NEIGHBORHOOD AND SCHOOL CONNECTION:
EXAMINING THE IMPORTANCE OF SCHOOLS ON NEIGHBORHOODS,
COMMUNITY DEVELOPMENT, AND THE HOUSING MARKET

A RESEARCH PAPER
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MASTERS OF URBAN & REGIONAL PLANNING

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CHAPTER 1: INTRODUCTION AND BACKGROUND

PROBLEM STATEMENT:
Neighborhood schools have consistently proven extremely beneficial both to the neighborhoods they serve and to the education of the students who attend them. Yet as a country we are losing these schools at an incredibly rapid rate as neighborhood dynamics and what people want out of their schools change. Thirty years ago, nearly 90 percent of all school attending children who lived within a mile of school walked or rode their bikes each day as their main form of transit. Today, that number has decreased rapidly, even more so for students who live farther than a mile from school, down to 18 percent.\(^1\) This decline is based on numerous factors: parent’s safety concerns, traffic danger, adverse weather, and crime along with others, many of which are associated with the distance most students travel to get to school from Kindergarten through 12\(^{th}\) grade.

But these neighborhood schools not only provide an asset to families in terms of education, but they add a destination and sense of place to a neighborhood, and increase property values in the surrounding area. The closing of neighborhood schools affects small communities and larger cities very differently, but many of the problems that arise after a closure are similar. Small communities depend on schools for a source of community togetherness and camaraderie, whereas big cities such as Pittsburgh, PA depend on their neighborhood schools to give students a sense of belonging in a large scale community. In both cases, homeowners in the surrounding areas depend on the schools to keep their

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property values high and allow their neighborhoods to remain desirable for resale purposes and for their own lives.

BACKGROUND

Numerous factors over the past 30 years have contributed to the closing of neighborhood schools, and while many school districts blame shifts in population and rising building maintenance costs, there are many other factors that have affected this issue much more intensely.

Expansive school buildings with acres of parking and grounds facilities surrounded by cornfields and empty spaces have become a norm in many communities across the country. Almost as common is the site of rapidly deteriorating former school buildings that sit vacant as reminders of the neighborhoods they once served. If a community is lucky, the old buildings are at least repurposed as community or senior centers, but many sit vacant waiting for their demolition date. In an age where urban renewal is trying to coexist with historic preservation, it seems almost senseless to ignore perfectly located, and in many cases historically significant, former school buildings in favor of locating a school outside the community. Many school districts are feeling the financial burdens of poor decision making in relocating students to expansive and remote school locations that were not predicted when cost assessments were completed to show rebuilding potential. Property value decline, lower neighborhood morale, decline in public education, increased transportation costs, urban sprawl, and childhood obesity are just some of the problems that these super schools cause. So, why are new schools still being built increasingly large and far away from neighborhood centers? Public policy, planning, and school districts often disagree when it comes to how to assess the safety and size of schools, but the school
districts interests usually trump planning and zoning regulations as well as comprehensive plans. Building codes, minimum acreage standards, and current practices in land assessment are just some of the conflicting issues these public officials face, and dealing with these issues can be time consuming and harmful to schools and the neighborhoods they serve.

Urban sprawl is the concept of communities growing without close connections to existing communities, leading to a car and bus dependent community that is disconnected from resources and requires parents to be the main source of transport in most cases. By moving schools outside communities, residents are constantly being pushed to move further from city and neighborhood centers. Sprawled, car dependent communities have another array of problems that are only worsened by the travel time to school. By forcing students or parents to drive to school, the transportation costs for the school district increases due to bus transit, and transportation cost for parents and students both in time and dollars increases. The average adult spends 72 minutes per day behind the wheel—often this time is time spent away from their children. Teenagers are nearly forced to have a car, to either buy one or have their parents buy one, if they wish to participate in after school activities. For teenagers without cars, parents are responsible for transportation; in some families with high demand jobs or multiple children, this just is not a possibility. With the cost of fuel and car repairs and insurance, teens and parents incur the additional financial burdens an extra car brings to a family. According to the Center for Disease Control and Prevention in Atlanta, “many of our communities have been designed for cars, not children. The freedom

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for children to explore their communities is greatly limited when walking is not safe or enjoyable.”

Across the country, smaller towns and villages are affected by the school closings more than larger communities, but even major cities like Pittsburgh have felt the effects of closures. In many school districts, sports rivalries provide camaraderie and a source of entertainment for the community that disappears when schools are closed or combined to form larger ones. The loss of a sense of community and neighborhood connectedness can cause these small towns to decline to a point that they cannot bounce back. When school buildings close, they are not often repurposed right away; many buildings sit vacant for several years or more either waiting for demolition or hoping to be reopened. With building vacancies, surrounding lots face property value depreciation and homes become difficult to sell. Vacant properties not only look undesirable, but they attract vandalism and gang and drug related activities in some areas, decreasing property values even more sharply.

The sense of community is not the only reason for maintaining a strong school district. Many parents and young families choose where they live based on the school district if they are financially able to do so. Getting their children into the best possible school often leads parents to choose charter schools or a district with a school choice program. While some charter schools can be wonderful additions to a community, they can provide unequal access to education and yield an unfair advantage to some students. Most rural or small school districts do not have the option of charter schools at all, and parents are left with either paying for their child to attend another school in the district, moving to a new school

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3 Beaumont, Constance et. al.
if their current is below their standards, or just residing where they can afford and living with the school to which they are assigned.

The chart below outlines the percentage of parents who chose to move to their current neighborhood on account of the schools, as concluded by the National Center for Education Statistics:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Parents moved to neighborhood for the school</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>26.6</td>
</tr>
<tr>
<td>Type of school</td>
<td></td>
</tr>
<tr>
<td>Public, assigned</td>
<td>28.4</td>
</tr>
<tr>
<td>Public, chosen</td>
<td>18.2</td>
</tr>
<tr>
<td>Private, church-related</td>
<td>†</td>
</tr>
<tr>
<td>Private, not church-related</td>
<td>†</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>29.5</td>
</tr>
<tr>
<td>Black</td>
<td>17.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25.0</td>
</tr>
<tr>
<td>Other¹</td>
<td>27.8</td>
</tr>
<tr>
<td>Poverty status</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>21.2</td>
</tr>
<tr>
<td>Near-poor</td>
<td>21.3</td>
</tr>
<tr>
<td>Nonpoor</td>
<td>30.2</td>
</tr>
<tr>
<td>Parents’ education</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>18.1</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>20.7</td>
</tr>
<tr>
<td>Some college, including vocational/technical</td>
<td>25.4</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>31.5</td>
</tr>
<tr>
<td>Graduate/professional degree</td>
<td>33.7</td>
</tr>
<tr>
<td>Locale</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>22.8</td>
</tr>
<tr>
<td>Suburb</td>
<td>33.5</td>
</tr>
<tr>
<td>Town</td>
<td>20.2</td>
</tr>
<tr>
<td>Rural</td>
<td>23.4</td>
</tr>
</tbody>
</table>

† Not applicable.

¹ Includes Asians/Pacific Islanders, Native Hawaiians, American Indians, Alaska Natives, and persons of more than one race.
In recent years, communities have begun to recognize the importance of community centered schools following numerous related publications. In October 2002, “Why Johnny Can’t Walk to School” was published by the National Trust for Historic Preservation. This publication outlined the dangers of the rapid growth of “super schools” on the outskirts of communities and what happens to education as a result. Numerous similar publications such as “Helping Johnny Walk to School” and “Reconnecting Schools and Neighborhoods” were published shortly after. These important works not only observed the problems outlined in “Why Johnny Can't Walk to School,” but expanded on potential solutions to solve the issues. While some school districts have seen positive changes since then, school closings and consolidation still affect hundreds of schools today.

