**Online Appendix Measure Details and Full Model Results**

*School Experiences*

School Disciplinary Environment: The punitive dimension of discipline includes 12 infractions: cheating, fighting with another student, injuring another student, possessing alcohol, possessing an illegal drug, possessing a weapon, drinking alcohol at school, using an illegal drug at school, smoking at school, verbally abusing a teacher, physically injuring a teacher, and stealing school property. The value ranges are 1-7 where 1 is “no policy”, 2 is undefined, 3 is verbal warning, 4 is minor action, 5 is in-school suspension, 6 is out-of-school suspension, and 7 is expulsion.

Perceive Unfair Treatment: Missing values are replaced with responses to the same survey item in the Wave 1 In-Home Survey if available. While the question posed to respondents is not specific to the student’s own experience of fairness, it is plausible to assume the respondent’s answer reflects their personal experience in addition to their observations of the school in general.

*Citizenship Outcomes*

Trust: In creating the Trust measure, affirmative and negative indicators (trusting and not trusting) are first created separately for each of the respondent’s three responses. Respondents are then placed in the modal group based on their responses. There is a high degree of consistency across the three measures – only 15% not consistent in reporting trust all, and only 10% not consistent in reporting not trusting all.

*Student Characteristics*

Delinquent Behavior: The measure of delinquent or deviant behavior is taken from the Wave 1 Survey. The measure is an average of fifteen self-report items from the Add Health Delinquency Scale that asked about a broad range of antisocial behaviors within the past 12 months, from minor acts such as shoplifting and lying to parents about whereabouts, to more serious offenses such as being in a serious fight and selling drugs (α=0.84). Responses ranged from 0 to 3, representing never, one or two times, three or four times, and five or more times. Higher scores on this measure indicated higher levels of delinquent behavior.

Previous Punitive Sanctioning: In addition to controlling for current delinquent behavior as reported by the student, all models also include a measure indicating that a student was previously suspended or expelled prior to 7th grade (i.e. earlier experience with punitive sanctioning).

Grades: A measure of average grades is created from self-reported grades in the In-School Survey for English, math, history, and science. The responses are coded to be equivalent to a 0-4 grade point scale where a 1.0 is a D, 2.0 is a C, 3.0 is a B, and a 4.0 is an A. The four grades reported (or as many were reported) are averaged to create an average grades measure.

Vocabulary Test Score: The score on a modified Peabody Picture Vocabulary Test is the only test score measure available in Add Health and it is included as a measure of verbal ability.

Engagement in School: The engagement in school measure is created by averaging responses to two items taken from the In-School Survey that ask respondents whether they have trouble with homework, and whether they have trouble paying attention in school.

Reports Trying Hard in School: This measure is taken from an In-School Survey item asking respondents: “When you get what you want, it’s usually because you worked hard for it.” The response categories are a five category Likert scale which is coded so that higher values are agreement with this belief.

Belief in Hard Work: This measure is derived from a survey item on the In-School Survey that asks: “In general, how hard do you try to do your school work well?” The response categories are: I try very hard to do my best; I try hard enough, but not as hard as I could; I don’t try very hard at all; and I never try at all. The item is coded so that higher values indicate more effort/trying harder.

*School Characteristics*

Urbanicity: An indicator for urban is included to account for the possibility that the disciplinary dimensions of authority relations differs across school location.

Region: An indicator for the South region of the United States is included in order to capture the possibility that authority relations in schools may be regionally specific.

School Size: An indicator for schools having a large number of students (over 1000) is included because both disciplinary and community dimensions of authority relations may differ in schools that have more expansive campuses or a higher density of students (i.e. more formal rules or surveillance), and social processes related to feelings of marginality and belonging may operate differently in large environments (i.e. more subcultures within the school or more variation).

School Type: An indicator variable distinguishing private versus public schools is included in case authority relations differ across these school types.

Average Parental Education: The only measure of socioeconomic status that is available for all students in the school is the level of parent education. The parent education measure is reported by the adolescent in the In-School Survey, and is coded to use the highest parent education level if the adolescent reports the education level of two parents. The student reports the parent’s level of education in six categories. The school average parental education is created by aggregating these student reports to the school level.

