

Correlates of State Adoption of Elementary School Physical Education Policies



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Motivation



National Cancer Institute

U.S. National Institutes of Health | www.cancer.gov



Classification of Laws Associated with School Students

WELCOME

The Classification of Laws Associated with School Students (C.L.A.S.S.) website uses two policy classification systems to score state-level codified laws for physical education (PE) and nutrition in schools. The scoring criteria for these systems are based on current public health research and national recommendations and standards for PE and nutrition in schools.

Use C.L.A.S.S. data to:

- Compare codified state laws in nutrition and physical education to national standards.
- Assess differences in codified state laws in nutrition and physical education across states over time.

What's New?

- > The 2012 C.L.A.S.S. physical education and nutrition data are now available for [download](#) and also through the C.L.A.S.S. Data Maps and State Profiles tools.
- > New policy areas added: Moderate-vigorous physical activity in PE.

[View Data Map](#)



[About C.L.A.S.S.](#)

Policy Areas Covered
Contact C.L.A.S.S.
Funding Opportunities

[State Profiles](#)

[C.L.A.S.S. BRIEFS](#)

[Download C.L.A.S.S. Data](#)

School Nutrition
Physical Education and Recess

[C.L.A.S.S. Actions](#)

Publications
Presentations
C.L.A.S.S. Users



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Barriers to Effective PE Delivery

PE is a key evidence-based strategy for increasing MVPA, but there are many policy and practice barriers to effective delivery.

- No federal law
- Focus on academic achievement (No Child Left Behind)
- Competing resource priorities
- PE substitutions (JROTC, athletics, band, cheerleading)
- Lack of accountability
- Poor delivery (classes cancelled, lost lesson time due to transition between classes)
- Poor curriculum content and content delivery (knowledge vs. activity based)

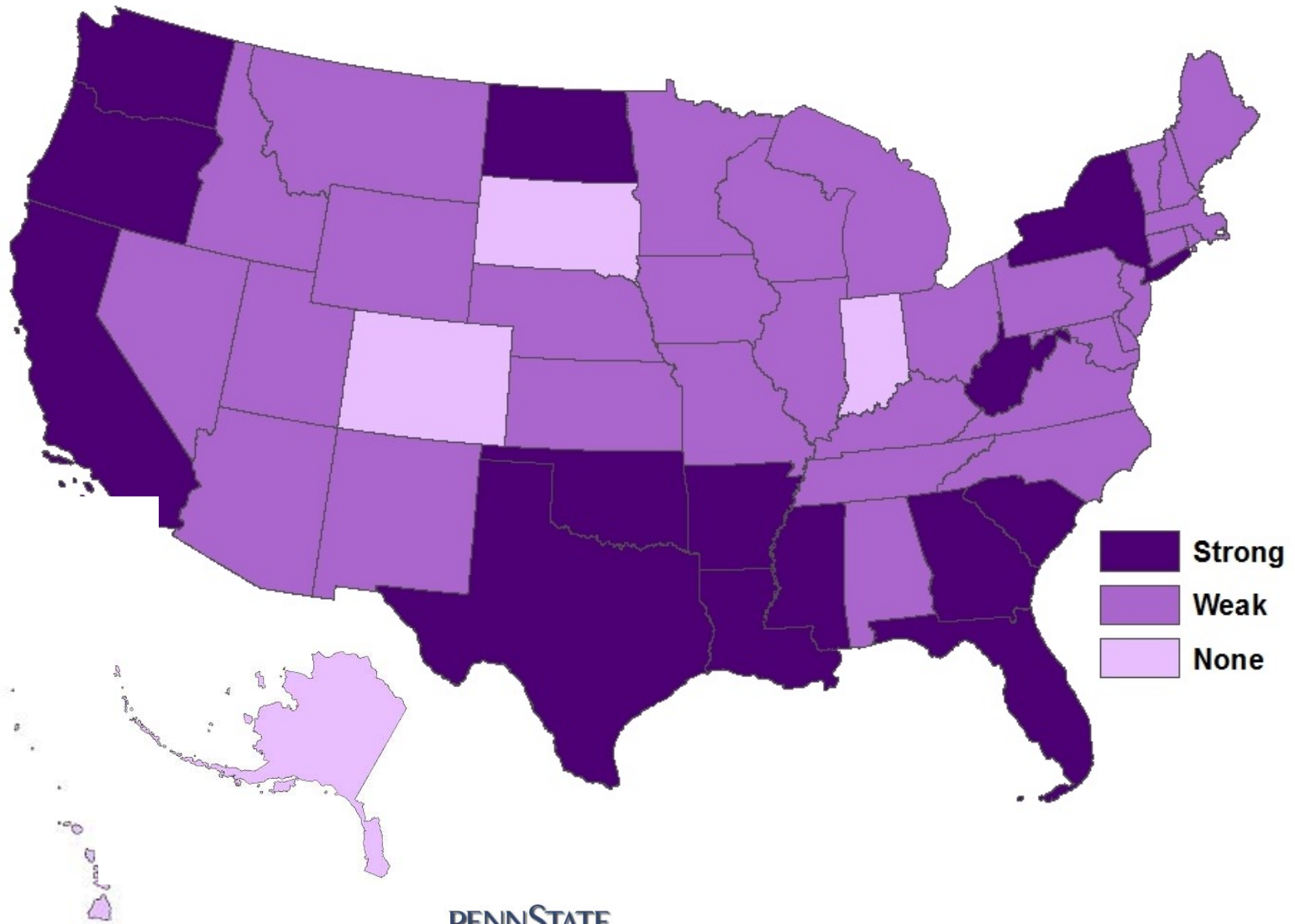
State Adoption of PE Policies: Background and Objective