Some communities are implementing correctional policies and seeking out alternative solutions to school closings and seeing great success in rebuilding or maintaining their communities, and the right policy implementations can have an extremely positive effect on the communities they're working to protect.
CHAPTER 2: THE IMPORTANCE OF NEIGHBORHOOD SCHOOLS AND NEGATIVE EFFECTS OF REMOVING THEM

WEAKENED CONNECTION BETWEEN SCHOOLS AND THE COMMUNITY
One of the greatest issues that arises when neighborhood schools are replaced by super schools is the decline in community involvement in the school. When a school is in the center of a community, especially in a rural area, it works to hold the community together and in many cases supports the local economy, such as the case study in Chapter 4 about Lovington, Illinois. Business owners in Lovington knew that without having multiple high schools in the community, the rivalries that drew in crowds for sporting events that ended up supporting the local businesses would not exist. Many small communities are in danger of losing their commercial areas and will eventually see a flight of residents who are able to leave the community.

DECREASE IN PROPERTY VALUE AND INCREASE IN TAXES
Not only do communities experience decreased property value when they close their schools, but they also are forced to raise property taxes to fund building of the replacement super school. Taxpayers spend billions annually purchasing the large lots required to build super schools, while older schools typically have smaller footprints as they are built multi-story.

A study by the Michigan Land Use Institute (MLI) found that decisions made by school districts to build super schools had damaging and widespread effects on the communities involved. Michigan is a unique example of school boards and business and government leaders are encouraging the growth of these super schools and of new builds. Annual
expenditures on school construction doubled in the United States from 1992 to 2002, but in Michigan they tripled.\textsuperscript{4} The study also found that Michigan is consuming land for new development at a rate eight times faster than the increase in population.\textsuperscript{5} Michigan districts have built schools increasingly far from the communities in which they serve, more so than other states. The MLI study looked at the effects of these decisions on neighborhoods, property values, and taxes.

An analysis of property value in Jackson, Michigan concluded that average property values of homes near a stable, community school rose at a rate of 3 percent higher annually than in similar neighborhoods where the school had been closed.\textsuperscript{6} Keeping an existing school open increases home values in surrounding neighborhoods and helps stabilize the area and its business activity, while closing them slows the rise of home values.\textsuperscript{7} It is estimated that closing the school cost that neighborhood about $2 million in property tax revenue.\textsuperscript{8} Raising taxes for new school construction has not only cost homeowners and business owners money, but has tripled related debt from $4 billion to $12 billion since 1994.\textsuperscript{9} Issuing debt is another way that cities and towns fund school related projects, and in 1995 the state saw a 150 percent increase in the dollar amount of bond issues for school construction — from $499 million in 1994 to $1.25 billion.\textsuperscript{10}

\textsuperscript{5} Mclelland, Mac and Keith Schneider.
\textsuperscript{7} Mclelland, Mac and Keith Schneider.
\textsuperscript{8} Kuhlman, Renee.
\textsuperscript{9} Mclelland, Mac and Keith Schneider.
\textsuperscript{10} Mclelland, Mac and Keith Schneider.
Figure 1: Charlevoix High School in Michigan, the site where each morning, cars line up to enter and there are no sidewalks leading into the entrance. This once rural, out of town area now has heavy traffic. Source: Michigan Land Use Institute

INCREASE IN NUMBER OF CARS ON THE ROAD

When schools are located outside the community, most parents choose to drive their children to school. According to Environmental Protection Agency research, from 7:15 to 8:15 a.m. there is a 30 percent increase in the number of cars on the road during the school year. An increase in cars on the road leads to several detrimental effects on the community. It means more wear and tear on infrastructure such as roads and bridges causing more expensive maintenance, and it leads to longer commute times to work and school. Many parents are already commuting to work, and if they have to first drive their children to school their commute can be even longer and more stressful on roads, cars, and the parent and child themselves. With increasingly high demand jobs for both parents being a factor, time parents are able to spend with their children is already precious, and longer commutes threaten to worsen the situation.

Kuhlman, Renee.
INCREASE IN COST OF TRANSPORTATION

According to the Institute of Education Sciences, in the 2007-2008 school year, the average per-pupil cost of transportation by bus was $854 in unadjusted dollars. Approximately 55 percent of students require bus transportation to get to school, and with the cost of bus transit increasing with fuel cost, the cost of transit will increase. Even when adjusted for inflation, the cost has increased steadily by about 77 percent from 1980 to 2008, and will likely continue to increase. Below is a chart representing this increase, from the U.S. Department of Education National Center for Education Statistics.

Public school students transported at public expense and current expenditures for transportation: Selected years, 1980-81 to 2007-08

<table>
<thead>
<tr>
<th>Year</th>
<th>Students Transported at Public Expense</th>
<th>Students transported at public expense (percent of total)</th>
<th>Expenditures for transportation (in thousands) (unadjusted dollars)</th>
<th>Average expenditure per student transported (in unadjusted dollars)</th>
<th>Expenditures for transportation (in thousands) (in constant 2008 dollars)</th>
<th>Average expenditure per student transported (in constant 2008 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>22,272,000</td>
<td>59.1</td>
<td>$4,408,000</td>
<td>$198</td>
<td>$10,923,088</td>
<td>$490</td>
</tr>
<tr>
<td>1990-91</td>
<td>22,000,000</td>
<td>57.3</td>
<td>$8,678,954</td>
<td>$394</td>
<td>$13,911,654</td>
<td>$682</td>
</tr>
<tr>
<td>1997-98</td>
<td>24,342,000</td>
<td>56.9</td>
<td>$11,465,658</td>
<td>$471</td>
<td>$15,216,797</td>
<td>$625</td>
</tr>
<tr>
<td>2000-01</td>
<td>24,471,000</td>
<td>55.5</td>
<td>$14,052,654</td>
<td>$574</td>
<td>$17,228,169</td>
<td>$704</td>
</tr>
<tr>
<td>2001-02</td>
<td>24,529,000</td>
<td>55</td>
<td>$14,799,365</td>
<td>$603</td>
<td>$17,827,973</td>
<td>$727</td>
</tr>
<tr>
<td>2002-03</td>
<td>24,621,000</td>
<td>54.7</td>
<td>$15,648,821</td>
<td>$636</td>
<td>$18,445,892</td>
<td>$749</td>
</tr>
<tr>
<td>2003-04</td>
<td>25,159,000</td>
<td>55.5</td>
<td>$16,348,784</td>
<td>$650</td>
<td>$18,858,399</td>
<td>$750</td>
</tr>
<tr>
<td>2004-05</td>
<td>25,318,000</td>
<td>55.5</td>
<td>$17,459,659</td>
<td>$690</td>
<td>$19,551,444</td>
<td>$772</td>
</tr>
<tr>
<td>2005-06</td>
<td>25,252,000</td>
<td>55</td>
<td>$18,850,234</td>
<td>$746</td>
<td>$20,334,252</td>
<td>$805</td>
</tr>
<tr>
<td>2006-07</td>
<td>25,285,000</td>
<td>54.8</td>
<td>$19,979,068</td>
<td>$790</td>
<td>$21,008,665</td>
<td>$831</td>
</tr>
<tr>
<td>2007-08</td>
<td>25,221,000</td>
<td>54.6</td>
<td>$21,535,686</td>
<td>$854</td>
<td>$21,836,398</td>
<td>$866</td>
</tr>
</tbody>
</table>

DECREASE IN OPPORTUNITY FOR EXERCISE

Not only do schools that require students to travel a far distance limit the amount of clubs and sports students can participate in, but they also limit the number of students who can walk or bike to school. As mentioned before, the number of students who are able to walk to school has significantly decreased in the past thirty to forty years, and childhood obesity has more than tripled in children ages 6 to 11. According to the Center for Disease Control and Prevention, Children should get an estimated 60 minutes of physical activity per day, and losing out on the ability to walk or bike to school means they lose out on exercise time.