Average Student Achievement: The academic achievement of the school is measured using the percent of students at or above grade level as reported by the school administrator in the School Administrator Survey.

Racial Diversity: A measure of racial diversity is created from the racial composition of the school. Student self-reported racial identifications on the In-School Survey are aggregated to the school level in order to calculate a Simpson Index.

*Young Adult Statuses*

Educational Attainment: The measure is an indicator for whether the respondent has attained a BA degree of higher. It is based on the highest grade or year of regular school the respondent reports completing. We rely on this measure, in part, because of the age of the sample. At the time of Wave 3, respondents are 18-26 years of age, so many respondents have not completed their education.

Employment Status: The measure is based on a survey item asking the respondent whether they currently work for pay at least 10 hours a week.

Married: The measure is based on survey items asking the respondent the number of times they have been married and then, for each reported marriage, if they are still married.

Political Party Identification: The measure is created from a question asking the respondent if they identify with a political party. The measure is dichotomous, yes/no.

Table A1. Full Model Results Predicting School Authority Relations Experiences by Race

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Punitive Sanctioning | | Perceive Unfair Treatment | | High Disciplinary Regime | |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Latino | 1.572 | 0.776 | 0.979 | 0.858 | 1.290 | 0.559 |
|  | (0.168)\*\* | (0.120) | (0.108) | (0.107) | (0.538) | (0.236) |
| Black | 2.868 | 2.098 | 1.339 | 1.263 | 8.995 | 4.066 |
|  | (0.338)\*\* | (0.230)\*\* | (0.117)\*\* | (0.113)\* | (3.146)\*\* | (1.301)\*\* |
| Asian | 0.589 | 0.385 | 0.635 | 0.657 | 2.455 | 1.567 |
|  | (0.121)\* | (0.099)\*\* | (0.141)\* | (0.153) | (1.189) | (0.639) |
| Other Race | 1.588 | 1.088 | 1.478 | 1.364 | 2.232 | 1.699 |
|  | (0.254)\*\* | (0.181) | (0.197)\*\* | (0.185)\* | (0.538)\*\* | (0.426)\* |
| Female |  | 0.379 |  | 1.350 |  | 1.193 |
|  |  | (0.026)\*\* |  | (0.105)\*\* |  | (0.065)\*\* |
| Parent Education | | 0.503 |  | 0.847 |  | 0.861 |
|  |  | (0.048)\*\* |  | (0.068)\* |  | (0.077) |
| Age |  | 1.135 |  | 1.062 |  | 0.987 |
|  |  | (0.039)\*\* |  | (0.027)\* |  | (0.085) |
| Delinquent Behavior | | 7.072 |  | 2.644 |  | 1.182 |
|  |  | (0.884)\*\* |  | (0.232)\*\* |  | (0.132) |
| Grades | | 0.679 |  | 0.869 |  | 0.854 |
|  |  | (0.036)\*\* |  | (0.043)\*\* |  | (0.060)\* |
| Vocabulary Test Score | | 0.978 |  | 1.000 |  | 1.007 |
|  |  | (0.004)\*\* |  | (0.003) |  | (0.005) |
| Engagement in School |  | 1.007 |  | 1.058 |  | 1.022 |
|  |  | (0.068) |  | (0.070) |  | (0.064) |
| Reports Trying Hard in School |  | 0.915 |  | 0.861 |  | 1.089 |
|  |  | (0.059) |  | (0.046)\*\* |  | (0.074) |
| Belief in Hard Work | | 0.940 |  | 0.889 |  | 1.006 |
|  |  | (0.038) |  | (0.033)\*\* |  | (0.039) |
| Punitive Sanctioning Before Middle School | |  |  | 1.238 |  | 1.428 |
|  |  |  |  | (0.271) |  | (0.292) |
| Average Parental Education |  | 0.756 |  | 1.060 |  | 0.710 |
|  |  | (0.079)\*\* |  | (0.078) |  | (0.301) |
| Average Student Achievement | | 0.997 |  | 0.996 |  | 0.995 |
|  |  | (0.003) |  | (0.002) |  | (0.011) |
| Large |  | 0.839 |  | 0.975 |  | 1.058 |
|  |  | (0.114) |  | (0.122) |  | (0.574) |
| Private |  | 0.783 |  | 0.718 |  | 0.562 |
|  |  | (0.179) |  | (0.140) |  | (0.532) |
| Urban |  | 0.950 |  | 0.829 |  | 1.255 |
|  |  | (0.145) |  | (0.075)\* |  | (0.693) |
| South |  | 1.024 |  | 0.991 |  | 3.377 |
|  |  | (0.118) |  | (0.080) |  | (1.561)\*\* |
| Racial Diversity |  | 2.757 |  | 1.264 |  | 46.764 |
|  |  | (0.925)\*\* |  | (0.347) |  | (67.719)\*\* |
| N | 11,875 | 11,875 | 11,875 | 11,875 | 11,875 | 11,875 |

