

**ADDITIONAL TABLES
INTENDED FOR ONLINE APPENDIX**

Online Table 1. Arrest by Year 15: Propensity Score Matching Results Using Only Complete Cases

	Proportion Arrested: Suspended	Proportion Arrested: Not Suspended	Difference		Relative Risk Ratio	Suspended N	Not Suspended N
Unmatched	0.216	0.049	0.166***	(0.023)	4.369	176	688
Matched	0.273	0.078	0.195**	(0.060)	3.500	77	77

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; two-tailed tests. Standard errors in parentheses. Matched estimates reflect average treatment effects for suspended students. Teens matched on propensity for suspension by Year 9, modeled as a function of contextual and pre-suspension risk factors listed in Table 2. One-to-one matching without replacement (caliper=0.001) was used. Results calculated using unimputed, complete-case data. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.

Online Table 2. Results Using Only Child, Primary Caregiver or Combined Reports of Treatment & Outcome

	Proportion Arrested: Suspended	Proportion Arrested: Not Suspended	Difference	Relative Risk Ratio	Suspended N	Not Suspended N
<i>Only Using Child Reports of Suspension and Arrest</i>						
Unmatched	0.120	0.028	0.093*** (0.010)	4.333	529	2,392
Matched	0.110	0.047	0.063** (0.019)	2.348	398	398
<i>Only Using Primary Caregiver Reports of Suspension and Arrest</i>						
Unmatched	0.221	0.056	0.165*** (0.019)	3.967	171	2,753
Matched	0.217	0.101	0.117** (0.043)	2.158	143	143
<i>Only Using Cases in which Child & Primary Caregiver Reports Agree</i>						
Unmatched	0.157	0.020	0.137*** (0.015)	7.789	121	2,133
Matched	0.176	0.026	0.151** (0.045)	6.865	85	85

Note: *** p<0.001, ** p<0.01, * p<0.05; two-tailed tests. Standard errors in parentheses. Matched estimates reflect average treatment effects for the suspended students. Teens matched on propensity for suspension by Year 9, modeled as a function of contextual and pre-suspension risk factors listed in Table 2. One-to-one matching without replacement (caliper=0.001) was used. Results combined across five imputed datasets. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.

Online Table 3: Full Description of Variables

<i>Variable Name:</i>	<i>Source:</i>	<i>Type:</i>	<i>Details</i>
<i>Outcome and Treatment:</i>			
Ever Arrested	15: Y & P	B	Youth answers “yes” to “Have you ever been arrested or taken into custody by the police?” <i>Or:</i> PCG answers “yes” to “Has {youth} ever been arrested?”
Ever Suspended/Expelled: 9	9: Y & P	B	Youth answers “yes” to “Have you ever been suspended or expelled from school” <i>Or:</i> PCG answers “yes” to “Child was suspended and or expelled”
<i>Family Background & Context: Birth – Year 5</i>			
Black	Baseline: M & F	B	M&F self-reported at baseline interview. If either parent black, child is designated as black.
Hispanic	Baseline: M & F	B	M&F self-reported at baseline interview. If either parent Hispanic, and neither parent is black, child is designated as Hispanic.
Male	Baseline: Hospital	B	Sex of child taken from hospital birth records.
Black Male	Baseline: M & F, Hospital	B	Interaction between black and male, defined as above.
Either Parent Immigrant	Baseline: M & F	B	Either parent answers “no” to “Were you born in the U.S.?” at baseline interview
Father: Only high school or Less	Baseline	B	Self-report: completed “less than high school” or “high school or equivalent”
Mother: Only high school or Less	Baseline	B	Self-report: completed “less than high school” or “high school or equivalent”
Parents Married/Cohabiting Since Birth	Baseline – 5: M & F	B	Biological parents married or cohabited in every survey wave, baseline through 5
Mother Drug Use Last Year	5: M	B	At Year 5, biological mother reports having used any illegal drug in the last year
Poverty Line or Below Last Year	5: M & F	B	Either parent’s reported family income is below poverty line
Father Incarcerated: Ever Between Birth & 5	Baseline – 5: M & F	B	Father ever in jail, excluding prior to child’s birth. M&F direct and indirect reports across first five survey waves.
PCG Hit Child w/ Belt or Object	5: P	B	At Year 5, primary caregiver reports that, in the past month, to discipline the child, they have: Hit (him/her) on the bottom with something like a belt, hairbrush, a stick or some other hard object