DECLINE IN QUALITY OF EDUCATION

EXTRA-CURRICULAR PARTICIPATION

According to the National Center for Education Statistics, extracurricular activities such as clubs, sports, or music are a vital part of a child’s education. After school activities such as clubs and sports practice are not supported by transportation; parents are required to pick their child up from practice or bring them back for practices later in the evening. While this isn’t as serious a problem for parents with traditional 9 to 5 jobs, it can be almost impossible for parents who work shift work and are not home to bring their children back to school or pick them up at a later time. If a parent cannot afford to pay someone to bring a child to practice or lack a carpool, that child will lose out on the benefit of participating in

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15 Kulman, Rennee.
clubs and athletics. Additionally, if parents are unable to make the long drive to the school at night for parent teacher meetings and other school events, important parental involvement in a child's education decreases.

**CLASS SIZES**

In addition to lack of parental involvement and extracurricular enrollment capability, when schools are merged, class sizes often increase to make up for the additional enrollment and to cut costs of keeping all teachers. Numerous studies have been published that encourage school administrators to retain small class sizes, especially in elementary school. Quality of education is thought to be improved when the class size is reduced to about 20 students.18 When the student to teacher ratio is smaller, students gain valuable one on one time with their teachers to address specific learning problems in the classroom. In elementary school this can be especially effective for identifying learning disabilities or weaknesses early to ensure the students receive the help they need to be successful. Long-term exposure to small classes in the early grades has also been found to increase measured student achievements in the future, even when those students are returned to larger sized classrooms.19 By establishing positive learning habits early on, students are more likely to continue their success through high school, increasing graduation rates.

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19 Biddle, Bruce; David Berliner.
CHAPTER 3: WHAT HAS CONTRIBUTED TO THE DECLINE IN NEIGHBORHOOD SCHOOLS?

DISTANCE

A significant factor that contributes to the decline in neighborhood schools is that children live too far away to be able to walk. Many students do not have a safe route or a route that includes sidewalks, crosswalks, or crossing guards to ensure they are able to arrive safely. Below is a figure that shows the percentage of students who walked to school in 1969 compared to 2001.20

DISTANCE TRAVELED TO SCHOOL:

These schools built on the outskirts of town lead neighborhoods to decline, especially in character. Historic school buildings are torn down and leave the area empty. Many school boards and other advocates of these changes argue that in order to meet safe building codes and to fit in to the plans for growth, neighborhood schools must be demolished. According to the National Trust for Historic Preservation, many of these codes and plans are designed specifically to have this effect in order to make rebuilds the easier option.

MINIMUM ACREAGE STANDARDS

Public policies, building codes, and other legal requirements have contributed to the separation between schools and neighborhoods through the encouragement of super

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20 Centers for Disease Control and Prevention.
schools. Many state education departments require minimum acreage standards for school buildings that are significantly larger than what they need to be. Changes have started to take shape to correct this policy error, but prior to 2004, The Council of Educational Facility Planners International (CEFPI) called for:

<table>
<thead>
<tr>
<th>Schools</th>
<th>Minimum Acreage Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Schools</td>
<td>10 acres plus one acre for every 100 students</td>
</tr>
<tr>
<td>Middle Schools</td>
<td>20 acres plus one acre for every 100 students</td>
</tr>
<tr>
<td>High Schools</td>
<td>30 acres plus one acre for every 100 students</td>
</tr>
</tbody>
</table>

These guidelines led to problems in building new schools on old neighborhood lots. Schools were much smaller and therefore required significantly fewer acres when many of these buildings were built in the mid 1900’s. Some states have developed their own regulations, requiring either more or less acreage than what is required by the CEFPI. For example, New York has significantly reduced the number of acres, only 3 plus one for every one hundred students. Conversely, Minnesota has increased its standards, setting them higher than required CEFPI guidelines: 60 acres plus one for every 100 students for an elementary school. This makes it almost impossible to build a school in an established neighborhood.

A typical city block is about 4 acres, so even requiring 10 acres would take up two city blocks.

Besides forcing students to drive to get rides to school because they live too far, these super schools require vast parking lots. This is especially true with high schools, because more than 50 percent of high school students are able to drive to school. Some schools end up providing up to 10 acres of parking lots just for the students, with another one to two acres

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21 Beaumont, Constance, et. al.
22 Beaumont, Constance, et. al. pp. 15
of separate parking for teachers.\textsuperscript{23} Old neighborhood schools were often built on two to eight acres of land, and the sites are typically surrounded on all sides by densely developed neighborhoods, leaving no room to expand the land for school expansion. Big city school districts are often able to get waivers or approval for not meeting these requirements, smaller districts in rural areas cannot get approval because acquiring more land is not considered a big problem when space is not at a premium. It is often these smaller neighborhoods that rely on having neighborhood schools to ensure a cohesive neighborhood.

\textbf{Land Encroachment and Eminent Domain}

In many cases, acreage standards have caused cities and towns to be forced to take land surrounding the schools to meet the minimum site requirements, even for parking. For example, in Mansfield, Ohio, the school district demolished about 60 homes to make way for additional parking and athletic fields near the high school.\textsuperscript{24} This pushed the neighborhood further away from the school on top of displacing the residents of the community the school is supposedly serving. Other communities are choosing to give up precious green space, something that many neighborhoods and communities are already lacking, to accommodate school expansions. Many residents of communities are led to believe that these acreage standards are requirements, while in some states they are merely recommendations. Unaware of this, citizens are unlikely to try to stand up against these expansion policies and save their communities.

\textsuperscript{23} Beaumont, Constance, et. al.
\textsuperscript{24} Beaumont, Constance et. al.
COMMUNITY AND SCHOOL POLICY CONFLICT

Local governments have the responsibility to the community to promote growth that has the best interests of their community in mind. Typically, they attempt to regulate growth through planning and zoning laws which try to incorporate safe, walkable neighborhoods with nearby amenities and common green spaces. However, new school construction can greatly alter a communities projected municipal growth patterns, especially when it takes places on the outskirts of town.

In an extreme of this issue, many, if not most school districts are exempt from established planning and zoning laws, and school districts are allowed to develop without thought to the community’s master plan. The main issue is that if a school district’s plans do not comply with a city or town’s Comprehensive Plan, the government authority cannot keep the school district from building as it chooses. Many communities have worked to change this shortfall in planning and community building to ensure that the school district must plan for growth along with the city or town.

LACK OF PLANNERS IN THE SCHOOL SYSTEM

Though planners have become increasingly popular in the school systems, many across the country still do not employ a professional planner. Planners are found in state, local and federal government as well as the military, but school districts do not always see the importance of this position and try to assign planning duties to staff who are not planning professionals.

25 Beaumont, et. al.
The fact is, most school districts employ staff who have other responsibilities that they need to focus on, curriculum programs, assignment to schools, redistricting, student assignment concepts, bus transit, and planning for closing, expanding, or building schools and planning for schools is not their main focus.\textsuperscript{27} While all these elements are important they can be uncoordinated and unmatched. Many of the ideas and initiatives are adopted without regard to the facility implications. For example, new instructional programs may be adopted without consideration of attendance zones or existing school capacities.\textsuperscript{28} Many ideas which seem sensible or cost-effective to those untrained in planning create more problems. For example, Special Education students may be placed in a vacant school building so facilities need not be added to existing buildings.\textsuperscript{29} While this may seem sensible, it can lead to further need for bussing or strain on parents to take their children far from their homes.

Poor enrollment projections and controversial school attendance plans are some of the other issues that untrained school board staff may struggle with. In many cases, school districts use ratios to predict enrollment: take the number of first graders from the year before and divide it by the number of student in the same class the next year in second grade; that produces a ratio that can be used to predict the enrollment increases.\textsuperscript{30} This method has proven inaccurate and can lead to facility shortages and overcrowded classrooms as well as unnecessary hiring of staff. Additionally, this method does not take long term projections into consideration, leading to frequent redistricting or teacher transfers. School transportation can also be negatively impacted when student demographic information is incorrect and inadequate mapping by those untrained in high tech mapping

\begin{itemize}
\item \textsuperscript{28} Carey, Kelley D., AICP.
\item \textsuperscript{29} Carey, Kelley D., AICP.
\item \textsuperscript{30} Carey, Kelley D., AICP.
\end{itemize}
programs makes these projections even more difficult. Facilities, administration, teachers and other staff members are all negatively affected without planners on school board staffs.

