

*Where the Sidewalk Starts: Creating Opportunities for Kids to Walk and Bike to
School*

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Author's Note

You are about to read a policy memo that will bring up the question of the role schools play in ensuring the health and well being of youth. In my research, I was reminded of the poem by Shel Silverstein, *Where the Sidewalk Ends*. As you read the paper, think about your childhood and the ways in which we as education policymakers are potentially denying children health as well as the ability to be outside on sidewalks, greenways and bike paths, exploring and engaging in the world that Shel envisions in his poem.

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Where the Sidewalk Ends

By Shel Silverstein

*There is a place where the sidewalk ends
And before the street begins,
And there the grass grows soft and white,
And there the sun burns crimson bright,
And there the moon-bird rests from his flight
To cool in the peppermint wind.*

*Let us leave this place where the smoke blows black
And the dark street winds and bends.
Past the pits where the asphalt flowers grow
We shall walk with a walk that is measured and slow,
And watch where the chalk-white arrows go
To the place where the sidewalk ends.*

*Yes we'll walk with a walk that is measured and slow,
And we'll go where the chalk-white arrows go,
For the children, they mark, and the children, they know
The place where the sidewalk ends.*

Problem Statement

Childhood obesity is a growing national problem with urgent implications for both public health and is being enabled in many ways by the built environment is being either neglected or built in a car centric fashion. In Tennessee, which ranks as the sixth most obese state¹, rates of obesity, asthma, diabetes and heart disease all continue to climb as air quality and levels of physical activity decline. The education enterprise writ large has an incredible role to play in remedying the current problem with childhood obesity and through its inaction in addressing gaps in infrastructure and health programming is adding to the problem through complacency. Education policymakers and scholars place a focus upon standards, assessment, student achievement, teacher quality and educational leadership while at the same time factors that impact the health and well being of children have been largely ignored. This paper explores the evidence, via academic research and case studies, to provide potential areas of opportunity for Metro Nashville Public Schools (MNPS) in terms of policy changes related to the health and wellness of youth, with a specific focus upon walking and bicycling programs as well as low income communities. Further the paper argues that in addition to being responsible for the education of children, schools must also consider how their decisions on a wide variety of issues—school siting, access to quality infrastructure, support of programs that encourage physical activity—influence the health and well being of children. Finally and perhaps most relevant to education policymakers is the notion of the neighborhood school. As school districts, such as Metropolitan Nashville

¹ Robert Wood Johnson Foundation Website: <http://www.rwjf.org/pr/product.jsp?id=33833>

move back to zoned neighborhood schools, we must seek to understand and examine the physical spaces of these newly formed zones. The paper will provide a rationale of the problem, explore some of the relevant literature on the topic, explore case studies, review current policy options and provide policy recommendations for school leaders. In addition to policy analysis, academic research and case studies, the paper will also include information from a series of informal interviews with school facilities planners in the Middle Tennessee region, giving an important and unprecedented glimpse into beliefs and thought processes related to school siting.

Education policy actors have an important role to play in setting children up for successful healthy lives, not only in terms of curriculum and instruction but also in the realms of air quality, asthma rates, childhood obesity and the growth and development of communities. Setting children up for success in terms of leading healthy lives is an important policy issue that has multiple dimensions. School districts, via their inclusion or exclusion of policy provisions, influence a child or family's access to opportunities for physical activity. One good example of this is the various district policies related to school siting. Where schools are placed directly influences infrastructure (sidewalks, bike lanes, access to transit) available to children and families in traveling to and from school. As communities grow and change in response to demographic shifts or as is the case in Nashville, rezoning, it is important to assess how school districts are addressing various elements of "community" within newly formed school zones. The movement back to neighborhood schools as a matter of education policy should be viewed as an

opportunity for MNPS to consider elements not normally examined, such as infrastructure, health, school siting, transportation, that are strongly connected broader issues of race, poverty and class.

Literature Review

Impact of Physical Activity on Health and Obesity

This area of research takes a look at the academic literature that examines the relationship between health and physical activity with a particular focus upon programmatic efforts related to walking and biking to school. Mentioned throughout this section and the rest of the paper are Safe Routes to School (SRTS) and Walking School Bus (WSB) programs both of which are non-infrastructure education initiatives that can be implemented by schools/communities. Additionally, the research examines the impact that the opportunity for physical activity has upon childhood obesity. This research has far-reaching implications for research in education policy, examining specifically how decisions or conversely inaction by education policymakers regarding the built environment are impacting the physical health of youth.

