



# Understanding Local Governments' School-related Policies and Plans That May Affect Active Living Among School Students and Community Members

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# Presentation Overview

- Background and purpose
- Study methods
- Describe local government active living-oriented policy and plan provisions
- Examine the socio-demographic characteristics associated with such policy/plan provisions
- Policy and research opportunities
- Conclusions and policy implications
- Resources/contacts

# Background

- More than one-third of children ages 10-17 in the U.S. are overweight or obese.<sup>1</sup>
- Rates of walking and bicycling to school have declined from 50% to 13% between 1969 and 2009 for children aged 5-14 years old.<sup>2</sup>
- According to the CDC 2010 State Indicator Report on Physical Activity only 65% of adults are physically active while only 17% of students in grades 9-12 are active.<sup>3</sup>



# Background (cont.)

- The Task Force on Community Preventive Services recommends community and street-scale urban design and land use policies as a strategy to promote physical activity.<sup>4</sup>
- Laws that require crossing guards around schools appear to be effective at reducing barriers to walking/biking to school.<sup>5</sup>
- Shared/joint use of school and community recreation facilities can be a cost-effective way to promote physical activity. Children who have access to school recreation facilities after hours are more likely to be active.<sup>6</sup>



Source: <http://icsw.nhtsa.gov/nhtsa/ImageLibrary/display.cfm>

# Purpose

- Describe the prevalence of local government school-related provisions in policies and plans addressing:
  - School Siting
  - Pedestrian safety
  - Joint/shared use of school facilities for recreational purposes
- Describe the sociodemographic characteristics associated with such policy/plan provisions.

# Study Methods

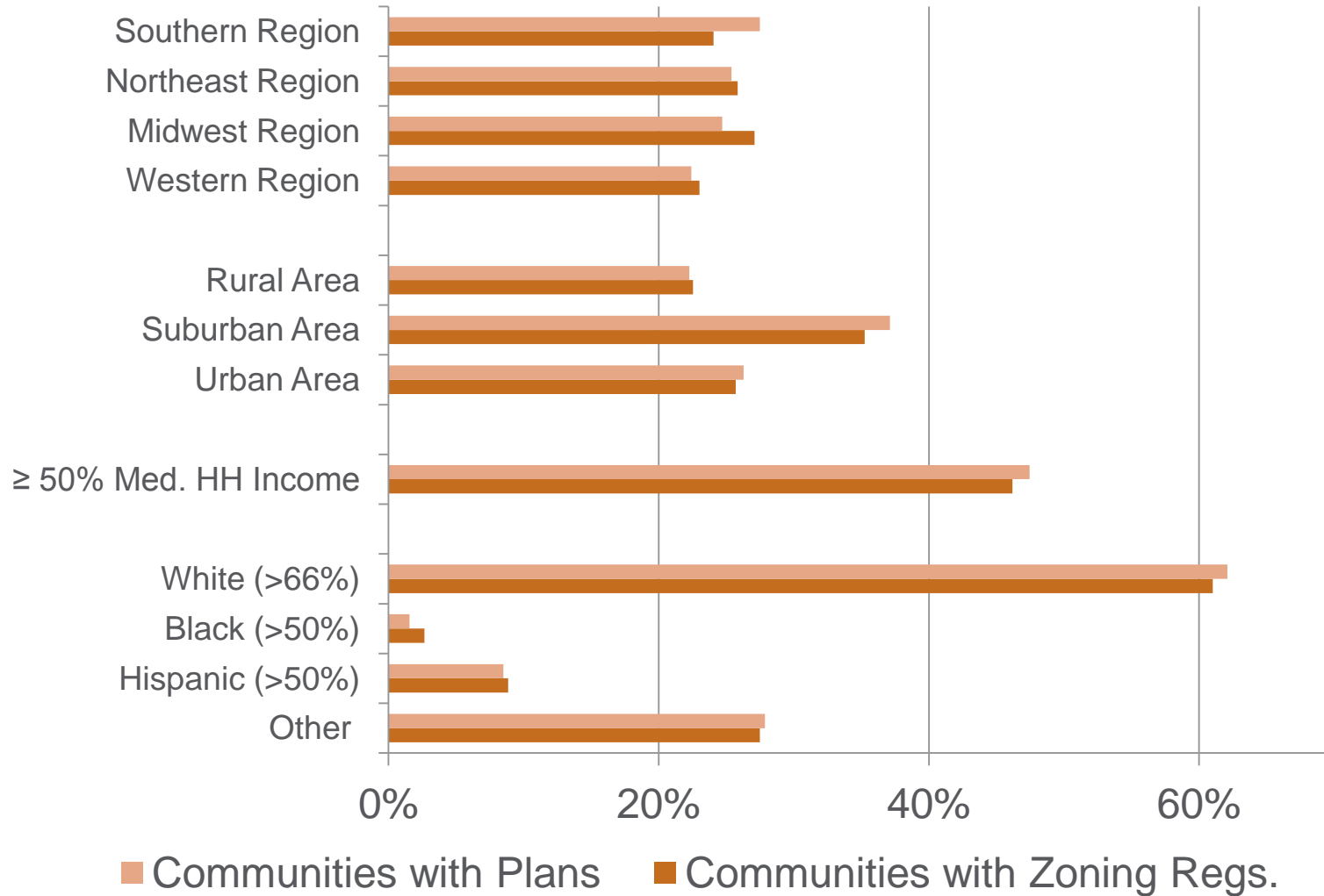
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# Methods

