

Sharing the Lane: Bicycling through Barriers East of the Anacostia River

Malina Keutel

Senior Honors Thesis

Advisor: Dr. Eve Bratman, SIS

General University Honors

Spring 2012

Table of Contents

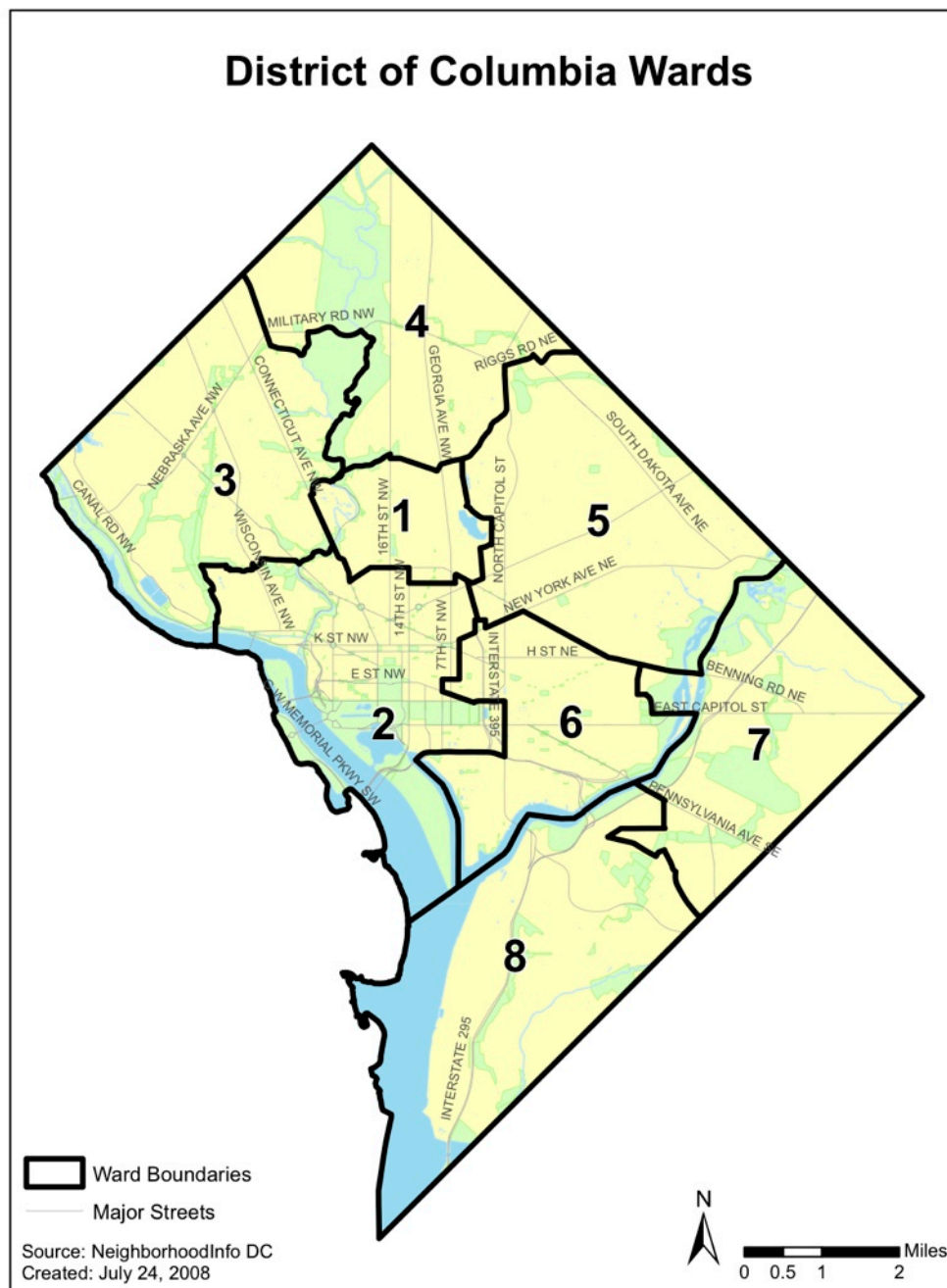
Abstract.....	3
Map of DC City Council Wards.....	4
Preface.....	5
Washington, DC: a District Divided	8
A Brief History of Bicycling.....	14
The Politics of Bicycling in Washington, DC.....	20
East of the River: Barriers and Solutions.....	31
<i>I. Geography and Connectivity</i>	31
<i>II. Maintenance and Amenities</i>	35
<i>III. Education</i>	39
<i>IV. Demographic Concerns</i>	43
<i>V. Community Consultation</i>	47
Conclusion	51
References.....	54