(continued)

Online Table 3: Continued

<i>Family Background & Context: Birth – Year 5</i>			
PCG Insulted Child w/ Harsh Language	5: P	B	At Year 5, primary caregiver reports that, in the past month, to discipline the child, they have: Called (him/her) dumb or lazy or some other name like that
PCG Witnessed Killing in Last Year	5: P	B	At Year 5, primary caregiver gives non-zero response to question: (In the past year, about how many times) did you see someone get killed because of violence by someone?
Child Protective Services Contact	5: P	B	At Year 5, primary caregiver reports that, since the child was born, Child Protective Services has contacted them about <i>any</i> child in the household
Child Received Free Lunch in Preschool	5: P	B	PCG answers yes to “Does (CHILD) get free meals while at child care or school?”
Tested Pos. Lead Poison	5: P	B	At Year 5, primary caregiver reports that child 1) has ever been tested for lead poisoning, <i>and</i> 2) was found to have higher than normal levels, regardless of what these levels required treatment
<i>Child Behavior & Temperament at Year 5</i>			
Restless & Hyperactive	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that the child “can’t sit still, or is restless and hyperactive”
Has Temper Tantrums	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that the child “has temper tantrums or hot temper”
Physically Attacks People	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that the child “physically attacks people”
Argues A Lot	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that the child “argues a lot”
Disobedient in Preschool/Childcare	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that child “is disobedient at school or in childcare”
Steals	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that child “steals at home” <i>or</i> “steals outside the home”
Hangs Around with Troublemakers	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that child “hangs around with others who get in trouble”
Vandalizes	5: P	B	At Year 5, primary caregiver reports that it is “somewhat” or “very true” that the child “vandalizes”

(continued)

Online Table 3: Continued

<i>Variable Name:</i>	<i>Source:</i>	<i>Type:</i>	<i>Details</i>
Peabody Picture Vocabulary Test Score	5: Y	C	Fragile Families survey contractors (Mathematica Policy Research) scored test; full details of scoring available in Year 5 Home Visit User’s Guide. Nationally normed scores used.
<i>Neighborhood Context</i>			
Neighborhood Concentrated Disadvantage (Birth – Year 9)	Census 2000: M & F Census Tracts, Baseline - 9	C	The child’s biological mother’s and father’s census tracts (along with that the primary caregiver, if not either biological parent) were identified in each wave of data collection. The mean value of five indicators of concentrated disadvantage, for each parent (if living separately), averaged together and summed across years. The total measure was standardized to a mean of zero and standard deviation of one, within the sample. The indices of concentrated disadvantage were: <ul style="list-style-type: none"> • Percent of tract’s 25+ population with less than high school education • Percent of tract’s families below poverty level in 1999 • Percent of tract’s family households with kids <18 headed by females • Percent of tract’s households on public assistance • Percent of tract’s civilian labor force (16+) unemployed
<i>School Context</i>			
% Students Black	CCD	C	Percent of Black students in school averaged across 2005/6-2009/10 waves of CCD data. For analyses, percentages were standardized, within sample, to mean zero and standard deviation of one. Unstandardized rates are presented in Table 1.
% Students Free/Reduced Price Lunch	CCD	C	Percent of students in school eligible for free or reduced lunch averaged across 2006/7-2009/10 waves of CCD data. For analyses, percentages were standardized, within sample, to a mean of zero and standard deviation of one. Unstandardized rates are presented in Table 1.
Student-to-Teacher Ratio	CCD	C	Student-to-teacher ratio averaged across 2006/7-2009/10 waves of CCD data. For analyses, values were standardized, within sample, to a mean of zero and standard deviation of one. Unstandardized rates are presented in Table 1.
Exclusionary Discipline Rate	CRDC	C	Suspension/expulsion rate for a school calculated as the sum of total number of out of school suspensions and expulsions divided by the total number of students enrolled in all grades. Rates were calculated separately for the 2009/10, 2011/12, and 2013/14 waves of the CRDC. For analyses, they were averaged across years and standardized, within sample, to a mean of zero and standard deviation of one. Unstandardized rates are presented in Table 1.