Table A2. Full Model Results School Authority Relations Experiences by Race, Class, and Gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Punitive Sanctioning | | Perceive Unfair Treatment | | High Disciplinary Regime | |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Latino Female Low Parent Education | 1.586 | 0.643 | 1.475 | 1.369 | 2.013 | 0.891 |
|  | (0.291)\* | (0.160) | (0.278)\* | (0.266) | (0.919) | (0.392) |
| Latino Female High Parent Education | 1.266 | 0.818 | 1.394 | 1.420 | 1.293 | 0.702 |
|  | (0.446) | (0.335) | (0.605) | (0.631) | (0.523) | (0.280) |
| Latino Male Low Parent Education | 3.479 | 1.499 | 1.240 | 1.053 | 1.383 | 0.547 |
|  | (0.561)\*\* | (0.314) | (0.265) | (0.248) | (0.635) | (0.255) |
| Latino Male High Parent Education | 2.395 | 1.181 | 1.106 | 0.810 | 0.898 | 0.390 |
|  | (0.614)\*\* | (0.318) | (0.370) | (0.300) | (0.367) | (0.163)\* |
| White Female Low Parent Education | 1.024 | 0.833 | 1.646 | 1.736 | 1.285 | 1.316 |
|  | (0.131) | (0.126) | (0.238)\*\* | (0.249)\*\* | (0.228) | (0.162)\* |
| White Female High Parent Education | 0.342 | 0.401 | 1.102 | 1.289 | 1.015 | 1.085 |
|  | (0.060)\*\* | (0.073)\*\* | (0.218) | (0.246) | (0.123) | (0.122) |
| White Male Low Parent Education | 3.374 | 2.657 | 1.410 | 1.281 | 1.216 | 1.182 |
|  | (0.410)\*\* | (0.381)\*\* | (0.204)\* | (0.189) | (0.209) | (0.154) |
| Black Female Low Parent Education | 3.562 | 1.979 | 2.043 | 1.990 | 12.463 | 5.241 |
|  | (0.631)\*\* | (0.384)\*\* | (0.353)\*\* | (0.367)\*\* | (5.124)\*\* | (1.975)\*\* |
| Black Female High Parent Education | 1.349 | 1.057 | 1.812 | 2.052 | 12.034 | 6.376 |
|  | (0.310) | (0.253) | (0.337)\*\* | (0.434)\*\* | (4.959)\*\* | (2.747)\*\* |
| Black Male Low Parent Education | 7.831 | 4.319 | 1.479 | 1.319 | 10.445 | 4.255 |
|  | (1.339)\*\* | (0.792)\*\* | (0.277)\* | (0.284) | (3.947)\*\* | (1.422)\*\* |
| Black Male High Parent Education | 2.878 | 2.252 | 2.040 | 2.023 | 7.669 | 4.210 |
|  | (0.623)\*\* | (0.644)\*\* | (0.472)\*\* | (0.510)\*\* | (2.947)\*\* | (1.739)\*\* |
| Age |  | 1.149 |  | 1.071 |  | 0.994 |
|  |  | (0.031)\*\* |  | (0.028)\*\* |  | (0.090) |
| Delinquent Behavior |  | 7.426 |  | 2.667 |  | 1.063 |
|  |  | (1.013)\*\* |  | (0.267)\*\* |  | (0.128) |
| Grades | | 0.677 |  | 0.868 |  | 0.865 |
|  |  | (0.040)\*\* |  | (0.046)\*\* |  | (0.063)\* |
| Vocabulary Test Score | | 0.974 |  | 0.999 |  | 1.007 |
|  |  | (0.004)\*\* |  | (0.003) |  | (0.004) |
| Engagement in School |  | 1.040 |  | 1.064 |  | 1.037 |
|  |  | (0.077) |  | (0.074) |  | (0.078) |
| Reports Trying Hard in School |  | 0.907 |  | 0.871 |  | 1.051 |
|  |  | (0.062) |  | (0.052)\* |  | (0.070) |
| Belief in Hard Work |  | 0.939 |  | 0.869 |  | 1.019 |
|  |  | (0.037) |  | (0.032)\*\* |  | (0.043) |
| Punitive Sanctioning Prior to Middle |  |  |  | 1.149 |  | 1.452 |
|  |  |  |  | (0.276) |  | (0.321) |
| Average Parent Education |  | 0.731 |  | 1.060 |  | 0.713 |
|  |  | (0.074)\*\* |  | (0.076) |  | (0.308) |
| Average Achievement |  | 0.998 |  | 0.995 |  | 0.996 |
|  |  | (0.004) |  | (0.003) |  | (0.011) |
| Large |  | 0.786 |  | 0.980 |  | 1.015 |
|  |  | (0.100) |  | (0.123) |  | (0.558) |
| Private |  | 0.821 |  | 0.712 |  | 0.515 |
|  |  | (0.178) |  | (0.144) |  | (0.518) |
| Urban |  | 1.040 |  | 0.876 |  | 1.291 |
|  |  | (0.144) |  | (0.080) |  | (0.732) |
| South |  | 0.964 |  | 0.997 |  | 3.475 |
|  |  | (0.102) |  | (0.079) |  | (1.615)\*\* |
| Diverse |  | 3.329 |  | 1.243 |  | 68.821 |
|  |  | (1.129)\*\* |  | (0.327) |  | (103.505)\*\* |
| N | 10,001 | 10,001 | 10,001 | 10,001 | 10,001 | 10,001 |