A 2007 CDC report on health in the state of Tennessee concluded that 37% of the adult population is considered overweight and an additional 31% are considered obese. Childhood health statistics fared no better reporting an 18% overweight rate and 17% obese rate within students in grades 9-12 in Tennessee.² These children are at an increased risk for developing health problems such as heart disease, diabetes, cancer, and hypertension. Activity levels for many children have

² CDC Website: <http://www.cdc.gov/obesity/stateprograms/fundedstates/tennessee.html>

declined because of a built environment that is unsafe for walking and bicycling, the low percentage of children who take physical education in school, and the popularity of sedentary leisure-time activities. Undoubtedly, the siting of school facilities in locales that are unwalkable and/or unbikeable certainly eliminates an opportunity for children to engage in physical activity on a regular basis.

In its 2009 report from “The Measures Project,” the CDC recommended and identified a number of obesity prevention strategies and measurements that local government and communities could use to monitor implement and plan initiatives that relate to obesity rates in children. Within the strategies suggested, six included areas that could be addressed through school district policies, including more a conscientious approach to school siting as well as education programming geared toward remedying misconceptions about the safety of walking and bicycling. The six strategies mentioned in this report are: enhancing infrastructure supporting bicycling and walking, locating schools within easy walking distance of residential areas, improving access to public transportation, zoning land for mixed-use development, and enhancing personal and traffic safety in areas where there is potential for physical activity. All of the abovementioned areas touch education policy in important and meaningful ways. Rather than transportation and health authorities attempting to “work around” schools on these issues, school districts could and should take up the recommended best practices in conjunction with other planning authorities.³

³ Khan, Laura Kettel, Sobush, Kathleen, Keener, Dana, Goodman, Kenneth, Lowry, Amy, Kazietek, Jakub, and Zaro, Susan. “Recommended Community Strategies and Measurements to Prevent Obesity in the United States.” Center for Disease Control. (2009): 58(RR07); 1-26.

A growing body of research has begun to identify and examine the connections between child wellness and transportation to and from school. Faulkner and colleagues reviewed, in their 2009 study, the literature that exists on active school transport, looking at thirteen studies that explored whether children who actively commuted to school had increased levels of physical activity or lower body weights. The studies as a whole, while mixed in their conclusions, found that students who walked or biked to school substantially increased their daily levels of physical activity. Important to note is the possibility of other factors that could have contributed to the mixed results of the study, namely food intake of participants. Further, the mere fact that there were some studies within the thirteen reviewed that suggested that children could benefit from walking to school suggests that further research in this area is needed.⁴

Similarly, Davidson and colleagues compiled a literature review on the health consequences of active commuting to school and evaluated programmatic efforts related to increasing walking and bicycling such as Safe Routes to School (SRTS) and the Walking School Bus (WSB) programs. Both SRTS and WSB are programmatic educational efforts that can be adopted by schools. The programs can include a wide variety of elements, but most commonly include efforts to increase safe walking and bicycling to and from school, with SRTS including bicycling components and the WSB focusing just upon walking. The article found again that children who walk and bicycle to school have higher levels of daily physical activity and better

⁴ Faulkner, Guy E.J., Buliung, Ron M., Flora, Parminder K. and Fusco, Caroline. "Active School Transport, Physical Activity Levels and Body Weight of Children and youth: A Systematic Review." *Preventive Medicine*. 48 (2009): 3-8.

cardiovascular fitness than children who engage in motorized transport to and from school. Their review of the literature concluded that a wide range of factors impact children's commuting behaviors including demographic factors, individual and family factors, school factors, social factors and physical environmental factors. Safe Routes to School and Walking School Busses were two programs that were suggested in this literature review as efforts that were both viewed positively by parents and families as well as having favorable effects upon children's active commuting to school.⁵

From the abovementioned studies it is clear that the health community is beginning to coalesce upon some common ideas and themes, proven by research. Scholars largely argue that the built environment has real impacts upon the ability of children and adults to adopt non-motorized travel behaviors. Though research findings are mixed, it is important to examine the ways in which we are or are not setting individuals up for opportunities for physical activity. Finally, though not explicitly mentioned, examining school siting and making more judicious decisions regarding school facility placement might be one potential solution to the lack of physical activity problem. Connecting it back to the two initial themes of the paper, school siting and programmatic walking and biking efforts, schools have an integral role to play in facilitating through policy and practice that include opportunities for physical activity.

