Planning for School Choice

By

Barika X Williams

B.A. in Political Science and Social Thought and Analysis
Washington University in St. Louis
St. Louis, Missouri (2004)

Submitted to the Department of Urban Studies and Planning
in partial fulfillment of the requirements for the degree of

Master in City Planning

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 2010

Author_____
Department of Urban Studies and Planning
May 20, 2010

Certified by _____
Professor Frank Levy
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by_____
Professor Joseph Ferreira
Chair, MCP Committee
Department of Urban Studies and Planning

Planning for School Choice

by
Barika X Williams

Submitted to the Department of Urban Studies and Planning
on May 20, 2010, in partial fulfillment of the
requirements for the degree of
Master in City Planning

Abstract

The image of the picturesque urban schoolhouse is increasingly becoming a thing of the past. City schools were viewed with fear or disdain. The urban school's image shifted to an unruly coop for 'dangerous' unteachable students. This stark juxtaposition reflects the gradual transition in the urban environment. Charter schools have emerged as a relatively new component available to meet urban families' education needs and provide a new image of the city school, yet to be formed.

Planning has largely failed to acknowledge or address the changing urban education environment. We continue to plan our cities with the assumption of the old image of the neighborhood schoolhouse. However, through charter schools, the urban education environment is being redefined.

This thesis analyzes the educational environment of students and school location in Washington, DC to assess to what extent charter schools revitalize the possibility of obtaining high quality, neighborhood schools. Through analysis of quantitative data, I compare three factors between neighborhood schools and area charter school options: student population characteristics, school academic results, and student mobility and access to the school. The analysis identifies three distinct school systems within the city, each with a different role for charter school. I suggest how urban planners might respond to city's new educational environment in order to repair the links between schools and neighborhoods.

Thesis Advisor: Frank Levy, Rose Professor of Urban Economics
Thesis Reader: James Buckley, Lecturer in Housing

Acknowledgements

This thesis is a thank you to nine life long friends from my high school, Thomas Jefferson High School for Science and Technology. While, we each lost our own neighborhood schools, we gained each other. We spent many a days missing our neighborhoods, straddling worlds, and searching for answers. It is an extension of our age-old question: did we really have to leave our neighborhoods, our friends, cultures, religions and hobbies to get a quality education?

Thank you to my thesis advisor, Frank Levy, for his guidance, discipline, and patience throughout this process. Thank you Jim Buckley, my thesis reader, who provided clarity and encouragement in my pursuit of this topic. And thanks to my thesis group, Laura Delgado, Sandra Padilla, and Julie Stein, for early morning breakfast support sessions. I appreciate all of your help transforming my thoughts into a thesis.

My sincere appreciation also goes to the faculty and students at the Harvard Graduate School of Education for their engaging conversations about education and schools. Thank you to the Urban Institute's Metropolitan Housing & Communities Policy Center and the 21st Century School Fund for their expertise and resources. Also, thanks to MIT Community Innovators Lab, my safe heaven throughout this process.

Thanks to my DUSP family who made my time at MIT so memorable: Nick Iuviene, Benjamin Brandin, Kate Levitt Brandin, Aditya Pant, Arundati Muralidharan, and Alex Keating

Finally, to my Mom, Dad, brother, Rahsaan, and family for your never-ending love and confidence. I am very blessed to have you all.

TABLE OF CONTENTS

INTRODUCTION

The image of the traditional urban school is increasingly becoming a thing of the past. The image was a historical picturesque schoolhouse with large windows looking out onto the world students inside would one day join. The schoolyard was an island of youthful energy, carefree of the pressure of their surroundings. Teachers lived blocks away from the school and had informal check-ins with parents after church service. These predominately White middle class families viewed urban schools as an asset and an integral part of the community. It was a generational constant shared by parents and children and respected by most.

Many of these features have changed. Urban schools are often viewed with disdain. Their physical dilapidation is a reflection of their deteriorating value for children, parents and the community. A security team and metal detectors have replaced images of a friendly principal greeting students at the door of the schoolhouse door. Instead of hopscotch and playing tag on the playground, students hunker in gangs like a prison yard. The urban school's image shifted to an unruly coop for 'dangerous' unteachable now predominately low-income minority children.

This stark juxtaposition reflects gradual transition in the urban environment. White flight, suburbanization, the home mortgage deduction, redlining, and urban renewal all contributed to a dire state of urban decline and decay (Bradbury, Downs, and Small). The declining wealthy white urban middle class populations left cities, and their schools, to service the remaining predominately low-income and minority populations. Many wondered whether the plight of urban neighborhoods and urban schools was "irreversible" (Bradbury, Downs, and Small). Despite the bleak prospects, in some major cities urban decline slowly stopped and was replaced

by urban growth. There were economic and social policy decisions that fueled this turn around.

Concurrent with efforts of urban revitalization, were efforts and policies for urban education reform. Charter schools have emerged as a relatively new component available to meet urban families' education needs. These schools provide a new image of the city school. Because charter schools are distinct and varied entities, there is no consistent image of the school and instead the image often about their process and procedures. The idealized picture is of parents' comparison-shopping for the school that best matches the curriculum, academic results, or culture they desire for their child. Families scramble across the city to their school. Kids thrive in an environment that matches both their academic interests and learning methodology. The charter school is a chance for families to leave their unresponsive traditional neighborhood school behind and enroll children in a schoolroom where everyone (teachers, students, and parents) have made the same choice and believe in the school's methods.

Throughout these stages, schools have remained a critical consideration for any family or potential family living in cities across the nation. For many, especially families and young couples, schools and the local education system are a key factor in determining where to live is the schools and the education system. Many factors influence where people live including housing prices, rents, amenities, transportation, culture, diversity, age and more. "However, in certain places the schooling of children has been the most important factor in the population movement" (Glazer 192). Whether deciding between urban and suburban, or between two or more neighborhoods, schools have and continue to factor heavily in where people live.

While it is strikingly obvious that school choice is very important to families, schools are often overlooked as an important element of urban environment. Schools are a part of cities' infrastructure. They are a unique form of infrastructure that provides not only an education service, but also a physical and social service to communities. However, the linkage between the services is neglected. There is a profound disconnect between cities and schools that extends to a parallel disconnect between the education field and the field of city planning that needs to be overcome.

Planning has largely failed to acknowledge or address the changing urban education environment. Planners are currently engaged in discussions around the changing direction of transportation, energy, and housing infrastructure among others and their potential impacts and implications for the direction of cities. Meanwhile, we continue to plan our cities with the assumption of the old image of the neighborhood schoolhouse. However, through charter schools, the urban education environment is being redefined. Planners are currently unprepared to consider the changing linkages between schools and neighborhoods.

This is critical because "the quality of cities depends, in part, on the quality of schools. Likewise, the quality of schools depends on the quality of cities" (Vincent 433). Schools can be a powerful instrument in creating successful, vibrant urban communities and the over-all form of the city. By coordinating efforts between planners and schools, we can better reach shared goals and desires for the urban environment.

Currently, each field has given little consideration of the implications charter schools present to the relationships between schools and neighborhoods. The traditional school system included values and principles beyond schooling (Hoy and Miskel 68). Likewise, we need to consider how emerging education environment embraces or rebukes planners' efforts beyond schooling. Not doing so, places both our schools and our urban environments at stake.

This thesis will to address the void in planning discussions on the education environment. It explores the spatial relationship of school choice within a school system with a large charter school presence. The thesis analyzes the educational environment of students and school location in Washington, DC to assess to what extent charter schools revitalize the possibility of obtaining high quality, neighborhood schools.

This thesis begins by defining the traditional neighborhood school by reviewing the previous literature on the subject. The research distills three elements of the model relationship between schools and neighborhoods: schools as 'common schools' established to equally provide good education for all, schools as physical centers of the neighborhood, and schools as venues for social change. This provides context for how schools were historically designed and intended to

engage in their surrounding neighborhoods. However, these ideals are far from the reality found in many neighborhoods.

However, these ideals are far from the reality found in many city schools and their relationships to their neighborhoods. Next, this thesis reviews the emergence of school reform through the school choice movement as a means to address the declining city schools. It explains the major facets of charter schools as the key component to the school choice movement. In addition it provides a definition of charter schools, their rationale, structure, critiques, and an overview of their current standing. The thesis then presents a brief review of the current debates around charter schools, not related to the neighborhood context. This provides the background and national trends for charter schools, distinct from neighborhood schools and a key element of the DC school environment.

The thesis then examines DC as a case study of the changing national education system. It outlines DC's educational systems' historical and current situation. This includes DC schools' governance, enrollment, and academic outcomes. Today, DC reflects many of the challenges to the neighborhood-schools ideal as well as the emergence of school choice.

This thesis next describes the research methodology and framework used for the analysis. The analysis examines the differences between school options available by geographical area in Washington, DC. It compares three factors between neighborhood schools and area charter school options: student population characteristics, school academic results, and student mobility and access to the school. This is followed by a summary of my analysis' findings.

The thesis concludes with the implications of DC's educational environment that combines charters and neighborhood schools. It makes recommendations on how planners might address charter schools role in city planning that could be applied in DC and across the nation, for the relationship between neighborhood and schools. Finally, it poses questions that should be explored further in future research on these topics.

THE NEIGHBORHOOD SCHOOL IDEAL

It is necessary to examine what is meant by the term 'neighborhood school.' This chapter establishes the characteristics of a neighborhood school based on an analysis of the historical interplay between schools and neighborhoods. I define *a traditional public school (TPS) or a neighborhood school as a school intended to serve all students in a geographically limited area and contributing to the education, neighborhood, and social change of the area.* This definition includes the contribution of the neighborhood school in three contexts:

(a) The educational concept of a neighborhood based or 'common school.'

(b) Urban planning's theory of neighborhood unit centered around a school

(c) Schools as vehicles for social change

These analyses establish the links between schools and neighborhoods for the education system, physical environment, and social impacts. They provide the groundwork for the analysis of the shifts in these relationships with the growing charter school movement.

Education's 'Common Schools'

US education has had a long and complex relationship with local neighborhoods and communities. Historically, local neighborhoods have played a critical role in the development of schools. From its conception in the 17th century the U.S. education reflected the communal differences between the regions and territories of the thirteen colonies. The largely rural southern colonies left little opportunity for 'urban' education and schooling consisted of home schooling for wealthier students and apprenticeships or no education for the middle class, the poor, and slaves (Tyack). Education in the middle colonies was rooted in the various religions found

throughout the region. The Mennonites, Quakers, Lutherans, Catholics, and other religious groups each established their own schools. The New England Colonies education focused on teaching Protestant religion. Children were trained to be faithful shepherds of God and education was necessary in order to be able to read scriptures and the Bible (Reese). During this early time period families' region, religion or trade largely determined the extent of a child's education. Schools were not overtly tied to local neighborhoods, however groups' tendency to settle in clusters meant that schools often served a settlement community tied to a physical geography.

The first instance explicitly tying U.S. schools to neighborhoods occurred in the late 1600s. The Commonwealth of Massachusetts enacted the School Law of 1647, or the Old Deluder Satan Act (Updegraff). The 1647 School Law is the foundation for modern public schools; mandating that every town found, operate, and fund a school. All towns that had over fifty families were required to hire a schoolmaster, and towns with more than100 families were required to create a grammar school. Town residents were asked to contribute to their school with money, labor, goods, or land. Schools were often one-room schoolhouses where students studied Latin and Greek and the "elementary subjects." In 1827, Massachusetts went further and passed legislation which required all towns exceeding 500 families to establish a public high school (Updegraff). All public school grades were to be offered free of charge to all children in the town. The 1647 and 1827 laws established schools as a collective endeavor by those townspersons in proximity to one another. These laws are the foundation for the local, or neighborhood, role in schools. They required towns to develop, fund, control, and manage their local schools.

The neighborhood role in schools expanded further in the 1830's with Horace Mann's, Secretary of the then newly formed Massachusetts State Board of Education, conception of 'common schools' (Cremin). Mann felt that 'common schools' reflected the belief that education should be available to all. 'Common schools' would transform education breaking the dictum of "every man according to his own ability in instructing his children" which limited education to elite privilege (Kaestle). Instead the 'common school' moved education from the family's responsibility to the township. This provided the masses with access to education in their respective neighborhoods. Horace Mann's vision spread to become the commons school movement, which served as the foundation for the U.S. education system (Cremin; Kaestle).

"Central to the concept of the common school [was] its symbiotic relationship with the community in which it [was] located" (Baines and H. Foster 222). By the 1890s a system of locally-based public schools was ubiquitous in the US, rooted in their neighborhoods through taxation and governance structure. Local funding of common schools was an issue of contention between politicians, scholars, and citizens. As early as 1779, Thomas Jefferson failed to pass legislation that would have established a tax-supported system of free elementary education. Opponents argued that a school tax would be sizeable and "repressive" and was an infringement on individual rights, while advocates argued the cost would be minimal and offset by cost savings on criminal justice, law enforcement, and other social services (Wagoner and Haarlow). By the 1830s many districts had school taxation legislation in place despite continued opposition (Kaestle). However in 1874 the Michigan State Supreme Court ruled that the town of Kalamazoo could levy taxes in order to support a public high school. This case established the legal precedent for local tax-funded public education.

Governance structures also contributed to linking common schools to their local neighborhoods They partially centralized schools under town authority so that they could be directed by state agencies, rejected direct state authority of local schools, and instead supported local school boards (Updegraff). Early local school boards were in complete control of the day-to-day administration of their schools (Carol et al., 1986). However, there was rampant corruption; board members controlled school facilities, tax levies, teachers, and student testing. They were few safeguards in place to ensure that the monetary and political benefits of school board positions were not abused (Updegraff).

This led to the hiring of superintendents starting in the 1830s, which eventually became standard practice (Tyack). School boards reluctantly ceded power to professional management as city and district education systems became too complex or cumbersome for the predominately part-time school boards to manage. In addition, school boards had to accommodate state boards of education, starting with Massachusetts in 1837 (Updegraff). There was a general distrust and concern that superintendents and state agencies would not be able to address local needs and preferences (Danzberger; Danzberger, Kirst, and Usdan). However, states guided and dictated

school legislation and initiatives, but implementation was largely left to towns and districts. This preserved much of the local neighborhood control of common schools.

The conception, development, and structure of U.S. schools included a direct relationship between the local neighborhood and schools as providers of education. The U.S. education system developed from the conception of schools as education facilities created, developed and funded by local communities. However, there is clear evidence that the initial model of the U.S. education system had strong ties between neighborhoods and schools.

Physical Planning's 'School Centers'

The physical design and planning of U.S. urban communities has long been linked to the concept of a school based in the neighborhood. City planning theory depended on schools as a critical element of a cohesive community, or neighborhood unit. There are few discussions of schools' place in the urban landscape prior to the 1800s. However, as early as the 1780s, Thomas Jefferson proposed the physical allotment of schools by geographic area (Tyack). Jefferson called for each county to be divided into wards, or "little republics," with each containing an elementary school, which would admit "all the free children, male and female," free of charge (Wagoner and Haarlow). Horace Mann also considered school location and critiqued the location of existing schools. He determined they were "almost universally, badly located, exposed to the noise, dust and danger of the highway, unattractive, if not positively repulsive in their external and internal appearance, and built at the least possible expense of material and labor" (Cremin).

Schools reemerged in physical planning, when the "neighborhood idea" first took shape in the 1880s. These efforts centered on repairing the largely dilapidated and broken city by bringing the cohesive community life found in small towns to the urban environment (Silver). Urban planners maintained that the injecting the face-to-face relations of village life into cities would remove the anonymity in cities that contributed to detrimental morals and behavior (Perry, "The Rehabilitation of the Local Community"). They theorized that decentralizing cities into small neighborhood based communities, with schools at the center, would efficiently yield the needed urban improvements.

This neighborhood reform movement advocated for an urban pattern where the social, physical, spatial, and political affiliations centered around a self-contained, self-supporting residential cluster (Silver). In the 1920s, Clarence Perry transformed this neighborhood idea into a detailed physical plan (Keating and Krumholz). The "neighborhood unit plan" assembled the various neighborhood planning principles into one cohesive blueprint for neighborhood design. This section will discuss the physical dimensions of schools in Perry's neighborhood unit.

Perry's "Five Block Plan" provided residential space for 1,000 families and included "recreation space; provision of neighborhood facilities such as local shops, a school, and a gymnasium; and separation of traffic modes" (Perry, *Wider Use of the School Plant*). The plan reworked urban neighborhoods to adjust to the automobile age by creating "superblocks" that separated pedestrian and vehicular traffic (Banerjee and Baer). The goal of Perry's neighborhood was to promote prosperity by improving:

- Public health with high rise units that increased light, air, and play space;
- Public safety that separated transit modes and decreased the risk of automobile accidents;
- Public convenience with "self-contained local communities" (Perry, "The Rehabilitation of the Local Community"; Silver 166); and
- Public morals (through enhanced community environment).

At the center of this neighborhood unit was a community or civic center.

> "[The] neighborhood civic centers would supply a "socializing" force in immigrant neighborhoods and encourage "development of neighborhood feeling, the lack of which has much to do with our present corruption and inefficiency in political life" (Keating and Krumholz 163).

This civic center could include a local market, park, library, police, and most importantly for this research, a neighborhood school (Gillette Jr.).

Perry's usage of schools in his neighborhood unit plan evolved and by 1920 they had shifted from being a part of the civic center, to the focal point for neighborhood planning (Gillette Jr.). His definition of a neighborhood developed from the distance a child could reasonably walk to school - currently estimated at approximately one half mile (Gillette Jr.; Glazer). The school's physical location at the center of the Perry's plan shaped future theory of the urban

neighborhood. "The school thus played a central role in the development of one of the most important ideas in the history of planning" (Glazer 191).

However, Perry's neighborhood unit was rarely implemented as a physical plan and instead used as guiding theory for city planners. Between 1930 and 1970 a number of professional associations, conferences, and legislation adopted various policies that incorporated principles or elements of Perry's neighborhood unit plan (Gillette Jr.; Silver). Therefore, Perry's theory for urban neighborhoods, including schools' centrality in communities, directed much of the thinking about the physical planning of cities. We see that schools played a pivotal role in shaping the physical urban landscape and the relationship between the two is strongly intertwined.

Social Change though Schools

Finally, schools have historically served as social centers for the neighborhoods they serve. Schools had provided avenues of social development, social capital, and community interaction. The social systems of neighborhood schools manifest in disputes of agency and power. This section explores the use of schools to influence social practices in neighborhoods.