Abstract

With the specter of peak oil looming, cities such as Washington, DC are seeking creative ways to reduce consumption and curb emissions. Sustainable alternatives to automobile use are gaining prominence—notably bicycling. Since 2001, DC has invested heavily in cycling infrastructure, adding nearly 50 miles of bike lanes and launching an innovative Bikeshare program. However, the distribution of benefits has been uneven. Even more troubling has been the growth of a controversial idea that bicycling is a “White” activity. Local statistics do indicate that ridership is low among Black communities, particularly East of DC’s Anacostia River; however, the reality is much more nuanced. This research seeks to answer why ridership is low East of the River and proposes practical steps to improve access to bicycling and increase ridership throughout DC. Through a comprehensive literature review and primary source interviews with bike advocates, members of DC’s Department of Transportation, and local residents, key barriers were identified. Findings and recommendations are grouped around five areas: geography and connectivity, facilities and amenities, education, demographic concerns, and community consultation. Targeted interventions in these areas can ensure equitable local development and provide a model for cities across the United States.

Map of DC City Council Wards

Figure 1.



Source: Neighborhood Info DC. Retrieved April 2, 2012, from <http://www.neighborhoodinfodc.org/>

Preface

It's a blistering summer afternoon in Washington, DC, the asphalt poised to melt, paint peeling sympathetically from wilting buildings. In the city's northern Petworth neighborhood, the luckier residents with air conditioning have retreated indoors, and the rest sprawl outside with boom-boxes and coolers. In the back of Qualia Coffee on Georgia Avenue, a tradition is unfolding despite the heat. Every Saturday from noon to 3pm the Bike House, an all-volunteer-run community bike coop sets up shop in Petworth, offering interactive bike repairs and maintenance classes for the community.

I first caught wind of the Bike House a few summers back while struggling to keep a decrepit Schwinn bike running on a budget. A few maintenance classes later and I've blithely decided to try out my skills as a mechanic, which brings me to this sweaty Saturday afternoon. I've been paired up with a couple of neighborhood characters, two elderly Black men; jolly and irreverent they've stormed in wielding an old mountain bike with a flat tire. I quickly learn that my upper-arm strength and bike know-how is not up to this simple task, but in between frustrated battles with the tire I am able to take in the scene unfolding around me. In one corner a well groomed middle-aged man with a road bike trues a tire; near the fence a woman lubes a rusty chain; and by the entrance a mother and young child of Asian descent work on a kid's bike. A host of mechanics spanning many ages, races, and genders drift around offering helpful tips and gentle guidance. I'm struck by the unique nature of the scenario; a truly inclusive bike community that belies what I'm learning is a city full of divisions.

I've lived and biked in DC for going-on four years but it is only in the last year that work and friends began taking me farther afield in the city; across rivers and into far-flung corners. In

the process I began to grow aware of disparities within the District, aware of wide swathes of the city which lack bike lanes and the most basic amenities. Topping the list of underserved communities are DC's two southeastern wards east of the Anacostia River [see Wards 7 and 8 in Figure 1, page 3]. Unsurprisingly the dichotomy between the cycling haves and have-nots coincides with racial and economic divisions. In the process of exploring these divisions I encountered an even more unsettling idea; that bicycling is a racially polarized activity—that while White people bike, Black communities are less interested.