Relationship Between Physical Activity, Weight and Academic Achievement

⁵ Davison, Kirsten K., Werder, Jessica L. and Lawson, Catherine T. "Children's Active Commuting to School: Current Knowledge and Future Directions." Preventing Chronic Disease. 5.3 (2008): A100

Though the body of knowledge is limited of the relationship between weight and academic achievement, evidence is starting to emerge that suggests that access to opportunities for physical activity could result in gains on achievement tests and increased grade points averages. Quite importantly to education policymakers who are held accountable for student performance in terms of achievement and test scores, this area of research provides a much needed and important way to frame the issues of child wellness. Understanding the relationship between physical activity, body weight, and academic achievement can help provide schools and organizations with the evidence needed to appropriately design academic and physical activity programming. Further, this evidence provides yet another angle through which we might be able to question, research and attempt to understand the decisions that school facilities planners are making in terms of creating environments that are conducive to physical activity.

An important contribution to understanding how achievement and physical health are related was made by Eveland-Sayers and colleagues who examined the relationship between physical fitness and academic achievement in 134 3rd through 5th grade children. Data was collected on levels of fitness, mathematics and reading on the children in the study. The study found a negative association between the one mile run times and mathematics scores and a positive relationship between muscular fitness and mathematics. Though more research is needed, this study

seems to suggest that there is indeed a relationship between fitness and achievement in elementary school children.⁶

Similarly, Geier and colleagues looked at the relationship between relative weight and school attendance among 1,069 4th to 6th grade elementary school children in Philadelphia. The study found that students who were in the “obese” classification remained a significant contributor to the number of days absent category even after controlling for age, race and ethnicity and gender. The data in this study seem to suggest that heavier children have a greater predisposition to school absenteeism than their normal weight peers.⁷ Though not directly related to academic achievement, absenteeism has a detrimental effect on a child’s school performance. From a school siting perspective, this is yet another example of research that supports investigating the values, attitudes, practices and beliefs of school facilities planners, making sure that a multitude of factors are considered in school siting outside of mere financial cost and parcel size. Again it is worth mentioning here that programmatic efforts related to walking and bicycling as well as responsible school siting has incredible potential to open up opportunities for children to be active.

From the studies examined we see examples of how research weighs in upon the relationship between schools, achievement and physical activity. The first section, more squarely focused upon health, is complementary to this section, which

⁶ Eveland-Sayers, Brandi M., Farley, Richard S., Fuller, Dana K., Morgan, Don W., and Caputo, Jennifer L. “Physical Fitness and Academic Achievement in Elementary School Children.” *Journal of Physical Activity and Health*. 66 (2009):99-104

⁷ Geier, Andrew B., Foster, Gary, Womble, Leslie G., McLaughlin, Jackie, Borradile, Kelly E., Nachmani, Joan, Sherman, Sandy, Kumanyika, Shiriki and Shults, Justine. “The Relationship Between Relative Weight and School Attendance Among Elementary Schoolchildren.” *Obesity*. 15 (2007): 2157-2161.

examines more closely school level data on health and its relationship to academic performance. In an era of assessment and accountability, it is clear that the connection between school siting, access to physical activity and test scores must be made. If research suggests that physical activity and obesity have an impact upon student academic achievement then education policymakers have an incredible opportunity to increase student achievement, believed by many to be the sole objective of public schools, while at the same time providing valuable opportunities for physical health.

Influence of the Built Environment Upon Travel Behaviors

The built environment—which includes buildings, streets, parks, and other man-made physical surroundings—affects a child’s choice regarding opportunities for physical activity and the safety of engaging in physical activity. Clearly in the realm of school facilities planning, the physical location bears upon a parent’s decision of whether or not a child will walk, bike or be driven to school. While the decision to walk or bicycle for short trips often depends on time, purpose, or environmental factors, key features of the built environment such as sidewalks, streetlights, traffic, hills, and overall walkability and bikeability are related to travel behaviors. Additionally, programmatic efforts such as Safe Routes to School and Walking School Bus programs have the ability to not only provide opportunities to walk and bike but also provide the community with the ability to examine resources and infrastructure. Ultimately, if the environment is built in a way that deters physical activity it could have a detrimental impact upon child health and well being.