Neighborhood schools provided an avenue to the socialization of communities as far back as the 1760s. Early compulsory education in Massachusetts aimed to ensure that all its children were able to understand basic religious principles and the secular laws of the Commonwealth (Updegraff). Similarly, the emerging new republic influenced local education. Leaders of the former colonies wanted an education curriculum distinct from their British colonizers. Benjamin Franklin advocated that schools teach English, not Latin, use distinct spelling (color not colour) and emphasize scientific and practical skills, all of which broke from the traditional British teachings (Tyack). These efforts reflected the sentiments of Benjamin Rush and other American founders, who believed that the security of the newly formed nation relied on an educated citizenry distinct from Great Britain. Schools provide an avenue for socialization of a community, in this case the entire newly formed nation, to instill democratic values and allegiance to America.

Horace Mann's 'common school' was an early champion of social transformation through locally based schools. Mann believed that schools could bring about social harmony and political stability (Cremin). He felt "education ... [was] the great equalizer of the conditions of men, the balance wheel of the social machinery" (Cremin 65). Common schools would be the catalyst to great social change, eliminating poverty crime and other moral vices propagated by an unintelligent citizenry. Here, local neighborhood schools were employed as vehicles to socially transform the poor through education.

By the mid 1880s a series of migration waves changed the national landscape, shifting the target from broad, national social transformation to specific ethnic communities. Between 1846 and 1856, almost 13 percent of the U.S population arrived as immigrants (3.1 million people), of whom over one million were Irish Catholic immigrants (Tyack). The predominantly Protestant based common schools controlled by townships struggled with new sizeable influx of Catholics (Wagoner and Haarlow). Protestants feared the emergence of locally controlled, tax supported, and parochial common schools. Common schools shifted from teaching Protestant children the religious values of salvation, righteousness and piety to teaching the children of America's 'melting pot' secular middle-class civility, morality and values.[1] Here we see neighborhood schools shift roles in order to directly address the social transformation of the Catholic immigrant population.

The common school movement did not address the limited education opportunities of Black children after the abolition of slavery. Freed slaves often did not have the ability to pool community resources and levy sufficient taxes to establish a neighborhood school. However, in 1850 and again in the 1896, the courts maintained that the racial segregation of public common schools was constitutional, establishing the doctrine "separate but equal" (Ficker 301). A series of lawsuits between the 1930s and 1950s ultimately overturned school segregation and in 1954, the U.S. Supreme Court ruled that "separate educational facilities are inherently unequal" in *Brown v. Board of Education of Topeka* (Ficker 310). This case ultimately required the federal

[1]Horace Mann had always advocated for a secular education system, but this position lacked widespread Protestant support until the US saw large Catholic in-migration.

government's involvement to enforce the social value of equal access to education in all local community schools regardless of race. Schools were strategically used as an engine of the Civil Rights Movement. Challenges to local control of schools directly contributed to national and local social changes embodied in the Civil Rights Act of 1964.

Local neighborhood schools also served as the social center of the community. Perry's neighborhood unit, discussed above, drew from the Charles Horton Cooley's 1909 book, *Social Organization* (Gillette Jr.). Cooley argued for the importance of the family, elders, playgroup, neighborhood or community group, and schools' in the formulation of people's morals, opinions, and ideals (Gillette Jr. 424). School civic centers were essential elements in the socialization process and preparation for citizenship (Curtis).

The neighborhood school would not only be located in the physical center of the community, but it would also serve as a community center. In 1910 Perry authored the book *Wider Use of the School Plant*, which maintained that the singular use of the school building was inefficient both for business and civic investment perspectives (Perry, *Wider Use of the School Plant*). Perry encouraged the use of school buildings as social centers that housed student recreation, teacher meetings, community meetings, civic lectures, community polling, athletics, and other evening and vacation activities. These led to the World War I slogan, "every school house [was to be] a community capital and every community a little democracy" (Gillette Jr. 423). Perry's writing and the neighborhood unit plan enhanced efforts to encourage public schools to serve as a civic assets including town forums, adult education, and recreational activities, such as allowing neighborhood residents to use school playgrounds.

Linked to Perry's use of schools as the community civic center, was the ability to build 'social capital' through schools. The notion of social capital is said to have first appeared in discussions of rural community school centers by Lyda Judson Hanifan as early as 1916 (Hanifan). Hanifan discussed school's ability to cultivate "good will, fellowship, sympathy and social intercourse" between those in its social unit (Hanifan 130). He concludes that the school's supervisor, teachers, and the schoolhouse facilitated a community building that allowed the residents the social capital to collaborate and "do for themselves" (Hanifan; Lee and Croninger).

Neighborhood schools were avenues for facilitating social change in the surrounding neighborhoods. Sometimes the social changes came in the form of social transformation, largely directed by those outside of the community as a means for influencing the social values or behaviors of those inside the neighborhood. Other times the social changes came from those inside the neighborhood, building social capital between the members of the geographic area. Whether schools act as a vehicle for external socialization or internal social capital development is largely situational. However, there is clear evidence that schools have played a strong role in shaping the social changes of neighborhoods and the urban environment.

These three elements – education, physical planning and social change – represent the key components to the historical relationships between schools and neighborhoods. From this literature review we see that through these elements schools have been tied to their surrounding neighborhood. This interplay was a fundamental part of the U.S. education system since its inception. However, many of these relationships have changed or degraded overtime. While the elements linking neighborhood and schools remain an ideal, they are no longer the reality in most city communities.

THE NEIGHBORHOOD SCHOOL REALITY

The preceding section captures the elements of the picturesque image of the urban schoolhouse. However, many of these icons of the neighborhood-school dynamic longer occur. Instead shifts in education policies, the urban landscape, and the social framework resulted in the weakening of the connections between schools and neighborhoods. This section examines the shift away from the historical ideals to form a new reality for the interaction between schools and neighborhoods.

The local taxation and governance structure of the 'common school' have changed significantly. In the early 1900s, local school districts and boards were centralized into larger jurisdictions. This was to decrease disparities in local funding between districts in the same city, county or town. By 1971 the Superior Court of Los Angeles County ruled in *Serrano v. Priest* that district-to-district disparities, "fail[ed] to meet the requirements of the equal protection clause of the Fourteenth Amendment of the United States Constitution and the California Constitution" (*Dollars and Sense*). This decision attempted to address intra-jurisdictional school spending. We also see inter-jurisdictional differences in school spending. William Fishel argued that increased state and federal influence over local school funding hampered local neighborhoods' ability to emphasize or deemphasize investment in social services like schools (Fischel).

The larger school jurisdictions also consolidated school governance. Citywide elections (and later district wide elections) determined school oversight instead of the previous smaller ward level elections (Danzberger, Kirst, and Usdan). The newly centralized boards more closely reflected corporation's boards of directors that focused on education policy rather than school management.

Despite the shift to centralization, school boards remained the most ubiquitous form of government in the U.S. (West, 2009). Approximately 95,000 school board members serve on 15,000 local public school boards in the United States (Resnick). However the changes in structure did result in a change in the board composition. More educated, higher income, professionals and businessmen, joined these smaller school boards.

- Approximately 67% of school board members reported an income of at least $60,000
    - 28% reported an income greater than $100,000
- Approximately 44% occupied managerial or professional positions
    - 13% owned their own businesses
- Nearly half the members (46%) had earned graduate degrees, and
- More than 80% of school board members stated that they were White
    - only 6.5% of members reported that they were Black
    - only 3.1% reported that they were Hispanic.
- An estimated 43% reported that they did not have a child attending public school.

Many have expressed concern over the disproportionate representation and the ability of such elite cadres of board members to represent the concerns of local citizens effectively (Land). The centralization of school boards and taxation shifted the orientation of common schools from the local neighborhood to the much broader city scale.

Similarly, challenges to Clarence Perry's neighborhood unit plan raised questions about whether community schools should serve as the locus around which neighborhoods are organized (Brussat and Riemer). Critics of Perry's physical neighborhood unit argued it was formulated around an elementary school and did little to discuss the role and placement of secondary schools in urban environments. Small-scale elementary schools enabled strategic placement that could bring parents together through school activities, Parent Teacher Associations, and playgrounds. However, William Brussat and Svend Riemer argued that secondary schools, which draw from a wider geographic area, are less able to "create a community among the parents in their concern for their children's education and the supervision of their recreation" (Brussat and Riemer 9). They maintained the further children travel from their neighborhood for school the less they exhibit an attachment to their neighborhood. "Insofar as the [child] passes the better part of the daytime in another area than his own, the latter loses his influence" (Brussat and Riemer 10;

Dyckman; Glazer). This is, in part, because students who travel outside their neighborhood for school spend around eight hours a day absent from their home neighborhoods, contributing to a decrease of neighborhood solidarity. Brussat and Riemer point out that specialty schools like private schools, parochial schools, and current day charter schools "may be detrimental...to child-created neighborliness" (Brussat and Riemer 11) They add that "[specialty] school[s] may serve as a cohesive force among the families whose children attend it. However, it may be a disruptive or disunifying force as far as the neighborhood as a whole is concerned" (Brussat and Riemer 11).

Others criticize Perry's neighborhood plan for basing spatial organization around schools at all. Glazer examines the roles of schools in neighborhood planning. He critiques what he calls the, "geographically limited school" and concludes that Perry's conception for a neighborhood schools are "considerably diluted in a large city and may... only reinforce a pattern of segregation" (Glazer 196). Glazer argues that neighborhood schools reinforce homogeneity and exacerbate the existing segregation patterns in the city. Perry's theory of school at the physical center of communities does not address high schools or specialty schools. Nor does it consider that neighborhood schools would reinforce good and bad spatial dynamics found in cities.

Finally, authors point to the urban school as a potentially negative social force (Ayers et al.). The concept of neighborhood schools as community centers relied on a model of middle-class neighborhood associations largely designed to be exclusionary and "to protect middle- and upper-class residential neighborhoods" from immigrants and minorities (Arnold 1979). Embedded in Perry's physical neighborhood unit design was a push for social transformation towards racial and economically homogenous social developments. His rejection of heterogeneity extended to the local school; he believed that schools, and school associations tended to deteriorate given more diversified contacts within the larger area. Critics like journalist Jane Jacobs supported diverse and unplanned multi-use neighborhoods and spaces (Gillette Jr.).

Glazer also cautioned that the benefits of school's as vehicles for social capital depended on the make-up of the surrounding neighborhood in terms of diversity, class, and behaviors (Glazer).

"The forms of social capital produced at urban schools can either be negative - because

> they serve to maintain and reproduce the marginality of inner-city residents - or positive - because they provide the forms of cultural capital valued in the broader society and economy and support the formation of social networks that promote the interests of inner-city residents" (Noguera).

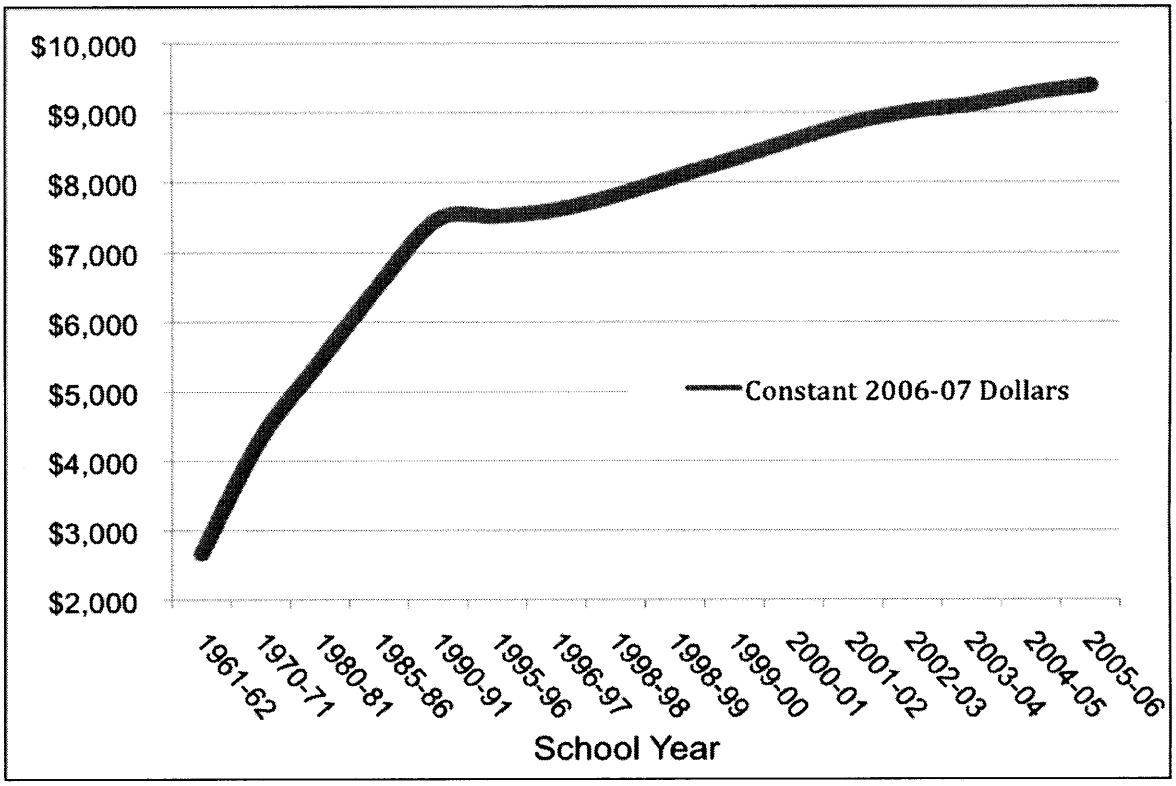
Numerous studies have shown that U.S. urban public schools replicate but do not alter the inequalities and privileges of their communities (Ayers et al.; Noguera). This connection between schools and neighborhoods has been challenged over time and has gradually shifted away from its historic local emphasis. The tenets of the urban neighborhood school have deteriorated opening the way for alternative policies like the school choice movement to redefine the school to neighborhood connection.

A Shift to Charter Schools

As explained the above, the ideal of the neighborhood school was no longer the reality for many cities. However, many of the concerns were initially segmented into individual topics of concern: governance, funding, segregation, etc. By the 1970s these were concerns shifted to a deep alarm about the outcome and the future of the U.S. public education system and its neighborhood schools.

Despite significant increases in education spending in the US, student performance did not significantly improve (see figure 1). In 2005-06 school year nationwide public elementary and secondary expenditures totaled $449.6 billion dollars (U.S. Department of Education, National Center for Education Statistics). Per pupil funding elementary and secondary spending had increased nearly 10 percent in the 5 years between 2005-06 and 2000-01 and nearly 25 percent in the 10 years since 2005-06 after being adjusted for inflation. Even more dramatically per pupil funding had increased more than 250 percent since 1961-62, after being adjusted for inflation. However the steady increase in education spending was not matched with improvements in student academic performance.

Figure 1: Total per Pupil Expenditures for U.S. Elementary and Secondary Education



Source: NCES, Digest of Education Statistics, 2003

The concerns over U.S. school performance were validated by the notable 1983 report, *A Nation at Risk,* produced by then Secretary of Education T.H. Bell's National Commission on Excellence in Education convened by President Reagan (The National Commission on Excellence in Education). The report sounded an alarm about the "rising tide of (educational) mediocrity that threatens our very future as a Nation and a people" and concerns that the diminishment of the US workforce jeopardized the ability to compete in global economics. It documented that

- Average verbal SAT scores dropped "over 50 points" between 1963 and 1980
- Average math SAT scores dropped "nearly 40 points" between 1963 and 1980
- Only one-third of 17-year-olds tested could solve "mathematics problem[s] requiring several steps."
- And only one-fifth of 17-year-olds tested could "write a persuasive essay"

A Nation at Risk moved the push for educational reform up to the national agenda. Policymakers, politicians, and parents searched for solutions to the crisis in Traditional Public School (TPS). This gave rise to the School Choice Movement and later charter schools.

School choice refers to a wide array of programs aimed at allowing families' access to public funds to enroll their children in a school they select. Forms of school choice include:

- Open enrollment laws
    - Allows students to attend unassigned public schools
- Parochial schools
- School vouchers
- Charter schools
- Magnet schools

The movement rests on the tenet that parents are best positioned to choose the optimal educational environment for their child. Historically, school choice advocates did not back one school form over another and did not advocate against traditional neighborhood school, rather for alternatives options. This has changed over time with some school choice advocates, including President Ronald Reagan, calling for disbandment of the traditional education system (Reese). The school choice movement has consistently advocated for students to have the option to attend schools outside of their geographically assigned school.

Public Charter Schools (PCS) currently make up the strongest and largest component of the School Choice Movement. The term charter originated by educator Ray Budde who published a paper titled *"Education by Charter"* in 1974 (Kolderie). In 1988 president of the American Federation of Teachers (AFT) Albert Shanker, expanded on Budde's idea. Shanker publicized the notion of local school boards chartering teachers to open and operate new schools to develop innovative practices to be reincorporated back into traditional schools (whereas Budde's charters were for existing schools).

In 1991, the first charter school law was passed in Minnesota. It was followed by California in 1992 and a total of 19 states by 1995 (Buckley and Schneider). Charter school laws vary and therefore the definition of a charter school also varies. Massachusetts Secretary of Education defined charter schools as "modern, market-based solution to the contemporary education problems…inside the public school system and subject to public regulation…[but] freed from the control of school district bureaucracies" (Merseth et al.). However, even this definition would not hold in other states.

I define *a U.S charter school as a public school established by a charter between a authorizing body and an organizing group to operate a school for a specified time, independent of many of the local and state education regulations.* This definition incorporates the four uniform aspects of charter schools across states:

1. Charter Schools are public schools not private schools:
    a. They may not charge tuition and are funded by public education dollars.
    b. They are mandated to teach all students meaning they are bound by all civil rights provisions and can not restrict admission based on intellectual or athletic characteristics
    c. They can not teach religion
    d. If they are oversubscribed, they cannot pick students and must randomly select from the pool of applying students.
2. Charter Schools are established by a charter agreement
    a. They are submitted to, reviewed by, and approved by an authorizing body
    b. They are bound to the contractual charter agreement.
3. Charter Schools are independent:
    a. They are governed as a discrete legal entity under the established charter agreement.
    b. They are not required to report on a daily basis to the local school board that grants them the charter.
    c. They receive waivers from state laws and from many state and local administrative rules.
4. Charter Schools are Term Limited
    a. They are restricted to operate during the time period granted in agreed upon charter at which point they are eligible for renewal or closure.