Note: Reference group is White Male with High Parent Education. The number of observations is lower because Asian, Native American, Multiracial, and Other Race students are excluded due to sample size concerns with complex interactions.

Table A3. Full Model Results Predicting Citizenship Outcomes with School Experiences

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Voting | | | Trust Government | | |
|  | *Model* | *Model 2* | *Model 3* | *Model 1* | *Model 2* | *Model 3* |
| Punitive Sanctioning | 0.625 | 0.763 | 0.819 | 0.619 | 0.765 | 0.791 |
|  | (0.041)\*\* | (0.052)\*\* | (0.056)\*\* | (0.035)\*\* | (0.051)\*\* | (0.052)\*\* |
| Perceptions of Fair Treatment | 0.819 | 0.854 | 0.862 | 0.663 | 0.721 | 0.724 |
|  | (0.059)\*\* | (0.062)\* | (0.064)\* | (0.044)\*\* | (0.048)\*\* | (0.048)\*\* |
| School Disciplinary Environment | 0.961 | 0.876 | 0.909 | 0.893 | 1.015 | 1.036 |
|  | (0.091) | (0.077) | (0.080) | (0.060) | (0.073) | (0.078) |
| Female |  | 1.038 | 1.003 |  | 0.956 | 0.938 |
|  |  | (0.056) | (0.056) |  | (0.054) | (0.055) |
| Latino | | 1.059 | 1.098 |  | 0.934 | 0.951 |
|  |  | (0.088) | (0.098) |  | (0.092) | (0.097) |
| Black | | 2.029 | 1.841 |  | 0.617 | 0.578 |
|  |  | (0.242)\*\* | (0.243)\*\* |  | (0.056)\*\* | (0.054)\*\* |
| Asian | | 0.711 | 0.762 |  | 1.161 | 1.189 |
|  |  | (0.142) | (0.162) |  | (0.188) | (0.194) |
| Other Race | | 1.041 | 1.044 |  | 1.022 | 1.010 |
|  |  | (0.133) | (0.143) |  | (0.138) | (0.137) |
| Parent Education | | 1.541 | 1.421 |  | 1.248 | 1.187 |
|  |  | (0.091)\*\* | (0.087)\*\* |  | (0.074)\*\* | (0.072)\*\* |
| Age |  | 1.119 | 1.099 |  | 1.011 | 0.993 |
|  |  | (0.021)\*\* | (0.024)\*\* |  | (0.017) | (0.018) |
| Punitive Sanctioning Prior to Middle School | | 0.695 | 0.649 |  | 0.787 | 0.785 |
|  |  | (0.138) | (0.142) |  | (0.176) | (0.171) |