Present throughout the paper has been a question of low income communities and social class as it relates to the availability of walking and bicycling programs as well as quality infrastructure. Melicia Whitt-Glover and colleagues examine public policies related to the built environment's impact upon youth, specifically as it related to racial and ethnic minorities. This article suggests that public policies, informed by research, that support population-level approaches to increase physical activity, is needed to increase physical activity opportunities to racial/ethnic minority communities. This finding is particularly relevant and critical for Metropolitan Nashville schools that have arguably been resegregated in neighborhood zones. The authors suggest that by creating better schools in low-income neighborhoods, children will be more likely to live within walking distance to school and choose active transportation to and from school. As a potential policy solution the authors suggest building infrastructure that includes sidewalks, walking trails, bicycle lanes, and reliable public transportation in racial and ethnic minority communities to support active forms of transportation and physical activity.⁸

Providing quality infrastructure in all communities is only one component of creating an environment in which children can walk and bike. It is clear that there is some level of decision making that occurs on the part of both the parent and child in mode choice. Zhou and colleagues investigated the characteristics of student travel behaviors before the implementation of a Safe Routes to School program and

⁸ Whitt-Glover, Melicia C., Crespo, Carlos J. and Joe, Jennie. "Recommendations for advancing opportunities to increase physical activity in racial/ethnic minority communities." *Preventive Medicine*. 49.4 (2009): 292-293.

identified the influential factors affecting the number of children who walk or bike to school. In the study, parents reported a number of concerns contributing to their decision regarding transport to school. The five primary indicators were distance, traffic speed along the route, the amount of traffic along the route, violence or crime and intersection safety. Additionally, parents reported the following five factors as those that would change their decision and allow their children to walk or bike to school: distance, safety of intersections and crossings, weather or climate, presence of an adult co-walker and convenience of driving. Finally, the survey asked the respondents to examine their beliefs on walking and biking. These activities were viewed widely by both parents and children and both beneficial and fun. This study exposes the widely varied attitudes that exist in parental beliefs and needs around walking and biking. It seems that distance is a major factor that parents point to as something that inhibits them from allowing their children to walk and bike. Therefore, if research has built a case for the positive role of physical activity in the lives of youth, then education policymakers must acknowledge and seek to understand the role that school facilities planners play in the process of either creating or inhibiting physical activity.⁹

Other scholars have investigated the connections between physical distance from the home and mode choice in children. Larsen and colleagues examined the sociodemographic and environmental influences upon a child's mode choice between home and school. The study, which was conducted in Canada, showed that

⁹ Zhou, Huaguo, Zhao, Jiguang, Hsu, Peter, and Rouse, Jeanette. "Identifying Factors Affecting the Number of Students Walking or Biking to School." *Institute of Transportation Engineers Journal*. 79.10 (2009).

62% of students living within 1.6 kilometers (0.994 miles) of their school used active transportation methods to get to school, with 95% of that group selecting walking. The study also found that active transport is 10% greater on the way home from school when compared to morning school travel. An analysis of survey data showed, confirming the results from the Zhou study, that distance was noted as the number one factor in mode choice, supporting the argument that school siting and location has real implications, perhaps a direct impact, upon the choices that parents and children make for trips to and from school.¹⁰

Notable in the studies is the numerous times that distance is mentioned by both parents and students as the top factor influencing mode choice. If substantial data exists establishing the linkage between physical activity and health, as well as distance and mode choice, what are the primary factors for school facilities planners in siting schools? It is important for education policymakers to understand best practice regarding the building of schools as well as the perspective of individuals who are making school siting decisions. As will be discussed in the next and final section of the literature review, the case for responsible school siting extends into the recent movement towards smart growth, but a lack of information leaves us questioning the frame of reference that school facilities planners are using in making siting decisions.

Smart Growth and Schools

¹⁰ Larsen, Kristian, Gilliland, Jason, Hess, Paul, Tucker, Patrick, Irwin, Jennifer and He, Meizi. "The Influence of the Physical Environment and Sociodemographic Characteristics on Children's Mode of Travel to and From School." American Public Health Association. 99.3 (2009): 520-526.

One potential way for education policymakers and school district officials to explore more responsible school siting and programmatic efforts related to walking and bicycling is to employ smart growth principles in the school planning process. In many situations, the decision to site schools in remote locations has to do with a perception that large acreages are needed in order to accommodate the daily operations of a school. By examining the research and best practices regarding smart growth a clear opportunity emerges for school siting officials to provide excellent learning environments for students as well as have a broader array of options in terms of where to place a school. For example, a school siting professional might believe that he needs 10 acres on which to site a new elementary school and because of that requirement might need to site in a remote location. Smart growth principles challenge that assumption and have been proven to provide similar educational facilities on smaller acreages in areas that are zoned for mixed use. As such, the same elementary school that was once slated for being placed in a remote location, can through smart growth practices, be sited in a more central, walkable, bikeable location. In analyzing two central documents that are representative of smart growth practices as they relate to new school construction and renovation, it becomes incredibly clear that policymakers must consider smart growth and green building as an important element of responsible school siting.