In addition, there are a number of features frequently found in charter schools that are not found in all state legislation defining charter schools. These include features of charter schools such as:

- Outcome based schools that set forth detailed conditions and expectations for student achievement results.
- Innovative schools that are labs of educational experimentation aimed at developing new teaching and learning strategies and approaches.
- Non-unionized schools freed from the collective bargaining agreements. This contributes to charters as independent schools because they are not required to abide by union contracts that dictate the school's calendar, daily schedule, salaries, teaching methods, etc. of teachers and administrators.

- Achievement gap schools that may target, but not restrict, underserved students including those lacking educational opportunities, facing learning problems, or having developmental needs.

Charter schools are regulated by a contract between the individual charter school and the school's sponsoring body. Sponsoring bodies vary and can include local or state boards of education, city mayors, independent chartering boards, or a collation of teachers (Lubienski). The sponsoring body issues a school charter for a specified term, typically three to five years. During this time a charter can be revoked and at the conclusion to the contract term a charter can be terminated, or renewed. Revocation, termination, and renewal are based on the sponsoring body's evaluation of the charter school's ability to comply with and met the requirements of the charter contract typically, but not necessarily, involving drawing students and showing educational progress.

Almost anyone can organize and establish a charter school: parents, teachers, community members, business leaders, universities, non-profit organizations, foundations, and more. However, the number of charter schools in a given jurisdiction is often capped by an annual or absolute limit. Charter schools are somewhat legally and financially autonomous educational entities free from many local and state education codes. However charter schools do have to adhere to certain restrictions regarding health, safety, and civil rights (Merseth et al.). Decisions on curriculum, assessment, discipline, budget, scheduling, hiring, and management are left to each school with varying levels of review by each charter school's authorizing body and board of trustees. Charter schools, unlike private schools, are allocated education funds from students traditional public school district and as public school may not charge tuition. However, they are free to raise funds from outside donors and have the autonomy to spend school funds subject to annual review of the authorizing body.

Charter school advocates argue that charters provide a new schooling mechanism able to produce better educational results for students. Authors John Chubb and Terry Moe argue that traditional public schools' attempt to serve all students needs resulted in large bureaucratic schools that became unresponsive to individual students and parent (Chubb and Moe). Advocates of charter

schools promote that there are numerous ways charter schools are equipped to yield improvements over traditional public schools. These improvements include:

- Act as a catalyst for improvement in non-charter schools and throughout the public school system through competition and choice.
- Encourage innovation because they operate as independent and legally autonomous entities and are not restricted bureaucratic obstructions.
- Commit to focus on results because they are bound by their charter contract and can be closed for failing to produce academic results.
- Expand public school choices for all, but particularly for students at risk by providing a financially viable option to unsuccessful traditional schools.
- Provide new and increased professional opportunities for teachers with more latitude in the classroom.
- Require little or no additional money and few resources to implement or sustain.

The various rationales supporting charter schools align with many of the principles supporting the School Choice Movement. Advocates maintain that charter schools will provide parents education choices, no longer trapping parents in failing neighborhood schools or neighborhood schools ill-matched to serve a child's interests or needs. Charter school supporters assert that they allow parents to exercise Albert Hirschman's model of *Exit, Voice, and Loyalty* (Hirschman). Hirschman posits that faced with a declining good, individuals have two possible responses, exit and withdraw from the good or voice their concerns and attempt to repair the good. And the decision between exit and voice is heavily influenced by the individual's level of loyalty. Charter school proponents argue that traditional schools a) prevent parents from exiting their school and b) inhibit efforts of parents voicing their concerns through cumbersome traditional school bureaucracies.

Charter schools enjoy support from a myriad of groups. Many libertarians and conservatives back charter schools alignment with choice and free market principles (Buckley and Schneider). Some low-income and minority communities celebrate charter schools that can commit to serving academically and economically disadvantaged students and can provided culturally relevant curriculum. Some young urban professional families support charters as opportunity to avoid costly private schools, failing public school and suburbanization. Charter schools allow philanthropic foundation to invest in and monitor specific education initiatives. And finally,

some teachers support the ability to teach outside of educational bureaucracy, union restrictions, and restrictive teaching methodologies.

Critics of charter school also challenge charter schools on a number of grounds. Opponents maintain that charter schools:

- Degrade traditional public schools by creaming the most resourceful students and their families.
- Violate the democratic principles of education by creating a student market place where school seats are a collection of distinct limited commodities and not a public good equal and accessible to all.
- Fail to serve as 'public' schools because they are not freely shared among citizens and therefore do not advance the public good.
- Hinder holistic student development through an over emphasis on results in tested subjects like math and reading, while diminishing other subjects like social studies and science.
- Teach low-income and minority students using didactic or directed teaching, different from the constructivist or inquiry based teaching used for predominately white middle and upper class students.
- Embed assimilation, discipline, and white middle-class values into the teaching of low-income and minority students.
- Denies teachers rights to organize, due process, and workplace standards through unionization.
- Siphon funds from traditional public schools, inhibiting them from serving their students and communities.

Interestingly, Hirschman's *Exit, Voice, and Loyalty,* takes up the example of a declining public school and is critical of 'exiting' out of public schools (Hirschman). He argues that withdrawing from declining schools facilitates voice in the entered school and continued decline in the exited schools. Hirschman concludes that in the case of schools, it may be better for schools and for children to prevent parents from moving as a means of preserving active voice.

The largest opposition for charter schools comes from the teachers unions, specifically the National Education Association (NEA) (Merseth et al.). Some in the Democratic Party challenge the number of for-profit charter school organizations and the potential privatization of public

schools. In addition, civil rights leaders have expressed opposition to the high rates of segregation in charter schools. A number of states in the Northeast do not have charter school legislation, in part due to their predominately non-urban environments.

Perhaps the largest debate between charter school proponents and opponents is over the academic success of charter school students. There is ongoing dispute over the performance of charter students. Unfortunately, it is difficult to assess charter schools in comparison to traditional public schools because there is considerable variation between individual schools. However, there is consensus that there are a number of charter schools that have been extremely successful at producing high academic results for students, especially narrowing the achievement gap between poor minority students and white students. However, whether charter students are faring better than, the same as, or worse than their traditional public school students, is an area of contention. Findings vary depending on the researches':

- Scale –school, city, state, or national
- Methodology –panel, cohort, or snapshot, and
- Commissioner –academic, government, philanthropic, newspaper, etc.

This makes drawing conclusions from the myriad of studies challenging.

The research that concludes charter schools out perform traditional public schools spans the three categories discussed above. The 5th edition of the National Alliance for Public Charter's report, *Charter School Achievement: What We Know,* reviewed the studies on charter school performance and concluded that "charters outperform comparable traditional public schools" (Hassel and Terrell). A report for the Boston Foundation found "generally… large positive effects for [Boston] Charter Schools, at both the middle school and high school levels" using two different methodologies and control for background characteristics (Abdulkadiroglu et al. 9). A study by Woodworth et al. found that KIPP charter schools in the Bay Area make larger achievement gains in math and reading than students in the traditional school district (Woodworth et al.). These all point to charter school students: nationally, in a city, and for a given school, outperforming their counterpart students in traditional schools.

However, these are countered by similar caliber studies that can or do not conclude that charter

school performance exceeds traditional public schools. A 2009 report of 16 states by the Center for Research on Education Outcomes (CREDO) at Stanford University found that "17 percent of charter schools reported academic gains that were significantly better than traditional public schools, while 37 percent of charter schools showed gains that were worse than their traditional public school counterparts, with 46 percent of charter schools demonstrating no significant difference" (CREDO). Two articles in the journal, Education Finance and Policy, concluded that charter school students in Florida and in North Carolina were achieving smaller gains than traditional public school students (Bifulco and Ladd; Sass).

In Chicago and Florida, researchers with the think tank, the RAND Institute, found that charter high school students had higher graduation rates and a greater probability of attending college than their traditional public school peers (Booker, Gill, et al.; Booker, Sass, et al.; Zimmer et al.). Educational economist Caroline Hoxby found that New York charter school students outperform their equivalent public school students in a report in 2000 and then again in 2004 (Hoxby; Hoxby,, Murarka,, and Kang; Hoxby, and Rockoff). In both cases her findings were criticized and the methodology questioned.

A 2006 paper from the National Center on School Choice Conference, best summarizes the takeaway from the back and forth debate around student achievement in charter schools. It stated that no reliable conclusions could be derived from the existing studies because of methodological limitations and conflicting results. "Most experts can agree... that charter school quality varies widely, and [is] often associated with the rigor of authorities that grant charters. New York, where oversight is strong, is known for higher performing schools. Ohio, Arizona and Texas, where accountability is minimal, [shows]... many poorly performing [charter] schools" (Gabriel).

The ambiguity around the academic success of charter school students is hotly contested because charter school legislation is widespread and growing. By 2009 forty states, the District of Columbia, and Puerto Rico had laws authorizing charter schools (*2009 Public Charter School Dashboard*). Despite this, charter schools still make up a minimal percentage of the overall U.S. primary and secondary education sector. As of the 2008-2009 school year only 2.9 percent of all

public school students attended charter schools nationwide. Table 1 illustrates the characteristics of charter schools and charter students' nation-wide.

Table 1: Nationwide Characteristics of Charter Schools and Charter Students, 2008-09

	Charter Number	Charter Percentage	Non-Charter Public
Students Enrolled	1,439,749	3%	47,647,804
Estimated Waitlists	365,000		
Students Race / Ethnicty			
White	559,607	39%	53%
Black	452,076	31%	17%
Hispanic	333,209	23%	22%
Asian	58,479	4%	5%
Other	36,377	3%	3%
Students Free or Reduced Price Lunch Status			
Eligible for FRPL	511,884	36%	45%
Ineligible for FRPL	927,865	64%	55%
Students Geographic Locale			
City	730,183	57%	29%
Suburbs	312,763	24%	35%
Town	77,742	6%	13%
Rural	169,370	13%	23%
Schools in Operation	4,638	4.7%	93,855
School's Average Years Open	6.3		
Open 1-3 Years	1,344	29%	
Open 4-6 Years	1,226	26%	
Open 7-9 Years	941	20%	
Open 10+ Years	1,127	24%	
Growth in Charter Schools			
New Charters in Fall '08-'09	456	6.8%	
Closed Charters in '08-'09	3		
Charter Schools Grade Levels			
Elementary Schools	2,108	45%	56%
Middle Schools	484	10%	17%
High Schools	1,058	23%	17%
Middle/High Schools	469	10%	7%
Elem/Mid/High Schools	519	11%	3%
Charter School Creation			
Conversion	504	11%	
Start-Up	4,134	89%	
Charter Schools Geographic Locale			
City	2,332	54%	25%
Suburbs	945	22%	28%
Town	364	9%	15%
Rural	652	15%	32%

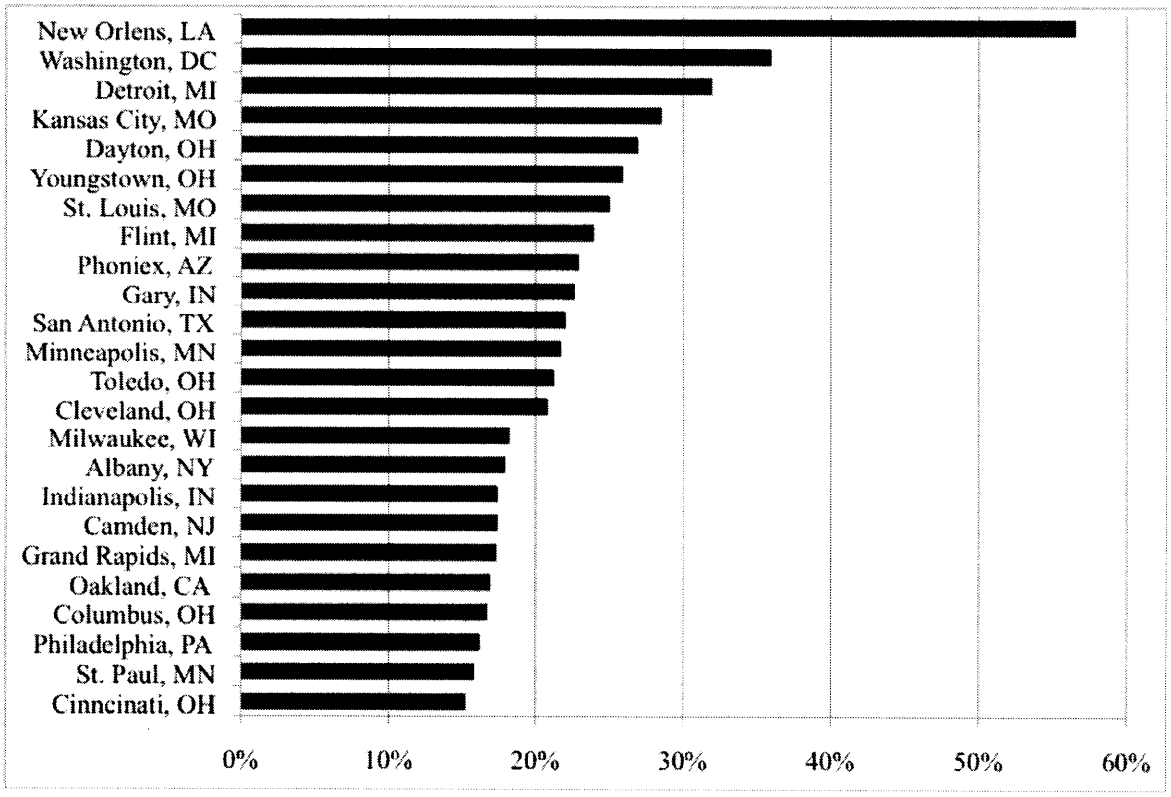
Source: National Alliance for Public Charter Schools Dashboard

In spite of their small national role, charter schools serve a significant percentage of public

school students in U.S. cities. Over half of all public charter students reside in cities. More specifically charter schools disproportionately serve urban Black students. Over 30 percent of all charter school students are Black, compared to less than 17 percent of non-charter public school students.

The employment of charter schools varies across the nation. Over half of the states and jurisdictions with charter school legislation also have caps on the number of charter schools permitted. Figure 2 charts those school districts with the highest proportion of charter school student enrollment. The District of Columbia's high share of charter students provides an example of the potential direction of charter school growth in other U.S. cities. By analyzing differences between DC's charter school and traditional public school opportunities by geographic area, I provide insight into the education options found in neighborhoods and what they might mean for planners in the future.

Figure 2: Percent of 2008-09 Public Charter Students by School District



Source 1: National Alliance of Public Charter School Dashboard

SCHOOLS IN WASHINGTON, DC

The District of Columbia is home to one of the most robust charter school systems in the nation. However this burgeoning charter school system surfaced out of an embattled educational environment. DC Public Schools (DCPS) have regularly been ranked as one of the worst state or district school systems nationwide for the past two decades. The city is a key example of the breakdown of the neighborhood schools ideal outlined above. The DC education system struggled with failures in local academics, local governance, local funding, local management and more. Many of the physical school buildings at the center of neighborhoods were as dilapidated, unsafe, and abandoned as the communities they served. And DC's schools poor academics and tough school environment facilitated negative social impacts like families leaving the cities, concentration of poverty in classrooms, and limited preparation for college or employment. The failings of the neighborhood school ideal bolstered the call for drastic DC school reform and provided the space for charter schools to grow into a dominant feature of the city's education environment.

Despite a number of internal and external reforms, DC's local school governance has continued to flounder. The DC school system has struggled with its unique and complex governance structure. The District of Columbia is not a state nor is it a city within a state. Therefore the city lacks the standard channels of state, town, or county oversight found in most cities in the U.S. Instead DC's school system oversight comes from a hybrid of government entities. Congressional oversight, supervisory boards, mayoral offices, and community elections all have a role, creating a convoluted school governance environment.

DC's school board is currently comprised of five elected members, five members appointed by DC's mayor, and two student members without voting rights. Unlike the 'common school' model "the District has never had an independent elected school board with taxing authority" (Levy). "Since 1906 no fully appointed school board has been chosen by the same officials who provide the system's funding" (Levy). The authority over schools was divided, with the elected Mayor, City Council, Congress, or the City's Chief Financial Officer controlling funding and the School Board and Superintendent controlling instructions and administration. Steven Diner explained that this division reflected the "tension between the desire for centralized administration of all city services versus the protection of education from the potential political influence of central city government" (Diner, "The Governance of Education in the District of Columbia"; Diner, "Crisis of Confidence"). These tensions culminated in the 1996 take over by the presidentially appointed Control Board after independent organizations, consultants, civic organizations, and resident surveys all pointed to failed school management and student achievement (Levy).

The severity of problems found in DCPS schools was daunting. The 1996 financial Control Board reported that on average, 40 percent of public school students left 9th grade before graduation. And it concluded that the longer students remain in DCPS schools, the "less likely they are to succeed educationally" (Levy). Even after the Control Board takeover, governance mismanagment was rampant. In 1998 the District government disclosed a projected $62,000,000 in overspending by DCPS on personnel and other items for the fiscal year.

However, the challenges facing DCPS extended beyond local governance and academics. DC schools illustrated how the neighborhood environment extends into the school. The disrepair and crime found in DC's communities plagued the schools. The school suffered from years of neglect, with no significant capital improvements and no new schools built between 1980 and 1998 (Parents United for the D.C. Public Schools). A 1994 court "found thousands of life-threatening violations including: defective fire doors, exposed wiring, breached ceilings, defective alarm systems, and serious electrical problems" (Parents United for the D.C. Public Schools). School disrepair continued, requiring schools to open 3 weeks late in 1997 for court ordered repairs of safety violations to heating and cooling systems and the replacement of more

than 50 school building roofs that endangered students and teachers (Levy).

This was coupled with troubling instances of school crime and violence. In 1989 four students were shot directly in front of a DC high school while hundreds of their fellow students fled. Students at one DC elementary school were barred from using the school's playground during recess due to neighborhood violence (Webb). And in 1996 two high school students were fatally shot inside two different schools in separate instances of school violence (Horwitz). By 1996 11 percent of DC high school students reported that they avoided school in the past 30 days because they felt unsafe (Koch). The lack of safety, both for students and of the facilities, made for troubling school conditions. DC's schools did serve as a central image of the surrounding neighborhoods, which unfortunately was one of disrepair and conflict.

Many link the decline of DC's schools to social changes to the regional education environment. Federally legislated residential and school desegregation opened up Virginia and Maryland's suburbs to the DC's Black middle-income families, particularly Maryland's Prince George's County. Prior to desegregation Prince George's County, Maryland had the highest proportion of Blacks in any of the DC's surrounding suburbs (*A Long Day's Journey Into Light: School Desegregation in Prince George's County*, 1986). The county's residential segregation patterns were so profound that in 1974 Prince George's became the largest school district in the US to be forced to desegregate the busing. The busing was implemented quickly, in the middle of a school year, and facilitated a rapid change in the school system. The share of Black students in the county jumped from below 20 percent to more than 77 percent, many of whose families migrated from Washington DC. This left DC's school systems with the less affluent, less mobile Black families increasing the number of students facing hardships and decreasing DC's tax base.