(Continued)

Online Table 3: Continued

Any Guidance Counselor	CRDC	B	Binary indicator for whether school ever reported employing a guidance counselor between 2009/10 and 2013/14
Charter School	CCD	B	Binary indicator for whether school ever reported being a charter school between 2006/7 and 2009/10.
<i>Mechanisms:</i>			
Suspended/Expelled in Last 2 Years: 15	15: Y & P	B	Youth answers “yes” to “Have you ever been suspended or expelled from school in the past two years?” <i>Or:</i> PCG answers one or more to “How many times has {youth} been suspended or expelled in the past two years?”
Delinquency Scale: By Year 9	9: Y	C	Dichotomous indicators of having ever participated in activity were summed and then standardized within analytic sample to a mean of zero and standard deviation of one. Activities were: <ul style="list-style-type: none"> • “Purposely damaged or destroyed property that wasn’t yours” • “Taken or stolen something from another person or from a store” • “Taken money at home, like from your mother’s purse/ dresser” • “Had a fist fight with another person” • “Hurt an animal on purpose” • “Trespassed into somebody’s garden, backyard, house, or garage” • “Ran away from home” • “Secretly taken a sip of wine, beer, or liquor” • “Smoked marijuana, grass, pot, weed” • “Smoked a cigarette or used tobacco“ • “Written things or spray painted on walls or sidewalks or cars” • “Purposely set fire to a building, a car, or other property or tried to” • “Avoided paying for movies, bus or subway rides or food” • “Thrown rocks or bottles at people or cars”

(Continued)

Online Table 3: Continued

<i>Mechanisms:</i>			
Delinquency Scale: 15	15: Y	C	<p>Indicators of having ever participated in activity were dichotomized, summed and then standardized within analytic sample to a mean of zero and standard deviation of one. The items of the scale were: “How often in the past 12 months did you...</p> <ul style="list-style-type: none"> • paint graffiti or signs on someone else’s property or in a public place? • deliberately damage property that didn’t belong to you? • take something from a store without paying for it? • get into a serious physical fight? • hurt someone badly enough to need bandages or care from a doctor or nurse? • drive a car without its owner’s permission? • steal something worth more than \$50? • go into a house or building to steal something? • use or threaten to use a weapon to get something from someone? • sell marijuana or other drugs? • steal something worth less than \$50? • take part in a fight where a group of your friends was against another group? • were you loud, rowdy, or unruly in a public place? • smoke an entire cigarette? • drank alcohol more than two times without parents? • tried marijuana? • tried any illegal drugs other than marijuana? • used prescription drugs in ways not prescribed?
Aggressive Behavior Scale: 9	9: P	C	<p>Primary caregiver was asked “about (CHILD) and how he or she behaves” and whether the following items were Not True (so far as you know), Somewhat or Sometimes True, OR Very True or Often True? Responses rated 1, 2, or 3, averaged, and standardized for analyses. Items assessed were:</p> <ul style="list-style-type: none"> • argues a lot • is cruel, bullies, or shows meanness to others • destroys things belonging to family or others • is disobedient at home • is disobedient at school