The U.S. Green Building Council (USGBC) is the body that is responsible for providing recommendations for and certifying green buildings in the United States, including schools. The Council and the individuals who are responsible for creating and recommending standards for buildings to abide by in order to be considered

“LEED certified” is comprised of knowledgeable architects, civil engineers, and urban and regional planners, experts in their respective fields. This field of experts is responsible for the development of the “LEED for Schools” certification guidelines. The guidelines, all of which will not be discussed here, include such areas as sustainable sites, water and energy efficiency, materials and resources, indoor environment quality and innovation and design processes. Of particular interest in this research study is the area of “sustainable sites” which is the LEED building process is worth 24 of 110 possible points. Under this rating category, we find such indicators as access to public transit, bicycle storage and changing rooms, and overall infrastructural connectivity. It is clear by the mere inclusion of these principles in the LEED standards that they are considered important in school facilities planning. This begs the question of what prohibits or encourages school facilities planners to either opt in or opt out of LEED for Schools standards. Further, in choosing to opt out of LEED for Schools standards does that in some way deviate from accepted best practice?¹¹

Finally, the document that is central to defining best practices in the field of school facilities planning is the 52 page handbook put out in 2004 by the Environmental Protection Agency (EPA) and the Council for Educational Facilities Planners International (CEFPI) entitled, “Schools for Successful Communities: An Element of Smart Growth.” In this document, the principles of the booming smart growth movement are applied directly to schools and include compact building design, investing in walkable neighborhoods, strengthening and directing

¹¹ U.S. Green Building Council’s: LEED for Schools Website:
<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1586#v3>

development towards existing communities, providing a variety of transportation choices, and making development decisions transparent.¹² In addition to the indicators that the manual provides, the guidebook also goes into great depth in attempting to clarify common misconceptions in the practice of school facilities planners. One such example is that of the “minimum acreage requirement.”

Historically the CEFPI had used very general, not well-researched guidelines calling for large acreages in which to build schools. With the advent of the green building practices and further research, such acreage requirements have become in many ways obsolete and ineffectual.

Case Studies

In this portion of the paper I will engage a handful of relevant case studies to show the ways in which researched best practice, as described in the literature review, can be brought to practice. It is important for the reader to know that while I have only addressed a small number of case studies for the purposes of this paper, many more examples of well written policy and effective programming exist across the country. Three specific case studies will be provided in this section and serve to reinforce the theoretical framework of this paper: school siting and effective programming as viable ways for education policymakers to encourage physical activity and health in youth. The first case study deals with a Walking School Bus (WSB) program in urban Seattle. By examining this case study the reader will be able to witness the ways in which research on WSB/SRTS programming can be brought to practice, specifically in a low income community. The second case study

¹² EPA/CEFPI: Schools for Successful Communities: An Element of Smart Growth, 2004. Accessed via the web: <http://www.epa.gov/schools/siting.html>

looks at the recent policy adopted by the state of Washington requiring all elementary schools in the state to make available walking and bicycling routes. This example marks a wholesale policy change, achieved at the state level that opens up opportunities for walking and bicycling for thousands of children. Finally, the third case study will examine some Metropolitan Nashville Public Schools (MNPS) policies and examine where areas of opportunity exist for policy and programmatic change.

Case Study 1: Walking School Bus Program in Low Income Seattle

Despite the growing popularity of walk to school programs in the United States, long-term controlled studies are lacking. This study sought to help fill this gap by conducting a pilot assessment of the effect of a walking school bus (WSB) program in a low-income community in Seattle, Washington. The main hypothesis was that a WSB program would increase the proportion of students walking to school and decrease the proportion of students driven to school by car in the short and long term.

A walking school bus (WSB) is a group of children who walk to and from school chaperoned by responsible adults, usually parents. WSB programs address parents' safety concerns by providing a period of physical activity with adult supervision and teaching opportunities around pedestrian safety skills. The idea for a WSB reportedly originated in Australia as a practical transportation solution to promote physical activity and reduce congestion, pollution, and reliance on automobiles. Parents took turns leading WSBs on different days of the week, which provided for a practical and convenient way to transport children to school.