Anecdotal evidence from bicycling around town told me this stereotype couldn't possibly be true, but ridership among minority communities did seem to be low. A cursory look at citywide statistics gives evidence to this incongruity; a 2012 study prepared by Virginia Tech University in conjunction with Capital Bikeshare and the District Department of Transportation (DDOT) found that 88% of DC region cyclists are White non-Hispanic, 6% are Black, and 6% “Other.”¹ This in a city whose 2010 census boasts a 50% Black population, 34% White, 9% Hispanic, 4% Asian/Pacific Islander and 3% other.² Of course, it is important to view these statistics with a critical eye, as survey methods are subject to bias, but they do provide a statistical backbone to casual observations of ridership.

Intrigued by these disparities, my research began with the broad questions of ‘What social, political, economic, and cultural factors have shaped the discourse around bicycling in Washington, DC? How do these factors affect attitudes towards and perceptions of bicycling? If

¹ Virginia Tech Capital Bikeshare Study: A Closer Look at Casual Users and Operations. (2012). Prepared for Capital Bikeshare, Arlington, VA, DDOT: Virginia Tech University.

² Ibid

increasing ridership is a desirable and viable element of future urban development, how can any polarized dialogue be deconstructed and channeled into productive venues?’

As I began the process of researching, my question soon coalesced around what I found to be the most critical issue: Why is bicycle ridership lower east of the Anacostia River (from here-out referred to as East of the River) and what practical steps can be taken to improve equitable access to bicycling and increase ridership?

Bicycling has been hugely emancipatory for me personally. As a college student struggling to balance school and work in the face of rising tuition, cycling has given me a cheap flexible transportation option to stay on top of many commitments. It provides healthy daily exercise, an emotional outlet, and more than anything bicycling makes me feel strong and capable, especially as a woman cyclist. Though I understand bicycling may not be the right choice for everyone, I feel deeply that it should be a safe and accessible option for everyone in my city.

And so I embarked on a two month survey of DC’s bicycling community, interviewing activists both east and west of the river—transportation engineers, city planners, local residents, health officials, and journalists. My findings were complex and multifaceted, but at heart my research proposes that a history of planned spatial marginalization, reinforced by low investment in infrastructure, has created a divided District in which safety concerns, lack of access, representation, and education inhibit ridership East of the River. Awareness of these inequities is growing, however further innovative programming and development is vitally needed. Such efforts must address community-specific connectivity, education, and demographic needs, or risk

further polarizing the discourse around cycling. Honest discussion must be embarked upon to dismantle assumptions about race and culture.

The deeper I dove into the issue, the more I grew convinced of the importance of this research today. Existing literature is sparse, with most bicycle-related research shying away from questions of race and inequity. What discourse does take place unfolds largely on the streets and online. DC itself stands at a critical juncture; as the nation's capital and a city with a truly diverse demographic, it is at the forefront of addressing issues of equity in bicycling. Other cities are looking to DC, hoping to learn from its example as developments unfold. Honest, thorough, and inclusive research is called for to examine inequities and to develop viable solutions. This research is a part of that process, and the conclusions and proposals contained within are meant to promote equitable development.

Washington, DC: a District Divided

Any discussion of disparities within DC must begin with careful analysis of its historical development. As Margaret Farrar explains in her book, *Building the Body Politic: Power and Urban Space in Washington, D.C.*, “Unlike most American cities, Washington was not developed as an industrial or commercial center, and its history has been marked by a relative absence of manufacturing activity. Also, unlike many other national capitals that were important trade centers before they became centers of government, Washington was specifically designed as a capital city, a symbolic city where the values of the Nation are on public display.”³

Unfortunately, it is arguable that DC's prominence as a capital city has allowed the needs of its

³ Farrar, M. (2008). *Building the Body Politic: Power and Urban Space in Washington, D.C.* Urbana and Chicago: University of Illinois Press. p. 13

citizens to go unseen; most visiting Americans will only experience DC's downtown historical center, with its monuments and museums. The fact that some of America's most impoverished and underserved communities exist within fifteen minutes of the Capitol goes unnoticed, and so little national pressure is exerted on the capital city to address internal inequities.