Online Table 3: Continued

Aggressive Behavior Scale: 9	9: P	C	<ul style="list-style-type: none"> • gets in many fights • physically attacks people • is stubborn, sullen, or irritable • has temper tantrums or a hot temper • threatens people • is unusually loud
Aggressive Behavior Scale: 15	15: P	C	Primary caregiver was asked “about problems and behaviors some teens show. For each behavior, please tell me whether, so far as you know, this is not true, sometimes true, or often true of {YOUTH}.” Responses rated 1, 2, or 3, averaged, and standardized for analyses. Items assessed were verbatim same as at Year 9.
School Connection Scale: 9	9: Y	C	Children were told “Now I am going to ask you some questions about your experiences at school. Please tell me how often you felt this way in the past month.” Response categories were Not Once, 1-2 times, Once a week, Several Times Per week, Every Day. Responses were scored 0-4, averaged, and standardized for analyses. Items were: <ul style="list-style-type: none"> • Feel like you were a part of your school • Feel close to people at your school • Feel happy to be at school • Feel safe at school
School Connection Scale: 15	15: Y	C	Teens were asked about “your school and school experiences” Response categories were strongly agree, somewhat agree, somewhat disagree, or strongly disagree. Responses were scored 1-4, averaged, and standardized for analyses. Items were verbatim same as at Year 9.
Skipped School by Year 9	9: P & Y	B	Binary indicator taking a value of 1 if <i>either</i> PCG reports that it is at least somewhat true that “child is truant or skips school” <i>or</i> the child reports that they have ever “skipped school without an excuse”
Skipped School at Year 15	15: Y	B	Binary indicator for whether teen reports a non-zero value for the question “{During this school year/During the last school year}, how many times {have you skipped/did you skip} school for a full day without an excuse?”

(Continued)

Online Table 3: Continued

Repeated Grade by Year 9	9: P	B	Binary indicator taking a value of 1 if PCG answers yes to question “Has {CHILD} ever repeated any grades?”
Repeated Grade since Year 9	15: P	B	Binary indicator taking a value of 1 if PCG answers yes to question “Since {MONTH AND YEAR COHORT CITY FIELDDED IN YR 9} has {YOUTH} repeated any grades?”

Notes: Y=Youth Survey; P=Primary Caregiver Survey; M=Biological Mother Survey; F=Biological Father Survey; B=Binary; C=Continuous

Online Table 4. Matching Results Using Alternate Matching Techniques

	Proportion Arrested: Suspended	Proportion Arrested: Not Suspended		Difference	Relative Risk Ratio
<i>One-to-One Matching: No Caliper</i>					
Unmatched	0.195	0.050	0.145***	(0.012)	3.888
Matched	0.194	0.098	0.097***	(0.021)	1.991
<i>Nearest Neighbor Matching: Five Neighbors</i>					
Unmatched	0.195	0.050	0.145***	(0.012)	3.888
Matched	0.188	0.090	0.098***	(0.022)	2.099
<i>Kernel Matching</i>					
Unmatched	0.195	0.050	0.145***	(0.012)	3.888
Matched	0.194	0.103	0.091***	(0.019)	1.884

Note: *** $p < 0.001$; two-tailed tests. Standard errors in parentheses. Matched estimates reflect average treatment effects for suspended students. Teens matched on propensity for suspension by Year 9, modeled as a function of contextual and pre-suspension risk factors listed in Table 2. Results pooled across 20 imputed datasets. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.

Online Table 5. Propensity Score Matching Results by Childhood Suspension Status Subgroups

	Proportion Arrested: Suspended	Proportion Arrested: Not Suspended	Difference		Relative Risk Ratio	Not Suspended N	Suspended N
<i>Black Teens</i>							
Unmatched	0.192	0.068	0.124***	(0.016)	2.838	1,204	466
Matched	0.182	0.095	0.087**	(0.028)	1.915	305	305
<i>Non-Black Teens</i>							
Unmatched	0.211	0.032	0.179***	(0.021)	6.569	1154	100
Matched	0.201	0.044	0.157**	(0.056)	4.551	65	65
<i>Male Teens</i>							
Unmatched	0.214	0.066	0.147***	(0.018)	3.222	1101	397
Matched	0.199	0.096	0.103**	(0.032)	2.074	239	239
<i>Female Teens</i>							
Unmatched	0.152	0.036	0.116***	(0.018)	4.199	1258	168
Matched	0.158	0.058	0.100**	(0.041)	2.734	114	114

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; two-tailed tests. Standard errors in parentheses. Matched estimates reflect average treatment effects for the suspended students. Teens matched on propensity for suspension by Year 9, modeled as a function of contextual and pre-suspension risk factors listed in Table 2. Propensity scores were estimated separately by sample; matching was conducted within sample. One-to-one matching without replacement (caliper=0.001) was used. Results combined across twenty imputed datasets. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.