Children joined the WSB at various points along the set route. Students who lived far

away were dropped off along the route to join the WSB. Heavy items were transported to school on a wagon pulled by one of the adult chaperones. The primary goal was to allow children to actively and safely commute to school. An additional goal was to foster the development of skills, confidence, and motivation to walk to school safely and independently.

The setting for the walking school bus evaluation was three urban, socioeconomically disadvantaged, public elementary schools in Seattle, Washington, USA. The study included one intervention school and two control schools. Participants were ethnically diverse students in kindergarten through fifth grade. The intervention was a WSB program consisting of a part-time WSB coordinator and parent volunteers. Students' method of transportation to school was assessed by a classroom survey at baseline and one-year follow-up. Follow up testing was used to examine the change from baseline to 12-month follow-up for walking versus all other forms of school transport at the intervention or control schools.

At baseline, the proportions of students walking to the intervention or control schools did not differ. At 12-month follow up, higher proportions of students walked to the intervention versus the control schools. No significant changes were noted in the proportion of students riding in a car or taking the school bus at baseline or 12-month follow up. Comparing baseline to 12-month follow up, the numbers of students who walked to the intervention school increased while the numbers of students who used the other forms of transport did not change. In contrast, the numbers of students who walked to the control schools decreased

while the numbers of students who used the other forms of transport did not change.¹³

It is clear from this study that Walking School Bus programs along with other programmatic elements such as Safe Routes to School, if done appropriately are effective in increasing the number of students who walk or bike to school when compared to control schools. While it seems rather intuitive that this effect would be witnessed, what is important to glean from this case study is that it only takes a few interested and enthusiastic parents, along with a supportive school system, to see real increases in the number of students using non-motorized transportation to travel to and from school. Further research is needed in terms of evaluating the effects of walking and bicycling students versus students who are transported in cars in order to ascertain the overall health effects of programmatic efforts. That having been said, the Seattle example provides an instance where minimal time and resources can be directed to achieve significant gains.

Case Study 2: Large Scale Policy Change in the State of Washington

In March 2010, the state of Washington developed the publication entitled: *School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students*. It is a revision and update of the School Administrator's Guide to School Walk Routes and Student Pedestrian Safety, July 2003. The purpose of the guide is to provide information and support for student pedestrian and bicycle safety issues. The Washington State Department of Transportation (WSDOT), in conjunction with the Washington Traffic Safety Commission (WTSC),

¹³ Mendoza, Jason A., Levinger, David D., and Johnston, Brian D. "Pilot evaluation of a walking school bus program in a low-income, urban community." *BMC Public Health*. 9 (2009): 122-137.

and the Office of Superintendent of Public Instruction (OSPI), sponsored the update of the guidebook.

The guidebook aims to achieve a number of objectives. First, the guidebook explains the laws and liabilities associated with school walk route plans and student pedestrian and bicycle safety. Second, the guide identifies potential partnerships and responsibilities for improving student pedestrian and bicycle safety. Third, the guide suggests processes for developing and maintaining school walk and bike routes. Finally, the guide recommends procedures that can be used to create a pedestrian and/or bicycle safety improvement plan and begin implementing needed improvements including education, encouragement, and law enforcement and engineering efforts.¹⁴

The state of Washington has historically been in favor of Safe Routes to School, Walking School Bus and other smart growth practices. This particular case study provides an excellent example of how law and policy can be transformed and developed into guidebooks that make implementation easy and accessible. Additionally, the Washington case is a good example of how many different parties interested in community development, such as state departments of education, departments of transportation and the law enforcement community can come together, collaborate and work toward a shared vision that benefits the health and wellness of children.

Case Study 3: The Current State of Metropolitan Nashville Public Schools

¹⁴ State of Washington Department of Transportation Website:
<http://www.wsdot.wa.gov/NR/rdonlyres/5463FD69-F7B9-477D-B9AA-D21CEEFCE722/0/SchoolAdminGuide.pdf>

Metropolitan Nashville Public Schools (MNPS) is an excellent case study for examining the ways in which school siting and programmatic efforts can be brought to life in order to improve the health and well being of children. In examining the MNPS case, there are a number of alarming facts, policies and statistics that I will discuss briefly here. After discussing the MNPS case, I will then move into policy options and policy recommendations targeted specifically to the Middle Tennessee region. In the policy options section, I will include information collected from informal interviews that I conducted of school facilities planners in the Middle Tennessee region. These interviews provide great insight into the school planning process in our region.