- Schools in states with strong PE time requirements average more PE per week than states without strong requirements (Perna, Oh, Chriqui, et al. 2012)
- Girls in states with strong PE time requirements report more days of PA and are more likely to attend PE than girls in states with no PE time laws (Taber, Chriqui, Perna, et al. 2013).
- *Objective:* Describe variation in state adoption of elementary school PE policies and examine the roles of state-level demographic, economic, political, and academic achievement characteristics in explaining state policy adoption.

Data and Methods

- National Cancer Institute's Classification of Laws Associated with School Students (C.L.A.S.S.), 2010
- US Census, National Center for Education Statistics, Annie E. Casey Foundation
- State Elementary School Policies: **PE time**, fitness assessment, staffing, and **curriculum requirements**
- Examined numerous socioeconomic, demographic, political, education system, and educational achievement characteristics as potential correlates
- Bivariate and multivariate ordinal and binary logistic regression

PE Time Requirements

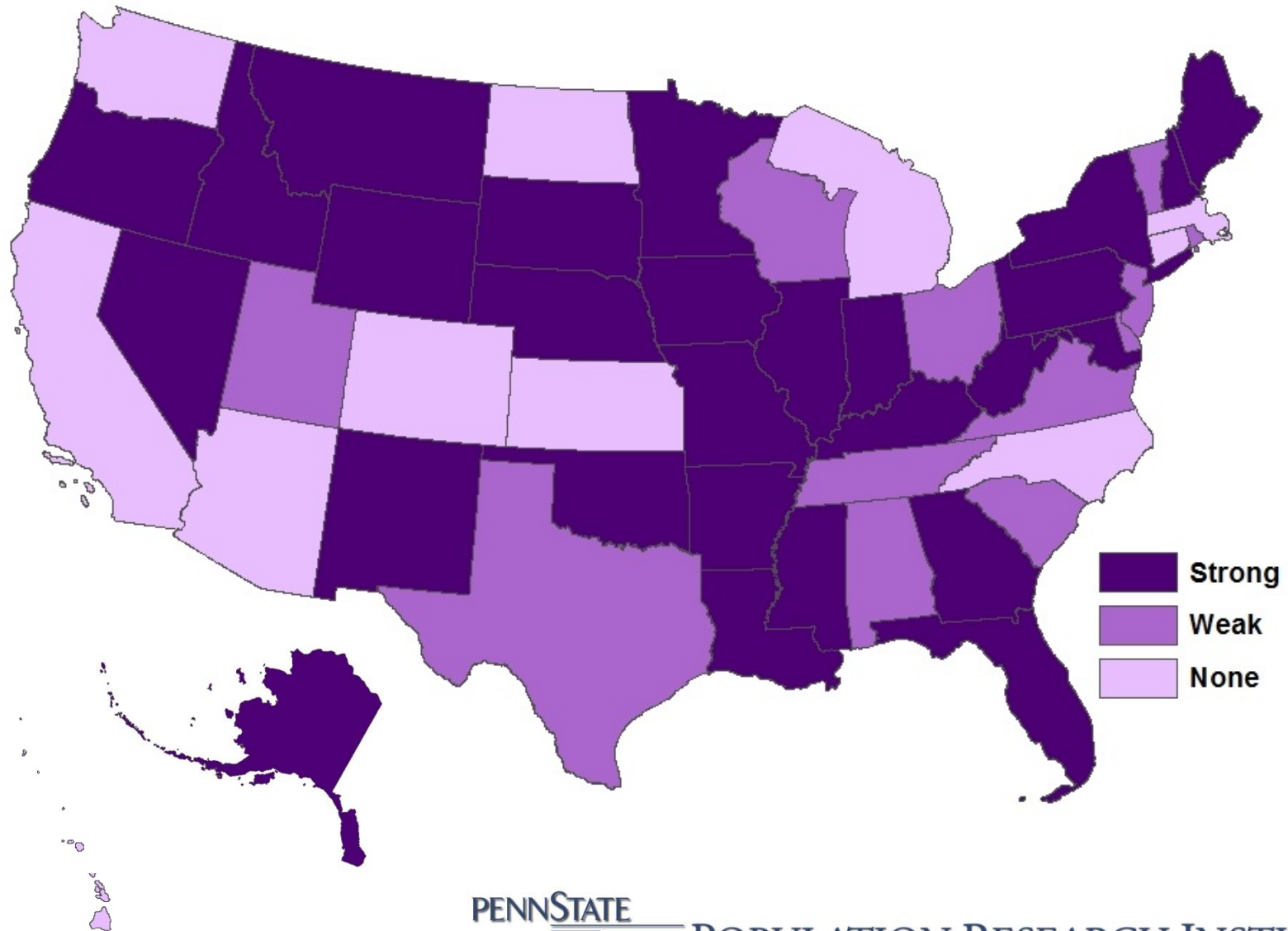


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PE Curriculum Requirements

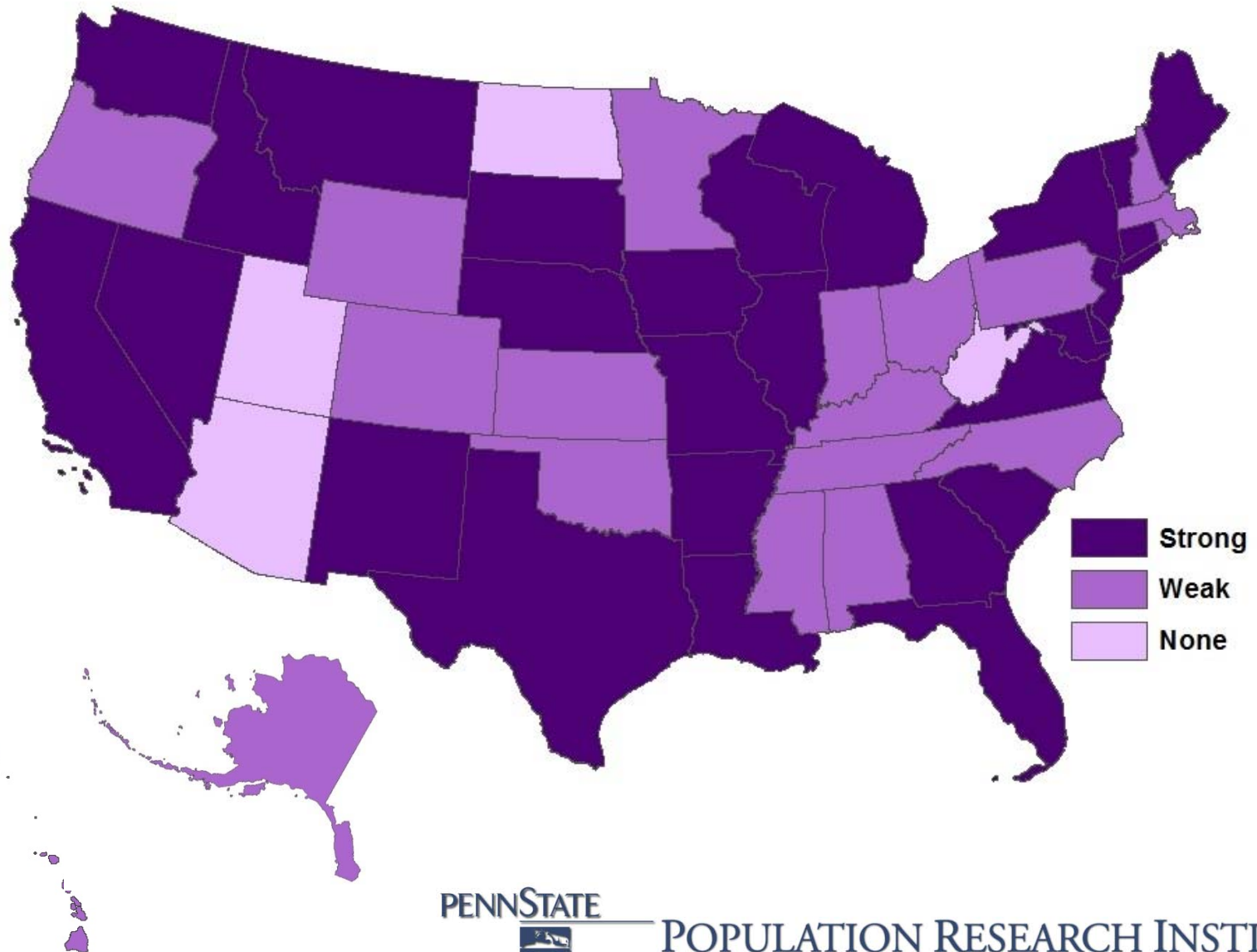


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PE Staffing Requirements



What mattered?

- Academic achievement
- Socioeconomic characteristics

Academic Achievement Correlates