**BUILDING CODES**

Historic preservationist, new wave developers, and school boards all agree that schools need to be safe. The debate comes in about how to best achieve optimal levels of safety. To establish a unified measure for assessing the safety of schools, special building codes for schools are established and updated every few years. As these building codes are updated, they typically focus on contemporary building materials and construction methods.\(^{31}\) This does not mean that buildings without these materials and methods are unsafe, rather, that they need to have available modifications that ensure they achieve the same level of safety as new construction buildings. Installing things like sprinkler systems, smoke detectors, and other warning systems can ensure that the buildings are up to code and achieve the same safe environment as modern construction, and architects can be hired to retrofit the buildings and create the same safety effects, but they are often not given the chance.\(^{32}\) Much of the confusion with the issue is due to wood-frame construction, which can automatically cause a building to be deemed “unsafe” and ineligible for renovation funding from the state.\(^{33}\) In many cases though, compliance alternatives exist for fitting wood-frame construction buildings into new codes and standards.

If renovation costs are over-estimated, it is easier for a school district to convince the community to build a new school rather than to renovate an old one. This was the case in Kokomo, Indiana, where in 1997 the fate of the city’s oldest high school was demolition. The

\(^{31}\) Beaumont, et. al.  
\(^{32}\) Beaumont, et. al.  
\(^{33}\) Beaumont, et. al.
21st Century Committee, an advisory group created by Kokomo’s school board, had estimated about $20 million in renovation costs to bring the building up to modern code, while they estimated that demolishing the old building and building a brand new one would on cost about $7 million. With these numbers, the school board easily voted in favor of demolition and rebuilding before work began, a new school board member challenged the group’s assumptions and asked for a reassessment of renovation costs. After pressing the superintendent, he found there was no documentation stating that the school was unsafe and couldn’t meet code without these massive renovations, nor that the renovations would cost $20 million. Within a year, the building was completely renovated to include modern amenities and top of the line media equipment at just $7 million.

These are just a few examples of the hundreds of schools affected by a school district’s quick decision making to achieve permission to rebuild without first assessing all possible renovation options. Generally, it is wise for school districts to retain consultants experienced in code compliance alternatives to ensure that situations like this do not arise without a full assessment, but in many cases, budget constraints do not allow for it.

34 Beaumont, et. al.  
35 Beaumont, et. al.  
36 Beaumont, et. al.
ADDITION OF CHARTER SCHOOLS IN A COMMUNITY AND THE OPTION TO CHOOSE

ADDITION OF CHARTER SCHOOLS
"From 1999–2000 to 2009–10, the number of students enrolled in public charter schools more than quadrupled from 0.3 million to 1.6 million students. In 2009–10, some 5 percent of all public schools were charter schools."—National Center for Education Statistics

Though charter schools can provide an education option rather than straight public or private schools, the charter exempts the school from selected state rules and regulations. Each charter has certain accountability and academic standards that they must meet, and these may or may not be the same as state standards for education. A school's charter is reviewed periodically (typically every 3 to 5 years) and can be revoked if guidelines on curriculum and management are not followed or if the standards are not met.

These educational policies have also led some suburban school leaders to build mega-sized facilities with the hope of attracting students to their district and have led to students traveling longer distances to school. In many cases, when students do not attend their neighborhood schools, the bonds between the school and the community’s residents are weakened, leading to a lack of investment.

39 Kuhlman, Renee.
Although charter schools can be a wonderful benefit to students and teachers, especially magnet schools established for gifted and talented students or trade programs, the availability of an alternative to public education can lead to fewer students in community and public schools and eventually lead to closings. While cities on the decline such as Detroit and Cleveland have seen steady declines in public school enrollment, an alarming number of more prosperous cities have recently seen significant declines as well. Though New York City public school enrollment remained fairly stagnant from 2005 to 2010, both Los Angeles Public schools and Chicago Public Schools saw significant declines, and officials believe that charter schools are to blame. Between 2005 and 2010, enrollment in all public schools fell by about 5 percent, while enrollment in charter schools rose by close to 60 percent in some districts. In some cities, the number of students enrolled in charter schools has a dramatic effect on public schools. For example, in Columbus, Ohio, the number of students enrolled in public schools fell by 10 percent, while charter school enrollment increased by almost 9,000 students. The chart below from the National Center for Education Statistics, illustrates the rapid growth in charter school enrollment in the past decade:

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41 Rich, Motoko.
42 Rich, Motoko.
Because a school’s funding is often based on enrollment, the rapid declines in public school enrollment have led to extreme budget cuts in the districts, which in turn causes the quality of the school to decrease even more and places the schools in jeopardy of losing even more students. Jeff Warner, a spokesman for the Columbus City, Ohio Schools, said that enrollment appears to be stabilizing, but it can be difficult to compete against suburban and charter schools.43

According to a 2010 study by the United States Department of Education, the effects of charter schools on the quality of education vary greatly across different communities. In fact, the study found that certain traits of charter schools, such as smaller class sizes and individualized attention actually drove student achievement, not necessarily the charter school itself.44 Unfortunately, smaller community schools with better student to teacher ratios are often prevented from staying open by the charter schools themselves. Solutions to inequalities for school districts with charter schools as a factor can be difficult to come by,

43 Rich, Motoko.
as charter schools can often be a better way for the students in the community to receive an education, but in many cases they do not provide any additional benefit to students in terms of the education they receive, and they can hurt the public schools and the community in the process.

**THE OPTION TO CHOOSE**

“School Choice” is a wide array of options aimed at giving parents the right to choose which school their children will attend. As the reputation for public schools has declined, the percentage of students attending a “chosen” school (one that they would otherwise not attend) has increased, from about 11 to 16 percent from 1993 to 2007.\(^{45}\) The percentage of children attending public schools decreased from 80 percent to 73 percent, while the enrollment in private schools increased from 10 percent to 12 percent.\(^{46}\)

While not all parents have the school choice option, 67 percent still sent their children to their regular school, 25 percent chose a different public school, and 9 percent selected a private school.\(^{47}\) Another form of school choice is to just move to the neighborhood with the school of one’s choice, which some parents may not have the ability to do. School choice is not always free of charge; some districts assess a “tuition” fee for students to attend who live outside the district. Like charter schools, most public schools do not provide transportation to students who live outside the district boundary, thus providing unequal opportunity for some students.

\(^{46}\) “Fast Facts” National Center for Education Statistics.
\(^{47}\) “Fast Facts” National Center for Education Statistics.
While both charter schools and school choice programs can be effective in providing alternative forms to traditional districting with public schools, they are not an ideal solution and they create enrollment deficits in public school systems. Because traditional public schools see decreased enrollment, they are often forced to close or consolidate, further decreasing the quality of education they are able to provide in many cases.

BUILDING ISSUES
Numerous factors lead to building issues with schools. Just like with a home or a car, schools need regular maintenance and upkeep that they don’t always receive. But fear of renovation and influence of developers along with skipping routine maintenance are just some of the problems that lead to building issues.

DEFERRED MAINTENANCE
Just as with a house or a car, the longer regular maintenance is ignored, the larger the problems are that arise in the future. In many cases, school boards have been found to defer maintenance specifically on older buildings because they know it will be easier to get the approval needed for rebuilding rather than fixing the problems through simple renovations. Budget constraints, expansion of athletics and fine arts facilities, and other costly necessities are just a few examples of things that keep regularly scheduled and necessary maintenance from occurring.

IGNORING RENOVATION POSSIBILITIES
If a school board is lucky enough to have the expertise of an experienced architect, it is unlikely that the architect will be very familiar with school facility renovation procedures. Rather, they are likely more experienced designing a building from the ground up.

48 Beaumont, et. al.
As mentioned before, the costs of renovations are often so overestimated that it actually becomes less expensive to demolish the building and start over. In many cases though, costs of demolition and rebuilding are significantly higher than renovation, but enough renovation options are not assessed because the school boards believe it’s easier just to rebuild. If school planning committees are dominated by architects, corporate construction companies, or other individuals with a vested interest in new construction, it’s even easier to convince communities that this is the best option.