In conceiving of DC as a symbolic city, George Washington and Thomas Jefferson commissioned French-born architect Pierre L'Enfant to design the new capital. L'Enfant's plans featured broad, diagonal boulevards and strategically placed public parks and plazas. These plans would not be implemented for decades due to a lack of governmental unity, however L'Enfant's vision is visible today.⁴ The wide boulevards and asymmetrical network of streets would go on to be both a blessing and a curse for bicycling infrastructure; the wide roads provide room for bike lanes and cycle tracks (unlike newer streets which were designed exclusively to accommodate cars), but many have become congested and dangerous thoroughfares.

Most importantly, the delay in implementing L'Enfant's vision meant that areas of the city developed haphazardly, leading to large urban slums. In the early 1900s, to coincide with Washington's Centennial, the city embraced related movements of "alley and tenement reform" and "city beautification." As the century progressed, urban poverty was increasingly viewed as a "blight" to be eliminated. The National Capital Parks and Planning Commission and the newly created Redevelopment Land Agency were authorized to acquire property and rebuild "all of Washington's slum ridden areas."⁵

The ethos of these developments is striking; as Farrar explains, "The language of 'blight' masks both individual and collective responsibility for the condition of American cities: capital

⁴ Farrar, p. 41

⁵ Ibid, p. 78

flight, chronic un- or underemployment, inadequate schools and under-funded public transit, de jure and de facto segregation, and government-subsidized discrimination, for example, can remain unacknowledged as specific reasons for cities' decline."⁶ In embracing the rhetoric of blight, DC was able to pursue its program of urban cleansing with a clean conscience.

The heart of DC's urban slum lay in Southwest; by 1960, 99% of the buildings previously occupied in the area were razed in the largest urban redevelopment project in history.⁷ 23,500 families were relocated, many to areas east of the Anacostia River, to hastily erected housing complexes in an existing, predominantly White, suburban area. Little assistance to the relocated families was provided by the city. A "White flight" followed, typical to many American cities at the time, as many middle-income White families moved out of Southeast and farther into the suburbs.

This planned marginalization of the Black community would only continue in the coming years. Bridges and connections to the rest of DC would be allowed to deteriorate while investment in local infrastructure declined. The tree-lined streets East of the River would become notorious throughout the city for crime and poverty, labels which the community was left to grapple with. Amenities as basic as grocery stores, quality schooling, and health centers slowly disappeared. The neighborhoods East of the River are not, of course, alone in their struggles; many other parts of DC, notably in Southwest and Northeast, face similar challenges.

Today the District is divided into eight wards, each with roughly equal populations and equal representation in DC's City Council [for reference see Figure 1, page 3]. The most recent 2010 DC census data of these wards betrays the discrepancies within the city.

⁶ Farrar, p. 81

⁷ Ibid, p. 92

For example, Ward 7, east of the Anacostia, has a population of 71,068 people, 96% Black non-Hispanic, 2.3% Hispanic, and 1.4% White non-Hispanic. The poverty rate is estimated at 26% with 40% of children in poverty, unemployment at 19%, and an average family income of \$54,677. Neighboring Ward 8 is home to similar statistics, a 94% Black population, 1.8% Hispanic and 3.3% White non-Hispanic, 35% poverty rate with 48% of children in poverty, unemployment at 17% and an average family income of \$44,076.