State Characteristic	Curriculum Standards	Strong PE Time
4 th grade math test scores	-	
% below basic level in 4 th grade math scores	+	
% below proficient in 4 th grade math scores	+	
8 th grade math test scores	-	
% below basic level in 8 th grade math scores	+	
% below proficient level in 8 th grade math scores	+	
4 th grade reading test scores	-	
% below basic level in 4 th grade reading scores	+	
% below proficient level in 4 th grade reading scores	+	
8 th grade reading test scores	-	
% below basic level in 8 th grade reading scores	+	
% below proficient level in 8 th grade reading scores	+	

Binary logistic regression;
unadjusted



Academic Achievement Correlates

State Characteristic	Curriculum Standards	Strong PE Time
4 th grade math test scores	-	
% below basic level in 4 th grade math scores	+	
% below proficient in 4 th grade math scores	+	
8 th grade math test scores	-	
% below basic level in 8 th grade math scores	+	
% below proficient level in 8 th grade math scores	+	+
4 th grade reading test scores	-	
% below basic level in 4 th grade reading scores	+	
% below proficient level in 4 th grade reading scores	+	+
8 th grade reading test scores	-	-
% below basic level in 8 th grade reading scores	+	
% below proficient level in 8 th grade reading scores	+	+

Binary logistic regression;
unadjusted



State Socioeconomic Correlates

State Characteristic	Curriculum Standards	Strong PE Time
% black students	+	
% black residents	+	
% students eligible for free/reduced lunch	+	
% child poverty	+	
% total poverty	+	
% female heads of household	+	

Binary logistic regression;
unadjusted



State Socioeconomic Correlates

State Characteristic	Curriculum Standards	Strong PE Time
% black students	+	
% black residents	+	
% students eligible for free/reduced lunch	+	+
% child poverty	+	+
% total poverty	+	+
% female heads of household	+	+

Binary logistic regression;
unadjusted



Disadvantage is Inversely Associated with Student Achievement

State Characteristic	4 th grade math	4 th grade reading
% black students	-	-
% black residents	-	-
% students eligible for free/reduced lunch	-	-
% child poverty	-	-
% total poverty	-	-
% female heads of household	-	-

OLS regression;
unadjusted



Summary

- States with residents with more political, social, and economic power are less likely to have adopted strong PE time requirements and are less likely to reference and incorporate curriculum standards from NASPE, a specific state agency, or other organization.
- States with residents with more political, social, and economic power have higher average student test scores.

Research and Policy Implications

- Potential perceived trade-off between investment in PE and investment in student academic achievement
- Time and coexistent priorities are barriers to investment in PE.
- Studies examining modifiable aspects of PE (scheduled time, instructional delivery, curriculum models) are needed.

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