## Policy Collection and Coding

- Policies and plans were collected in 2010 from local governments surrounding 154 secondary schools nationwide (aka, “secondary school catchments”).
- Items collected included:
  - Zoning Ordinances
  - Subdivision Regulations
  - General Ordinances
  - Joint use agreements
  - Master/Comprehensive/General Plans

# Community Demographics





# Policy/Plan Coding Instrument

Policies/plans were reviewed by researchers using a coding instrument to evaluate the extent to which they specifically address walking/biking and recreation around schools.

version 6/30/10

BTG-COMP • SCHOOL-RELATED POLICY/PLAN AUDIT FORM 2010				Site ID _____	Observation ID _____			
Date: ____/____/2010	State: _____	Community: _____	State FIPS: _____	County FIPS: _____	Place FIPS: _____			
Policy Document Name: _____								
<b>Community Type of Government (select all that apply):</b> Region <input type="radio"/> CDP <input type="radio"/> County <input type="radio"/> Other <input type="radio"/> Municipality <input type="radio"/> Specify: _____			<b>Policy Source (select all that apply):</b> On-line code publisher <input type="radio"/> Other (specify) _____ Other code publisher <input type="radio"/> Specify _____ Community web site <input type="radio"/> Planning/Zoning office web site <input type="radio"/> No policy (verified) <input type="radio"/> Community mail <input type="radio"/> Missing (non-responder) <input type="radio"/>					
Total Coding Time (in hours/mins): : ____ Hrs : ____ Mins			Coder ID: _____					
A. CODE/ORDINANCE-Related ITEMS								
A. Item	Citation	A1. Addressed		A2. Strength of Requirement (REQ=required; ENCR=encouraged)				A3. Min. Distance (Specify)
		YES	NO	REQ	ENCR	NO	NA	
<b>a. School siting</b>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
1. Co-location of future/existing schools with parks/athletic fields/open space		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2. Schools located within <u>walking distance</u> of primary residential areas served		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>b. Sidewalk/sidewalk networks</b> around or within a certain distance of schools		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>c. Crosswalks</b> around or within a certain distance of schools		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>d. Crossing guards</b> located within a certain distance of schools		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
1. Crossing guards located within a certain distance of ES		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2. Crossing guards located within a certain distance of MS		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3. Crossing guards located within a certain distance of HS		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>e. Joint-use/Shared-use</b> of school facilities for PA/ recreational purposes		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
1. Joint/shared use by park district		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
2. Joint/shared use by park/recreation department		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
3. Joint/shared use by community recreational league/group (e.g., Little League, Neighborhood Athletic Association)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
4. Joint/shared use by before/after school programs		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
5. Joint/shared use by YMCA		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
6. Other Specify: _____		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