| Delinquent Behavior | | 0.859 | 0.828 |  | 0.648 | 0.646 |
|  |  | (0.074) | (0.078)\* |  | (0.065)\*\* | (0.067)\*\* |
| Grades | | 1.217 | 1.155 |  | 1.142 | 1.105 |
|  |  | (0.060)\*\* | (0.063)\*\* |  | (0.049)\*\* | (0.048)\* |
| Vocabulary Test Score | | 1.017 | 1.013 |  | 0.995 | 0.992 |
|  |  | (0.003)\*\* | (0.003)\*\* |  | (0.002)\* | (0.002)\*\* |
| Engagement in School |  | 0.986 | 1.007 |  | 0.941 | 0.947 |
|  |  | (0.059) | (0.059) |  | (0.057) | (0.058) |
| Reports Trying Hard in School |  | 1.077 | 1.070 |  | 1.028 | 1.023 |
|  |  | (0.055) | (0.054) |  | (0.057) | (0.058) |
| Belief in Hard Work | | 1.065 | 1.062 |  | 1.059 | 1.055 |
|  |  | (0.037) | (0.037) |  | (0.030)\* | (0.030) |
| Educational Attainment | | | 1.473 |  |  | 1.472 |
|  |  |  | (0.186)\*\* |  |  | (0.146)\*\* |
| Married | |  | 1.021 |  |  | 0.983 |
|  |  |  | (0.066) |  |  | (0.067) |
| Employed |  |  | 1.101 |  |  | 1.006 |
|  |  |  | (0.086) |  |  | (0.064) |
| Party ID | |  | 3.841 |  |  | 1.535 |
|  |  |  | (0.238)\*\* |  |  | (0.095)\*\* |
| Average Parent Education |  | 1.231 | 1.283 |  | 1.120 | 1.115 |
|  |  | (0.075)\*\* | (0.076)\*\* |  | (0.088) | (0.091) |
| Average Achievement | | 1.000 | 0.998 |  | 1.003 | 1.003 |
|  |  | (0.002) | (0.003) |  | (0.002) | (0.002) |
| Large |  | 1.055 | 0.979 |  | 1.006 | 0.977 |
|  |  | (0.107) | (0.110) |  | (0.074) | (0.074) |
| Private |  | 1.232 | 1.012 |  | 1.021 | 0.955 |
|  |  | (0.188) | (0.164) |  | (0.168) | (0.153) |
| Urban |  | 0.912 | 0.872 |  | 0.899 | 0.890 |
|  |  | (0.082) | (0.079) |  | (0.076) | (0.077) |
| South |  | 1.175 | 1.075 |  | 1.082 | 1.057 |
|  |  | (0.098) | (0.092) |  | (0.075) | (0.075) |
| Racial Diversity |  | 1.198 | 1.189 |  | 0.877 | 0.857 |
|  |  | (0.292) | (0.298) |  | (0.209) | (0.208) |
| N | 11,456 | 11,456 | 11,456 | 11,875 | 11,875 | 11,875 |

Note: Voting models are restricted to citizens.