

School Safety Standards among the States: Implications for the Philadelphia and Pittsburgh Public Schools

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1.0 Introduction:

Research Questions, Findings, and Structure of Presentation

- General Focus: Examine PA school safety and student achievement issues within the context of No Child Left Behind's Unsafe School Option
- Research Question 1: What are the general patterns of state definitions of persistently dangerous schools which USDE has accepted in conjunction with NCLB? [substantial inter-state variation]
- Research Question 2: Where is PA among these state definitions? [one of the most restrictive, arrests must be made for limited set of defined bad acts to be 'persistently dangerous']
- Research Question 3: if we redefine PA's definition of persistently dangerous without the arrest requirement, how do Philadelphia and Pittsburgh schools look, 2000-2013? [Materially Worse]
- Research Question 4: are there statistically significant relationships between reported school violence and scale scores over time? [Yes in accordance with the intellectual standard of common sense]

1.2 Outline of Presentation

- 2.0 *No Child Left Behind*, Dangerous Schools, School Choice
- 3.0 State Persistently Dangerous School Definitions as of 2014
- 4.0 Pennsylvania Persistently Dangerous School Criteria
- 5.0 Philadelphia Persistently Dangerous Schools
- 6.0 Pittsburgh Persistently Dangerous Schools
- 7.0 Mean School Scale Scores and Student Safety Regression Results
- 8.0 Model predictions for some really dangerous schools
- 9.0 Summary

2: No Child Left Behind and School Safety

School safety and school choice under NCLB

- The Unsafe School Choice Option (USCO) (section 9532 of the Elementary and Secondary Education Act (ESEA) of 1965, as amended by the No Child Left Behind Act of 2001) requires that each State establish and implement a statewide policy requiring that students attending a persistently dangerous public elementary or secondary school, or students who become victims of a violent criminal offense while in or on the grounds of a public school that they attend, be allowed to attend a safe public school.

3: The States' Persistently Dangerous School Criteria

- To comply with NCLB requirement, states must:
 - Establish a State USCO policy;
 - Identify types of offenses that are considered to be violent criminal offenses;
 - Identify persistently dangerous schools;
 - Provide a safe public school choice option; and
 - Certify compliance with USCO.
- 3 Dimensions of USCO Policy measured for Persistently Dangerous. Project read and measured the state laws & regulations to identify by state:
 - i. Definition of Offense[s]
 - ii. Definition of Measurement Period
 - iii. Definition of Threshold of Offense Rate

3: The States' Persistently Dangerous School Criteria: Based on Review of Each State Statute: Summary of Patterns

- Definition of offense (state specific rules)
 - Gun Free School Act (federal) violation
 - Weapons incident
 - Violence incident (assaults, homicide etc.)
 - Nature of Sanction: varies greatly from suspension to expulsion to arrest (by state)
- Time period
 - More than 50% of states use a three-year period
 - 25% of states use a two-year period
 - 20% of states use a combination of two and three year period
- Threshold of offense rate (wide range: from .5% to 5%)
 - Almost 50% use a combination of a percentage of student enrollment for some offenses and specific number for others
 - More than 33% use a specific number of offenses
 - Less than 20% use just an offense rate of student population

Table 1.1: Summary of NCLB Countable/Reportable Types of Incidents in 2013 by State (based on state laws, regulations)

Reportable Incident Type	State
Arson (10)	GA, ID, IA, ME, MD, MI, MO, NJ, NY, TX
Assault (34)	AL, AK, AR, CA, DC, FL, GA, HI, ID, IA, KS, KY, ME, MD, MI, MN, MS, MO, MT, NE, NH, NJ, NY, NC, ND, OR, <u>PA</u> , RI, SC, TX, UT, WA, WV, WI
Bullying/Harassment (3)	NE, NJ, WA
Kidnapping (17)	DC, GA, ID, IA, KS, ME, MS, MO, NE, NY, ND, OR, <u>PA</u> , SC, TX, VA, WA
Homicide (25)	AL, AR, DC, FL, GA, HI, ID, KY, ME, MS, MO, MT, NE, NH, NY, NC, ND, <u>PA</u> , RI, SC, TX, UT, VA, WA, WY
Weapons (47)	AL, AK, AZ, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NH, NJ, NM, NY, NC, ND, OR, <u>PA</u> , RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY
Violation of Gun Free School Zone Criteria (19)	AZ, CO, CT, FL, HI, ID, IL, IA, KS, KY, LA, ME, MA, MO, MT, NE, RI, UT, WA
Robbery (24)	AL, AR, GA, HI, ID, KS, KY, ME, MS, MO, MT, NE, NH, NJ, NY, NC, ND, OR, <u>PA</u> , RI, SC, UT, VA, WA
Sex Assault (29)	AL, AR, CA, DC, GA, HI, ID, IA, KS, KY, ME, MD, MI, MS, MO, MT, NE, NJ, NY, NC, OR, <u>PA</u> , RI, SC, TX, UT, VA, WA, WY