Metropolitan Nashville Public Schools has an astronomical transportation estimated at \$36 million for the 2009-2010 school year. Within the MNPS district, there exist a fair amount of students who live more than two miles away from the school that they attend. Students living outside of this zone, often times referred to as the “parental responsibility zone” are entitled in having busing services provided to their child. Since the number of students living outside of the parental responsibility zone is so large, the number of students in the MNPS system who are bused is equally large. Further complicating the picture of transportation in the MNPS system is hazard busing. Hazard busing refers to a situation where a student lives within close proximity of the school (within the parental responsibility zone) but has some sort of “hazard” that impedes his ability to walk to school. Hazards can include any number of things, an interstate, an unsafe neighborhood, stray dogs, poor infrastructure, etc. Short term hazard busing to keep children safe seems to

make sense, however a problem arise when children are using hazard busing in the long term and no solution is being applied to the problem that was reported initially. There exists no explicit policy or process in place within MNPS that provides a solution to hazards that are reported by students/families for hazard busing. It is worth noting that while this case study focuses specifically on MNPS, many counties in Tennessee bus nearly all students to school regardless of proximity since two lane rural roads with no sidewalks are in and of themselves considered a hazard.

Another factor that complicates school siting and programmatic efforts related to walking and bicycling is MNPS recent move back to zoned neighborhood schools. The rezoning of MNPS brings about real questions about the physical quality of communities and school buildings. In order for students to be able to walk and bike to school the infrastructure needs to be available and of high quality. The rezoning of schools might actually look on paper like it is beneficial to walkability and bikeability and in many cases that is true. It is worth noting however that just because MNPS has moved back to a neighborhood schools model does not mean that all of the pieces are in place for walking and bicycling to take place safely.

An additional challenge that MNPS faces in terms of the health and wellness of children as it relates to SRTS and WSB is the lack of support for those programs. State of Tennessee physical education and health standards, nor MNPS specific curriculum, do not include specific reference to SRTS, WSB or any other programs related to walking and bicycling. Without the internal buy in and belief that walking

and bicycling programs are something worth investing in, MNPS is unable to move forward when it comes to these efforts. At the current time, MNPS is unable to account for schools that have WSB or SRTS programs in place, does not have the capability to provide schools with technical assistance and support in setting up programmatic efforts and has little investment in bike/ped efforts. Local advocacy organizations have provided in service trainings to teachers on a bicycle and pedestrian curriculum however, the curriculum is unable to move forward if the district is not supportive of teachers who want to teach it.

The final barrier, and it is a huge one, is school siting in Metropolitan Nashville Public Schools. Most of the discussion on this point will be reflected in the next section regarding current policy options for school siting; however, it is worthwhile to note that MNPS uses no formal school siting handbook and that school siting proceedings are generally reactive to increases in student enrollment. Additionally, many districts, including MNPS, bid contracts for new school construction with a handful of companies using very similar footprints, effectively replicated huge schools, over and over again. From what I was able to tell, MNPS has not investigated options for green or smart growth building practices, although some renewable building materials are used during construction.

Policy Options

In this section of the policy memo, I will focus upon the current policy options available to MNPS. I will briefly discuss the policy options that relate to transportation policy as well as Safe Routes to School and Walking School Bus programming. I will then discuss at greater length the policy options for school

siting in Middle Tennessee more broadly. These options, though tied directly to school siting, are indicative of broader MNPS policies that inhibit students from having walking and bicycling as viable transportation options.

Quite frankly, in terms of the district level policy, there is no central office support for Safe Routes to School and/or Walking School Bus programming. Currently, building principals and dedicated teachers are left to find creative ways to incorporate walking and bicycling education and programming into daily instruction.

Regarding transportation policy, MNPS has a problematic policy that does not employ the concept of concurrency (fixing or mitigation of hazards responsible for hazard busing). Additionally, the ways that schools are sited in Middle Tennessee has had a huge impact upon the ability of students to select walking and bicycling as a transportation option.

To gain a better understanding of the situation regarding school siting in Middle Tennessee and MNPS, a series of interviews were conducted to gain first hand knowledge about the siting process. Through the interview process the hope was to achieve an understanding of the practices that exist regarding school facilities planning on a district-by-district basis since Tennessee has no state level policy on school siting. Since a standard protocol was used in all interviews, responses are included below in a bulleted format. District practices were fairly consistent and as such individual districts are not identified for the purposes of this memo.