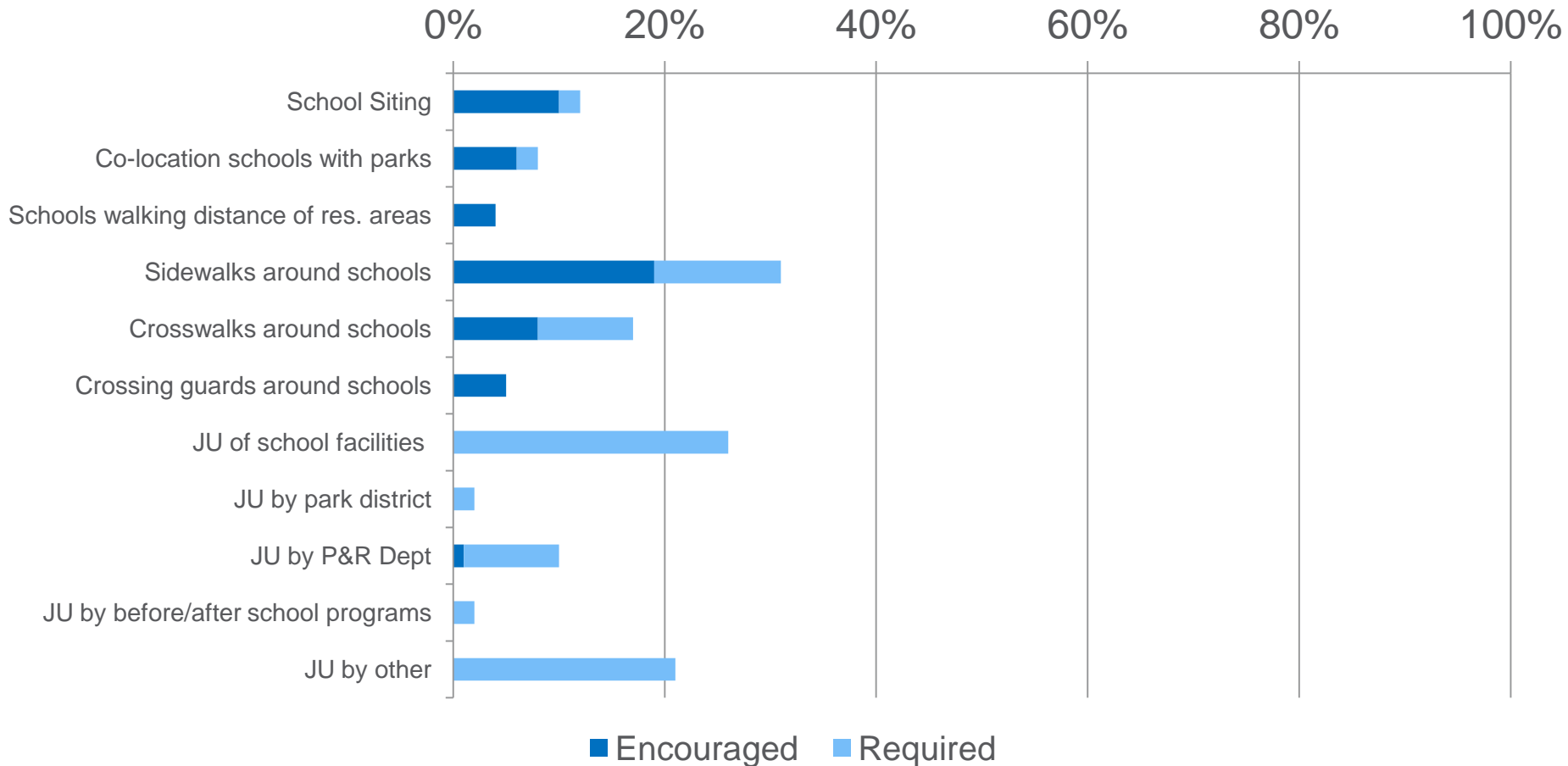
# Analytic Methods

- **Descriptive statistics** were computed, clustered to account for the sample design, and weighted proportional to the population of the local jurisdictions to account for the relative weight of the policies/plans from multiple jurisdictions inside the same school catchment.
- **Multivariate logistic regression** models examined the factors influencing whether the policy/plan addressed the topic of interest adjusting for:
  - >66% White population, low median household income, urbanicity (rural/township ref.) region (South ref.)
  - Sociodemographic data were compiled using the American Community Survey, 2010 Census data, and Census Tiger files.
- To ease interpretation, the **adjusted prevalence** of each policy/plan provision was generated after controlling for all covariates.
  - Significant predictors (after adjustment) are presented if statistically related at the  $p < .05$  level.