Table 1.1: Summary of NCLB Countable/Reportable Types of Incidents in 2013 by State (based on state laws, regulations)

Reportable Incident Type	State
Drugs/Alcohol (15)	AR, CA, CO, LA, ME, MD, MN, MO, MT, NH, NJ, RI, TX, VA, WY
Refer to State Statute (5)	IN, MA, MO, ND, OK
Gang Related (2)	IA, NJ
Serious Injury (7)	CA, CT, ID, IA, LA, NY, VA
Explosives (8)	AL, AZ, CA, IA, ME, MD, NY, VA
Burglary (3)	ME, MO, NY
Property Damage (3)	LA, ME, NM
Hate Crime (2)	CA, OR
Expulsion/ Suspension (14)	AR, CA, CO, CT, DE, IL, IN, KS, LA, MT, NM, NY, OR, WI
Terrorist Threat (4)	GA, HI, KS, NJ
Stalking (3)	ID, MS, NE
Theft (1)	ME
Violent Crimes under Penal Law (3)	MA, OH, OK
Bomb Threat (1)	MI
Other (Poisoning, Hazing, etc.)	MS, NE, ND, OR

Table 1.2

Time Spans for Persistently Dangerous Denotation

Time	State	# of States	% of States
2 Years in a row	AZ, AR, CO, DC, LA, MS, NY, NC, ND, OH, SD, WV, WY	13	25.5%
3 Years in a row	AL, CA, CT, DE, FL, GA, ID, IL, IN, IA, KS, KY, MD, MA, MI, NE, NH, NJ, NM, OK, OR, RI, SC, TN, TX, UT, VT, VA, WA, WI	30	58.8%
2 of 3 years (rolling)	AK, ME, MN, MO, MT, NV, <u>PA</u>	7	13.7%
Other	HI	1	2.0%

Table 1.3 School Enrollment Thresholds for Persistently Dangerous

Enrollment	State	# of States	% of States
1 Percent of Enrollment	AL, CA, DC, FL, HI, ID, IA, KY, MN, NE, ND, TX	12	23.5%
2 Percent of Enrollment	CT, GA, IN, KS, ME, MS, OH, OK, <u>PA</u> , SD, WY	11	21.6%
3 Percent of Enrollment	AR, OR, TN, UT, VT	5	9.8%
Other	AK, AZ, CO, DE, IL, LA, MD, MA, MI, MO, MT, NV, NH, NJ, NM, NY, NC, RI, SC, VA, WA, WV, WI	23	45.1%

Table 1.4 States' Reportable Events

Reporting Trigger Type	State	# of States	% of States
Event Leads to Arrest	IN, KS, NV, OK, <u>PA</u>	5	9.8%
Event Leads to Expulsion	AL, AZ, AR, CA, CT, FL, ID, IL, LA, ME, MA, MI, MO, MT, NE, NM, ND, TX, UT, VT, WA, WI, WY	23	45.1%
Event Leads to Suspension	AK, HI, RI,	3	5.9%
Incident Reported	CO, DC, KY, MS, NH, NJ, NY, NC, SC, SD, VA, WV	12	23.5%
Combination	DE, IA, MD, MN, OH, OR, TN	7	13.7%
Other	GA	1	2.0%

4: Pennsylvania's Persistently Dangerous School Criteria

The PA Department of Education defines a persistently dangerous school as any public elementary, secondary, or charter school that meets any of the following criteria in the most recent school year and in one additional year of the two years prior to the most recent school year:

1. For a school whose enrollment is 250 or less, at least 5 **dangerous** incidents;
2. For a school whose enrollment is 251 to 1000, a number of **dangerous** incidents that represents at least 2% of the school's enrollment; or
3. For a school whose enrollment is over 1000, 20 or more **dangerous** incidents.