Online Table 6. Balance Tests Before and After Matching

Variable	Unmatched (U)/ Matched (M)	Treated	Control	% Bias	t	p > t
Propensity for Suspension	U	0.38	0.15	122.58	29.51	0.00
	M	0.29	0.29	-0.10	-0.01	0.99
Child Black	U	0.82	0.51	70.38	13.95	0.00
	M	0.77	0.78	-0.79	-0.13	0.75
Child Hispanic	U	0.12	0.29	-43.89	-8.54	0.00
	M	0.15	0.15	0.39	0.08	0.63
Child Male	U	0.70	0.47	49.20	10.24	0.00
	M	0.64	0.64	1.37	0.19	0.59
Child Black x Male	U	0.55	0.23	71.15	16.06	0.00
	M	0.46	0.46	0.05	0.01	0.68
Either Parent Immigrant	U	0.07	0.19	-35.32	-6.76	0.00
	M	0.08	0.09	-1.51	-0.24	0.70
Father High School Diploma or Less	U	0.84	0.68	38.12	7.61	0.00
	M	0.81	0.82	-1.36	-0.21	0.63
Mother High School Diploma or Less	U	0.77	0.64	30.39	6.23	0.00
	M	0.75	0.76	-1.11	-0.17	0.57
Parents married or cohabiting: Birth – Y5	U	0.14	0.31	-42.35	-8.34	0.00
	M	0.16	0.16	-0.46	-0.06	0.63
Mother Used Illegal Drugs in Last Year: Y5	U	0.08	0.05	12.86	2.96	0.01
	M	0.07	0.07	2.13	0.31	0.67
Mother/Father Income Below Poverty: Y5	U	0.72	0.50	46.89	9.70	0.00
	M	0.67	0.67	-0.22	-0.03	0.67
Father Ever in Jail Between Birth & Y5	U	0.32	0.17	36.16	8.31	0.00
	M	0.28	0.27	2.23	0.30	0.61
PCG Ever Hit Child w/ Belt or Object	U	0.69	0.45	48.67	10.18	0.00
	M	0.63	0.62	1.55	0.21	0.68
PCG Ever Called Child Dumb, Lazy, or Other Harsh	U	0.11	0.07	15.47	3.57	0.00
	M	0.09	0.09	0.17	0.03	0.70
PCG Witnessed Killing in Last Year	U	0.10	0.05	18.58	4.40	0.00
	M	0.08	0.08	-1.00	-0.13	0.64
Child Protective Services Contact in Last Year: Y5	U	0.20	0.11	25.57	5.94	0.00
	M	0.16	0.17	-0.97	-0.12	0.62
Received Free Lunch in Pre-School	U	0.82	0.61	50.03	9.96	0.00
	M	0.79	0.78	0.81	0.12	0.67

(continued)