All these factors contributed to an inadequate and dysfunctional DC neighborhood school system. The poor quality of DC schools meant a significant decline in students enrolled in DC public schools. Enrollment dropped more than half in the past 20 years: from 100,000 students in 1980, to 80,600 in 1990, and down to just 45,500 students in 2008 (Turner et al.). Families' exodus from DCPS may have fueled the decline in families citywide. Births to DC residents fell from 20,200 births in 1980, to 11,800 births in 1990, to just 8,000 in 2008. The city and the

public school system have been losing children in recent decades.

The decline of the traditional schools called for reforms outside of DC's traditional public school system, primarily school choice polices and programs. In 2003 DC introduced a disputed federally funded voucher program, which grants an estimated 1,900 DC predominately low-income students a voucher of up to $7,500 to attend a private school (Turner et al.). DCPS also implemented an open enrollment policy with the "out-of Boundary" lottery system in 1994. It allows parents to apply to enroll their child at a DCPS school other than their child's assigned school. A record 5,219 families participated in the 2010-11 school year DCPS "out-of boundary" lottery with every eligible school attracting applicants (Calloway). Recently in 2008, DCPS consolidated the traditional school system, closing 23 traditional public schools citing under enrollment in individual schools and the overall school system. Prior to the closures, DCPS had more than double the national standard of 150 square feet per child and felt this "rightsizing "of space would reallocate funds to provide full education programs at every school.

DC's employment of school choice reforms included the adoption of charter school legislation. The District of Columbia's charter law was passed in 1996 under the DC School Reform Act of 1995. The DC Board of Education (BOE) was the city's original charter authorizer and in 1996 the act was amended to establish the DC Public Charter School Board (PCSB) as a second independent authorizer.[2] The 1995 School Reform Act allowed authorizers to charter up to 20 schools a year.

While the school choice reforms provide alternatives to DC's failing traditional public school system, they could not directly alter the traditional schools. However, this changed in 2007 when DC Mayor Adrian Fenty succeeded in receiving DC City Council, US House of Representatives, U.S. Senate, and President George W. Bush's approval to bring the schools under direct control of the Mayor's Office (also know as mayoral control). The District of Columbia Public Education Reform Amendment Act of 2007 also included the following shifts in education governance:

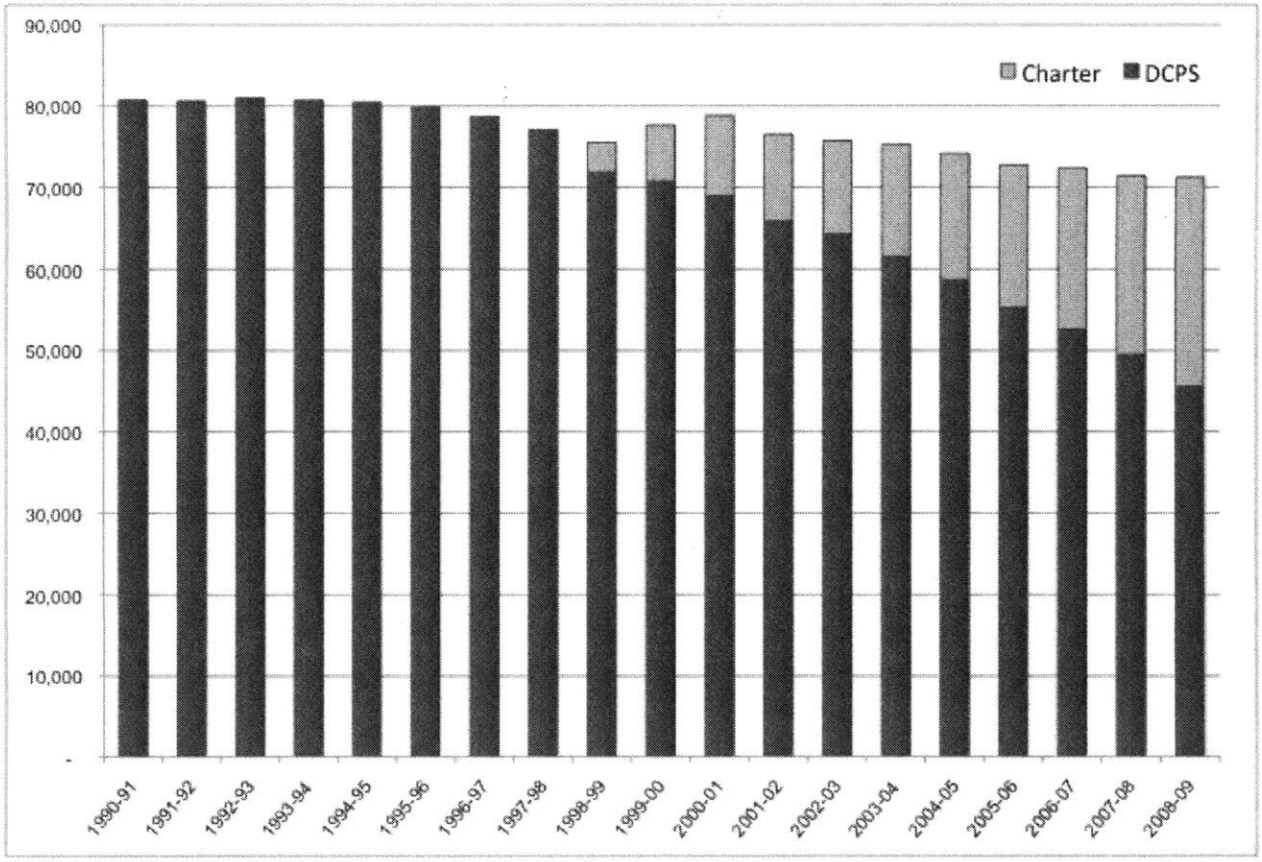
[2]The BOE was dissolved under the 2007 Education Reform Act and all charter school authorizing responsibilities are now held by the PCSB.

- Shifted DCPS to a subordinate agency under the Mayor
- Established a DC Dept. of Education, headed by Deputy Mayor for Education
- Created a Schools Chancellor, appointed by the Mayor and confirmed by the Council
- Required the Mayor to submit DCPS budget to Council for approval
- Established the Office of the State Superintendent of Education (OSSE previously the State Education Office) as the Chief State School Officer for the District.

These efforts were directed at reforming and restructuring the DC traditional school system. Mayor Fenty appointed Michelle Rhee as Chancellor of DC public schools. To date, reforms have produced moderate improvements for DCPS students on the Comprehensive Assessment System (DC CAS) for achievement testing. However, both have suffered from declining DC resident support and dissatisfaction around transparency, decision-making, and community involvement.

While neither Mayor Fenty, nor Chancellor Rhee have authority over DC's charter school system one of the key components to their education strategy is establishing a charter friendly school environment in Washington, DC. Both have advocated continuing DC's hybrid school system comprised of traditional schools, charter schools, and school vouchers. The poor traditional DC school system coupled with the employment of school choice reform created an educational environment ripe for charter school growth. When first established in 1996, charter schools had only 160 students enrolled. By the 2008-09 school year, DC's had an estimated 28,000 charter students enrolled across 99 campuses (Comey, Price, and Grosz; Turner et al.). The city's public charter schools now educate 38 percent of public school children in Washington, D.C. Figure 3 illustrates the increasing portion of DC public students enrolled in public charter schools. The proportion of DC students attending charter schools is second only to New Orleans Louisiana

Figure 3: Number of DC Public School Students by School Type, 1990-2008



Source: 1: 2009 DC Kids Count Report

With so many students attending charter schools, Washington, DC has taken center stage in the nationwide debate about school choice. By analyzing the differences between DC's charter and traditional school options in neighborhood, this thesis establishes to what extent charter schools revitalize the possibility of obtaining high quality, neighborhood schools. This analysis of the city serves as an example of what planners might expect in other urban areas with failing public schools and growing rates of charter students.

THE STUDY

This thesis investigates the differences between the charter school and neighborhood schools educational opportunities available to families in sections of Washington, DC. I examine the usage, opportunity, success, and access to charter schools across the city to assess how they compare to the traditional neighborhood school model. This study utilizes spatial analysis of quantitative data to examine the geographic differences between charter school and neighborhood school enrollment, performance, and mobility. The aim is to determine whether DC's charter school options are replicating or distinct from the neighborhood schools students would otherwise be required to attend.

Unlike previous analysis on charter schools, this research is focused on the neighborhood geography and not individual students. This addresses the mobility limitations of families. Mobility is not uniform across the city and is influenced by physical isolation, social circumstances, and access to information. These limitations shape the usage of charter schools. Previous studies comparing public charter students3 to traditional public school students of like characteristics fail to consider these mobility factors. This research allows you to ask what are the various school options accessible to families in a given neighborhood by adding location into the analysis of charter schools.

The relationship between charter schools and neighborhoods is complex and the various layers would require a multi-faceted investigation into the development, establishment, marketing,

[3] Public charter students refer to those students enrolled in one of DC's public charter schools (PCS) at the time of the October 2006 count.

operations, and perceptions of each of DC's nearly 100 charter schools and the neighborhoods they serve. That level of analysis is beyond what is feasible for this Masters of City Planning thesis. Thus, the scale of this thesis is narrower and further investigation into the charter school/neighborhood relationship is needed.

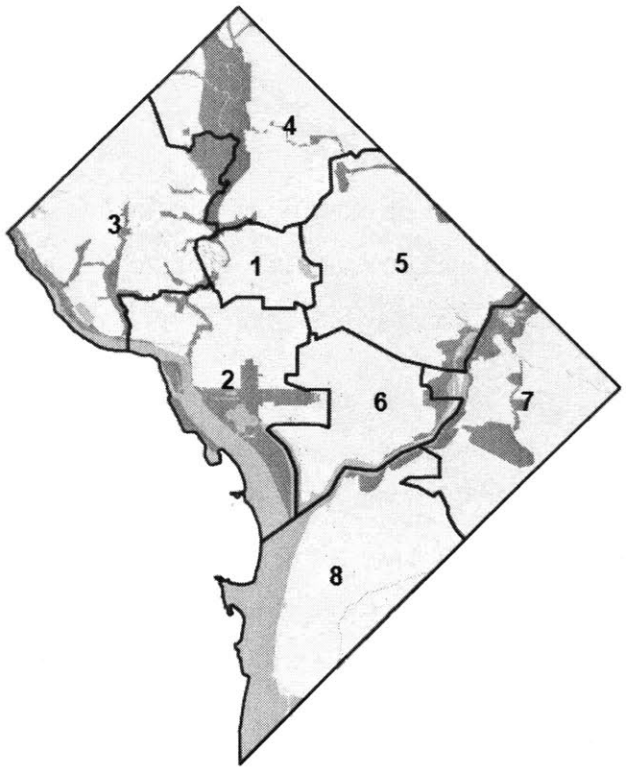
However, by examining charter schools options by neighborhood I can assess whether charters are recreating planner's ideal of a high quality school at the center of a neighborhood. This research updates the traditional conception of the school and neighborhood interaction by incorporating the role of charter schools in this relationship. This thesis provides a bridge between the rich dialogue about charter schools and the dialogues about urban planning, and facilitates future conversations about the interactions of education systems and urban planning.

RESEARCH METHODOLOGY

This research will primarily rely on the spatial analysis of quantitative data, but other methods will also be employed. The unit of analysis is public charter schools in the District of Columbia or DC Public Charter Schools (DCPCS). The level of analysis is DC's wards. This research compares three factors of charter schools to their traditional neighborhood schools: schools enrollment demographics, schools academic quality and the proximity to schools by families.

This research employs three different geographies when spatially analyzing the District of Columbia. The research uses the city's ward, neighborhood clusters, and tri-city blocks for the analysis.

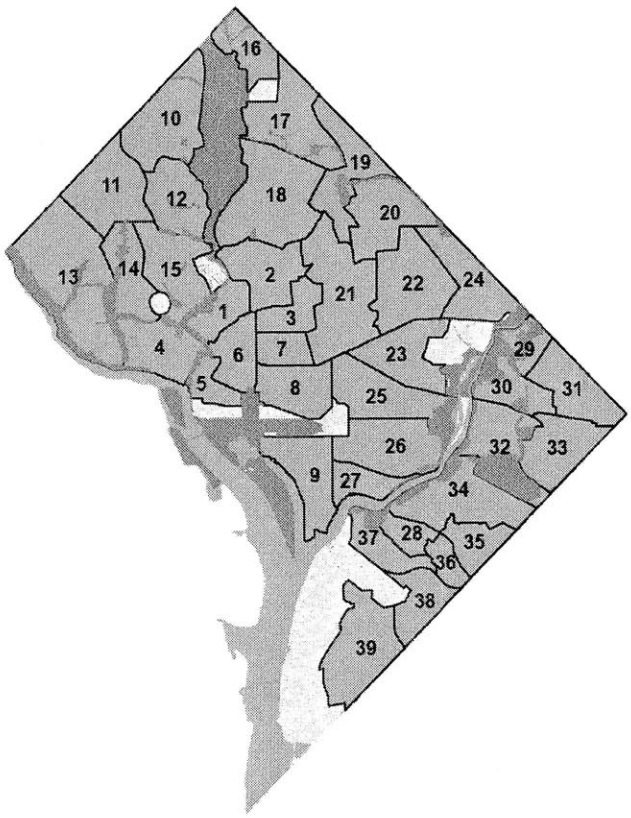
Figure 4: DC Ward Map



The analysis is primarily conducted using the ward level geography. The District is divided into eight geographical areas called wards that are the boundaries used to elect member to the DC City Council (see Figure 4). The wards number 1 through 8, starting with the center of the city and spiraling out clockwise. Each of the eight wards has a councilmember and

there are four at-large members selected by a citywide vote.

Figure 5: DC Neighborhood Cluster Map



When focusing in on a specific area I utilize the geographic boundary of neighborhood clusters. DC is divided into 39 neighborhood clusters across the city (see Figure 5). Each is made up of three to five of the 131 neighborhoods currently defined by the D.C. Office of Planning and the Office of Neighborhood Action. Neighborhood clusters are used by the D.C. government for budgeting, planning, service delivery, and analysis purposes, but are not tied to any official seat of governance. The DC Office of Planning most recently determined neighborhood cluster boundaries in 2000. The neighborhood clusters are not to be confused with the city's 37 Advisory Neighborhood Commission (ANC) districts, which are political boundaries that elect ANC commissioners dating back to 1974.

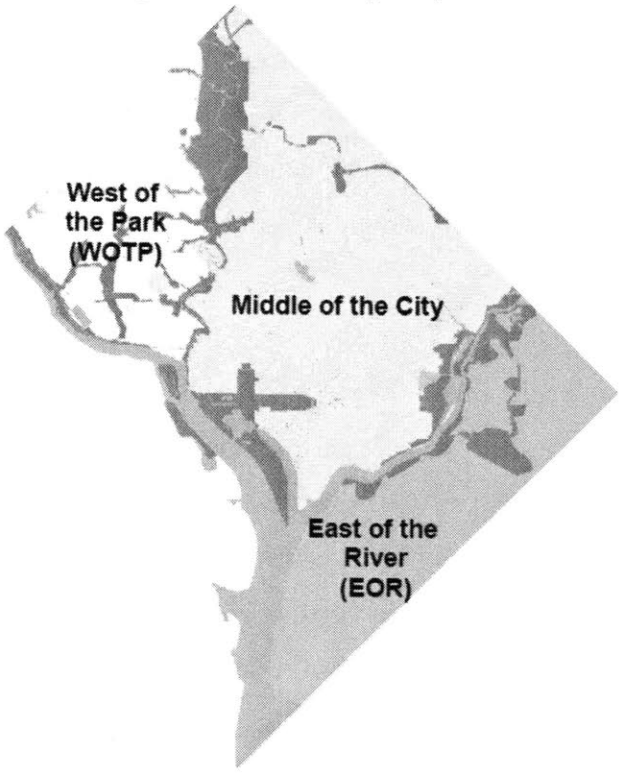
This research will also classify the District into three large blocks (see Figure 6). These blocks are not used in official capacity by the DC government. They are used in the report to refer to large areas of the city with similar characteristics. The three blocks are:

- West of the Park (WOTP), the largely affluent and white area west of Rock Creek Park, which includes all of ward 3. It houses the Washington National Cathedral, Georgetown University, American University, and number of the city's foreign embassies.
- East of the River (EOR), the largely black and low-income area east of the Anacostia River which is made of up of ward 7 and 8. It houses Bolling Air Force Base, Saint Elizabeth's Hospital, and the Anacostia Park along the waterfront.
    - Upper East of the River refers to the northern half of EOR or all of ward 7, which generally follows the area north of Naylor Road in Southeast, DC.

- Lower East of the River refers to the southern half of EOR or all of ward 8, which generally follows the area south of Naylor Road in Southeast, DC excluding Bolling Air Force Base unless otherwise noted.

- Middle of the City (MOC) refers to the area in between West of the Park and East of the River. It includes most of wards 1, 2, 4, 5, and 6. This is area includes the heart of the federal government, most of the national monuments and Smithsonian Institution museums, the central business district, Howard University, high-income officials, the affluent gay and lesbian neighborhood, DC's black middle-class area, Chinatown, the city's Latino population, and various working-wage and young-professional area.

Figure 5: DC Tri-City Map



Throughout the analysis we refer to a ward's traditional public school as the 'neighborhood schools'. While wards are larger than a neighborhood, comparing school data across neighborhood clusters is ineffective since most clusters have only one charter or traditional school. Therefore wards as used as the aggregation level. The analysis will focus on those wards located East of the Anacostia River, ward 7 and 8. The analysis will exclude all early education (pre-kindergarten), adult education, special education, and alternative education schools.

The enrollment demographics are an assessment of area charter schools' student population in comparison to the student population of the neighborhood schools. The analysis identifies area schools' student population demographics including race, free and reduced price lunch status, special education status, grade level, and English language proficiency. It examines whether area charter schools are serving a student population distinct from or similar to neighborhood schools.

The enrollment analysis is to determine the 'clientele' utilizing charter schools.