# School-Related Policy and Plan Provisions

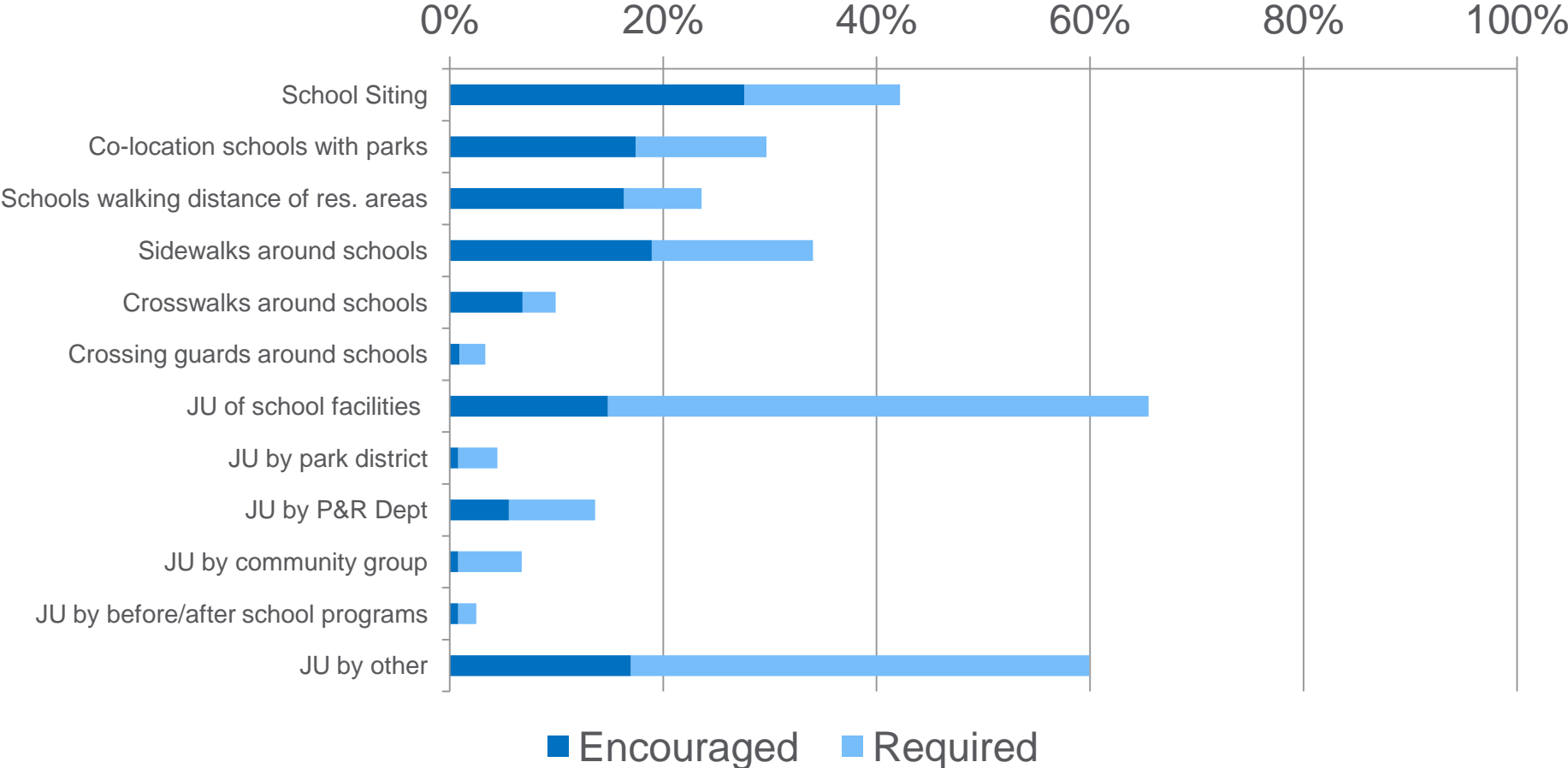
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# Prevalence of School-related Policies in Zoning<sup>a</sup> and Other Related Policies