A **dangerous** incident is defined as a weapons possession incident **resulting in arrest** (guns, knives, or other weapons) or a violent incident **resulting in arrest** (homicide, kidnapping, robbery, sexual offenses, and assaults) as reported on the Violence and Weapons Possession Report (PDE-360), which school districts file each year.

Note: an arrest is by school police (if any), local or state police.

5: Table 5.1: Philadelphia SD Persistently Dangerous Schools (without arrest requirement in simulation) Note: in 2012-3 only 6 Philadelphia schools persistently dangerous or under .5%; none in Pittsburgh.

Year	Philadelphia All Schools % Persistently Dangerous	Elem	Elem/MS	MS	MS/HS	HS	Comprehensive
2001-2	55.1%	43.5%	49.3%	90.9%	70.0%	76.9%	.
2002-3	47.3%	34.4%	42.1%	87.0%	53.3%	67.4%	.
2003-4	43.6%	24.6%	38.5%	87.0%	50.0%	68.2%	10.0%
2004-5	59.3%	46.6%	59.6%	95.7%	53.3%	65.2%	27.3%
2005-6	76.8%	75.9%	81.5%	91.3%	58.8%	73.9%	27.3%
2006-7	79.0%	81.0%	82.0%	95.7%	57.9%	82.4%	16.7%
2007-8	78.2%	82.8%	79.6%	95.2%	57.9%	82.8%	16.7%
2008-9	78.4%	81.7%	81.1%	90.0%	50.0%	85.2%	23.1%
2009-10	74.1%	77.6%	78.2%	88.9%	23.5%	81.0%	23.1%
2010-1	71.6%	71.9%	76.5%	88.2%	25.0%	76.6%	23.1%
2011-2	70.6%	71.4%	75.7%	93.8%	18.8%	73.8%	33.3%
2012-3	67.5%	66.1%	71.8%	93.8%	33.3%	70.5%	25.0%

6: Table 6.1: **Pittsburgh SD: % Persistently Dangerous Schools** (without arrest requirement in simulation)

School Year	Pittsburgh All Schools % Persistently Dangerous	Elem K-5	Elem K-8	MS 6-8	HS 9-12	Mixed 6-12	Alt Ed
2001-2002	73.8%	68.6%	62.5%	87.5%	81.8%	.	100.0%
2002-2003	68.8%	69.7%	43.8%	86.7%	72.7%	.	100.0%
2003-2004	67.9%	61.8%	50.0%	93.3%	72.7%	.	100.0%
2004-2005	71.6%	57.1%	62.5%	94.1%	90.9%	.	100.0%
2005-2006	58.5%	36.1%	50.0%	88.2%	90.9%	.	100.0%
2006-2007	46.0%	4.5%	50.0%	80.0%	90.9%	.	100.0%
2007-2008	46.0%	18.2%	56.3%	60.0%	81.8%	.	25.0%
2008-2009	44.1%	20.0%	62.5%	50.0%	81.8%	.	25.0%
2009-2010	45.0%	25.0%	46.7%	62.5%	88.9%	.	25.0%
2010-2011	42.4%	20.8%	60.0%	42.9%	88.9%	.	0.0%
2011-2012	50.9%	20.8%	71.4%	71.4%	100.0%	50.0%	50.0%
2012-2013	44.4%	18.2%	66.7%	71.4%	60.0%	75.0%	25.0%

7: Effect on PA Test Scale Scores (PSSA) of Student Safety Issues and Poverty

- Match Mean PSSA Math and Reading Scores (5th, 8th, 11th grades) per school and year to student and staff assault data per school and year; do match for Philadelphia and Pittsburgh;
- Research Question: What does one more assault do to PSSA scale scores?

Table 7.1 Descriptive Statistics for Data Used in Regression Models

Philadelphia					
Variable	Matched Observations	Mean	Standard Deviation	Minimum	Maximum
Mean reading scale score	2056	1191.72	138.21	747.95	1752.39
Mean math scale score	2056	1243.92	130.74	823.87	1729.01
Mean percent poor	2056	0.92	0.20	0.00	1
Assaults on Students	2056	9.50	11.10	0	87.00
Assaults on Staff	2056	6.22	7.60	0	66.00
Interaction	2056	117.62	298.40	0	5742.00
Pittsburgh					
Variable	Matched Observations	Mean	Standard Deviation	Minimum	Maximum
Mean reading scale score	436	1255.02	136.59	730.20	1633.23
Mean math scale score	436	1292.24	125.63	844.17	1615.24
Mean percent poor	436	0.84	0.21	0.22	1
Assaults on Students	436	10.26	14.45	0	86.00
Assaults on Staff	436	4.34	5.77	0	41.00
Interaction	436	92.63	245.82	0	2829.00