Online Table 6. Continued

Variable	Unmatched (U)/ Matched (M)	Treated	Control	% Bias	t	p > t
Tested Positive for Lead Poisoning	U	0.06	0.02	19.84	5.01	0.00
	M	0.04	0.04	-1.41	-0.20	0.71
Restless & Hyperactive	U	0.61	0.46	31.71	6.73	0.00
	M	0.55	0.56	-1.85	-0.26	0.59
Has Temper Tantrums	U	0.56	0.46	21.82	4.65	0.00
	M	0.51	0.52	-2.07	-0.29	0.60
Physically Attacks People	U	0.17	0.07	33.06	8.12	0.00
	M	0.11	0.12	-1.03	-0.14	0.68
Argues A Lot	U	0.75	0.68	14.76	3.09	0.01
	M	0.71	0.72	-1.55	-0.22	0.63
Disobedient in Preschool/Childcare	U	0.44	0.25	41.61	9.30	0.00
	M	0.36	0.37	-0.47	-0.06	0.62
Steals	U	0.10	0.04	22.56	5.52	0.00
	M	0.07	0.07	0.57	0.09	0.61
Hangs Around with Troublemakers	U	0.20	0.10	26.92	6.30	0.00
	M	0.15	0.15	0.02	0.01	0.65
Vandalizes	U	0.14	0.05	30.76	7.67	0.00
	M	0.09	0.09	1.15	0.18	0.56
PPVT Standardized Score	U	-0.12	0.06	-17.71	-3.72	0.00
	M	-0.11	-0.11	-0.39	-0.05	0.61
Neighborhood: Concentrated Disadvantage (Z-Score)	U	0.46	-0.11	59.87	12.62	0.00
	M	0.32	0.33	-0.11	-0.01	0.68
School: % Black (Z-Score)	U	0.50	-0.12	63.37	13.61	0.00
	M	0.34	0.37	-3.06	-0.43	0.59
School: % FRL (Z-Score)	U	0.33	-0.08	44.38	8.93	0.00
	M	0.24	0.26	-1.53	-0.24	0.64
School: Student-Teacher Ratio (Z-Score)	U	0.02	0.00	2.27	0.50	0.63
	M	-0.03	-0.01	-1.93	-0.27	0.58
School: Exclusionary Discipline Rate (Z-Score)	U	0.45	-0.10	50.73	12.11	0.00
	M	0.26	0.24	1.69	0.24	0.62
School: Any Counselor	U	0.52	0.61	-17.84	-3.84	0.00
	M	0.55	0.55	0.51	0.07	0.64
School: Charter School	U	0.11	0.05	21.08	5.04	0.00
	M	0.08	0.09	-1.34	-0.17	0.66

Note: One-to-one matching with replacement (caliper=0.001) was used. Results combined across twenty imputed datasets.

Online Table 7. Rosenbaum Bounds Sensitivity Analysis

Γ : Odds of Differential Assignment to Childhood Suspension Due to Unmeasured Factor	p -critical
1.00	0.000
1.05	0.000
1.10	0.001
1.15	0.001
1.20	0.002
1.25	0.004
1.30	0.006
1.35	0.010
1.40	0.014
1.45	0.021
1.50	0.029
1.55	0.040
1.60	0.053
1.65	0.068
1.70	0.086

Note: Analyses conducted on one-to-one matched pairs constructed in propensity score matching analysis reported in Table 3. P-values from tests of the hypothesis that suspension has zero effect on arrest. Results pooled across 20 imputed datasets. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.

Online Table 8: Complete Regression Results Underlying Mediation Analysis

<i>Proposed Mechanism: Repeated Removal From School</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Suspended/Expelled in Last Two Years		Ever Arrested		% Mediated: Increased Risk for S/E	% Mediated <i>All Other Mechanisms</i>
		Suspended/Expelled in Last Two Years	7.52*** (2.29)	52.2%	47.8%
Childhood Suspension	2.80*** (0.42)	Childhood Suspension	1.68* (0.39)		
Propensity for Childhood Suspension	12.79** (5.99)	Propensity for Childhood Suspension	2.40 (1.56)		
Constant	0.29*** (0.05)	Constant	0.02*** (0.01)		
<i>Proposed Mechanism: Escalations in Delinquent Behavior</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Year 15 Delinquency Scale		Ever Arrested		% Mediated: Escalation in Delinquency	% Mediated <i>All Other Mechanisms</i>
		Delinquency Year 15	1.90*** (0.17)	31.7%	68.7%
Childhood Suspension	0.33*** (0.08)	Childhood Suspension	1.86* (0.44)		
Propensity for Childhood Suspension	0.33 (0.23)	Propensity for Childhood Suspension	4.65 (3.06)		
Delinquency Scale: Year 9	0.11** (0.03)	Delinquency Scale: Year 9	1.06 (0.09)		
Constant	-0.08 (0.09)	Constant	0.051** (0.01)		

(Continued)

