (0.845)	2.581*** (0.898)
Mother works for pay	---	-1.436 (1.902)	-0.275 (1.937)	---	1.249 (0.963)	0.983 (0.986)
Mother is not working	---	-0.219 (1.962)	0.816 (2.055)	---	0.018 (1.094)	-0.713 (1.111)
Mother is a white-collar worker	---	-0.711 (1.312)	-0.511 (1.371)	---	-0.927 (0.663)	-1.232* (0.723)
Unknown if mother works for pay	---	-0.466 (2.935)	-1.838 (2.823)	---	0.196 (1.276)	-0.624 (1.307)
Unknown if mother is white-collar worker	---	0.525 (2.329)	0.973 (2.549)	---	-0.060 (0.869)	-0.240 (0.941)
First year at current school	---	0.725 (1.401)	0.984 (1.452)	---	0.533 (0.724)	1.023 (0.779)
1-3 years at current school	---	-3.436*** (1.273)	- (1.286)	---	0.604 (0.668)	0.402 (0.660)
Arts club	---	---	-1.641 (1.456)	---	---	- (0.555)
Sports club	---	---	0.149 (0.976)	---	---	1.284*** (0.498)
Other clubs	---	---	-1.244	---	---	-

						2.594***
			(1.009)			(0.572)
Number of friend nominations	---	---	0.470***	---	---	0.301***
			(0.120)			(0.081)
Perception of social inclusion	---	---	-	---	---	-
			4.858***			2.806***
			(0.587)			(0.337)
Other controls (age, race/ethnicity, place of birth, season of interview, grade-level characteristics, household size, family structure)	yes	yes	yes	yes	yes	yes
Number of observations	26,128	26,128	26,128	28,529	8,529	28,529

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 3.3
Effects of Relative Deprivation on Smoking Frequency—Alternative Sets of Controls

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	-1.685 (3.054)	-2.763 (3.148)	1.640 (3.280)	0.538 (4.475)	1.070 (4.314)	4.023 (4.543)
Head of household's education squared	0.041 (0.080)	0.080 (0.082)	-0.013 (0.086)	-0.121 (0.122)	-0.114 (0.117)	-0.173 (0.124)
Relative deprivation	3.294* (1.843)	3.152* (1.908)	5.863*** (1.987)	-0.170 (2.615)	0.426 (2.573)	1.744 (2.661)
Father is U.S.-born	---	5.507 (3.688)	4.708 (3.790)	---	3.185 (4.460)	2.461 (4.609)
Father works for pay	---	2.383 (6.149)	3.724 (6.246)	---	-8.941 (8.727)	4.887 (9.541)
Father is not working	---	5.311 (5.730)	2.416 (5.559)	---	9.516 (7.375)	18.609** (8.589)
Father is a white-collar worker	---	-2.910 (2.306)	-1.936 (2.433)	---	-7.420*** (2.443)	-4.983* (2.627)
Unknown if father works for pay	---	16.740** (7.961)	18.987** (8.035)	---	-8.469 (11.273)	-1.437 (12.523)
Unknown if father is white-collar worker	---	1.760 (3.396)	0.511 (3.641)	---	2.951 (3.822)	0.780 (4.134)
Mother is U.S.-born	---	12.156*** (3.649)	11.860*** (4.011)	---	14.823*** (3.744)	17.767*** (4.145)
Mother works for pay	---	-1.167 (3.758)	0.089 (3.742)	---	9.159** (4.337)	6.074 (4.395)
Mother is not working	---	-7.435* (3.901)	-5.160 (4.034)	---	-2.342 (4.606)	-6.816 (4.626)
Mother is a white-collar worker	---	-3.437 (2.975)	-0.805 (3.232)	---	-7.320*** (2.702)	-4.319 (2.962)
Unknown if mother works for pay	---	1.410 (5.289)	1.436 (5.676)	---	17.511*** (6.103)	15.106** (6.354)
Unknown if mother is white-collar worker	---	-3.061 (3.977)	-2.261 (4.319)	---	-0.375 (4.621)	-0.004 (4.789)
First year at current school	---	2.766 (2.785)	2.655 (2.844)	---	9.275*** (3.267)	8.768** (3.524)
1-3 years at current school	---	4.532* (2.698)	1.217 (2.714)	---	2.740 (2.933)	-0.633 (3.261)
Arts club	---	---	-5.881** (2.788)	---	---	-13.521*** (2.658)
Sports club	---	---	-21.013*** (2.058)	---	---	-10.615*** (2.199)
Other clubs	---	---	-10.194*** (2.416)	---	---	-18.439*** (2.493)
Number of friend nominations	---	---	0.917*** (0.286)	---	---	0.672* (0.344)
Perception of social inclusion	---	---	-12.778***	---	---	-18.712***

