

Supplement to:

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Danger on the Way to School:

Exposure to Violent Crime, Public Transportation, and Absenteeism

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**Appendix A**

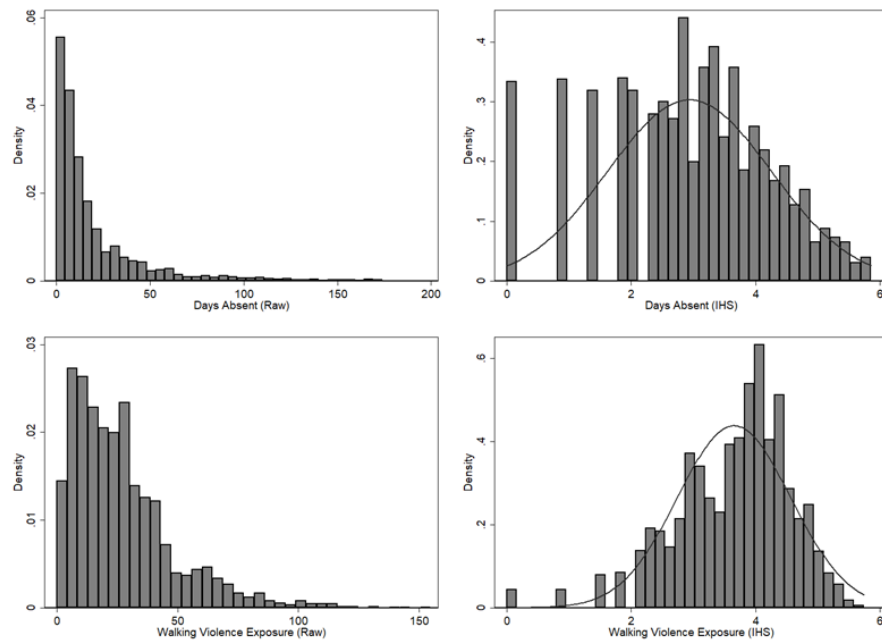


Figure A1: Raw and Inverse Hyperbolic Sine Transformed Days Absent and Walking Violence Exposure

SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

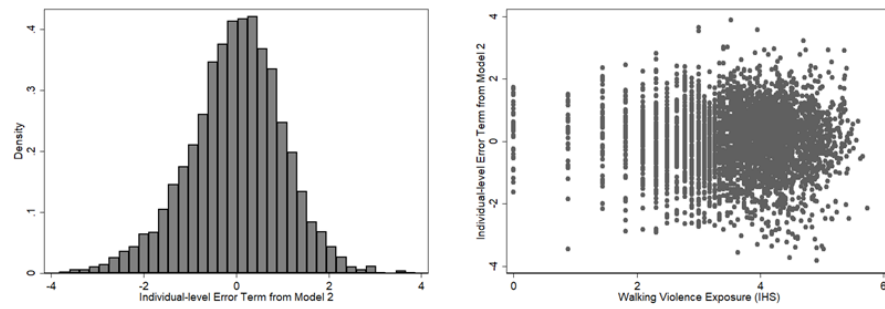


Figure A2: Histogram and Scatter Plot of Individual-Level Errors by Walking Violence Exposure (IHS)

SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

**Appendix B**

Table B1: Full Model of Predicted Days Absent (IHS) by Exposure to Violent Crime along Route to School

	Model 1	Model 2
Walking violence exposure	0.103*** (0.020)	0.063* (0.028)
On the bus violence exposure	-0.005 (0.018)	0.004 (0.021)
Travel Time	-0.002 (0.002)	0.001 (0.002)
Number of Stops	0.000 (0.024)	0.003 (0.031)
Walk Only	-0.208* (0.091)	-0.093 (0.105)
Male	0.029 (0.035)	0.038 (0.045)
Black	-0.043 (0.067)	-0.127 (0.082)
Hispanic	-0.129 (0.116)	-0.319* (0.136)
Asian	-0.553** (0.183)	-0.578* (0.277)
Free and Reduced Meals	0.397*** (0.049)	0.295*** (0.053)
Special Education	-0.010 (0.047)	0.007 (0.048)
English Language Learner	0.240 (0.167)	0.330* (0.161)
Attend Selective High School	-0.501*** (0.049)	-0.182* (0.079)
Attend Vocational High School	0.119** (0.044)	0.154** (0.056)
Attend First Choice	0.006 (0.035)	-0.053 (0.037)
Absences Last Year	0.494*** (0.015)	0.474*** (0.017)
Violent Crimes Near School	0.004 (0.017)	0.004 (0.017)
Violent Crimes Near Home	0.059*** (0.016)	
Constant	0.988*** (0.157)	1.389*** (0.183)
School Choice Indicators		X
Neighborhood Fixed-Effects		X

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Observations	4,187	4,187
R-squared	0.33	0.36

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SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

NOTE: Robust standard errors in parenthesis. Days absent and all measures of crime exposure have been transformed using the inverse hyperbolic sine function and can be interpreted as percent change. \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$

**Appendix C**

Table C1: Predicted Days Absent (IHS) by Exposure to Property Crime along Route to School