**Influence of Developers**

In many cases, school site selections are influenced by developers who donate land to increase value of subdivisions on the outskirts of towns, according to research compiled by the South Carolina Coastal Conservation League. While this donated land can be an asset to school districts, it can be a detriment if the land increases sprawl. Property owners can use their assets to influence controversial zoning decisions, and this contributes to further sprawl issues. Additionally, landowners can take significant tax deductions for school donations in addition to profiting from for sale of their remaining land to other large scale development.

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49 Beaumont, et. al.
50 Beaumont, et. al.
CHAPTER 4: ISSUES ACROSS THE COUNTRY

LOVINGTON, ILLINOIS

Built in 1907, Lovington High School is filled with the memories of over 100 years of high school students. Unfortunately, many of these memories will not be joining the students at their new school 10 miles away, Arthur-Lovington High School. In this small village of just 1300 people, many are angered with the merging of the two high schools, Arthur and Lovington, each of which served fewer than 200 students. Because these schools were the only two in the community, sporting events from football to tennis provided a source of entertainment and togetherness in the community. Business owners worry they will lose business if residents lack a reason to come into town.

Budget cuts and lack of enrollment in small communities such as Lovington are a growing problem across the country, and small schools are closing at a rapid rate. From 2008 to 2010, 3,337 elementary and secondary schools closed, many of which were in small communities such as Lovington. Superintendent Kyle VonSchnase says that the state of Illinois was behind on payments of about $1 million, a third of the schools budget, which forced the district to draw on reserve funds. Residents hope the district can remain able to support their elementary school, which houses 245 students, but the future of small districts such as Lovington is bleak.

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51 Beaumont, et. al.
52 Keen, Judy.
53 Keen, Judy.
PITTSBURGH, PENNSYLVANIA

In early 2012, the city of Pittsburgh elected to close seven of its public schools (including Langley, seen left)\(^{54}\) due to budget deficits and declines in enrollment, a decision that will save the district between $7 and $8 million annually.\(^{55}\) Two high schools, four kindergarten-8th grade schools, and one Preschool through 5th grade school are not scheduled to open for the 2012-2013 school year, and the district plans to close the buildings until further notice, according to school superintendent Linda Lane.\(^{56}\) Two of the school buildings will be repurposed, one as a large elementary school combining two of those that closed, and one will be used as a special education facility, but the other five buildings will remain vacant until further notice.\(^{57}\)

Vacant buildings and students being forced to change schools are not the only issues associated with school closings: 31 teachers and 217 operational staff member positions were cut from the school district.\(^{58}\) School officials

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\(^{55}\) Schnacker, Bill.

\(^{56}\) Schnacker, Bill.


\(^{58}\) Schnacker, Bill.
predicted budget shortfalls of about $41 million dollars without these cuts, which will still leave the district over $30 million dollars in deficit. A series of public hearings and a public vote could change on the plan, but the cuts are in place and will be maintained at least for the 2012-2013 academic year.

Districts seeing closings such as in Pittsburgh and smaller towns like Lovington, Illinois across the country are going to see big changes in their schools, and many of these communities will fail to thrive without the community involvement in sports and other organized activities. Both in Lovington and in Pittsburgh, residents expressed concerns for school related activities that take place outside the classroom. Pittsburgh’s “City League” teams play each other throughout the sports season, but they are now down to six teams, as opposed to the 13 teams it had 40 years ago. Many long-time residents of the community say it hurts to see the schools, and the rivalries, disappear, but they understand the district’s hands are tied. Communities such as Lovington have more to worry about, as they are so small that the lack of school sports rivalries could actually affect downtown business.

**FLINT, MICHIGAN**

After years of budget deficits and consistent decreases in enrollment, several schools including three elementary schools and two middle schools in Flint, MI are being forced to close. Unfortunately, this is a very familiar situation in Flint, where school closures have been incredibly popular over the last decade. The board has been working to cut costs after a state-mandated deficit elimination plan put into place after tallying a $3.7 million deficit at

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59 Schnacker, Bill.
the end of last school year. If no cuts would be made this year, the district would expect to find itself in a $19 million deficit, administrators have said.

Historic and beautiful, Martin High school (pictured above) was closed 10 years ago to try to reduce budget deficits, but closing a few schools was just not enough. By eliminating both middle schools, making the high school 7-12 grade, and closing two to three elementary schools to redistribute the students between the city’s remaining schools, the district hopes to close the deficit gap. Superintendent Linda Thompson said that officials used several criteria to decide which schools to recommend for closure. That criteria included the number of students who would be impacted, the ability for neighboring schools to absorb displaced students and the number of students being bussed in from other neighborhoods.

One of the first schools set to see changes this time around was Woodland Elementary, an elementary school with a 55 year history in its community. Enrollment at Woodland has dropped from roughly 450 students in 2005 to around 250 current students, with total

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62 Thorne, Blake.

63 Thorne, Blake.

64 Thorne, Blake.

65 Thorne, Blake.
losses of nearly 1,000 total students and more than $12 million in the same time span.\textsuperscript{66} Going forward, the district’s budget will be even tighter, with permanent increases by the state-required pension plan that will increase costs by $900,000 in the 2012-13 budget and $1.2 million the following year, and schools just cannot keep up with the changes.\textsuperscript{67}

As a result, the district not only moved the elementary school students to other schools in the community, but also moved Atlantis Alternative High School into the community.\textsuperscript{68} Some parents in the school district were very upset with the changes, and one parent handed out petitions to try to change the decision, which is estimated to save the district $500,000 in the first year.\textsuperscript{69} Residents of the community felt disappointed that they were not more informed or able to partake more in the decision. Many parents expressed concerns about larger class sizes with consolidations as well as longer bus rides.

"We bought this house three years ago for my kids to go to school there," one neighborhood resident said, with the building visible from across the Beveridge Road from her fenced yard.\textsuperscript{70} "This is a desirable neighborhood because of the school. If they move out, it’s not going to be anymore."\textsuperscript{71}

Not only were parents upset about the potential larger class sizes and extended bus rides, but they also expressed concerns about the Alternative high school moving in and the type

\textsuperscript{67} Acosta, Robert.
\textsuperscript{68} Acosta, Robert.
\textsuperscript{69} Acosta, Robert.
\textsuperscript{70} Acosta, Robert.
\textsuperscript{71} Acosta, Robert.
of students that may bring into the neighborhood. Another parent worried, "It's very disconcerting they want to move in an alternative education school, don't tell me the kids that don't live in the area care about the neighborhood."  

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72 Acosta, Robert.  
73 Acosta, Robert.
CHAPTER 5: CHARLOTTE-MECKLENBURG SCHOOLS CASE STUDY

BACKGROUND AND PURPOSE OF STUDY

In choosing a location to start a life and rear a family, the quality of public schools available is often a key determining factor, especially for young couples. In many cases, the availability of quality schools is directly correlated with other attractive neighborhood qualities, such as proximity to employment, shopping, and recreation. Because these factors often come grouped together, it can be difficult to pinpoint exactly how much of an effect schools have on housing and home values. Harvard School of Education conducted a study in Charlotte- Mecklenburg County, North Carolina from 1994 to 2001 that attempted to separate schools from the other factors that contribute to a desirable neighborhood. Because Mecklenburg has a very unique history, it was the ideal location for this research.