The enrollment data comes from a research project by DC non-profit organizations: the 21st Century School Fund, the Urban Institute, and the Brookings Institution. This data was collected from DCPS, the Board of Education, and the Public Charter School Board for SY 2006-07 and is summarized by neighborhoods clusters and wards in order to protect student confidentiality. The data captures enrollment at DC's official October count and summarizes characteristics of every student in DC (i.e., race/ethnicity, age, grade level, free and reduced lunch, LEP/NEP, home address, school type, and school attended) at the neighborhood cluster level.

The academic quality analysis is an assessment of existing area school's achievement levels. It includes the school location and each schools academic achievement results and available resources. The schools performance quality is measured as school testing results on the 2007 DC Comprehensive Assessment System (DC CAS). School resource measures include average classroom size, student teacher ratio, portion of highly qualified teachers, and average funding per pupil. It examines whether area charter schools are producing better academic results and a higher level of school resources than their neighborhood school counterparts. The school quality analysis is to determine if area charter schools are producing higher quality school options over neighborhood schools.

The school quality analysis data comes by combining data from a series of sources. School outcome data comes from each school's 2007 DC Comprehensive Assessment System (DC CAS) testing results. It is reported as the percentage of enrolled students scoring: at or above basic testing standards and at or above proficient testing standards. DC CAS testing is conducted for grades 3 through 8 and grade 10 in math and reading. It is important to note that standardized test scores are a limited measure of student academic achievement and does not address the curriculum, exploration in non-tested subjects, critical thinking, or the learning process. Nonetheless, testing results are widely used as a measure to assess school quality. Information on school resources comes from annual No Child Left Behind (NCLB) reports and the 2006 Facility Master Plan, DCPS, and a school program assessment complied by the 21st Century School Fund.

The final analysis of proximity is an assessment of the students' ability to access area charter schools or other schools across the city. It considers the distance students travel to commute to school and how they might limit student access to a school location. This also includes area schools portions of students coming from within the ward as compared to other portions of the city. The school proximity analysis is to determine whether area charter schools are drawing students from a similar geographic area as neighborhood schools.

The proximity analysis data comes from a supplemental data of the aforementioned 2008 *Quality Schools, Healthy Neighborhoods, and the Future of DC Research Report* (Turner et al.). Distance traveled to schools comes from tables made available by the 21st Century School Fund calculated by the distance between the geocoded student household address and the geocoded school address (Turner et al., 2008). Commute distance were calculated as the direct aerial transit path between the students home and school locations. It does not incorporate transit modes or commute times and is an estimate of ease or hardship of accessibility to the school. We are able to compare DC's neighborhood school to area charter schools because DC's schools have no transportation system. All public school parents and students are responsible for the commute either by walking, driving, or using DC public transportation system.

In addition to the sections outlined above, there are a number of data sources used intermittently throughout the research analysis. The 2000 Decennial Census provides information on neighborhood cluster characteristics such as poverty rates, and educational attainment. The Urban Institute's Neighborhood Info DC collects a series of characteristics from across DC government agencies including crime reports gathered from DC's Metropolitan Police Department. District's Office of Tax and Revenue's Real Property provides property data to assess area housing markets.

To supplement spatial quantitative analysis I conducted interviews with key stakeholders in DC education, charter schools, and housing and neighborhood development when needed. I also reviewed the relevant literature on neighborhood schools, charter schools, and DC schools. These interviews and literature review supplement the quantitative spatial analysis and provide

context for the data results. Interviews were also a way to get thoughts from key stakeholders about the existing gaps in the education and housing literature.

There are significant limitations to my research. I did not have access to individual student level longitudinal data set. All of the student level data is aggregated at the school, neighborhood cluster, or ward level. Therefore, there are number of analyses permutations I was unable to perform. Much of the neighborhood characteristic data is from a decade ago. The research uses 2000 census data because the 2010 census results have not yet been released, and the American Community Survey and other more recent population surveys do not provide data smaller than the city level. The research also combines data from a number of different time periods. Some of the neighborhood characteristics are from 2000, analysis of students is from the 2006-07 school year, student distance is from 2006-07, data on schools were updated to reflect 2008-09 data wherever possible, real estate market data and crime data are from 2009.

Despite these limitations I am able to analyze area charter schools enrollment demographics, academic quality, resources, and student proximity. I compare this research to the traditional neighborhood schools in order to assess whether area charter schools provide an alternative for local families or replicate existing options.

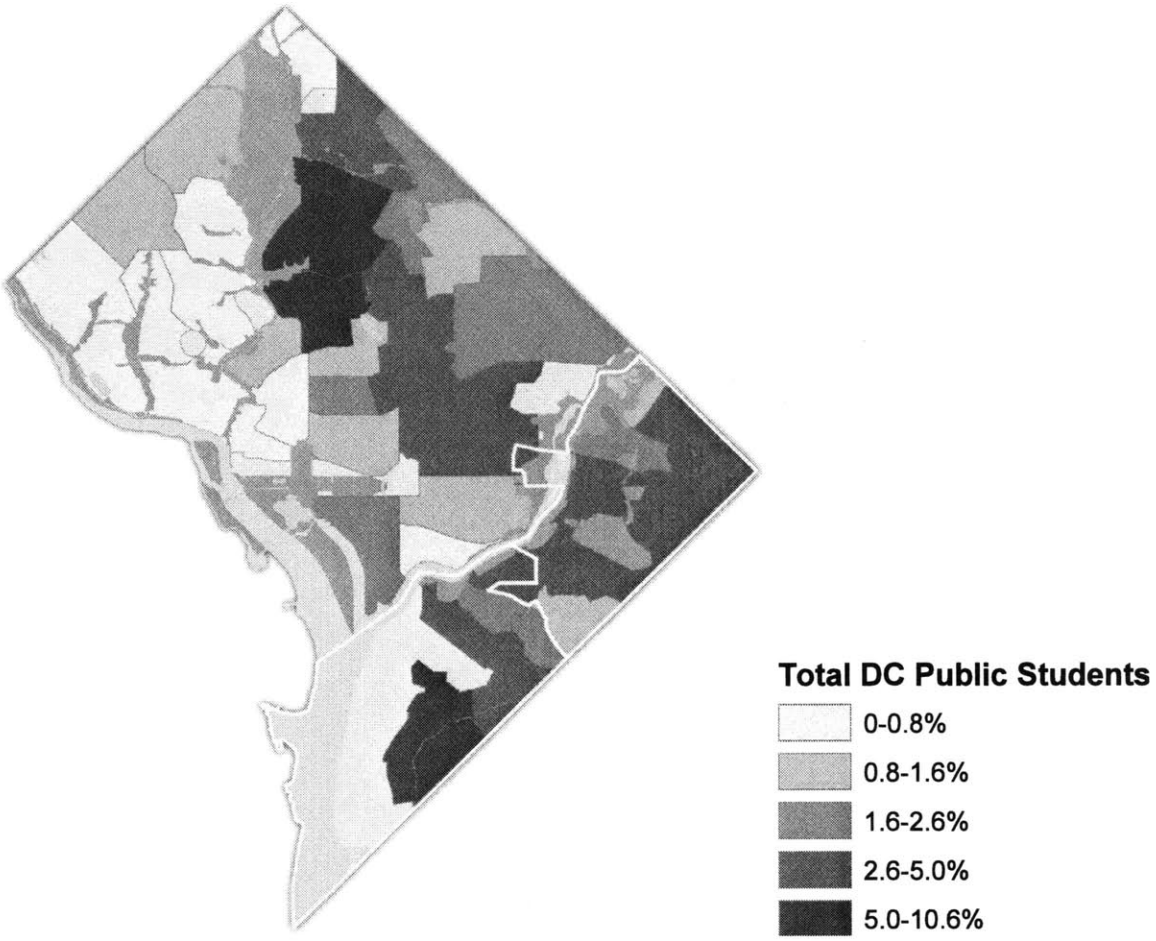
FINDINGS

This analysis comparing charter schools to traditional neighborhood schools begins by understanding student distribution of DC public students. Traditionally, neighborhood schools would be concentrated in areas with a large public school age population.[4] Therefore, public schools seats would only be evenly distributed across the city if public school age children were evenly distributed across the city.

However, as Figure 7 illustrates, the distribution of public school students in Washington, DC is not uniform across the city. Public school students refer to all students attending a DC public school, traditional or charter, at the time of the October 2006 count. It clearly illustrates the high concentration of public school students East of the Anacostia River in ward 7 and 8. The students who lived East of the River in the 2006-07 school year made up almost half (45 percent) of the entire public school population. However, East of the River comprises just under a quarter (24 percent) of the total city population (all adults and children). This in comparison to West of the Park, which has only 4 percent of the public school population compared to nearly 13 percent of the total city population. These proportions highlight the vast difference in student densities when analyzing school numbers across DC.

[4] School age population refers to all of the District's children between the age 5 and 17, regardless of their type of school.

Figure 6: Spatail Distribution of DC Public School Students



Enrollment Demographics

The comparison of charter schools to their neighborhood schools begins by analyzing the schools' demographic composition. This allows us to understand if the population of a classroom in a charter school is significantly different from what we might find in the local area school.

The demographics of Charter schools' East of the River are very close to the demographics of area neighborhood schools. Table 2 compares the demographics between East of the River's two schools types. Both enroll a student body that is over 97 percent Black. They also both serve almost no students that qualify for English language proficiency. However, there are slight differences between elementary and secondary charters and neighborhood schools. Elementary

schools are those schools that offer grades kindergarten through 5th grade and combined elementary and middle schools that offer grades kindergarten through 8th grade. Secondary schools include middle schools, junior high schools, high schools, and senior high school. Secondary schools offer any interaction of grades 6 through 12 that do not include below 5th grade and do not offer adult education.

Table 2: East of the River Schools Racial Composition, 2006-07

	Percentage of Students		Number of Students		
	DCPS	Charter	DCPS	Charter	Total
ELEMENTARY					
Ward 7					
Asian	0.1%	0.2%	6	2	8
Black	99.2%	96.3%	6,672	1,006	7,678
Hisp	0.2%	1.0%	14	10	24
Other	0.0%	0.2%	1	2	3
White	0.5%	2.4%	32	25	57
			6,725	1,045	7,770
Ward 8					
Asian	0.0%	0.0%	2	-	2
Black	98.8%	99.3%	5,452	796	6,248
Hisp	1.1%	0.7%	63	6	69
Other	0.0%	0.0%	2	-	2
White	0.0%	0.0%	-	-	-
			5,519	802	6,321
East of the River					
Asian	0.1%	0.1%	8	2	10
Black	99.0%	97.6%	12,124	1,802	13,926
Hisp	0.6%	0.9%	77	16	93
Other	0.0%	0.1%	3	2	5
White	0.3%	1.4%	32	25	57
			12,244	1,847	14,091
SECONDARY					
Ward 7					
Asian	0.0%	0.2%	-	6	6
Black	99.4%	96.7%	2,011	3,473	5,484
Hisp	0.3%	2.6%	7	94	101
Other	0.0%	0.3%	1	11	12
White	0.2%	0.2%	4	7	11
			2,023	3,591	5,614
Ward 8					
Asian	0.0%	0.0%	-	-	-
Black	99.8%	99.6%	1,276	526	1,802
Hisp	0.2%	0.2%	2	1	3
Other	0.0%	0.0%	-	-	-
White	0.0%	0.2%	-	1	1
			1,278	528	1,806
East of the River					
Asian	0.0%	0.1%	-	6	6
Black	99.6%	97.1%	3,287	3,999	7,286
Hisp	0.3%	2.3%	9	95	104
Other	0.0%	0.3%	1	11	12
White	0.1%	0.2%	4	8	12
			3,301	4,119	7,420

Elementary charter schools serve approximately the same rate of students qualifying for free and reduced price lunch status (74 percent) and nearly the same rate of students whose homes are located in high poverty census tracts (58 to 61 percent) as does neighborhood schools. The largest demographic difference at the elementary school level is that neighborhood schools enroll nearly twice as many students qualifying for special education status than East of the River (EOR) charter schools.

Secondary charter schools serve a slightly different student population than neighborhood schools compared to EOR elementary schools. EOR secondary charter schools enroll a higher rate of students qualifying for free and reduced price lunch (79 percent) compared to neighborhood schools (66 percent). Similar to EOR elementary schools, there are twice as many students qualifying for special education status (24 percent) that the EOR secondary charter schools (12 percent). A key difference is that EOR secondary charter schools enroll fewer students who live in high poverty census tracts, 52 percent to area neighborhood schools 69 percent.

I then examine individual East of the River schools in detail to assess variation by school. All EOR charter and neighborhood schools show little variation in the racial composition of the school. Every charter and traditional school except one is comprised of 90 percent or more Black students. The same is true for English proficiency; no school has more than 5 percent of its students qualifying for language proficiency status. A higher proportion of free and reduced lunch status students in EOR secondary charter schools may be due to charters success enrolling older students in the program. East of the River secondary charter schools enroll a comparable rate (37 percent) of students living in high poverty census tract to EOR secondary neighborhood schools, whereas elementary charter schools enroll a lower proportion (13 percent) than neighborhood elementary schools (23 percent).

While there are small differences between the student demographics of East of the River charter schools and their counterpart neighborhood schools, these differences are minimal compared to the differences between charter school and their neighborhood schools in other portions of the

city. There are no elementary charter schools West of the Park and only one secondary charter school West of the Park (WOTP). The WOTP secondary charter has a higher portion of white students, and a lower portion of black students, students receiving subsidized lunch, and almost no students with special education status in comparison to the WOTP neighborhood secondary schools.

The charter schools in the Middle of the City vary the most from their traditional neighborhood schools. Charter schools in wards 5 and 6 have similar racial demographics to their neighborhood schools. However, wards 1, 2, and 4 enroll over 13 percent more Black students than their neighborhood schools. The elementary charter schools in each ward in the Middle of the City also enroll a lower proportion of students on subsidized lunch than their neighborhood schools.

The school demographic analysis shows that charter schools East of the River largely replicate the student populations found in the traditional public schools East of the River. Students enrolled in EOR charter school are likely to find classrooms that closely match the makeup of the traditional public schools in that community. By contrast, students who attend a charter school West of the Park or in the Middle of the City will, on average attend a school with a different racial composition and fewer students qualifying for free or reduced price lunch than in their neighborhood school.

School Quality

Alone, charter schools enrollment demographics provide only one aspect of comparison to traditional neighborhood schools. In order to fully understand how an areas charter schools compare to area neighborhood school we must also examine difference in school quality.

The charter schools located East of the River produce better academic testing results than neighborhood public schools for both elementary and secondary students. Table 3 shows the percentage of students scoring at or above basic and at or above proficient on the DC CAS in math and reading.

Table 3: Traditional versus Charter School Quality

	Percent of Students				Number	
	DCPS	PubC	Total	Diff	DCPS	PubC
Elementary Results						
Ward 7						
Read above basic	79%	82%	79%	3%	4,366	546
Read above Prof	29%	28%	29%	-1%	1,592	184
Math above basic	64%	73%	65%	8%	3,558	487
Math above Prof	20%	21%	20%	2%	1,079	142
Ward 8						
Read above basic	77%	88%	79%	10%	5,190	915
Read above Prof	29%	49%	31%	20%	1,932	510
Math above basic	63%	80%	65%	18%	4,215	841
Math above Prof	17%	36%	20%	19%	1,151	378
East of the River						
Read above basic	78%	85%	79%	7%	9,556	1,461
Read above Prof	29%	40%	30%	12%	3,523	694
Math above basic	63%	78%	65%	14%	7,773	1,328
Math above Prof	18%	30%	20%	12%	2,231	519
Secondary Results						
Ward 7						
Read above basic	59%	92%	80%	32%	1,200	3,290
Read above Prof	13%	42%	32%	29%	271	1,504
Math above basic	44%	84%	70%	40%	900	3,016
Math above Prof	10%	37%	27%	27%	211	1,329
Ward 8						
Read above basic	51%	95%	57%	44%	1,633	503
Read above Prof	9%	43%	13%	34%	276	225
Math above basic	39%	91%	47%	52%	1,257	482
Math above Prof	8%	53%	14%	45%	256	282
East of the River						
Read above basic	54%	92%	71%	38%	2,834	3,793
Read above Prof	10%	42%	24%	31%	547	1,729
Math above basic	41%	85%	61%	44%	2,157	3,498
Math above Prof	9%	39%	22%	30%	467	1,611

East of the River secondary charter schools scored much higher than their neighborhood secondary schools. On average they yielded gains of 30 to 40 percent across all testing levels. The percentage of students scoring at or above basic in traditional secondary schools East of the River average between 40 to 0 percent. EOR secondary charter schools' results jumped to around 90 percent in wards 7 and 8. Likewise, the percentage of students scoring at or above proficient

averaged approximately 10 percent for EOR neighborhood secondary schools. This number also increased to around 40 to 45 percent for East of the River secondary charter schools. This indicates that secondary charter schools East of the River are producing a distinct product from the EOR neighborhood schools. They provide higher academic results for a largely similar demographic population.

East of the River elementary charter schools also showed stronger academic results compared to neighborhood elementary schools, but the gains were more modest than EOR secondary charter schools. East of the River elementary charters yielded average gains of approximately 10 percent across all levels. The percentage of students scoring at or above basic in EOR neighborhood elementary schools was between 65 to 80 percent. This number increased modestly in EOR elementary charter schools to around 85 percent. Similarly DCPS elementary schools averaged between 20 and 30 percent of students scoring proficient or above. In some cases these scores rose to nearly 50 percent at or above proficient in EOR elementary charters and in others the scores remained almost constant.

The modest increase in results for East of the River charter elementary schools was not uniform between the two wards. Elementary charters in ward 8 seem to have performed better than those in ward 7. Upon closer examination, we find that four EOR charter elementary schools perform in the bottom quarter of the city's elementary charter schools and Nia Community Public Charter School is the third worst performing elementary charter school in the city. However, there is one high performing charter elementary school East of the River in ward 8, Howard Road Academy Public Charter School, which is the highest performing elementary charter school in the DC. Howard Road PCS' high academic performance and comparable area student demographics, provides an example for how planners might reconnect to high quality neighborhood charter school.

However, looking at individual schools highlights an important aspect to this methodology for analysis. Comparing the higher scores of charter schools to the scores of neighborhood schools minimizes the vast differences in neighborhood school performance. Charter schools East of the River are able to make sizeable gains over neighborhood schools because EOR neighborhood

schools score significantly below the rest of the city. EOR neighborhood schools provide the most opportunity for improvement on standardized tests in charter schools. The testing gains made by EOR elementary charter schools still leave them lagging behind elementary charter performance in nearly every other ward in the city.

