

**Supplemental Table 1 – Sample selection**

## Demographic characteristics

Mean (N)

Sample	White	Black	Hispanic	Other	Female	Male	Age 14	Age 15	Age 16	Age17	Age 18+
Full Sample	0.570	0.160	0.156	0.114	0.492	0.508	0.107	0.258	0.259	0.233	0.143
	(932963)	(932963)	(932963)	(932963)	(949055)	(949055)	(950968)	(950968)	(950968)	(950968)	(950968)
After deletion due to:											
Missing race	0.570	0.160	0.156	0.114	0.493	0.507	0.107	0.258	0.259	0.233	0.143
	(932963)	(932963)	(932963)	(932963)	(929797)	(929797)	(930961)	(930961)	(930961)	(930961)	(930961)
Missing sex	0.571	0.160	0.156	0.114	0.493	0.507	0.107	0.258	0.258	0.233	0.143
	(929797)	(929797)	(929797)	(929797)	(929797)	(929797)	(928033)	(928033)	(928033)	(928033)	(928033)
Missing age	0.571	0.160	0.156	0.114	0.493	0.507	0.107	0.258	0.258	0.233	0.143
	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)	(928033)
Age below 14	0.571	0.160	0.156	0.113	0.493	0.507	0.107	0.258	0.259	0.233	0.143
	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)	(926639)
Missing Weapon Threat	0.568	0.161	0.157	0.114	0.493	0.507	0.107	0.258	0.259	0.233	0.143
	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)	(856240)
Missing Weapon Carrying at School	0.572	0.157	0.157	0.114	0.495	0.505	0.107	0.259	0.259	0.233	0.143
	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)	(849073)
Missing Weapon Carrying at any Location	0.569	0.160	0.158	0.114	0.497	0.503	0.107	0.259	0.259	0.233	0.143