Most school districts surrounding Davidson Metro Nashville are experiencing a period of high growth, in many cases on the order of 3-7% per school year. This is

subsequently causing a period of fast growth for school districts in terms of capital projects, as well as the building of schools that have high enrollment capacities to accommodate the influx of new students into the district.

The process of planning new schools involves multiple actors. In most cases, school facilities planners in Middle Tennessee consult with architects, engineers and planners before bringing a proposal to the Board of Education. Once approved by the Board, the proposal would then move forward to the City or County Commission. Collaboration between comprehensive plans of the city and the school district are not always working in tandem. It seems as though the urgency of building schools fast to accommodate growth impedes this process. Schools are sometimes placed in strategic locations within a rural county, for example between two cities, or between two schools that are over capacity. This process may often times not consider long term implications for growth or access to sidewalks/transit. School facilities planners cited numerous instances in which they planned for sidewalk and bike lane access on the school grounds, noting that often times cities, municipalities or developers are the ones who choose to not to continue the sidewalk, etc, thereby prohibiting the possibility of children walking and biking to school.

Finally, the most important factor for school facilities planning is cost. Additionally, school facilities planners that were interviewed cited life safety, as well as providing an instructionally appropriate environment as other essential factors of a “good school.” Many districts in Middle Tennessee, while not going for LEED certification are using “green building practices” in the construction of new schools.

Interviewees cited the cost of becoming LEED certified as a major barrier. Districts, specifically those experiencing large amounts of growth, are using the same “building footprint” for multiple schools in an effort to lower costs as well as get schools built in an expedited manner.

In summation, the findings indicate that a lack of coordination, a lack of transparency in the school siting process as well as the problem of cost are key factors in school siting decision making within Middle Tennessee. Programmatic efforts, such as Walking School Bus and Safe Routes to School are under utilized and unsupported in MNPS.

Policy Recommendations

Based upon the literature base on the topic, and the context of the problem ascertained by interviews of local school facilities planners, the following policy recommendations are set forth as a starting point for improvement of walking and bicycling programs (WSB and SRTS) as well as improved school siting practices in MNPS.

Intergovernmental Collaboration: MNPS wherever possible should coordinate with community planners and other governmental entities in all phases of new school construction. In addition to community planning agencies, agency such as transportation, health, historic preservation should be invited to participate in school siting decisions. Regular, publicly advertised meetings should be held.

Transparent Policy and Process: MNPS in concert with city and county commissions should make every possible effort to make the process of siting a new school, or renovating an existing school as transparent as possible. This includes

but is not limited to publicly advertising for bids for building contracts, allowing the public to be involved in siting decisions at all stages of development, maintaining accessible public records on school siting and having regular contact with the community.

Employ Smart Growth Practices to Increase Walkability and Bikeability:

School facilities planners, whenever possible, should select locations that are accessible by means of non-motorized transport or in areas where there is the possibility or plans for access to such infrastructure. Additionally, schools should be sited in locations where public transit access is available. At the very least, school sites should have sidewalks and bike lane facilities on the property in schools are sited in remote or rural locations. By using recommended best practice in terms of smart growth and green building the options that are available to school facilities planners in terms of potential school location could be broadened thereby creating more options to place schools in already established neighborhoods.

Incentives to Building Well Sited Schools: This may be viewed as either a local or perhaps statewide objective. School facilities planners currently operate in a budget climate that rewards them for building low cost and often remotely located schools. Examining ways in which districts can support school facilities planners in an effort to work with transit, parks, transportation and health policy communities would be extremely beneficial.

Policies Requiring Developers and Cities to Build Infrastructure: School facilities planners are, in many cases, working extremely hard to make sure that appropriate sidewalks and bike lanes are developed on new school sites. As such, a

similar expectation should be placed upon cities or developers so that children have connective thoroughfares to and from school.

Develop a School Transportation Policy That Includes Concurrency: In examining the current MNPS policy in regard to transportation policies, it is clear that there is no policy in place that seeks to fix problems that are causing hazard busing. States, such as Florida have implemented concurrency through mandated policy with relative success.

Central Office Support for Programmatic Efforts: MNPS needs to invest in walking and bicycling efforts by way of the Central Office. Having a person who works for the district and whose express purpose is on bike/ped issues will lead to a better understanding of individual school level needs. Through this Central Office function, within district case studies and best practices can be researched and walking and bicycling route maps can be created.