Charter schools in other wards in the city did not produce test score increases over neighborhood schools as large as the increases from charters East of the River. The one secondary charter school West of the Park produced modest gains of approximately 10 to 15 percent over neighborhood schools. Charter schools in the Middle of the City yielded mixed results. On average they produced almost no improvements over elementary neighborhood schools and minimal improvements over secondary neighborhood schools. Generally, elementary charter schools yielded gains of 10 percent or less and in some cases their scores declined compared to neighborhood schools. The results for secondary charter schools in the Middle of the City were more varied, with ward 5 yielding around 25 percent gains and ward 2 yieldeing around 5 percent losses.

One element of a school's quality is its resources. East of the River charter secondary schools are using similar or better resources than neighborhood secondary schools. They provide a higher rate of highly qualified teachers (87 percent) than neighborhood secondary schools (39 percent). However, they have similar student-teacher ratios and rates of per pupil funding. Elementary charter schools East of the River have approximately the same allocation of resources or slightly lower resources. EOR elementary charters have the same share of highly qualified teachers and per pupil funding as the neighborhood elementary schools. However, EOR elementary charter schools actually have slightly worse student-teacher ratio than neighborhood elementary schools (15 versus 12 students per teacher).

This is similar to other areas of the city. Wards West of the Park and in the Middle of the City had higher proportion of highly qualified teachers and lower student teacher ratios in secondary charter schools compared to their neighborhood wards schools. However, the resources in elementary charter schools in the Middle of the City showed a mix of higher and lower resources compared to neighborhood schools. Wards 2, 4 and 6 had lower rates of highly qualified

teachers compared to area neighborhood schools. These were also the wards that saw slight declines in elementary charter school testing results compared to their neighborhood elementary schools.

The school quality analysis suggests that charter schools East of the River do not replicate the academic outcomes found in the traditional public schools East of the River, nor do they provide a considerably different academic experience. They provide a modest improvement to the poor performing neighborhood schools East of the River. The secondary charter schools EOR do provide significantly higher academic results for charter students than neighborhood secondary schools. Elementary charter schools EOR provide slight academic improvements for charter students compared to their neighborhood elementary schools. Meanwhile, charter schools in the rest of the city produce modest gains or losses compared to area neighborhood schools. This suggests that East of the River charter schools provide the best opportunity for students to gain access to even moderately higher academic results over the neighborhood schools.

Proximity to School

The final analysis compares student proximity to charter school in comparison to neighborhood schools. This determines whether charter schools attract students from a similar geographic area as neighborhood schools, or if the demand for charter schools is distinct.

The charter schools East of the River are utilized almost exclusively by students who live East of the River. Elementary charter schools' students travel an average of 1.2 to 1.5 miles to school in comparison to an average of 0.6 to 0.7 miles for neighborhood schools. This is the shortest average commute distance for a ward's charter schools in the city and is especially revealing since East of the River is less dense than the Middle of the City. This is confirmed when we examine the geographic location of students in charter schools in wards 7 and 8. Over 75 percent of the charter schools in ward 8 and over 95 percent of the charter schools in ward 7 draw their students from wards 7 and 8 (see Table 4). Charter schools East of the River are drawing from the local area. However, the entire East of the River area is considered the local geography. This is similar to the practice of a geographically limited boundary for neighborhood schools, but

drawing from a wider geographical area.

Table 4: Percent School Distribution by Ward, 2007-08

		Ward of Student's School								
		1	2	3	4	5	6	7	8	Total
Ward of Student's Home	1	40%	14%	15%	10%	6%	4%	2%	0%	1,793
	2	4%	11%	4%	2%	2%	2%	1%	0%	345
	3	1%	3%	36%	0%	0%	0%	0%	0%	117
	4	23%	15%	27%	52%	13%	5%	4%	0%	2,689
	5	12%	17%	8%	18%	40%	11%	11%	1%	2,866
	6	5%	10%	5%	4%	9%	22%	8%	2%	1,427
	7	7%	12%	3%	6%	14%	26%	53%	12%	3,825
	8	7%	19%	2%	8%	17%	31%	23%	84%	4,057
	Total	2,619	560	177	2,393	3,217	2,404	4,136	1,613	17,119

This is significantly different from the proximity of students in charter schools throughout the rest of the DC. Charter schools' enrollments in the Middle of the City indicate high rates of mobility. On average, elementary charter schools' students travel between 1.7 miles in ward 1, the smallest and densest ward in the city, up to 2.4 miles in ward 4. This is much higher than neighborhood elementary schools' students' commuting distance, which average between 0.8 and 1.6 miles. Ward 4 is the only ward in the Middle of the City that attracted more than 50 percent of its charter students from within the ward. Instead most of the charter schools in the center of the city draw students from the surrounding wards and even East of the River.

Further analysis uncovers an interesting trend. The data conflicts with the belief of an 'open market' of charter schools with students moving freely throughout the city. The 'open market' theory largely holds true for those charters located in the Middle of the City. In these wards we see high rates of student mobility between wards in order to attend charter schools. This includes sizeable portions of students (up to 30 percent) coming from homes East of the River to attend charter schools in the Middle of the City. However, this open market does not hold true for

charter schools East of the River. EOR charter schools are largely only able to attract students from within the ward and East of the River.

The distance analysis indicates that charter schools East of the River are serving a more broadly defined local community similar to EOR neighborhood schools. EOR charter schools classrooms are almost entirely students that live East of the River. This suggests that while EOR charter schools produce the best, albeit modest, academic gains over their neighborhood schools in the city, they do not attract students from other portions of the city. Charter schools that want a geographically, racially or economically diverse student populations are constrained by locating East of the River where the charter schools and neighborhood school populations are fairly homogenous.

CONCLUSIONS

This thesis provides insight into the ability of the District of Columbia's charter schools to revitalize the possibility of obtaining high quality, neighborhood schools. The analysis reveals that there are three distinct educational environments within the District of Columbia's public school system. Each educational environment is comprised of a unique combination of charter school demographic composition, academic quality, and student proximity as compared to the neighborhood schools. Therefore, each requires a different urban planning strategy to improve the opportunity of providing high quality, neighborhood schools throughout the city.

DC's Educational Environments

West of the Park's educational environment relies almost exclusively on traditional neighborhood schools. There is only one charter school located West of the Park, Washington Latin Public Charter School, which enrolled 178 students in grades 5 through 7. The charter school enrolls a higher proportion of White students and a lower proportion of low-income students than the traditional public schools. It performs slightly better than the local neighborhood schools and nearly two-thirds of the charter schools' students live in other areas of the DC. For the West of the Park area, the comparison between charter schools and neighborhoods schools is uninformative. Traditional neighborhood schools dominate the educational environment rendering the impact of charter schools immaterial. The West of the Park area has high quality, neighborhood schools provided through the traditional school system.

The Middle of the City's educational environment is comprised of a mixture of charter schools

and traditional neighborhood schools. There are a large number of charter schools located in the Middle of the City. It is home to two-thirds of the city's charter schools seats. These charter schools enroll a higher proportion of Black or Latino students and around the same proportion of low-income students than the area traditional public schools. However, on average they produce no significant improvement in academic quality over neighborhood schools. Despite the lack of academic results, charter schools in the Middle of the City attract students from across the District. This area's comparison of charter schools to neighborhood schools highlights that many charter schools do not provide a higher quality educational opportunity over their neighborhood schools. Yet, these same charter schools are still in high demand, attracting an array of students and families. The Middle of the City's hybrid system provides no clear avenue to high quality, neighborhood schools.

East of the River's educational environment also combines charter schools and traditional public schools. There are a modest number of charter schools compared to the share of charter students, one-third of the city's charter schools seats versus nearly one-half of the charter students. The East of the River charter schools enroll a population that closely resembles the student population in the traditional neighborhood schools. Both school types have high concentrations of low-income Black students. The elementary charter schools perform moderately better than the local neighborhood elementary schools, while the secondary charter schools perform significantly better than neighborhood secondary schools. More than three-fourths of the charter schools' students live in the same area as the school. The comparison of this areas charter schools and neighborhood schools indicates East of the River charter schools, on average, provides a modest increase in the opportunity for a higher quality of education. However, East of the River provides high quality, neighborhood schools for secondary students through a limited number of charters schools.

RECOMMENDATIONS

These three geographic areas and their corresponding findings are specific to my analysis of Washington, DC's education environment. However, the areas represent broader categories that can be found in cities throughout the country. West of the Park is an area which represents affluent, White, families in mid-density urban communities. The Middle of the City characterizes high-density communities with a diverse population including middle-income urban families. Finally, East of the River represents racially and economically segregated communities with high concentrations of poverty. These broader categories allow me to draw inferences and raise questions for DC, but that are also generalizable to communities in other cities. My recommendations are directed to urban planners and limited to those strategies planners could enact. I suggest how urban planners might respond to the aforementioned educational environments in order to repair the links between schools and neighborhoods.

Traditional Neighborhood Schools

Affluent White communities like those found West of the Park have maintained the old image of urban neighborhood schools. These areas have little problem creating high quality, neighborhood schools. Here, planner's focus should be on how areas similar to West of the Park can use the historical models to create school and neighborhood interactions in traditional neighborhood schools. This would entail reestablishing schools as physical and social centers of the neighborhood.

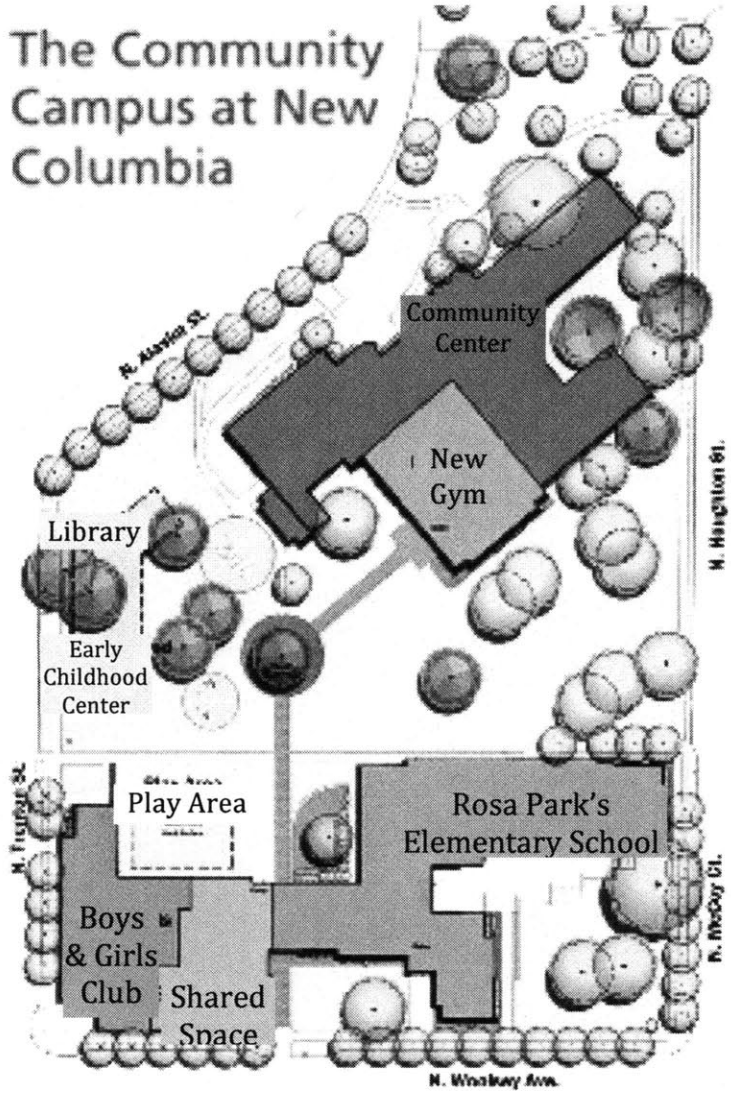
However before planners in communities similar to West of the Park can work towards the

historical neighborhood school ideal, they must address the fragmentation of school planning and city planning (Glazer). "The separation of school facility planning from municipal land use planning [means] that there is often no institutional framework that even creates a space for these planning entities to plan together" (Vincent 434). Generally planners have no role in school site location, lot size, physical design, urban integration, rehabilitation, maintenance, or shared use. This creates a significant barrier to coordinating efforts of planners and schools. It also means planners are currently unresponsive to schools' sizeable monetary investment in communities' built environment. The DC public school system spent over $1.8 billion in capital expenditures between 2000 and 2009, including nearly $104 million on the West of the Park's schools (21st Century School Fund).

So, how can planners influence neighborhood schools' sizeable investments in the built environment? What if city planners and school planners were required to coordinate their efforts? Would it add another cumbersome layer of bureaucracy or facilitate cross sector commitment to education and neighborhoods? Would this make it easier for schools to be used as community centers?

I venture that pushing planners to engage with school planners and managers will benefit both fields. It would pave the way for award winning collaborative projects like the New Columbia Community Campus in Portland Oregon (see Figure 10). This does not involve a radical expansion of planners into the field of education. Rather, I recommend that planners engage with school authorities similar to how we coordinate with transportation, recreation, development, and service agencies.

Figure 7: New Columbia Community Campus



Portland, Oregon's New Columbia Community Campus was built by combining funding from a number of sources citywide.

- Replace the facility of the deteriorating Rosa Park's Elementary School for City of Portland and Portland Public School
- Provide a community Center for the Housing Authority of Portland's New Columbia Hope VI development
- Build a new facility for the local chapter of the Boys and Girls Club

A Hybrid School System

Areas like the Middle of the City require planners to accommodate two distinct school type missions. The charter schools are oriented to serve only the students that are enrolled in the school, not the broader population in the surrounding neighborhood (A. Allen). In contrast, traditional neighborhood schools are oriented to serve all students in a given geographic area (Glazer). Planners must simultaneously engage the people-based charter schools and the place-based traditional schools.

In the area like the Middle of the City, planners will likely confront people-based charter schools

that disregard place and student proximity to the school as an issue for consideration. Instead, they embrace their student mobility rates as "manifestation of the declining significance of distance" (Henig 651). However, planners should note that these charter schools are not geographically neutral. Charter schools do not simply locate where traditional schools' scores and efficiency are the lowest (Glomm, Harris, and Lo). Instead, charter schools concentrate in certain parts of the city, so as to attract particular families and convey a certain social mobility or status (Bell).

Planners should be aware that in a hybrid system charter school's presence has created tensions within or between a charter schools' surrounding geographical areas. Anne Allen explained that local residents resented area charter schools that walled themselves off, "like a private school," and didn't engage with the local community (A. Allen 102). In other cases residents have opposed charter schools as outsiders opening up an establishment insensitive to the existing neighborhood dynamics. In DC, several neighborhoods groups strengthened zoning regulations making it harder for charter schools to open in residential neighborhoods (B. L. Foster). The choice to attend a charter school may foster tensions between residents when the choice is seen as a challenge to neighborhood "solidarity. (Cuero, Worthy, and Rodríguez-Galindo 251). Finally, a number of authors have cautioned that charter schools could potentially provide a parallel school system for the new 'family gentrifiers' of "middle class professionals who are also parents" (Hankins 113-114; Hayward). For example, Washington, DC's Two Rivers Public Charter School was sued for admissions discrimination because the student body had a disproportionate share of white students (B. L. Foster).

These hybrid educational environments require planners to balance between strategies. How do planners promote people-based charter schools from a place-based profession? Can urban planning promote charter schools neighborhood presence without antagonizing traditional neighborhood schools? Will the dual system increase tensions in cities when families or communities advocate for one side of the mixed school system? Will the marketing of charter schools influence the neighborhood composition or real estate market a neighborhood?

Neighborhood Charter Schools

Segregated low-income, minorities like those found East of the River provide an opportunity to develop a new concept of a neighborhood school. Here we introduce a new classification, neighborhood charter schools. These are the charter schools in areas like East of the River that predominately serve their own communities' students and families. However, the structure, mandate, and tools of charter schools are different from traditional public schools. Therefore, planners must adapt, rather than replicate the historical relationship between schools and neighborhoods to fit the new neighborhood charter schools.

Neighborhood charter schools require planners to reconsider their definition of local. These charter schools still draw from their nearby communities, however they serve a larger geographical area. Therefore a 'local' charter school might primarily service students in a 1 to 1.5 mile radius, where as the traditional school would have service a 0.5 mile radius. If these charter schools are to connect with their neighborhoods, planners may need to rethink the scale for defining a neighborhood. In addition these neighborhood charter schools may locate using a "ring effect, where schools locate near but not within high need areas...presumably to increase the image and possibly the reality of security" (Henig 652). This would disregard Perry's theory of a school center for a neighborhood charter school adjacent to or at the edge of the neighborhood rather than in the middle.

A challenge for planners is that neighborhood charter schools largely replicate the spatial isolation of marginalized communities and facilitate homogenous schools (Taylor and Gorard). These racially and economically segregated schools will struggle to attract students from more affluent neighborhoods if they are located in "unattractive" low-income minority communities (Dyckman). This creates a dilemma. Planners can partner with or promote these neighborhood charter schools that are able to provide families with modest academic improvements, at the risk of perpetuating and maybe even exacerbating the residential segregation patterns of the city (Bell; Dyckman). Or planners can disregard or oppose neighborhood charter schools for inhibiting planning's efforts to mix-incomes and foster diversity in communities, at the expense of modest academic gains for area schools and potential socioeconomic advancement of children in the future.

As a new entity, neighborhood charter schools generate a number of questions. How can planners help attract additional high performing, neighborhood charter schools? How can neighborhood charter schools demonstrate a commitment to the neighborhood? What happens if they relocate and leave? What about neighborhood charter schools that mimic the racially and economic segregation of the surrounding communities? How does this align with planning policies that promote mixed-income communities and remove residential segregation?

Many of these questions are being explored through programs that link charter schools with social services in a specific neighborhood. The Harlem Children's Zone and the federal Promise Neighborhoods Initiative are testing the concept of neighborhood charter schools ("Hope or Hype in Harlem"). I maintain that planners need a seat at the table for these discussions. Otherwise, planners may miss the opportunity to shape the development of the neighborhood charter school.

Diverse, high-density communities like those found in the Middle of the City present significant challenges to rebuilding neighborhood and school links. In these areas there is no clear pathway to high quality, neighborhood schools. Instead, planners will need to engage with a myriad of school actors: charter and traditional schools, lower quality neighborhood schools, and high quality schools not linked to neighborhoods.

The changing urban education system presents challenges to conventional approaches of neighborhood planners. The consequences of this shift impact both urban planners and city schools. Yet, planners have continued to operate unaware of these new schools dynamics and many of our policies continue to assume a uniform traditional school model. Urban planning must develop new strategies that address the changing educational environment and incorporate charter schools as a part of the urban landscape. I conclude that without new dialogues and policies we run the risk of reshaping the links between schools and neighborhoods that damage planners and educators' goal of high quality, neighborhood schools for all.