Table 7.2 Most Dangerous Schools in a year based on # of Assaults in Philadelphia and Pittsburgh 2000-2008

Description	School Chosen Based on Most Assaults on Students		School Chosen Based on Most Assaults on Staff	
	Pittsburgh	Philadelphia	Pittsburgh	Philadelphia
Name	Murray El School	Olney High School	South Brooke MS	Olney High School
Year	2007	2005	2003	2005
Grade	5	11	8	11
Assaults on staff	86	87	69	87
Assaults on students	20	66	41	66
Mean percent poor	1	1	1	1
Mean reading scale score	1162.02	894.00	1280.14	894.00
Mean math scale score	1295.03	1036.30	1257.37	1036.30

Table 7.3 Linear Regression Model Results for Philadelphia and Pittsburgh				
Linear Models for Philadelphia				
Explanatory Variable	OLS Regression Coefficients		t value	
	Reading scale score	Math scale score	Reading scale score	Math scale score
Intercept	1425.98	1452.27	113.68	122.43
Assults on Students	-2.64	-3.20	-6.55	-8.39
Assults on Staff	-8.58	-8.32	-14.27	-14.64
Interaction	0.13	0.14	6.79	8.15
Mean Percent Poor	-186.13	-156.09	-14.08	-12.49
Adjusted R-squared	0.27	0.27		
Number of Observations	2056	2056		

Linear Models for Pittsburgh				
Explanatory Variable	OLS Regression Coefficients		t value	
	Reading scale score	Math scale score	Reading scale score	Math scale score
Intercept	1445.65	1489.76	62.72	75.59
Assults on Students	1.33	-0.23	2.03	-0.41
Assults on Staff	-13.11	-14.58	-9.00	-11.70
Interaction	0.10	0.17	2.08	4.19
Mean Percent Poor	-186.72	-175.99	-6.84	-7.54
Adjusted R-squared	0.27	0.37		
Number of Observations	436	436		

Table 8.1 Philadelphia and Pittsburgh Linear Model Accuracy for Really Dangerous Elementary, Middle or High School

Philadelphia Linear Model Accuracy for Reading and Math Scale Scores						
	Alcorn James School: 2008		Fitzsimons Thomas High School: 2008		Olney High School: 2005	
	Rscale 5th grade	Mscale 5th grade	Rscale 8th grade	Mscale 8th grade	Rscale 11th grade	Mscale 11th grade
Predicted Score	1069.25	1108.97	1084.75	1126.14	1175.11	1298.80
Actual	1021.25	1150.97	1116.13	1166.71	894.00	1036.30
Percent Error	4.70%	-3.65%	-2.81%	-3.48%	31.40%	25.30%

Pittsburgh Linear Model Accuracy for Reading and Math Scale Scores						
	Murray Elementary School: 2007		South Brooke Middle School: 2003		Peabody High School: 2003	
	Rscale 5th grade	Mscale 5th grade	Rscale 8th grade	Mscale 8th grade	Rscale 11th grade	Mscale 11th grade
Predicted Score	1287.95	1299.08	1086.78	1171.51	1152.24	1168.87
Actual	1162.03	1295.03	1280.14	1257.37	1116.04	1116.04
Percent Error	10.8%	0.3%	-17.8%	-6.8%	3.2%	4.7%

9: Things to remember from this research

- States have chosen huge variety of definitions for persistently dangerous school safety standards
- PA rules require arrest + certain violent acts to be persistently dangerous

Under this standard, no Pittsburgh School is persistently dangerous, only a handful of Philadelphia Schools are persistently dangerous

- Simulating persistently dangerous for Pittsburgh and Philadelphia without the arrest standard finds:

Philadelphia: 67% of schools now persistently dangerous in 2013-4

Pittsburgh: 44% of schools now persistently dangerous in 2013-4

- Strong evidence that staff assaults more than student assaults reduce learning/scale scores in Philadelphia and Pittsburgh (3:1 or more).
- We predict: reducing violence against staff will improve scale scores.
- Measuring it is the first step in understanding how to reduce violence to that end.
- Performing the same analysis for the 499 other school districts in PA is probably a very good idea.