**Supplemental Table 2 – School safety and adolescent weapon carrying: Youth Risk Behavior Surveys, 1999-2015**

State	Years <sup>a</sup>	Weapon Threat at School		Weapon Carrying at School		Weapon Carrying at any Location		Gun Carrying at any Location		Unsafe	N	% <sup>b</sup>
		N	% <sup>b</sup>	N	% <sup>b</sup>	N	% <sup>b</sup>	N	% <sup>b</sup>			
AK	03, 07-15	5,213	6.8	7,668	7.0	6,206	20.0	6,288	6.5	7,727	5.4	
AL	99-05, 09-15	11,552	8.3	11,415	7.3	11,248	21.7	11,375	8.0	11,518	6.8	
AR	99, 01, 05-15	13,390	9.2	13,179	7.9	13,011	22.6	13,093	9.2	13,401	7.0	
AZ	03-15	18,799	9.2	18,537	5.7	18,362	18.7	18,507	5.7	18,828	6.7	
CA	15	1,867	4.7	1,861	2.7	1,847	9.0	1,861	2.7	1,670	5.6	
CT	05-15	13,203	7.1	13,076	5.6	6,485	14.8	-	0.0	13,127	5.9	
DE	03-15	17,681	6.1	17,578	4.5	17,376	15.1	17,500	5.1	17,705	5.4	
FL	03-15	36,003	7.4	17,986	4.8	35,734	15.9	12,613	5.7	36,008	7.3	
GA	03-13	11,817	8.3	11,614	5.9	11,075	20.0	9,441	7.2	11,758	6.6	
IA	05, 07, 11	4,283	7.0	4,258	4.4	4,224	14.7	4,247	5.0	4,280	4.2	
ID	03-15	11,835	7.6	10,392	7.0	10,033	24.3	3,427	9.3	11,845	4.7	
IL	07-15	15,035	7.5	14,881	4.0	14,744	14.4	14,887	4.8	15,037	5.8	
IN	03-11, 15	11,501	7.3	11,464	5.5	11,371	18.5	11,425	6.2	11,517	4.8	
KS	05-13	9,028	6.4	7,099	4.9	7,121	16.4	5,250	6.6	9,051	4.4	
KY	03-15	15,779	6.7	15,624	6.8	15,472	21.8	9,655	7.4	15,730	5.6	
LA	07-13	4,442	8.6	4,399	4.9	4,311	20.4	4,344	9.4	4,453	8.5	
MA	99-15	29,193	5.9	28,969	4.6	28,778	13.2	25,927	3.1	29,186	4.9	
MD	05-15	110,979	8.7	109,406	5.0	109,372	16.5	7,099	4.8	110,624	6.8	
ME	01-15	40,505	6.6	31,685	5.8	5,460	15.9	5,482	4.5	40,579	5.2	
MI	99-15	32,370	8.0	31,969	4.6	31,658	15.5	31,924	5.0	32,256	6.1	
MO	99-09, 13, 15	9,748	8.4	11,104	6.2	12,554	19.3	9,664	7.0	11,195	5.5	
MS	99-03, 07-15	13,504	8.0	13,314	5.0	13,084	19.2	13,235	8.5	13,459	6.5	
MT	99-15	29,951	6.9	29,758	9.0	29,245	22.3	29,451	8.9	29,972	4.5	
NC	01-15	27,652	6.8	27,381	5.2	27,258	19.8	-	-	27,618	6.2	
ND	99-15	8,459	6.8	16,043	5.8	-	-	-	-	6,721	2.9	
NE	03, 05, 11-15	12,617	7.6	10,853	5.3	9,057	17.2	9,088	7.9	12,657	4.1	
NH	03-15	4,125	7.5	5,558	6.4	5,437	15.7	4,091	3.8	22,826	4.6	
NJ	01, 05, 09-13	8,495	7.1	6,856	3.7	8,424	10.4	6,852	2.7	8,571	5.4	
NM	05-15	7,937	9.6	31,594	6.7	31,076	24.3	31,263	9.1	31,921	7.5	
NV	99-09, 13, 15	13,820	7.7	13,739	5.4	13,653	16.9	5,076	5.1	13,836	9.0	
NY	03-15	77,196	7.0	76,227	4.4	75,583	13.2	76,482	3.9	76,822	6.1	
OH	99,03-07,11,13	7,038	8.0	7,010	4.3	9,720	14.8	6,995	4.5	9,830	5.4	
OK	03-15	11,180	5.9	11,109	6.6	11,034	20.1	11,089	6.3	11,176	4.2	
PA	15	2,805	4.7	2,790	1.9	2,746	17.1	2,778	7.5	2,798	7.5	
RI	01-15	13,038	7.4	19,974	4.4	14,291	11.4	7,713	4.7	20,098	6.1	
SC	99, 05-15	12,372	7.9	12,202	4.8	12,062	20.7	12,152	7.9	12,370	7.1	
SD	99-15	14,361	6.3	14,336	6.9	1,615	16.5	1,631	7.8	14,360	3.9	
TN	03-15	15,989	7.6	11,944	5.6	11,835	21.3	11,899	6.9	16,003	6.5	
TX	01, 05-13	24,771	7.7	24,491	6.3	24,301	18.2	24,512	5.9	24,744	6.7	

UT	99-13	12,629	7.5	12,516	6.1	12,358	16.2	12,443	5.7	12,626	5.3
VA	11-15	12,254	6.2	5,639	4.1	12,110	17.0	7,921	8.0	12,334	5.4
VT	99-11	50,289	6.1	50,294	9.1	-	-	-	-	50,312	4.1
WI	99-13	17,993	6.2	17,977	3.5	17,798	13.4	15,117	5.1	18,063	4.8
WV	99, 03-15	12,723	7.6	12,660	6.9	12,525	22.4	12,600	7.6	12,744	6.2
WY	99-15	20,819	7.9	20,644	10.3	20,242	26.1	20,470	10.4	20,831	5.9
Tot	99-15	856,240	7.0	849,073	4.8	751,896	16.0	546,867	5.5	910,187	6.1

<sup>a</sup> Weapon Threat at School is missing in 2009 for ND, NH and NM; in 2011 for ND, NH, NM, OH and RI; in 2013 for AK, MO, ND, NH, NM and OH; in 2015 for AK, MO, ND, NH, NM and RI.

Weapon Carrying at School is missing in 2005 for ID; in 2009 for ME; in 2011 for FL, NH, NJ, OH; in 2013 for FL, KS, MO, NE, NH, OH, and VA; in 2015 for FL, NJ, and TN.

Weapon Carrying at any Location is missing in 1999 for ND and VT; in 2001 for ND, SD and VT; in 2003 for ID, ND, SD, and VT. In 2005 for ND, SD, and VT; in 2007 for ND, SD, and VT; in 2009 for ME, ND, NH, SD, and VT; in 2011 for CT, KS, ME, ND, SD, and VT; in 2013 for CT, ME, ND, NE, NH, RI, and SD; in 2015 for AK, CT, ME, ND, NE, NH, RI, SD, and TN.