BIBLIOGRAPHY

2009 Public Charter School Dashboard. Washington, DC: National Alliance for Public Charter Schools, 2009. Print.

Abdulkadiroglu, Atila et al. *Informing the Debate: Comparing Boston's Charter, Pilot and Traditional Schools.* Boston, MA: The Boston Foundation, 2009. Web. 10 May 2010.

Allen, Ann. "Changing Ties: Charter Schools Redefine the School-Community Connection." *Journal of School Public Relations* 27.1 (2006): 84-119. Print.

Ayers, William et al. *City Kids, City Schools: More Reports from the Front Row.* New Press, 2008. Print.

Baines, Lawrence, and Hal Foster. "A School for the Common Good." *Educational Horizons* 84.4 (2006): n. pag. Web. 18 May 2010.

Banerjee, Tridib, and William C. Baer. *Beyond the Neighborhood Unit: Residential Environments and Public Policy.* 1st ed. Springer, 1984. Print.

Bell, Courtney. "Geography in Parental Choice." *American Journal of Education* 115.4 (2009): 493-521. Web.

Bifulco, Robert, and Helen F. Ladd. "The Impacts of Charter Schools on Student Achievement: Evidence from North Carolina." *Education Finance and Policy* 1.1 (2006): 50-90. Print.

Booker, Kevin, Brian Gill, et al. *Achievement and Attainment in Chicago Charter Schools.* Santa Monica, CA, 2008. Web. 20 May 2010.

Booker, Kevin, Tim R. Sass, et al. *Going Beyond Test Scores: Evaluating Charter School Impact on Educational Attainment in Chicago and Florida.* Santa Monica, CA, 2007. Web. 20 May 2010.

Bradbury, Katharine L., Anthony Downs, and Kenneth A. Small. *Urban Decline and the Future of American Cities*. Washington, DC: Brookings Institution, 1982. Web. 20 May 2010.

Brussat, William K., and Svend Riemer. "The Neighborhood as a Function of School and Childhood: A Critique of the Use of the Elementary School as the Focal Point in Neighborhood Planning." *Journal of Educational Sociology* 25.1 (1951): 5-15. Print.

Buckley, Jack, and Mark Schneider. *Charter Schools: Hope or Hype?* illustrated edition. Princeton University Press, 2007. Print.

Calloway, Jennifer. "Parents Flood DCPS with Out-of-Boundary and Early Ed Applications." *District of Columbia Public Schools* 11 Mar. 2010. Web. 10 May 2010.

21st Century School Fund. *DCPS Capital Expenditures 1998-09 and Planned 2010-19*. Washington, DC: 21st Century School Fund, 2010. Print.

Chubb, John E., and Terry M. Moe. *Politics, Markets and America's Schools*. Brookings Institution Press, 1990. Print.

Comey, Jennifer, David Price, and Michel Grosz. *Every Kid Counts in the District of Columbia: 15th Annual Fact Book 2008*. Washington, DC: D.C. KIDS COUNT Collaborative for Children and Families, 2008. Web. 20 May 2010.

CREDO. *Multiple Choice: Charter School Performance in 16 States*. Stanford, CA: Stanford University: Center for Research on Education Outcomes (CREDO), 2009. Print.

Cremin, Lawrence A. *Republic and the School: Horace Mann on the Education of Free Man*. Teachers College Press, 1957. Print.

Cuero, Kimberley K, Jo Worthy, and Alejandra Rodríguez-Galindo. "Middle School Choices for Bilingual Latino/A Youth: When the Magnet School Represents "Status" and the Neighborhood School Represents "Solidarity"." *The Urban Review* 41.3 (2009): 251-268. Print.

Curtis, Henry S. "The Neighborhood Center." *The American city*. Buttenheim Pub. Corp., 1912. Print.

Danzberger, Jacqueline P. "Governing the Nation's Schools: The Case for Restructuring Local School Boards.." *The Phi Delta Kappan* 75.5 (1994): 67-73. Print.

Danzberger, Jacqueline P, M. W. Kirst, and M. D. Usdan. "Governing Public Schools: New Times, New Requirements.." *Institute for Educational Leadership* (1992): 137. Print.

Diner, Steven J. "Crisis of Confidence: Public Confidence in the Schools of the Nation's Capital in the Twentieth Century.." *Urban Education* 25.2 (1990): 112-137. Print.

---. "The Governance of Education in the District of Columbia: An Historical Analysis of Current Issues. Studies in D.C. History and Public Policy Paper No. 2.." *University of the District of Columbia, Department of Urban Studies* (1982): 81. Print.

Dollars and Sense: A Simple Approach to School Finance. Little Hoover Commission, 660 J Street, Suite 260, Sacramento, CA 95814 ($5)., 1997. Web. 18 May 2010.

Dyckman, John W. "Comment On Glazer's School Proposals." *Journal of the American Planning Association* 25.4 (1959): 196-199. Print.

Ficker, Douglas J. "From Roberts to Plessy: Educational Segregation and the "Separate but Equal" Doctrine." *The Journal of Negro History* 84.4 (1999): 301-314. Print.

Fischel, William A. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies.* Harvard University Press, 2005. Print.

Foster, Brooke Lea. "What's Going on in DC's Charter Schools." *Washingtonian.com* 1 Oct. 2006. Web. 20 May 2010.

Gabriel, Trip. "Despite Push, Success at Charter Schools Is Mixed." *The New York Times* 1 May 2010. Web. 8 May 2010.

Gillette Jr., Howard. "The Evolution of Neighborhood Planning: From the Progressive Era to the 1949 Housing Act." *Journal of Urban History* 9.4 (1983): 421-444. Print.

Glazer, Nathan. "The School as an Instrument in Planning." *Journal of the American Planning Association* 25.4 (1959): 191-196. Print.

Glomm, Gerhard, Douglas Harris, and Te-Fen Lo. "Charter school location." *Economics of Education Review* 24.4 (2005): 451-457. Web.

Hanifan, L.J. "The Rural School Community Center." *The ANNALS of the American Academy of Political and Social Science* 67.1 (1916): 130-138. Web.

Hankins, Katherine. "The Final Frontier: Charter Schools as New Community Institutions of Gentrification." *Urban Geography* 28.2 (2007): 113-128. Web.

Hassel, Bryan C., and Michelle Godard Terrell. *Charter School Achievement: What We Know.* Washington, DC: National Alliance for Public Charter Schools, 2006. Print.

Hayward, Steven. "The "Neighborhood Effect" of School Choice." *Policy Review* (1999): n. pag. Print.

Henig, Jeffrey R. "Geo-Spatial Analyses and School Choice Research." *American Journal of*

Education 115.4 (2009): 649-657. Web.

Hirschman, Albert O. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Harvard University Press, 1970. Print.

"Hope or Hype in Harlem." *City Limits Magazine* Mar. 2010. Web. 20 May 2010.

Horwitz, Sari. "Measures to Make D.C. Schools Safer Fall Fatally Short." *The Washington Post* 30 Jan. 1995. Web. 17 May 2010.

Hoxby, Caroline M. "Does Competition among Public Schools Benefit Students and Taxpayers?." *The American Economic Review* 90.5 (2000): 1209-1238. Print.

Hoxby,, Caroline M., Sonali Murarka,, and Jenny Kang. *How New York City's Charter Schools Affect Achivement, August 2009 Report*. Cambridge, MA: New York City Charter Schools Evaluation Project, 2009. Print.

Hoxby,, Caroline M., and Jonah E Rockoff. *The impact of charter schools on student achievement*. Unpublished paper: Harvard University, 2004. Print.

Hoy, Wayne K., and Cecil G. Miskel. *Contemporary issues in educational policy and school outcomes*. IAP, 2006. Print.

Kaestle, Carl F. *Pillars of the Republic: Common Schools and American Society, 1780-1860*. 1st ed. Hill and Wang, 1983. Web. 3 Apr. 2010.

Keating, W. Dennis, and Norman Krumholz. "Neighborhood Planning." *Journal of Planning Education and Research* 20.1 (2000): 111-114. Web.

Koch, Kathleen. "Media see violence up close at D.C. schools." *CNN* 4 Dec. 1996. Web. 17 May 2010.

Kolderie, Ted. "Ray Budde and the origins of the 'Charter Concept'." *Education Evolving* June 2005: n. pag. Print.

Land, Deborah. "Local School Boards Under Review: Their Role and Effectiveness in Relation to Students' Academic Achievement." *Review of Educational Research* 72.2 (2002): 229-278. Web.

Lee, Valerie E., and Robert C. Croninger. "The elements of social capital in the context of six high schools." *Journal of Socio-Economics* 30.2 (2001): 165-167. Web.

Levy, Mary. *History of Public School Governance in the District of Columbia: A Brief Summary*. Washington, DC: Washington Lawyers' Committee for Civil Rights, 2004. Print.

Lubienski, Christopher. "Redefining "Public" Education: Charter Schools, Common Schools,

and the Rhetoric of Reform." *Teachers College Record* 103.4 (2001): 634-666. Print.

Merseth, Katherine K. et al. *Inside Urban Charter Schools: Promising Practices and Strategies in Five High-Performing Schools.* Harvard Education Press, 2009. Print.

Noguera, Pedro. "Transforming Urban Schools Through Investments in Social Capital." *Motion Magazine* 20 May 1999. Web. 18 May 2010.

Parents United for the D.C. Public Schools. *Leaving Children Behind: The Underfunding of D.C. Public Schools Building Repair and Capital Budget Needs.* Washington, DC: Washington Lawyers' Committee for Civil Rights and Urban Affairs, 2003. Web. 17 May 2010.

Perry, Clarence Arthur. "The Rehabilitation of the Local Community." *Social Forces* 4.3 (1926): 558-562. Print.

---. *Wider Use of the School Plant.* New York: Charities Publication Committee, 1910. Print.

Reese, William J. *America's public schools: from the common school to "No Child Left Behind".* Baltimore, Marlyand: The Johns Hopkins University Press, 2005. Web. 3 Apr. 2010.

Resnick, Michael A. *Effective School Governance: A Look at Today's Practice and Tomorrow's Promise.* Denver, CO: ducation Commission of the States, 1999. Web. 10 May 2010.

Sass, Tim R. "Charter Schools and Student Achievement in Florida." *Education Finance and Policy* 1.1 (2006): 91-122. Print.

Silver, Christopher. "Neighborhood Planning in Historical Perspective." *Journal of the American Planning Association* 51.2 (1985): 161. Web.

Taylor, Chris, and Stephen Gorard. "The role of residence in school segregation: placing the impact of parental choice in perspective." *Environment and Planning A* 33.10 (2001): 1829 – 1852. Web.

The National Commission on Excellence in Education. *A Nation at Risk: The Imperative for Educational Reform.* Washington, DC: United States Department of Education, 1983. Web. 16 Mar. 2010.

Turner, Margery Austin et al. *Quality Schools, Healthy Neighborhoods, and the Future of DC.* Washington, DC: The Urban Institute, 2008. Web. 20 May 2010.

Tyack, David. *The One Best System: A History of American Urban Education.* Harvard University Press, 1974. Print.

U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 2008.* 2009. Web. 19 May 2010.

Updegraff, Harlan. *The Origin of the Moving School in Massachusetts.* BiblioBazaar, 2009. Print.

Vincent, Jeffery M. "Public Schools as Public Infrastructure: Roles for Planning Researchers." *Journal of Planning Education and Research* 25.4 (2006): 433-437. Print.

Wagoner, Jennings L., and William N Haarlow. "Common School Movement - Colonial and Republican Schooling, Changes in the Antebellum Era, The Rise of the Common School." 2003. Web. 10 May 2010.

Webb, Margaret K. "Play Area Lost to Violence." *The Washington Post* 8 Feb. 1990. Web. 17 May 2010.

Woodworth, Katrina R. et al. *San Francisco Bay Area KIPP Schools: A Study of Early Implementation and Achievement, Final Report.* Menlo Park CA: SRI International, 2008. Web. 20 May 2010.

Zimmer, Ron et al. *Are Charter Schools Making a Difference? A Study of Student Outcomes in Eight States.* Santa Monica, CA, 2009. Web. 20 May 2010.

WARD 7

	DCPS	Charter	Total	PCT DCPS	PCT Charter
Population					
Students	10,301	4,185	14,486	71%	29%
FRPL	6,724	2,474	9,198	73%	27%
Black	10,155	4,124	14,279	71%	29%
White	14	3	17	82%	18%
Hispanic	121	49	170	71%	29%
Other	11	9	20	55%	45%
Stus School in Own Ward * WnC	6,375	2,177	8,552	63%	57%
Stus School in other Ward					
Ward 1	207	185	392	2%	5%
Ward 2	349	69	418	3%	2%
Ward 3	151	6	157	2%	0%
Ward 4	113	132	245	1%	3%
Ward 5	935	455	1,390	9%	12%
Ward 6	1,170	615	1,785	12%	16%
Ward 8	748	186	934	7%	5%
Schools Stu in own Ward *Wnc	6,375	2,177	8,552	86%	53%
School Stu in other Ward					
Ward 1	19	94	113	0%	2%
Ward 2	16	26	42	0%	1%
Ward 3	1	-	1	0%	0%
Ward 4	28	150	178	0%	4%
Ward 5	133	444	577	2%	11%
Ward 6	97	311	408	1%	8%
Ward 8	733	934	1,667	10%	23%
Elementary					
School in Own Ward	3,593	374	3,967		
Pct in Own Ward, Stu	80%	34%	71%		
Middle School					
School in Own Ward	1,423	797	2,220		
Pct in Own Ward, Stu	70%	68%	69%		
High School					
School in Own Ward	750	926	1,676		
Pct in Own Ward, Stu	29%	72%	43%		
Median Distance by Student	0.60	1.73	0.99		
Elementary	0.34	2.15	0.42		
Middle	0.78	1.81	1.17		
High School	2.12	1.38	1.92		
Number of Students	10,048	3,825	13,873		
Elementary	4,475	1,101	5,576		
Middle	2,031	1,171	3,202		
High School	2,605	1,290	3,895		
MEAN Distance by Student	1.59	2.24	1.77		
Under 0.5 Mile * CnW					
Elementary					
Middle					
High School					
SPED students	1,927	205	2,132	90%	10%
Percent of SPED	17%	7%			
SPED % of Stus	19%	5%	15%		
Schools	23	9	32		
Elementary	17	3	20		
Middle	4	1	5		
High School	2	5	7		
Percentage of All Schools	16.7%	15.0%	16.2%		
Elementary	17.0%	9.1%			
Middle	21.1%	8.3%			
High School	10.5%	33.3%			
Percentage of Area Schools	71.9%	28.1%			
Elementary	85.0%	15.0%			
Middle	80.0%	20.0%			
High School	28.6%	71.4%			
Schools Total Enrollment	7562	4180	11,742	64%	36%
Elementary	5539	802	6,341	87%	13%
Middle	1160	2217	3,377	34%	66%
High School	863	1161	2,024	43%	57%
SECONDARY	2023	3378	5,401	37%	63%
Switches					
Stayed in same school	4,372	2,670	7,042	62%	38%
Switched from one year to next	2,205	933	3,138	70%	30%
Pct Stayed in same school	66	74	141	47%	53%
Pct Switched from one year to next	34	26	59	56%	44%

WARD 7	DCPS	Charter	Total	PCT DCPS	PCT Charter
ELEMENTARY					
Programs	2	0	2		
Classes with HQT	4,876	608	5,484		
Student/Teacher Ratio	76,641	10,460	87,100		
$ per Student	$ 57,029,455	$ 6,921,362	$ 63,950,817		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	3,965	589	4,554	72%	73%
# LEP/NEP Students in School	44	5	49	1%	1%
# of students living in high pov tract	2,382	463	2,845	43%	58%
# of students w/ SPED Status	567	53	620	10%	7%
Results # Stus	5,519	668	6,187		
Results					
Read above basic	4,366	546	4,912		
Read above Prof	1,592	184	1,775		
Math above basic	3,558	487	4,046		
Math above Prof	1,079	142	1,221		
Percentage Results				Diff	
Read above basic	79.1%	81.7%	79.4%	3%	
Read above Prof	28.8%	27.5%	28.7%	-1%	
Math above basic	64.5%	72.9%	65.4%	8%	
Math above Prof	19.6%	21.2%	19.7%	2%	
School Avg Dist					
Mean Distance to School	4208.54	1582.01		0.76	1.97
Median Distance to School	2089.68	1353.34		0.38	1.69
School Racial Comp					
Asian	2	0	2	0.0%	0.0%
Black	5452	796	6248	98.8%	99.3%
Hisp	63	6	69	1.1%	0.7%
Other	2	0	2	0.0%	0.0%
White	0	0	0	0.0%	0.0%

WARD 7	DCPS	Charter	Total	PCT DCPS	PCT Charter
SECONDARY					
Programs	1	4	5		
Classes with HQT	534	3,129	3,663		
Student/Teacher Ratio	24,092	42,179	66,271		
$ per Student	$ 19,274,123	$ 40,643,604	$ 59,917,727		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	1,221	2,668	3,889	60%	79%
# LEP/NEP Students in School	3	15	18	0%	0%
# of students living in high pov tract	1,099	1,725	2,823	54%	51%
# of students w/ SPED Status	426	405	831	21%	12%
Results # Stus	2,023	3,591	5,614		
Results					
Read above basic	1,200	3,290	4,491		
Read above Prof	271	1,504	1,775		
Math above basic	900	3,016	3,916		
Math above Prof	211	1,329	1,540		
Percentage Results				Diff	
Read above basic	59.3%	91.6%	80.0%	32%	
Read above Prof	13.4%	41.9%	31.6%	29%	
Math above basic	44.5%	84.0%	69.8%	40%	
Math above Prof	10.4%	37.0%	27.4%	27%	
School Avg Dist					
Mean Distance to School	3279.99	922.9		1.62	0.27
Median Distance to School	2468.47	733.28		1.22	0.22
School Racial Comp					
Asian	0	6	6	0.0%	0.2%
Black	2011	3473	5484	99.4%	96.7%
Hisp	7	94	101	0.3%	2.6%
Other	1	11	12	0.0%	0.3%
White	4	7	11	0.2%	0.2%
	2023	3591	5614		

