



Cities, Regions, and Schools: A Report to the Brookings Institution Metropolitan Policy Program

Building “Smarter” Schools: Improving Land Development and School Design

Executive Summary

**The Center for Cities & Schools
University of California, Berkeley**

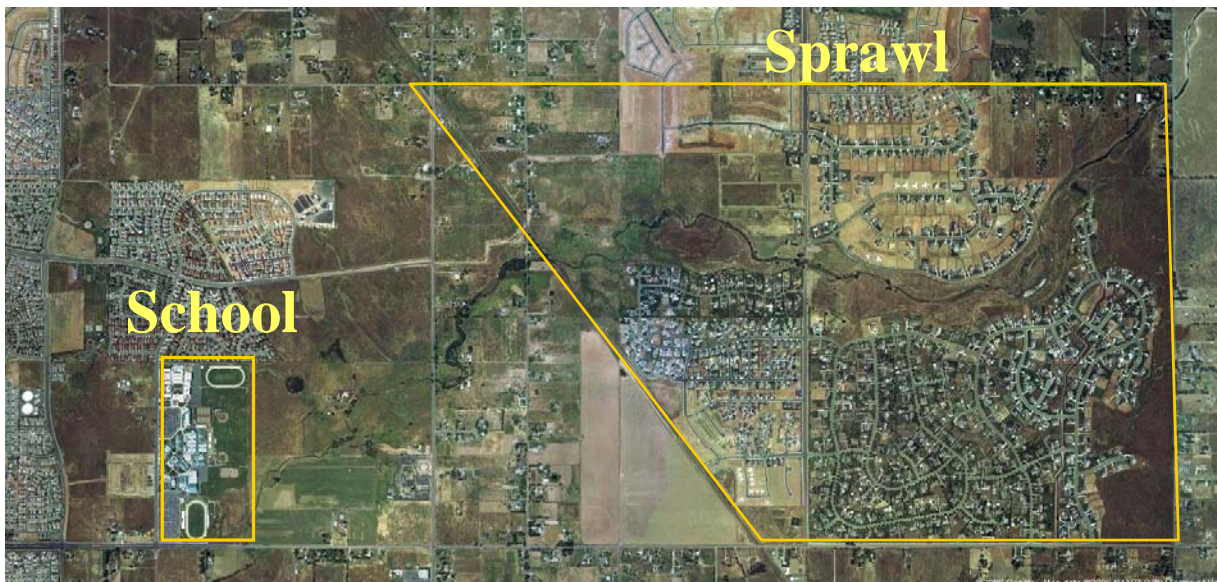
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I. The Problem

New school construction can be a major driver of suburban sprawl. Current land use and governance policies bias new school siting toward new construction, as opposed to infill development, and the reuse of existing buildings and sites. New school construction has resulted in “mega” schools, consuming large land areas on the edges of town, cut off from existing communities, and inaccessible to most students by walking, biking or public transit. In addition, large buildings and campuses work against current school reform efforts to create smaller, more personalized learning environments. Due to the fact that these schools are often constructed on lands at the edges of developed areas, a phenomenon of school sprawl has taken shape.

Exhibit 1: School Sprawl



Sheldon High School, Elk Grove, CA

II. Why It Matters?

Nationally, student populations projected to increase, requiring the allocation of large amount of government funding for school facilities. The U.S. Census projects that there will be 81 million school-age children by 2050—a 32% increase over 2000.¹ In 2005, over \$21 billion was spent on school facilities construction, with over 60% of those dollars spent on new school construction. The remainder was spent on the renovation of and addition to existing facilities. The confluence of these factors: population growth, school facility funds and the trend toward sprawl leads us to our central policy questions.

III. Guiding Questions

¹ U.S. Census. U.S. Interim Projections. “Table 2a. Projected Population of the United States, by Age and Sex: 2000 to 2050” Age 5-19 projection. <<http://www.census.gov/ipc/www/usinterimproj/>>

- ❖ How can we structure school facility funds and construction in a way that promotes sustainable development and regional equity?
- ❖ What land use options do urban and suburban municipalities have to encourage efficient use of land and resources?

IV. Analytic Framework

Our research explores current trends in land development and school facilities planning. Changing demographic and immigration trends will have a tremendous influence on school facilities planning, student learning needs, and general land use patterns. Our final policy paper will review land use options available to school districts according to current demographic trends and regional types, as defined in the matrix below.

Table 1: School Construction & Renovation Framework for Analyzing Demographic Trends and Regional Types

	Demographic Trends		City & Regional Examples	Land Use Options
URBAN	Declining	Decreasing population due to out migration and lack of in migration	San Francisco, Detroit	Infill, Consolidation, Adaptive Reuse, Historic Preservation, Joint Use Facilities
	Increasing	Increasing diversity, immigration and overall population	Los Angeles, Las Vegas	Infill, Eminent Domain, Increase Zoning Densities, Joint Use Facilities
	Stable	Relatively stable population trend	Boston, New York City	Infill, Redevelopment, Consolidation, Adaptive Reuse, Joint Use Facilities
SUBURBAN	Inner Ring (First Suburbs)	Increasing density, diversity, immigration and overall population	Maryland, Ohio, New Jersey	Infill, Adaptive Reuse, Historic Preservation, Redevelopment, Increase Zoning Densities, Joint Use Facilities
	Expanding (Exurbs)	Increasing diversity, mobility, immigration and overall population	California, North Carolina, Atlanta, Michigan	Increase Zoning Densities, Joint Use Facilities