Under a court-imposed desegregation plan in place from 1971 through 2001, the district laid out school boundaries so that the typical school drew students from a range of non-contiguous geographic areas. In many cases, school boundaries crossed the informal lines dividing neighborhoods, since those neighborhoods were often segregated along racial lines. Homes located within a few hundred feet of one another were often assigned to very different schools, with very different mean test scores and racial compositions. This study focused mainly on housing prices along the different school boundaries to determine the effect schools had on home value. Using test scores to help draw conclusions, findings suggest that part of the effect of schools on housing values is due to the characteristics of the population living in different neighborhoods, and the impact this has on the quality of

74 Kane, Thomas J, et. al. “School Quality, Neighborhoods and Housing Prices”. Georgetown University. 9 June 2006.
75 Kane, et. al.
76 Kane, et. al.
77 Kane, et. al.
the housing stock in the neighborhood based on how well those residents take care of their properties.78

In a landmark Supreme Court decision in 1971 (Swann v. Charlotte-Mecklenburg Bd. of Ed., 402 U. S. 1 (1971)), the courts ordered Mecklenburg to redraw its school district boundaries to create a more racially-integrated school system.79 The district was also forced to bus students to different schools to improve integration. Since this decision, the school district has tried several different strategies for integration, some of which have been more successful than others. The district has utilized several techniques:

1. “Satellite zones” which use bussing to transport students from neighborhoods with a high percentage of one race of students into a neighborhood consisting of another race of students.80

2. “Mid-pointing” which involves placing a school at a midpoint between two neighborhoods, while students from the surrounding neighborhood actually attend a different school.81

3. “Pairing”, which has students from two different neighborhoods spend several elementary grades in one neighborhood’s school and then spend the remaining grades in the other neighborhood’s school.82

4. “Magnet schools” which are specialized programs to entice parents to voluntarily send their children to integrated schools.83

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78 Kane, et. al.
79 Kane, et. al.
80 Kane, et. al.
81 Kane, et. al.
82 Kane, et. al.
83 Kane, et. al.
These measures of desegregation led many white students to transfer from the public schools to the private schools. Another issue that intensified the Charlotte-Mecklenburg problems was the significant population growth. From 1980 to 1990 the population rose by 36 percent, and it rose an additional 26 percent from 1990 to 2000. These increases in population caused the school districts to repeatedly redraw the school lines in an attempt to keep the schools African-American population aligned with the area-wide population.

**Housing and Test Score Data**

Approximately two thirds of the 300,000 parcels of real estate in Mecklenburg County are single family homes, and for the purposes of the Harvard study, data was taken from the sales of existing homes between January 1994 and December 31, 2001. To trim the sample, the first and 99th percentiles of homes were removed, leaving 89,793 homes in 69,361 parcels. The study then separated the homes into 1,048 different neighborhoods, and each home was ranked based on the assessed value and building construction. Based on location, the data was then merged to include median income level and African-American population. The study used all parcels within each school’s assignment area to calculate school-level variables that capture the likely socioeconomic status of students at the school: the average percent black and the average median income in the census block group.

Demographic and performance composite information regarding each student provides an assessment of students performing above the “proficient” level in each grade and subject in school. These reports were publicly distributed and used as an assessment of school quality.

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84 Kane, et. al.
85 Kane, et. al.
86 Kane, et. al.
87 Kane, et. al.
88 Kane, et. al.
Based on this study, determining the way that schools affect housing prices in a neighborhood is hindered by the other factors that contribute to a higher quality neighborhood: amenities, public services, parks, etc. Residents who can afford to live in the districts with the best schools are also likely residents who take more pride in their homes, lawns, and therefore those neighborhoods thrive and see prices rise or stay consistent.89

In this study, it seemed to be the ability for residents to move around and chose their school that had the greatest effect on housing availability and pricing. In many cases, as school boundaries were redrawn, parents who were able to do so sent their children to private schools rather than being forced to attend a specific public school.90 Fourteen percent of children in grades 1-12 attended private schools in Charlotte-Mecklenburg County according to the 2000 Census.91 The average tuition for one child averaged about $7,300, which for many parents was a less expensive option than moving into a new home in a more desirable school district. Additionally, home buyers in predominately white neighborhoods paid a higher price for school quality than predominately African American or integrated communities.

While the prices of homes along school boundaries do seem to be affected by the quality of schools in that district, other factors that contribute to a desirable community also have an effect on home values, as well as residents willingness to take care of their homes and yards.

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89 Kane, et. al.
90 Kane, et. al.
91 Kane, et. al.
CHAPTER 6: SOLUTIONS AND BEST PRACTICES
Especially in the last decade, neighborhood residents and historic preservationists have
begun to fight back against these issues in order to protect their neighborhoods and schools.

Through policy changes, states and localities can change the way school districts assess
their schools in order to promote more community-centered schools that have the focus of
the children and community stabilization in mind.

SOLUTION 1: REMOVE MINIMUM ACREAGE AND MINIMUM SCHOOL SIZE
REQUIREMENTS
After much encouragement from the National Trust for Historic Preservation and other
similar entities, the Council of Educational Facility Planners changed its recommendations
for school acreage standards in 2004 and designed a smart growth approach to school
planning based on neighborhood centered schools.92 After recognizing the environmental
problems posed by non-community centered schools, the LEED Neighborhood Development
rating system developed guidelines calling for a 15 acre maximum for high schools, 10 acres
for middle schools, and 5 acres for elementary schools.93 Unfortunately, many architects and
school systems have failed to accept these new guidelines and continue to prefer new
construction over renovation. School systems need to adopt their own set of laws that make
this type of action mandatory.

Additionally, some districts have a minimum number of students they can have in a school.
These requirements are designed to save districts money spent by having too many schools
with empty seats, and rural areas and small towns have trouble meeting this requirement.
Schools are often closed down due to too few students and many schools are combined to

92 Kuhlman, Renee.
93 Kuhlman, Renee.
form one school that all students in the area are forced to travel to, causing them to be unable to walk or bike to school and leaving community school buildings empty.

**SOLUTION 2: REMOVE BIAS IN STATE FUNDING FOR NEW CONSTRUCTION AND ADDRESS SAFETY CONCERNS**

“In every case we studied, building a new school cost more than renovating an old one.”

—Michigan Land Use Institute Special Report

Many state funding formulas are created to favor new construction over renovation by utilizing a “percentage rule”. This means that if the cost of renovating the school exceeds a certain percentage of the cost of building a new one, the school board automatically goes with the option of new construction, which is not always at the benefit of the district. Unfortunately, this often doesn’t include the cost of land acquisition or the rising costs of expensive building materials used in the proposed new construction. In some states, funding for new construction projects takes precedent over funding renovation projects, so school districts know they are more likely to obtain funding by proposing new build. If this was reversed, it would provide an additional incentive for schools to choose renovation over new construction.

Parents’ main concern is for their children’s safety, and community leaders have the responsibility to assure them that they are sending their children to school in the safest possible environment. By exposing parents and other community members to successful renovation stories and showing examples of everything that can be done to bring historic school buildings up to modern code and optimum safety regulations, community members will be increasingly supportive of renovation over new construction.

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94 Mcelland, Mac and Keith Schneider.
95 Kuhlman, Renee.
96 Kuhlman, Renee.
SOLUTION 3: EVALUATE COSTS MORE THOROUGHLY

Additionally, states can hire architects experienced with building revitalization and renovation to produce accurate cost evaluations and share these evaluations with community members to educate them about the often cost-effective renovation option. Architecture firms often give free cost assessments for school districts who agree to let them handle design and construction management if a new construction option is selected. In these cases it would be financially beneficial to their firm to encourage districts to go with a new build, as was the case in Escanaba, MI. Communities need to be aware of the indirect costs related to building a school on the outskirts of town. For example, residents may not consider the additional time and transportation costs that having a school in a more remote location will present. If a larger number of students suddenly need to be bussed to school rather than walking, traffic flow may need to be reevaluated, and the expenditure of purchasing the buses and hiring and training drivers will fall to the district. Infill development can keep infrastructure and transportation costs down while keeping the convenience of a neighborhood location.

Many states spend huge amounts of money on student transportation, and this is only increasing as fuel costs increase. State support has the unintended effect of allowing communities to locate their schools without taking transit costs into consideration. This can often leave out a huge dollar amount, especially if schools are far outside the community and all or most students need transit.

In Illinois, for example, reimbursements for student transportation increased 307.7 percent between 1994 and 2009. A county-by-county review of Maryland’s busing costs revealed that statewide expenditures for transportation to schools more than doubled between 1992 and 2006 and the total number of miles traveled by school buses increased by 25 percent.