	Model 2
Walking Property Crime Exposure	0.001 (0.002)
On the bus Property Crime Exposure	0.009 (0.031)
Travel Time	-0.079 (0.106)
Number of Stops	0.040 (0.044)
Walk Only	-0.123 (0.083)
Male	-0.314* (0.137)
Black	-0.579* (0.278)
Hispanic	0.300*** (0.053)
Asian	0.008 (0.048)
Free and Reduced Meals	0.350* (0.165)
Special Education	-0.185* (0.080)
English Language Learner	0.132* (0.054)
Attend Selective High School	-0.060 (0.036)
Attend Vocational High School	0.475*** (0.017)
Attend First Choice	0.009 (0.017)
Absences Last Year	0.001 (0.002)
Violent Crimes Near School	0.009 (0.031)
Violent Crimes Near Home	
Constant	1.488*** (0.200)
School Choice Indicators	X
Neighborhood Fixed-Effects	X
Observations	4,187

R-squared 0.33

SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

NOTE: Robust standard errors in parenthesis. Days absent and all measures of crime exposure have been transformed using the inverse hyperbolic sine function and can be interpreted as percent change. \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$

Table C2: Predicted Days Absent (IHS) Interaction Term Coefficients

	Male	Black	Hispanic	Free and Reduced Meals	English Language Learner	Special Education	Attend First Choice
Main Walking Violence Exposure Coefficient	0.046 (0.033)	0.035 (0.081)	0.035 (0.081)	0.015 (0.049)	0.063* (0.029)	0.075* (0.029)	0.093* (0.039)
Interaction Term	0.035 (0.038)	0.029 (0.082)	0.118 (0.160)	0.056 (0.045)	-0.018 (0.241)	-0.068 (0.047)	-0.064 (0.044)

SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

NOTE: Robust standard errors in parenthesis. All models include the covariates from Model 2 in Table B1. Days absent and all measures of crime exposure have been transformed using the inverse hyperbolic sine function and can be interpreted as percent change. Black and Hispanic interactions are included in the same model with all other racial categories as the reference group. \* =  $p < 0.05$



Table C3: Predicted Days Absent (IHS) by Exposure to Violent Crime with and without Prior Test Score Adjustments

	Model 2	Model 2
Walking violence exposure	0.059* (0.029)	0.054 (0.028)
On the bus violence exposure	0.002 (0.021)	0.001 (0.021)
Travel Time	0.002 (0.002)	0.002 (0.002)
Number of Stops	-0.001 (0.031)	0.001 (0.031)
Walk Only	-0.057 (0.109)	-0.054 (0.110)
Male	0.023 (0.045)	0.001 (0.045)
Black	-0.103 (0.083)	-0.144 (0.082)
Hispanic	-0.361* (0.145)	-0.392** (0.148)
Asian	-0.579* (0.283)	-0.597* (0.279)
Free and Reduced Meals	0.273*** (0.052)	0.248*** (0.053)
Special Education	0.009 (0.048)	-0.059 (0.050)
English Language Learner	0.206 (0.281)	0.105 (0.273)
Attend Selective High School	-0.111 (0.079)	-0.058 (0.079)
Attend Vocational High School	0.186** (0.056)	0.198*** (0.056)
Attend First Choice	-0.066 (0.037)	-0.053 (0.037)
Absences Last Year	0.474*** (0.018)	0.471*** (0.018)
8 <sup>th</sup> Grade Reading Scores		-0.107*** (0.023)
Violent Crimes Near School	-0.002 (0.018)	-0.005 (0.018)
Constant	1.363*** (0.179)	1.459*** (0.180)
School Choice Indicators	X	X
Neighborhood Fixed-Effects	X	X
Observations	3,992	3,992

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R-squared	0.337	0.340
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SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

NOTE: Robust standard errors in parenthesis. Days absent and all measures of crime exposure have been transformed using the inverse hyperbolic sine function and can be interpreted as percent change. Reading scores have been standardized. \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$

Table C4: Predicted Days Absent in 8<sup>th</sup> Grade (IHS) by Exposure to Violent Crime in 9<sup>th</sup> Grade

	Model 2
Walking violence exposure	0.027 (0.024)
On the bus violence exposure	0.030 (0.022)
Travel Time	0.001 (0.002)
Number of Stops	-0.001 (0.027)
Walk Only	0.066 (0.107)
Male	-0.077 (0.047)
Black	-0.238* (0.105)
Hispanic	-0.449** (0.138)
Asian	-0.691*** (0.196)
Free and Reduced Meals	0.196*** (0.056)
Special Education	0.131* (0.052)
English Language Learner	-0.474** (0.179)
Attend Selective High School	-0.207** (0.075)
Attend Vocational High School	-0.187*** (0.056)
Attend First Choice	0.014 (0.041)
Violent Crimes Near School	0.032 (0.019)
Constant	2.167*** (0.168)
School Choice Indicators	X
Neighborhood Fixed-Effects	X
Observations	4,187
R-squared	0.11

SOURCE: Authors' calculation based on data from the Baltimore Police Department, the Maryland Transportation Administration, and the Baltimore City Public Schools.

NOTE: Robust standard errors in parenthesis. Days absent and all measures of crime exposure

have been transformed using the inverse hyperbolic sine function and can be interpreted as percent change. \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$