Online Table 8: Continued

<i>Proposed Mechanism: Escalations in Aggressive Behavior</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Year 15 Aggression Scale		Ever Arrested		% Mediated: Escalation in Aggression	% Mediated <i>All Other Mechanisms</i>
		Aggression Scale: Year 15	1.78*** (0.17)	18.2%	81.8%
Childhood Suspension	0.19* (0.07)	Childhood Suspension	1.94* (0.45)		
Propensity for Childhood Suspension	0.47* (0.20)	Propensity for Childhood Suspension	3.12 (2.02)		
Aggression Scale: Year 9	0.42*** (0.03)	Aggression Scale: Year 9	1.06 (0.10)		
Constant	-0.11 (0.08)	Constant	0.06*** (0.02)		
<i>Proposed Mechanism: Declining School Connection</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Year 15 School Connection Scale		Ever Arrested		% Mediated: Declining School Connection	% Mediated <i>All Other Mechanisms</i>
		School Connection Scale: Year 15	0.79* (0.07)	5.2%	94.8%
Childhood Suspension	-0.16 (0.07)	Childhood Suspension	2.39*** (0.54)		
Propensity for Childhood Suspension	0.06 (0.23)	Propensity for Childhood Suspension	5.83* (3.59)		
School Connection Scale: Year 9	0.15*** (0.04)	School Connection Scale: Year 9	1.10 (0.11)		
Constant	-0.01 (0.08)	Constant	0.06*** (0.02)		

(Continued)

Online Table 8: Continued

<i>Proposed Mechanism: Increased Risk for Truancy</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Skipped School in Last Year: Year 15		Ever Arrested (Odds Ratios)		% Mediated: Risk for Truancy	% Mediated <i>All Other Mechanisms</i>
		Skipped School Last Year	3.85*** (0.934)	4.9%	95.1%
Childhood Suspension	1.43 (0.30)	Childhood Suspension	2.35*** (0.53)		
Propensity for Childhood Suspension	2.10 (1.27)	Propensity for Childhood Suspension	5.14* (3.22)		
Truancy by Year 9	0.86 (0.45)	Truancy by Year 9	1.07 (0.54)		
Constant	0.12*** (0.03)	Constant	0.05*** (0.01)		

<i>Proposed Mechanism: Increased Risk for Grade Repetition</i>					
<i>Mechanism Model:</i>		<i>Outcome Model:</i>		<i>Algorithmic Output:</i>	
Repeated Grade Since Year 9		Ever Arrested (Odds Ratios)		% Mediated: Risk for Grade Repetition	% Mediated <i>All Other Mechanisms</i>
		Repeated Grade Since Year 9	2.17** (0.57)	2.9%	97.1%
Childhood Suspension	1.52 (0.33)	Childhood Suspension	2.37*** (0.53)		
Propensity for Childhood Suspension	3.28 (2.05)	Propensity for Childhood Suspension	4.96* (3.07)		
Repeated Grade by Year 9	2.29** (0.53)	Repeated Grade by Year 9	0.99 (0.25)		
Constant	0.07*** (0.02)	Constant	0.05*** (0.01)		

Note: *** p<0.001, ** p<0.01, * p<0.05; two-tailed tests. Standard errors in parentheses. Regressions run only on sample matched on propensity for suspension by Year 9.

Online Table 9: Models Odds of Repeated School Exclusion, Controlling for Delinquency

	Odds Ratio of Repeated Exclusion	
Childhood Suspension	2.78*** (0.42)	2.28*** (0.37)
Propensity for Childhood Suspension	12.79*** (5.99)	11.06*** (5.45)
Delinquency: Year 15		1.90*** (0.16)
Delinquency: Year 9		1.10 (0.08)
Constant	0.29*** (0.05)	0.30*** (0.055)

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; two-tailed tests. Standard errors in parentheses. Regressions run only on sample matched on propensity for suspension by Year 9, modeled as a function of contextual and pre-suspension risk factors listed in Table 2. Results pooled across twenty imputed datasets. Data from Fragile Families and Childhood Wellbeing Study, U.S. Department of Education's Civil Rights Data Collection and Common Core of Data, and 2000 Decennial Census.