			(1.105)			(1.500)
Other controls (age, race/ethnicity, place of birth, season of interview, grade-level characteristics, household size, family structure)	yes	yes	yes	yes	yes	yes

Number of observations	26,128	26,128	26,128	28,529	28,529	28,529
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* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 4.1**Effects of Relative Deprivation on Drinking Frequency—Alternative Measures of Relative Deprivation**

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	0.021 (1.551)	0.793 (2.352)	-4.948*** (0.679)	-0.992 (1.163)	-1.303 (1.638)	-1.377*** (0.376)
Head of household's education squared	0.028 (0.041)	0.004 (0.061)	0.142*** (0.026)	0.031 (0.030)	0.038 (0.043)	0.050*** (0.015)
Relative deprivation	3.327*** (0.998)	---	---	0.311 (0.741)	---	---
Relative deprivation mean standardized	---	49.242** (20.285)	---	---	1.242 (13.796)	---
Head of household schooling, percentile rank	---	---	3.331 (4.007)	---	---	-3.927* (2.338)

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 4.2**Effects of Relative Deprivation on Frequency Drinking to Intoxication —Alternative Measures of Relative Deprivation**

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	-2.077 (1.678)	-1.876 (2.273)	-5.533*** (0.738)	-0.213 (0.959)	-0.298 (1.407)	-1.206*** (0.341)
Head of household's education squared	0.088** (0.044)	0.081 (0.059)	0.167*** (0.027)	0.011 (0.026)	0.012 (0.037)	0.041*** (0.014)
Relative deprivation	2.297** (0.999)	---	---	0.708 (0.609)	---	---
Rel. deprivation mean standardized	---	31.343* (18.710)	---	---	8.205 (11.775)	---
Percentile Rank	---	---	2.702 (3.669)	---	---	-2.419 (1.913)

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 4.3**Effects of Relative Deprivation on Smoking Frequency—Alternative Measures of Relative Deprivation**

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Head of household's education	3.091 (3.192)	3.900 (4.396)	-5.417*** (1.221)	3.575 (4.021)	1.838 (5.680)	0.338 (1.308)
Head of household's education squared	-0.088 (0.083)	-0.115 (0.114)	0.152*** (0.044)	-0.189* (0.109)	-0.148 (0.152)	-0.023 (0.053)
Relative deprivation	5.964*** (1.920)	---	---	2.655 (2.436)	---	---
Relative deprivation mean standardized	---	82.764** (35.482)	---	---	18.543 (45.573)	---
Percentile Rank	---	---	-12.489* (6.913)	---	---	-34.217*** (7.727)

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix Table 5.1

Effects of Relative Deprivation on Drinking Frequency - Alternative Measures of Household Education