WARD 8	DCPS	Charter	Total	PCT DCPS	PCT Charter
Population					
Students	12,023	4,326	16,349	74%	26%
FRPL	8,625	2,698	11,323	76%	24%
Black	11,963	4,293	16,256	74%	26%
White	6	9	15	40%	60%
Hispanic	47	15	62	76%	24%
Other	7	9	16	44%	56%
Stus School in Own Ward * WnC	9,080	1,357	10,437	77%	33%
Stus School in other Ward					
Ward 1	195	181	376	2%	4%
Ward 2	301	107	408	3%	3%
Ward 3	89	4	93	1%	0%
Ward 4	105	203	308	1%	5%
Ward 5	430	532	962	4%	13%
Ward 6	797	739	1,536	7%	18%
Ward 7	733	934	1,667	6%	23%
Schools Stu in own Ward *Wnc	9,080	1,357	10,437	90%	84%
School Stu in other Ward					
Ward 1	52	2	54	1%	0%
Ward 2	13	5	18	0%	0%
Ward 3	3	-	3	0%	0%
Ward 4	53	7	60	1%	0%
Ward 5	105	24	129	1%	1%
Ward 6	87	32	119	1%	2%
Ward 7	748	186	934	7%	12%
Elementary					
School in Own Ward	4,525	810	5,335		
Pct in Own Ward, Stu	84%	54%	77%		
Middle School					
School in Own Ward	1,720	179	1,899		
Pct in Own Ward, Stu	73%	17%	56%		
High School					
School in Own Ward	1,850	281	2,131		
Pct in Own Ward, Stu	68%	22%	53%		
Median Distance by Student	0.49	3.04	0.76		
Elementary	0.33	1.64	0.41		
Middle	0.55	3.54	0.99		
High School	1.14	3.81	1.64		
Number of Students	11,730	4,057	15,787		
Elementary	5,407	1,498	6,905		
Middle	2,368	1,029	3,397		
High School	2,734	1,257	3,991		
MEAN Distance by Student	1.33	3.24	1.82		
Under 0.5 Mile * CnW					
Elementary					
Middle					
High School					
SPED students	1,964	413	2,377	83%	17%
Percent of SPED	71%	15%			
SPED % of Stus	16%	10%	15%		
Schools	25	5	30		
Elementary	20	3	23		
Middle	3	1	4		
High School	2	1	3		
Percentage of All Schools	18.1%	8.3%	15.2%		
Elementary	20.0%	9.1%			
Middle	15.8%	8.3%			
High School	10.5%	6.7%			
Percentage of Area Schools	83.3%	16.7%			
Elementary	87.0%	13.0%			
Middle	75.0%	25.0%			
High School	66.7%	33.3%			
Schools Total Enrollment	9715	1573	11288	86%	14%
Elementary	6725	1045	7770	87%	13%
Middle	1278	167	1445	88%	12%
High School	1712	361	2073	83%	17%
SECONDARY	2990	528	3518	85%	15%
Switches					
Stayed in same school	5,851	942	6793	86%	14%
Switched from one year to next	2,868	259	3127	92%	8%
Pct Stayed in same school	67	78	145.5409573	46%	54%
Pct Switched from one year to next	33	22	54.45904267	60%	40%

WARD 8	DCPS	Charter	Total	PCT DCPS	PCT Charter
ELEMENTARY					
Programs	0	0	0		
Classes with HQT	4,810	727	5,537		
Student/Teacher Ratio	81,367	16,340	97,707		
$ per Student	$ 68,254,149	$ 9,605,315	$ 77,859,464		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	5,318	734	6,052	79%	70%
# LEP/NEP Students in School	11	-	11	0%	0%
# of students living in high pov tract	4,727	671	5,398	70%	64%
# of students w/ SPED Status	794	53	847	12%	5%
Results # Stus	6,725	1,045	7,770		
Results					
Read above basic	5,190	915	6,105		
Read above Prof	1,932	510	2,442		
Math above basic	4,215	841	5,055		
Math above Prof	1,151	378	1,529		
Percentage Results				Diff	
Read above basic	77.2%	87.6%	78.6%	10%	
Read above Prof	28.7%	48.8%	31.4%	20%	
Math above basic	62.7%	80.5%	65.1%	18%	
Math above Prof	17.1%	36.1%	19.7%	19%	
School Avg Dist					
Mean Distance to School	4208.54	1582.01		0.63	1.51
Median Distance to School	2089.68	1353.34		0.31	1.30
School Racial Comp					
Asian	6	2	8	0.1%	0.2%
Black	6672	1006	7678	99.2%	96.3%
Hisp	14	10	24	0.2%	1.0%
Other	1	2	3	0.0%	0.2%
White	32	25	57	0.5%	2.4%
	6725	1045	7770		

WARD 8	DCPS	Charter	Total	PCT DCPS	PCT Charter
SECONDARY					
Programs	0	1	1		
Classes with HQT	1,640	446	2,087		
Student/Teacher Ratio	50,148	5,846	55,994		
$ per Student	$ 42,590,188	$ 5,260,985	$ 47,851,173		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	2,108	400	2,508	71%	76%
# LEP/NEP Students in School	2	-	2	0%	0%
# of students living in high pov tract	2,373	311	2,684	79%	59%
# of students w/ SPED Status	777	55	832	26%	10%
Results # Stus	3,195	528	3,723		
Results					
Read above basic	1,633	503	2,136		
Read above Prof	276	225	501		
Math above basic	1,257	482	1,739		
Math above Prof	256	282	538		
Percentage Results				Diff	
Read above basic	51.1%	95.2%	57.4%	44%	
Read above Prof	8.6%	42.5%	13.5%	34%	
Math above basic	39.4%	91.3%	46.7%	52%	
Math above Prof	8.0%	53.4%	14.4%	45%	
School Avg Dist					
Mean Distance to School	3279.99	922.9		1.10	1.75
Median Distance to School	2468.47	733.28		0.83	1.39
School Racial Comp					
Asian	0	0	0	0.0%	0.0%
Black	1276	526	1802	99.8%	99.6%
Hisp	2	1	3	0.2%	0.2%
Other	0	0	0	0.0%	0.0%
White	0	1	1	0.0%	0.2%
	1278	528	1806		

East of the River	DCPS	Charter	Total	PCT DCPS	PCT Charter
Population					
Students	22,324	8,511	30,835	72%	28%
FRPL	15,349	5,172	20,521	75%	25%
Black	22,118	8,417	30,535	72%	28%
White	20	12	32	63%	38%
Hispanic	168	64	232	72%	28%
Other	18	18	36	50%	50%
Stus School in Own Ward * WnC	15,455	3,534	18,989	63%	57%
Stus School in other Ward					
Ward 1	207	185	392	2%	5%
Ward 2	349	69	418	3%	2%
Ward 3	151	6	157	2%	0%
Ward 4	113	132	245	1%	3%
Ward 5	935	455	1,390	9%	12%
Ward 6	1,170	615	1,785	12%	16%
Ward 8	748	186	934	7%	5%
Schools Stu in own Ward *Wnc	15,455	3,534	18,989	86%	53%
School Stu in other Ward					
Ward 1	19	94	113	0%	2%
Ward 2	16	26	42	0%	1%
Ward 3	1	-	1	0%	0%
Ward 4	28	150	178	0%	4%
Ward 5	133	444	577	2%	11%
Ward 6	97	311	408	1%	8%
Ward 8	733	934	1,667	10%	23%
Elementary					
School in Own Ward	8,118	1,184	9,302		
Pct in Own Ward, Stu	80%	34%	71%		
Middle School					
School in Own Ward	3,143	976	4,119		
Pct in Own Ward, Stu	70%	68%	69%		
High School					
School in Own Ward	2,600	1,207	3,807		
Pct in Own Ward, Stu	29%	72%	43%		
Median Distance by Student	0.60	1.73	0.99		
Elementary	0.34	2.15	0.42		
Middle	0.78	1.81	1.17		
High School	2.12	1.38	1.92		
Number of Students	21,778	7,882	29,660		
Elementary	9,882	2,599	12,481		
Middle	4,399	2,200	6,599		
High School	5,339	2,547	7,886		
MEAN Distance by Student	1.59	2.24	1.77		
Under 0.5 Mile * CnW					
Elementary					
Middle					
High School					
SPED students	3,891	618	4,509	86%	14%
Percent of SPED	17%	7%			
SPED % of Stus	17%	7%	15%		
Schools	48	14	62		
Elementary	37	6	43		
Middle	7	2	9		
High School	4	6	10		
Percentage of All Schools	34.8%	23.3%	31.3%		
Elementary	37.0%	18.2%			
Middle	36.8%	16.7%			
High School	21.1%	40.0%			
Percentage of Area Schools	77.4%	22.6%			
Elementary	86.0%	14.0%			
Middle	77.8%	22.2%			
High School	40.0%	60.0%			
Schools Total Enrollment	17,277	5,753	23,030	75%	25%
Elementary	12,264	1,847	14,111	87%	13%
Middle	2,438	2,384	4,822	51%	49%
High School	2,575	1,522	4,097	63%	37%
SECONDARY	5,013	3,906	8,919	56%	44%
Switches					
Stayed in same school	10,223	3,612	13,835	74%	26%
Switched from one year to next	5,073	1,192	6,265	81%	19%
Pct Stayed in same school	134	153	286	47%	53%
Pct Switched from one year to next	66	47	114	58%	42%

East of the River	DCPS	Charter	Total	PCT DCPS	PCT Charter
ELEMENTARY					
Programs	2	-	2		
Classes with HQT	9,685	1,335	11,020		
Student/Teacher Ratio	158,007	26,800	184,807		
$ per Student	$ 125,283,603	$ 16,526,677	$ 141,810,280		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	9,283	1,323	10,606	76%	72%
# LEP/NEP Students in School	55	5	60	0%	0%
# of students living in high pov tract	7,109	1,134	8,243	58%	61%
# of students w/ SPED Status	1,361	106	1,467	11%	6%
Results # Stus	12,244	1,713	13,957		
Results					
Read above basic	9,556	1,461	11,017		
Read above Prof	3,523	694	4,217		
Math above basic	7,773	1,328	9,101		
Math above Prof	2,231	519	2,750		
Percentage Results				Diff	
Read above basic	78.0%	85.3%	78.9%	7%	
Read above Prof	28.8%	40.5%	30.2%	12%	
Math above basic	63.5%	77.5%	65.2%	14%	
Math above Prof	18.2%	30.3%	19.7%	12%	
School Avg Dist					
Mean Distance to School	8,417	3,164		0.69	1.71
Median Distance to School	4,179	2,707		0.34	1.47
School Racial Comp					
Asian	8	2	10	0.1%	0.1%
Black	12,124	1,802	13926	99.0%	97.6%
Hisp	77	16	93	0.6%	0.9%
Other	3	2	5	0.0%	0.1%
White	32	25	57	0.3%	1.4%
	12,244	1,847	14,091		

East of the River	DCPS	Charter	Total	PCT DCPS	PCT Charter
SECONDARY					
Programs	1	5	6		
Classes with HQT	2,174	3,575	5,750		
Student/Teacher Ratio	74,240	48,025	122,265		
$ per Student	$ 61,864,310	$ 45,904,589	$ 107,768,900		
Facility Condition					
Building Sq Footage					
Site Sq Footage					
DCPS Program Capacity					
DCPS Standard Ed Spec					
Sq Ft per Student 06-07					
Sq Ft per Student at Capacity					
Per_Utilized 06-07					
Density Factor 06-07					
# FRPL Students in School	3,329	3,068	6,397	66%	79%
# LEP/NEP Students in School	5	15	20	0%	0%
# of students living in high pov tract	3,471	2,036	5,507	69%	52%
# of students w/ SPED Status	1,203	460	1,663	24%	12%
Results # Stus	5,218	4,119	9,337		
Results					
Read above basic	2,834	3,793	6,627		
Read above Prof	547	1,729	2,275		
Math above basic	2,157	3,498	5,655		
Math above Prof	467	1,611	2,077		
Percentage Results				Diff	
Read above basic	54.3%	92.1%	71.0%	38%	
Read above Prof	10.5%	42.0%	24.4%	31%	
Math above basic	41.3%	84.9%	60.6%	44%	
Math above Prof	8.9%	39.1%	22.2%	30%	
School Avg Dist					
Mean Distance to School	6,560	1,846		1.31	0.47
Median Distance to School	4,937	1,467		0.98	0.38
School Racial Comp					
Asian	-	6	6	0.0%	0.1%
Black	3,287	3,999	7286	99.6%	97.1%
Hisp	9	95	104	0.3%	2.3%
Other	1	11	12	0.0%	0.3%
White	4	8	12	0.1%	0.2%
	3301	4119	7420		

Elementary Results

Ward 1	DCPS	PubC	Total	Diff	DCPS	PubC
Read above basic	79%	89%	82%	10%	2,269	1,237
Read above Prof	38%	43%	40%	5%	1,097	595
Math above basic	74%	84%	77%	9%	2,133	1,166
Math above Prof	33%	45%	37%	12%	939	627
Ward 2						
Read above basic	88.3%	85.0%	87.8%	-3.3%	1,551	252
Read above Prof	46.6%	49.7%	47.1%	3.0%	819	148
Math above basic	81.0%	71.5%	79.6%	-9.5%	1,423	212
Math above Prof	36.1%	34.0%	35.8%	-2.1%	635	101
Ward 3						
Read above basic	96%	#DIV/0!	96%	#DIV/0!	2,613	-
Read above Prof	78%	#DIV/0!	78%	#DIV/0!	2,116	-
Math above basic	96%	#DIV/0!	96%	#DIV/0!	2,612	-
Math above Prof	72%	#DIV/0!	72%	#DIV/0!	1,964	-
Ward 4						
Read above basic	89%	88%	89%	-1%	3,691	943
Read above Prof	53%	43%	51%	-10%	2,189	465
Math above basic	84%	78%	82%	-6%	3,480	835
Math above Prof	47%	26%	43%	-21%	1,958	283
Ward 5						
Read above basic	81%	90%	86%	9%	2,544	2,456
Read above Prof	38%	42%	40%	4%	1,196	1,150
Math above basic	75%	83%	79%	8%	2,340	2,258
Math above Prof	33%	38%	35%	5%	1,030	1,040
Ward 6						
Read above basic	81%	79%	80%	-2%	2,983	982
Read above Prof	38%	33%	37%	-5%	1,405	415
Math above basic	73%	74%	73%	1%	2,687	926
Math above Prof	27%	26%	27%	-1%	1,007	323
Ward 7						
Read above basic	79%	82%	79%	3%	4,366	546
Read above Prof	29%	28%	29%	-1%	1,592	184
Math above basic	64%	73%	65%	8%	3,558	487
Math above Prof	20%	21%	20%	2%	1,079	142
Ward 8						
Read above basic	77%	88%	79%	10%	5,190	915
Read above Prof	29%	49%	31%	20%	1,932	510
Math above basic	63%	80%	65%	18%	4,215	841
Math above Prof	17%	36%	20%	19%	1,151	378
East of the River						
Read above basic	78%	85%	79%	7%	9,556	1,461
Read above Prof	29%	40%	30%	12%	3,523	694
Math above basic	63%	78%	65%	14%	7,773	1,328
Math above Prof	18%	30%	20%	12%	2,231	519
MidCity					15,597	6,732
Read above basic	84%	87%	85%	4%	13,040	5,869
Read above Prof	43%	41%	42%	-2%	6,706	2,773
Math above basic	77%	80%	78%	3%	12,063	5,397
Math above Prof	36%	35%	36%	0%	5,569	2,374
West of the Park						
Read above basic	96%	#DIV/0!	96%	#DIV/0!	2,613	-
Read above Prof	78%	#DIV/0!	78%	#DIV/0!	2,116	-
Math above basic	96%	#DIV/0!	96%	#DIV/0!	2,612	-
Math above Prof	72%	#DIV/0!	72%	#DIV/0!	1,964	-

Secondary Results

Ward 1	DCPS	PubC	Total	Diff	DCPS	PubC
Read above basic	73%	80%	74%	7%	2,030	626
Read above Prof	34%	30%	33%	-4%	950	236
Math above basic	68%	65%	68%	-3%	1,915	510
Math above Prof	34%	29%	33%	-5%	953	226
Ward 2						
Read above basic	86.5%	88.9%	86.8%	2.5%	1,526	236
Read above Prof	56.1%	38.1%	53.7%	-18.0%	989	101
Math above basic	82.7%	75.8%	81.8%	-6.9%	1,459	201
Math above Prof	49.7%	31.1%	47.3%	-18.6%	877	82
Ward 3						
Read above basic	87%	97%	88%	10%	1,886	173
Read above Prof	61%	77%	62%	16%	1,318	137
Math above basic	80%	92%	81%	13%	1,730	165
Math above Prof	57%	73%	59%	16%	1,244	130
Ward 4						
Read above basic	74%	82%	77%	8%	1,169	939
Read above Prof	20%	40%	28%	20%	312	456
Math above basic	68%	74%	71%	6%	1,086	849
Math above Prof	22%	39%	29%	17%	353	452
Ward 5						
Read above basic	73%	94%	76%	21%	2,331	409
Read above Prof	31%	58%	35%	26%	1,003	250
Math above basic	63%	88%	66%	25%	2,000	382
Math above Prof	27%	59%	31%	33%	847	259
Ward 6						
Read above basic	80%	87%	82%	7%	1,855	1,008
Read above Prof	29%	40%	33%	11%	674	467
Math above basic	70%	79%	73%	9%	1,626	924
Math above Prof	25%	40%	30%	15%	591	465
Ward 7						
Read above basic	59%	92%	80%	32%	1,200	3,290
Read above Prof	13%	42%	32%	29%	271	1,504
Math above basic	44%	84%	70%	40%	900	3,016
Math above Prof	10%	37%	27%	27%	211	1,329
Ward 8						
Read above basic	51%	95%	57%	44%	1,633	503
Read above Prof	9%	43%	13%	34%	276	225
Math above basic	39%	91%	47%	52%	1,257	482
Math above Prof	8%	53%	14%	45%	256	282
East of the River						
Read above basic	54%	92%	71%	38%	2,834	3,793
Read above Prof	10%	42%	24%	31%	547	1,729
Math above basic	41%	85%	61%	44%	2,157	3,498
Math above Prof	9%	39%	22%	30%	467	1,611
MidCity					11,660	3,792
Read above basic	76%	85%	78%	8%	8,912	3,217
Read above Prof	34%	40%	35%	6%	3,928	1,510
Math above basic	69%	76%	71%	6%	8,086	2,865
Math above Prof	31%	39%	33%	8%	3,621	1,485
West of the Park						
Read above basic	87%	97%	88%	10%	1,886	173
Read above Prof	61%	77%	62%	16%	1,318	137
Math above basic	80%	92%	81%	13%	1,730	165
Math above Prof	57%	73%	59%	16%	1,244	130