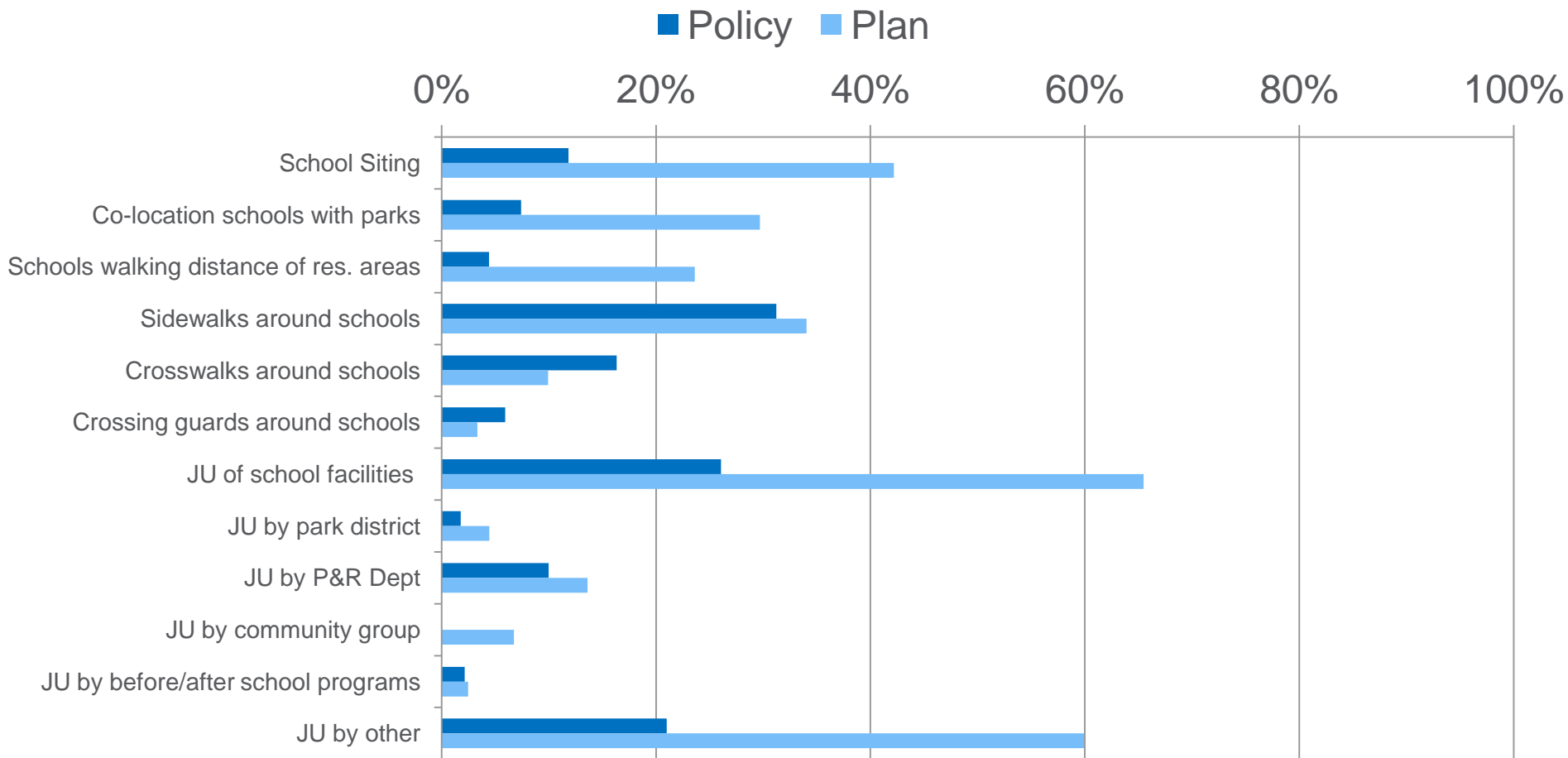


<sup>a</sup>n=175

# Prevalence of School-related Policies in Plans



# Prevalence of Any (Required or Encouraged) School-related Provisions in Policies and Plans



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# Factors Influencing Policy and Plan Provisions