97 Kuhlman, Renee.
Similarly, in a district in Maine, the number of students declined by 27,000 from 1975 and 1995, but school busing costs rose more than 600 percent during the same period—from $8.7 million to more than $54 million.98

**SOLUTION 4: PROMOTE COORDINATED PLANNING AND COMMUNITY INVOLVEMENT**

“Any decision about where to build a school requires broad community discussion. It should always include the local governments who will be required to meet the increased demands for services that new schools will bring. Unfortunately, today these governments have little say in the matter.”—VALDE GARCIA, Michigan Senator99

Rather than working separately, school districts and city planners need to work together to achieve the best possible result. Many local and comprehensive master plans do not include plans for schools, but by changing this, communities can ensure that individuals with planning expertise are influencing decisions made by schools.100 States can help by providing guidance as to the benefits of including schools in a community’s master plan to ensure smart growth policies extend to the schools. States can also change their policies that cause schools to be exempt from planning practices and zoning laws that other major developments are required to follow.101

By involving planners and community leaders with school boards and even parent support, schools can serve a multitude of functions in the community. Facility sharing is one way to achieve community involvement. Allowing school buildings to be used for after school activities that are community related and not just school related allows for community investment in the buildings outside the school community. For example, school buildings

98 Kuhlman, Renee.
99 Mclelland, Mac and Keith Schneider.
100 Kuhlman, Renee.
101 Kuhlman, Renee.
can be used for senior citizen activities such as card and movie nights or for additional meeting space for volunteer government agencies if city buildings are full. Getting creative with ways to utilize the building outside of school functions promotes greater community investment in the space.

**Solution 5: Make School Maintenance a Top Priority**

Deferred maintenance on schools is one of the leading reasons for schools to eventually be torn down in favor of new construction. The American Society of Civil Engineers regularly awards public school facilities their worst grade of “D” for their infrastructure.\(^{102}\) Many states grant schools funds to replace rather than repair due to the bias that newer is better. By requiring schools to use at least 50 percent of their maintenance budget every fiscal year, states can ensure the schools are being effectively maintained.\(^{103}\) Some states have already implemented this: for example, in New Hampshire, schools can become exempt from state funding if the state finds mandatory maintenance is not being carried out.\(^{104}\) Some school districts do not even spend all their allocated money because they shy away from repairs in favor of new purchases.

**Solution 6: Target State Aid to Low Income School Districts Based on Need**

The higher the property taxes are in a community, the more money is allocated toward improving the schools. In many cases, districts with a low income tax base have trouble getting enough funding to complete even the smallest of projects, and the poor condition of schools can cause a decrease in property value and perpetuate the low tax revenue cycle.

Spending on school construction doubled from 1995 through 2004 with school districts

\(^{102}\) Kuhlman, Renee.
\(^{103}\) Kuhlman, Renee.
\(^{104}\) Kuhlman, Renee.
spending more than $37 billion annually by 2002—on hard construction expenses alone.\textsuperscript{105} Almost all of these record breaking billions were spent in wealthier neighborhoods. Investments in schools were typically made in the cheapest possible way: building schools on the outskirts of the community where land could be acquired at a fraction of what community centered lots could be purchased for. By redirecting this funding to building community-centered schools, a greater long term investment in the community can be made.

**SOLUTION 7: PROMOTE THE SAFE ROUTES TO SCHOOL PROGRAM**

By maintaining community and neighborhood schools, school districts, communities and states can promote walking and biking to school as a safe and effective way to get to school. Congress approved $615 million dollars over a period of five years to promote Safe Routes to School Programs in 2005.\textsuperscript{106} Communities are encouraged, and often required, to improve walking routes and bike lanes in a 2 mile radius of their school using these allocated dollars. Unfortunately this does not solve everything, because many communities do not make these improvements. Additionally, only 35 percent of K-8 students live within a 2 mile radius of their school, so these requirements may not reach every neighborhood they should.\textsuperscript{107}

While these programs are beneficial to communities, they cannot reach the optimal number of students and communities unless significant policy changes are implemented to encourage community schools are a top priority.

\textsuperscript{105} Kuhlman, Renee.
\textsuperscript{106} Kuhlman, Renee.
\textsuperscript{107} Kuhlman, Renee.
SOLUTION 8: HIRE PROFESSIONAL PLANNERS

Professional planners can offer a unique skill set that is extremely beneficial and financially responsible to any school district. Planners can work to help facilitate public involvement in ways that are different and more hands on than school board members can. Planners can take public ideas and create cost-effective solutions and compromises that keep both budget and public opinion in mind.¹⁰⁸ They can also ensure that school districts have the ability to look to the future to create a capital or comprehensive plan. In the same way they would for a city, planners can coordinate facilities, demographic and fiscal projections and apply them to the school district.¹⁰⁹

Demographic analysis and advance computer mapping are a vital element to planning for school districts. Planners are trained to assess and analyze demographic information and trends and draw conclusions about the direction the district should go in based on those trends.¹¹⁰ By insuring that districts have the most accurate projections possible, decisions about facility expansion or redistricting can be made more quickly and yield fewer costly mistakes.

Accurate enrollment projections have been difficult to come by in the past, but with advanced mapping techniques that include using a student's home address rather than just counting the number of children attending school can yield more descriptive results.¹¹¹ With more accurate projections, reliable and cost effective construction and redistricting policies can be implemented. Advanced mapping can also delegate the most effective (both time and fuel efficient) bus routes to transport students to school.

¹⁰⁸ Carey, Kelley D., AICP.
¹⁰⁹ Carey, Kelley D., AICP.
¹¹⁰ Carey, Kelley D., AICP.
¹¹¹ Carey, Kelley D., AICP.
As mentioned earlier, lack of building maintenance and improper school designs and layouts cause huge spending deficits for school districts. Often, the question of where to locate a school and how large it should be get answered with “as big as our funding allows” rather than considering smart growth policies or cost of land acquisition. Planners can alleviate some of these issues by consulting with districts before these decisions are made.

Many school systems have added full time planners to their staffs and seen many positive changes because of it. Several counties in both Virginia and Georgia have employed full time planners to manage growth in their school systems. In these locations, planners have improved transportation initiatives, facilities planning, used more advanced population projections to determine facility needs, and even used computer mapping and Geographic Information Systems (GIS) to improve district lines.¹¹²

Overall, the potential for planners to create a long-range comprehensive plan for a school district can yield significant cost-efficient results, with much more money saved then spent hiring a planner. If school districts were required to hire a planner on at least a part time or consultant basis, facilities, transportation, staff, and demographic planning would be more efficient and accurate.

**Examples of Communities that Promote Positive Change**

Glen Earthman, Ed. D., and professor of educational administration at Virginia Tech has studied the links between the quality of infrastructure and student performance for almost a decade, and made some alarming discoveries about the environments in which children are expected to learn. He estimated that about 40 percent of schools across the country are

¹¹² Carey, Kelley D., AICP.
in “bad to poor condition” and these poor conditions can lead to a difference of about 10 percentile points on standardized tests. Poor air quality, malfunctioning heating and cooling systems, and contaminated drinking fountains are just some of the distractions students and teachers are being forced to deal with, and this not only effects students, but drives the best teachers away to districts with better facilities.

It is estimated that it would take $271 billion to bring all of these schools up to date with renovations, and many school districts do not have the funding. However, districts are taking matters into their own hands and finding ways to improve the quality of education their students receive.

**SANTA ANA, CALIFORNIA**

In a community where the population is largely immigrant and low income, it is difficult to imagine a town with beautifully renovated schools. Twenty-eight percent of the city's children live in poverty, and yet their parents have ambitious dreams of a better life for their child, starting with their education. In 2004, Santa Ana was ranked Number 1 in the country for “urban hardship” by the Rockefeller Institute of Government, but in 2008, residents voted two to one for a $200 million bond issue to improve the city's 56 public schools. A property tax increase of less than $100 per year for most households seems small to some, but for residents of Santa Ana it was a cause for extra hardship. However, the parents of Santa Ana knew it was their only chance to improve their children’s chance for success. After a $40 million investment in the high school, students are now welcomed by

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modern design and spacious classrooms. A beautifully renovated auditorium hosts community meetings and performances, and students eat lunch outside in landscaped courtyards.