V. Key Issues:

Disconnected Planning Processes

Currently, cities and schools make land use decision largely in isolation from one another. Cities on occasion include school planning in general plans, but rarely are schools included in revitalization efforts. Redevelopment plans tend to concentrate on residential and economic development without communicating with local school districts regarding school facilities plans. In growing suburban areas, schools are often excluded from development agreements, with school impact fees being negotiated by the city. On the other hand, schools are not required to follow general plan guidelines and they even have the power to use eminent domain if necessary to facilitate school construction, especially in large urban centers such as Los Angeles. Often, school districts must compete with private developers for land, thus they are unable to compete for lands that would best serve their educational and community needs.

Regional Equity

As mentioned above, nearly 60% of all 2005 school facilities funding was spent to build new schools. The vast majority of these schools are being built in expanding suburbs. Few of these funds are being allocated for use in older suburbs and urban schools. These schools are often the oldest, and most in need of investment. While expanding suburbs certainly demand new school facilities to meet growing population needs, older schools in existing neighborhoods must not be neglected. State and local funding formulas are not currently designed to create a geographic balance in expenditures and often pits urban and suburban schools against one another. This can prevent new school construction from focusing on those areas with the greatest need.

School Sprawl

Schools built on the suburban fringe are often disconnected from residential and economic centers. New school construction is regularly sited on “greenfield” sites, built at the expense of open space or agricultural lands. Due to the fact that industry guidelines favor large, single-story designs, surrounded by expansive parking lots and athletic fields, school districts are often forced to buy less expensive land located far from developed areas. This type of development requires substantial infrastructure expenditures, including utilities and municipal services. It also reduces the ability to commute by walking or biking, and can increase busing costs on the part of the school district. The physical isolation of the school from the town hinders community connections, and relocates a neighborhood anchor to the town’s periphery.

VI. Case Studies

Juxtaposing two similar towns on the coast of Lake Michigan demonstrates the costs and consequences of non-collaborative decision making and the infill vs. greenfield debate.

In Charlevoix, Michigan, a community of about 2,000, the school district built a brand new high school, at a cost of \$17.4 million. This 74-acre site, previously used as pastureland, lies on the outskirts of town, surrounded by woods and farmland; this suggests pretty views, but additional transportation costs for the district and individual families. The decision to build in this location was the result of closed-door sessions among just a few stakeholders, which ended in the decision to build new rather than to renovate at lower cost. This was much to the chagrin of the public, who generated several lawsuits, attempted a school board recall, and are left mistrusting their local school board.

Exhibit 2: Mega-School



Charlevoix High School, Charlevoix, Michigan

In contrast, the 1,600 person community of Harbor Springs modernized the town's 1915 nine-acre high school and built a brand new middle school a block away, at a total cost of \$31.5 million. Voters approved a bond measure after prolonged community debate on the subject of school construction, which was encouraged by the school board. Whereas, in Charlevoix, the school board only held two public meetings to discuss the school construction proposal, in Harbor Springs, the school board held 70 public meetings.²

Exhibit 3: Community School



Harbor Springs High School Harbor Springs, MI

² McClelland, Mac and Keith Schneider. Michigan Land Use Institute, "Hard Lessons: Causes and Consequences of Michigan's School Construction Boom," February 2004: 10-11 and Harbor Springs Public Schools < <http://www.harborps.org> >. Accessed April 22, 2006.

This extensive planning period took 18 months to complete, but the result was a stronger community for a lower price. The community was proud of its schools, litigation was avoided, many students are able to walk or bike to schools reducing reliance on busing and vehicle traffic, and the schools consume less land, because of the infill site, higher densities and shared facilities.

VII. Conclusion

In conclusion, land development and school design are fundamental to shaping sustainable growth, supporting school reform efforts to create smaller learning environments and stimulating effective community cohesion. If implemented incorrectly, disjointed school and city planning can lead to community distrust and often exacerbate other social inequities such as racial and economic segregation, and antagonism between neighboring school districts. Bridging the disconnect between cities and schools will pave the way for more efficient land development, infrastructure spending, and community development. With an integrated planning process, schools can effectively shape smarter growth and contribute towards more sustainable development patterns. Ultimately, the purpose of redesigning schools and their relationship to cities is meant to improve the living and learning environment of students and their families.

Appendix A

The table below describes land use and building design options available to localities depending on their spatial type and demographic profile.

Table 2: Menu of Land Use Options

	URBAN ⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒SUBURBAN⇒⇒⇒EXURBAN				
Land Policy Options	<i>Decreasing</i>	<i>Stable</i>	<i>Increasing</i>	<i>Inner Ring</i>	<i>Expanding</i>
Infill	X	X	X	X	
Greenfield					X
Joint use	X	X	X	X	X
Adaptive reuse	X	X	X	X	
Historic Preservation	X	X	X	X	
Eminent Domain			X		
Compact School Design	X	X	X	X	X
Consolidation	X	X			