# Multivariate Regressions: Community Characteristics Significantly Associated with School-Related Policies and/or Plans-1

	Adj. %		OR	95% CI	
	Not LI	LI			
<b>Low-income areas<sup>a</sup> predicting school-related policy</b>					
Policy: School siting	16%	5%	0.22	0.06	0.86
Plan: Joint use of school facilities	77%	49%	0.09	0.09	0.57
Plan: Joint use of school facilities by P&R Dept	19%	5%	0.20	0.05	0.81
Plan: Joint use of school facilities by other (munis/counties)	67%	48%	0.41	0.17	0.99
<b>&gt;66% White<sup>b</sup> communities predicting school-related policy</b>	<b>≤Not Maj. White</b>	<b>≥Maj. White</b>			
Plan: School siting	54%	33%	0.39	0.17	0.90
Plan: Schools w/in walking distance of residential areas	32%	15%	0.34	0.13	0.91
Plan: Joint use of school facilities by community group	11%	3%	0.21	0.05	0.98

\*All models sig at or below  $p < .05$ ; <sup>a</sup>All low-income models are adjusted for race/ethnicity (non-white ref.), urbanicity (rural ref.), region (south ref.); <sup>b</sup>All >66% White models are adjusted for income (high ref.), urbanicity (rural ref.), region (south ref.)



## Multivariate Regressions: Community Characteristics Significantly Associated with School Related Plans-2

	Adj. %		OR	95% CI	
	Not MW	MW			
<b>Midwest Areas Predicting<sup>a</sup> School-related Plan</b>					
Sidewalks around schools	42%	19%	0.28	0.10	0.80
Crosswalks around schools	16%	2%	0.09	0.01	0.57
Joint use of school facilities	70%	46%	0.28	0.10	0.78
Joint use of school facilities by other (munis/counties)	64%	41%	0.35	0.13	0.94
<b>Northeast Areas Predicting<sup>a</sup> School-related Plan</b>	<b>Not NE</b>	<b>NE</b>			
School siting	46%	22%	0.28	0.09	0.87
Co-location of schools with parks/open space	34%	7%	0.11	0.03	0.47
Sidewalks around schools	44%	9%	0.11	0.33	0.35
Crosswalks around schools	15%	2%	0.09	0.01	0.74

\*All models sig at or below  $p < .05$ ; <sup>a</sup>All models are adjusted for race/ethnicity (non-white ref.), urbanicity (rural ref.), income (high ref.), and region (S=ref).

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## Multivariate Regressions: Plans as a Predictor of Zoning

	Adj.* %		AOR*	95% CI	
	No Plan Prov.	Plan Prov.			
Sidewalks around schools	28%	52%	2.96	1.23	7.15
Joint use of school facilities by other (munis/counties)	12%	26%	3.40	1.17	9.87

\*All models significant at  $p < .05$  and adjusted for race/ethnicity (non-white ref.), urbanicity (rural ref.), income (high ref.), and region (south ref.) .

# Conclusion and Policy Implications

# Conclusion

- Local governments are interested in identifying ways to improve the environment around schools as evidenced by the plan data
- Data from this study indicates that interest does not lead to actual policy enactment
- Most school-related provisions are not prevalent in policies/plans.
- Predominantly White communities are less likely to adopt selected active living-oriented policies and plans.
- Disparities exist in lower income communities and the MW and Northeast regions of the country.



Source: [www.pedbikeimages.org](http://www.pedbikeimages.org) / Dan Burden

# Policy Implications

- Local governments should review their existing policies related to the built environment and modify them to address infrastructure improvements that could be made to promote pedestrian safety around schools.
- Local governments should consider adopting joint use agreements as a cost-effective way to provide recreation opportunities.