Not only has the building improved in terms of appearance and accessibility, but vandalism in and around the school has significantly decreased, and students are taking more pride in both their school and their education. Attendance and test scores have also increased, and teachers say students are more engaged in learning. One student said, "If you feel valued, it inspires you to pay more attention and work harder."

WARREN COUNTY, KENTUCKY

If a rebuild is absolutely necessary, a rare situation but a sometimes unavoidable one, the best possible way to do so is by “going green” and using environmentally friendly building materials and practices in order to achieve optimal energy efficiency and reduce the carbon footprint.

One such example is found in a rural community in Warren County, Kentucky. Richardsville Elementary School is home to students in a rural farming community, over 75 percent who qualify for free or reduced lunches. Until 2010, students and teachers had to face dozens of problems related to the 60 year old building, including mice in the walls, poor lighting, and air quality problems leading to asthma, allergies, and sinus infections. The school district has a policy in place that requires new school buildings to be built “green” and the district has focused intensely on energy efficiency. The district has saved an estimated $7

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million in the last 9 years by using energy saving methods, and avoided teacher layoffs seen in many other districts nearby as a result.124

When deciding to go with new construction, the district decided to hire an architect to design a new concept for a school building: one that actually produces more energy than it consumes. The building uses a quarter of the energy of an average school of similar size, and everything from the placement of classrooms to how the restroom faucets turn on was taken into careful consideration.

The design, by architect Kenny Stanfield, uses Geothermal Energy pumps to supply heating and cooling, and solar tubes to reduce the need for artificial lighting.125 Sensors in the classrooms detect not only if there are people in the room, but how many people, and they adjust lighting and ventilation accordingly.126 An astonishing 2,700 rooftop solar panels create energy to sell back to the city.127

The school also uses the green technology as a learning platform. Many of the gauges for the solar panels and geothermal pipes are exposed, and students as young as first grade can explain how geothermal energy works.128 The school now has the ability to expose students to new forms of learning that many schools would never be able to. The school district has taken an opportunity to grow not only in their infrastructure, but in their ability to teach their students.

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**ESCANABA, MICHIGAN**

In 1998, Escanaba School District was faced with a difficult decision, to either renovate the 70 year old centrally located junior high school, or to build a new one outside town. Rather than making a snap decision like much of their neighboring Michigan districts, Escanaba decided to consider some different cost analysis scenarios from development firms. Unfortunately, most firms were willing to give evaluations only if the school district committed to using them in their new construction project.

Rather than jumping into new construction right away, superintendent of schools Tom Smith decided to find a firm that was willing to provide the district with more options, and ended up paying a Kalamazoo based architecture firm, Diekema-Hamann Architects, Inc., which, the superintendent said, submitted one of the most thorough proposals for building analysis the board received. Though the proposal was not free, it ended up saving millions in the long run. Initially, Diekema-Hamann concluded that to build a new school or to renovate the old did not matter in terms of initial cost: both would come in around $7 million.

Having a brand new school seemed like the most attractive investment, but a local engineer realized the importance of a community-centered school. Gilbert Cheeves felt the building was “magnificent” and collected 1,600 signatures in favor of renovating. Surprised at the response, the school board agreed to the eight public meetings Cheeves had requested, and

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proponents for renovation stood strong. Upon hearing this, Diekema-Hamann began to consider what a renovation might mean for the area and the neighborhood characteristics and history that could be saved.

“We thought it was useful to answer the question of how much it would cost to duplicate the current junior high school, not just build a new one... that the old school had assets that just couldn’t be replicated in a new facility.” – Norm Hamann, Diekema-Hamann Architects, Inc.

After through cost evaluations, Hamann and others concluded that although construction costs would be the same, the downtown location of the current school would be worth $5 million more than a new school outside town due to the desirable location. At the recommendation of Superintendent Smith, the board approved a vote to renovate the existing facility, even though some community members were unhappy with the choice.

Years later, Tom Smith's decision has made the community better than ever. The renovated building has everything a new build would have brought, plus more. It contains a newly renovated main wing, new gymnasium facilities, new classrooms, and a music room and media center. Architects were also able to retain the schools historical and stunning 750-seat auditorium and other historic features. Not only did the project save taxpayer dollars, but it revitalized the community and now provides a hub for activity that will raise property values surrounding it.

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135 Mclelland, Mac and Keith Schneider.
CHAPTER 6: CONCLUSION
The sight of students and parents walking and riding their bikes to school is a sight from the past in many cities and towns across the country. In countless school districts, enormous facilities resembling shopping malls rather than schools with extensive parking facilities surrounded only by empty fields are the norm. Unfortunately, in many of these communities, the sight of vacant and abandoned school facilities that once served as hubs of neighborhoods is also familiar. Government and business leaders may want parents to believe that unsafe routes and inconvenience of living through school renovations are the reasons keeping schools from renovation, but in so many cases the glamorous idea of new construction drives school boards to make fast decisions that are costly to the neighborhood, community, and taxpayers. These costs are not only financial burdens in straight dollars; they are measured in decreased property values and tax increases to pay for skyrocketing construction costs. Cities and towns are faced with debt that far exceeds what it should be, and monetary restrictions to other schools in the district may be a result of construction on just one new facility.

With property values already some of the lowest they have been in 5 years cities and towns cannot afford for residents to abandon their downtown properties and sprawl into the suburbs. Desirable schools are one of the primary reasons parents choose to live in a certain area. By ensuring that the best schools are tucked into established neighborhoods, cities can retain their historic neighborhoods and encourage a walkable community with schools and parks as neighborhood anchors, discouraging sprawl. With fewer children needing bus
transit, fewer busses need to be purchased and maintained and fuel costs decrease. The money previously spent on transit can be reinvested into the schools.

Old neighborhood schools should be treated as assets, not burdens, to the community where they are located. With regularly scheduled maintenance, these buildings can serve their communities well into the future and can be updated periodically to reflect the needs of the neighborhood and changing technology. Blending modern amenities with historical character adds a unique element to the neighborhood and is most cost effective than new construction.

Residents can also enjoy the many benefits of their neighborhood centered schools for both parents and students. With reduced commutes to school or the ability for some students to walk, parents spend less time in the car and are rewarded with more time to spend with their children. In smaller education facilities, students enjoy reduced class sizes and are less at risk of getting lost in a sea of students. These students typically perform better on standardized tests, have lower dropout rates, and graduate on time. Participation in after-school activities is more convenient for parents that don’t have the ability to provide transportation.

In some instances, new construction is a necessity. Taking examples from communities that chose to incorporate green building principles can ensure that money spent on construction will bring positive return on investment into the community. Using green techniques can also serve as a learning platform for students and encourage positive lifestyle choices such
as recycling, planting a garden, and energy conservation. Some communities can even profit by the energy the school buildings can produce using solar panels and geothermal energy. Rather than dwelling on past mistakes, communities can reuse their old facilities they abandoned in the past for new construction and create another kind of community anchor. Schools can be repurposed as community centers, senior centers, and even places to hold public meetings. If the community lacks a need for such a facility, rather than allowing the building to sit vacant, the building can be demolished and the lots can serve the community as a park or a recreation facility. Opportunities for positive community changes are endless and planners and consultants are well equipped to handle such projects.

Some school districts have the ability to hire professional planners to serve the district and promote these kinds of decisions, but those that do not must be innovative and open to encouraging community decision making. Proper cost evaluation that assesses all construction costs and yields an unbiased recommendation is essential to ensuring the best decisions are made to meet the community's needs. Professionals are not the only opinions school districts should take into consideration with important decisions. Involving residents of the community is often overlooked, but they know best what they need in many cases and can help the community leaders see what the space has the potential to be. Community and government leaders and school board members must encourage positive growth for schools and make decisions that best fit the community both in the present and looking to the future.
REFERENCES