	Males					Females				
	Head of household's education (core model)	Average parental education	Maximum parental education	Mother's education ¹	Father's education ²	Head of household's education (core model)	Average parental education	Maximum parental education	Mother's education ^a	Father's education ^b
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Specified household education	0.021 (1.551)	-1.832 (2.246)	0.121 (2.213)	-2.969 (2.257)	-3.598 (2.209)	-0.992 (1.163)	1.385 (1.729)	0.135 (1.696)	2.721 (1.691)	-3.835*** (1.426)
Specified household education squared	0.028 (0.041)	0.267* (0.157)	0.203 (0.147)	0.408*** (0.155)	0.379** (0.152)	0.031 (0.030)	-0.146 (0.118)	-0.013 (0.106)	-0.196* (0.112)	0.255*** (0.096)
Relative deprivation	3.327*** (0.998)	4.871*** (1.777)	6.283*** (1.741)	4.155** (1.735)	3.978** (1.816)	0.311 (0.741)	1.694 (1.337)	0.920 (1.297)	3.124** (1.376)	-1.254 (1.163)
N	31,635	31,635	31,635	29,201	25,005	33,963	33,963	33,963	32,182	25,322

* Significant at 10%. ** Significant at 5%. *** Significant at 1%. a. Only if mother is present in the household. b. Only if father is present in the household.

Appendix Table 5.2

Effects of Relative Deprivation on Frequency Drinking to Intoxication - Alternative Measures of Household Education

	Males					Females				
	Head of household's education (core model) (1)	Average parental education (2)	Maximum parental education (3)	Mother's education ¹ (4)	Father's education ² (5)	Head of household's education (core model) (6)	Average parental education (7)	Maximum parental education (8)	Mother's education ^a (9)	Father's education ^b (10)
Specified household education	-2.077 (1.678)	-5.587** (2.458)	-3.556 (2.399)	-4.112* (2.394)	-8.370*** (2.209)	-0.213 (0.959)	2.041 (1.408)	0.334 (1.318)	0.948 (1.393)	-2.011 (1.335)
Specified household education squared	0.088** (0.044)	0.553*** (0.170)	0.465*** (0.159)	0.488*** (0.164)	0.698*** (0.152)	0.011 (0.026)	-0.155 (0.098)	-0.003 (0.085)	-0.041 (0.092)	0.145 (0.091)
Relative deprivation	2.297** (0.999)	2.860 (1.807)	4.433** (1.728)	3.506* (1.799)	0.998 (1.722)	0.708 (0.609)	2.310** (1.099)	1.140 (1.016)	2.137* (1.158)	-0.085 (0.999)
N	31,635	31,635	31,635	29,201	25,005	33,963	33,963	33,963	32,182	25,322

* Significant at 10%. ** Significant at 5%. *** Significant at 1%. a. Only if mother is present in the household. b. Only if father is

present in the household.

Appendix Table 5.3

Effects of Relative Deprivation on Smoking Frequency - Alternative Measures of Household Education

	Males					Females				
	Head of household's education (core model)	Average parental education	Maximum parental education	Mother's education ¹	Father's education ²	Head of household's education (core model)	Average parental education	Maximum parental education	Mother's education ^a	Father's education ^b
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Specified household education	3.091 (3.192)	4.994 (4.850)	8.466* (4.544)	6.032 (4.862)	0.099 (4.610)	3.575 (4.021)	18.181*** (6.494)	12.989** (5.810)	16.190*** (6.073)	1.465 (5.091)
Specified household education squared	-0.088 (0.083)	-0.392 (0.318)	-0.527* (0.281)	-0.335 (0.320)	-0.070 (0.295)	-0.189* (0.109)	-1.890*** (0.457)	-1.369*** (0.382)	-1.370*** (0.407)	-0.581* (0.350)
Relative deprivation	5.964*** (1.920)	11.517*** (3.829)	12.664*** (3.586)	12.297*** (3.817)	8.350** (3.501)	2.655 (2.436)	12.895*** (4.923)	7.412* (4.222)	15.860*** (4.908)	2.780 (3.910)
N	31,635	31,635	31,635	29,201	25,005	33,963	33,963	33,963	32,182	25,322

Notes: a. Only if mother is present in the household. b. Only if father is present in the household. * Significant at 10%. **

Significant at 5%. *** Significant at 1%