Gun Carrying at any Location is missing in ND and VT for all years; in AK for 2015; in CT from 2005 to 2015; in FL from 2009 to 2015; in GA for 2011; in ID for 2003, 2005, and from 2001 to 2015; in KS for 2011 and 2013; in KY for 2007 and 2015; in MA for 2015; in MD for 2013 and 2015; in ME from 2009 to 2015; in MO for 2013 and 2015; in NC from 2001 to 2015; in NE for 2013 and 2015; in NH from 2009 to 2015; in NJ for 2011; in NV from 2001 to 2009; in OH in 2011 and 2013; in RI from 2007 to 2011 and in 2015; in SD from 2001 to 2015; in TN for 2015; in WY for 2013.

Unsafe is missing in 2007, 2009, 2011 and 2015 for ND; in 2013 for MO and ND.

<sup>b</sup> Weighted

**Supplemental Table 3 - Association of state gun control with school safety and adolescent weapon carrying in linear in probability models: Youth Risk Behavior Surveys, 1999-2015**

	Weapon Threat at School		Weapon Carrying at School		Weapon Carrying at any Location		Gun Carrying at any Location		Unsafe	
	Mg. Eff. <sup>a,b</sup>	p value	Mg. Eff. <sup>a,b</sup>	p value	Mg. Eff. <sup>a,b</sup>	p value	Mg. Eff. <sup>a,b</sup>	p value	Mg. Eff. <sup>a,b</sup>	p value
Overall Sample	<b>-0.008</b>	<b>0.044</b>	0.002	0.611	<b>-0.020</b>	<b>0.002</b>	-0.009	0.074	<b>-0.012</b>	<b>0.005</b>
Interactions										
By sex	p-value=0.451		p-value=0.242		<b>p-value=0.024</b>		p-value=0.311		p-value=0.091	
Female	-0.007	0.092	0.004	0.193	-0.011	0.114	-0.004	0.365	<b>-0.011</b>	<b>0.010</b>
Male	<b>-0.010</b>	<b>0.022</b>	-0.001	0.789	<b>-0.030</b>	<b>0.000</b>	<b>-0.013</b>	<b>0.006</b>	<b>-0.013</b>	<b>0.002</b>
By race	p-value=0.198		<b>p-value&lt;0.001</b>		<b>p-value&lt;0.001</b>		<b>p-value&lt;0.001</b>		p-value=0.105	
White	-0.007	0.099	0.001	0.804	<b>-0.024</b>	<b>0.000</b>	-0.009	0.076	<b>-0.010</b>	<b>0.016</b>
Black	-0.007	0.112	<b>0.009</b>	<b>0.021</b>	-0.006	0.418	-0.005	0.365	<b>-0.015</b>	<b>0.001</b>
Hispanic	<b>-0.011</b>	<b>0.017</b>	0.001	0.829	<b>-0.020</b>	<b>0.005</b>	<b>-0.011</b>	<b>0.024</b>	<b>-0.015</b>	<b>0.001</b>
Other	<b>-0.014</b>	<b>0.003</b>	-0.002	0.513	<b>-0.025</b>	<b>0.000</b>	<b>-0.013</b>	<b>0.009</b>	<b>-0.13</b>	<b>0.004</b>

<sup>a</sup> Coefficients are for an interquartile-range (IQR=15) increase in the index of gun control.

<sup>b</sup> Model includes state and year fixed effects and the following state time-varying characteristics: the percentage of the resident population that was Black, the percentage of the population that was less than age 18 years, the percentage of children in single-parent families, the unemployment rate, violent crime rate per 100,000 residents, property crime rate per 100,000 residents, average annual salary of teachers in public elementary and secondary schools, the real beer taxes, the percentage of marijuana initiates among children ages 12 to 17, and an indicator for the existence of a state anti-bullying policy (“no” 0, “yes” 1).

Boldface indicates statistical significance (p<0.05).

Mg. Eff. = Average Marginal Effects, taking survey weights into account.

## **Appendix**

This appendix reports the questionnaire items corresponding to each outcome variable included in the analysis. For each question, students reported the frequency of a behavior choosing between the following options: 0 days, 1 day, 2 or 3 days, 4 or 5 days, 6 or more days.

### *Weapon Threat at School*

During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

### *Weapon at School*

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

### *Weapon*

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

### *Gun*

During the past 30 days, on how many days did you carry a gun?

### *Unsafe*

During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?