Source: [www.pedbikeimages.org](http://www.pedbikeimages.org) / Dan Burden

# Resources/Contacts

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Research Informing Policies & Practices  
for Healthy Youth

Research Brief  
March 2012

### Using Local Land Use Laws to Facilitate Physical Activity

*Local zoning and land use laws specify allowable uses of land within a community to help guide new development and protect community resources. The laws may specify requirements for structural improvements, such as adding or maintaining sidewalks, bike lanes, or open space, that affect residents' ability to be physically active.*

*This brief examines the extent to which local land use laws require structural improvements that facilitate physical activity. It also examines whether such requirements vary based on community income. The data was collected in 2010 from 264 communities across the United States.*

- Policy requirements for open space and pedestrian-friendly improvements, such as sidewalks and crosswalks, are more common than requirements for trails, bike lanes, or active recreation areas, such as playgrounds and sports fields.
- Lower- and middle-income communities are less likely than higher-income communities to require pedestrian-friendly improvements, active recreation areas, open space, trails and bike lanes in their local land use laws.

#### Introduction

The *Physical Activity Guidelines for Americans* recommend that children and adolescents participate in at least 60 minutes of daily physical activity to prevent and/or reduce obesity.<sup>1</sup> However, many families live in neighborhoods that inhibit physical activity. In communities across the country, many streets are designed for cars and are unsafe for pedestrians and bicyclists because they lack sidewalks, safe crossings or bike lanes. Research shows that children who live in neighborhoods that lack sidewalks, paths, parks, playgrounds or other amenities that support physical activity are more likely to be obese or overweight.<sup>2</sup>

The Task Force on Community Preventive Services recommends using community and street-scale design and land use policies to promote physical activity.<sup>3</sup> Local governments can use their zoning and subdivision authority to facilitate walking, bicycling and other opportunities for physical activity. Through its zoning powers, a local government can regulate the location of park and recreation facilities, trails and other facilities that promote physical activity; regulate land use patterns (e.g., open space zones); and specify infrastructure requirements, such as sidewalks and open space. Subdivision regulations control the division of land for development purposes. They include design standards for the layout of lots, streets and other public

BTU Research Brief – Using Local Land Use Laws to Facilitate Physical Activity | [www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org)

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for Healthy Youth

Research Brief  
February 2012

### Joint Use Agreements Creating Opportunities for Physical Activity

*A joint use agreement is "a formal agreement between two separate government entities—often a school and a city or county—setting forth the terms and conditions for shared use of public property or facilities."<sup>6</sup> For example, city governments can contract with local school districts to allow community members to use playgrounds and fields when school is not in session. School districts commonly refer to such agreements as community use agreements. This brief will use joint use agreements to refer to both joint use and community use agreements.*

*This brief examines the characteristics of joint use agreements that were in effect during the 2009–10 school year among a national sample of 127 public school districts.*

- Most school districts have a joint use agreement addressing recreational use of school facilities.
- Community advocates can help school districts develop stronger joint use agreements by indicating which recreational facilities are eligible for use, by whom and when. The agreements also should address liability and repair responsibilities.

#### Introduction

Today, two-thirds of adults and nearly one-third of children and teens in the United States are overweight or obese—and lack of physical activity is a leading contributor to the epidemic.<sup>1</sup> Providing access to recreational facilities is a critical strategy for helping people of all ages be more active.

Having access to parks and recreational facilities is associated with lower body mass index among children and increased physical activity among adults.<sup>2,3</sup> Research also shows that families and children who live in lower-income communities and communities with higher proportions of Black, Latino or other racial and ethnic populations at high risk for obesity have significantly less access to recreational facilities than those in higher-income or predominantly White communities.<sup>3</sup>

The Centers for Disease Control and Prevention and other leading public health organizations recommend increasing and/or enhancing access to school property, and other places where people can be active.<sup>4,5</sup> *Healthy People 2020* objectives call for increasing "the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends and during summer and other vacations)."<sup>6</sup>

BTU Research Brief – Joint Use Agreements: Creating Opportunities for Physical Activity | [www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org)

For more information, visit : <http://www.bridgingthegapresearch.org/>

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- (2) Safe Routes to School National Partnership. What is Safe Routes to School? Background and Statistics. Available from: <http://www.saferoutespartnership.org/sites/default/files/pdf/What-is-SRST-factsheet-REVISED-06-14-11-w-footnotes.pdf> (accessed: 02/18/13).
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- (6) Active Living Research. Supporting Physical Activity Outside of School Time Fact Sheet. Princeton, NJ: Active Living Research, a National Program of the Robert Wood Johnson Foundation; May 2012. Available from: [www.activelivingresearch.org](http://www.activelivingresearch.org) (accessed 2/18/13).

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