In sharp contrast, DC's most well-to-do Ward 3 boasts a population of 77,152, 5.6% Black, 78% White non-Hispanic, 7.5% Hispanic and 8.2% Asian/Pacific Islander. The poverty rate stands at 6.9% with 3.1% of children in poverty, unemployment at 3.4%, and an average family income of \$257,386.⁸

These statistics cannot capture the nuance of neighborhood dynamics, but they do provide an overarching view of DC. There is nothing intrinsically troubling about strong minority neighborhoods, communities come about for many reasons including strong networks of shared support, but the disparities in income and employment speak to inequality of a staggering scope. For some context, it is interesting to turn to the Gini index, a measure of statistical dispersion often used in the social sciences to measure inequality among levels of income. In 2009 the United States had a Gini coefficient of 46.9, placing it roughly alongside Uruguay at 46.3 and South Sudan at 45.5, despite the United State's markedly higher GDP and stronger state apparatus. Broken down further the picture is even more troubling, the District of Columbia had

⁸ Neighborhood Info DC. Retrieved April 2, 2012, from <http://www.neighborhoodinfodc.org/>

the highest Gini coefficient (ie. the highest level of inequality) of any state in the United States at 53.2,⁹ on par with Thailand at 53.6.¹⁰

This vast income inequality speaks to resources at the District level that have not been tapped or properly distributed, and this holds true for bicycling infrastructure. The history of DC has another unusual nuance; lacking full representation in federal decision-making, the city lies in a gray zone between statehood and city-hood, something akin to the Vatican minus the pomp and power. Congress maintains ultimate control over local legislation and the budget. It is not hard to extrapolate that the needs of local residents are often sidelined, misunderstood, or simply not addressed.

Tensions between residents East of the River and the rest of the city have been further exacerbated by gentrification. A term first coined by British sociologist Ruth Glass in 1964, *The New Urban Frontier* defines gentrification as, “The process by which poor and working-class neighborhoods in the inner city are refurbished via an influx of private capital and middle-class homebuyers and renters—neighborhoods that had previously experienced disinvestment and a middle-class exodus.”¹¹ This profile perfectly matches those of many neighborhoods in DC, in which middle-income residents and a young entrepreneurial class move into formerly low-income areas and are quickly followed by investment seeking to capture an up-and-coming market. Growing housing markets and new developments have rendered DC neighborhoods such as Columbia Heights and H Street nearly unrecognizable from their former states.

⁹ Household Income for States 2008 and 2009: Gini Index of Income Inequality. (2012). from the US Census Bureau. <http://www.census.gov/prod/2010pubs/acsbr09-2.pdf>

¹⁰ GINI Index. (2012). from The World Bank. <http://data.worldbank.org/indicator/SI.POV.GINI>

¹¹ Smith, N. (1996). *The New Urban Frontier: Gentrification and the revanchist society*. London and New York: Routledge. p. 32

Even the four years of my residence in DC have seen huge change. My first bright-eyed summer in DC found me in a rambling group house in Petworth, whose laundromats and fried chicken joints became my neighborhood staples; today these locations are increasingly dwarfed by sparkling new apartment complexes, a shiny CVS, and a growing host of bars and alternative grocery stores.

The dilemma is that gentrification, though it remedies some of the inequalities discussed earlier, also brings with it rising housing prices, often pricing out longtime residents. Though often accompanied by rhetoric of “revitalization” and “renaissance,” gentrification has come to symbolize, for many well-established residents, an unstoppable and potentially threatening force. As Charles Thomas, a Ward 7 Transportation Planner with DDOT explained during a recent interview, “Gentrification happens in two ways: one is when you force folk out. The other is when, just through natural development and upgrades to the community...houses start to come up in income. It’s up to the District to come up with a plan to create equity in that whole process. But sometimes you get an area where all of a sudden I owe \$80,000 for my house, and someone comes and knocks on my door and says hey I’ll give you \$350,000 for it, and you say, ‘Hey I’m going to Maryland!’”¹²

Within DC specifically, the expansion of bicycling has come to be emotionally linked with the forces of gentrification, a topic to be explored further momentarily. Before tackling the DC-specific narrative however, a history of bicycling in the US can provide some helpful context.

¹² Sebastian, J. & Thomas, C. (2012, Mar 9). [Personal Interview].

A Brief History of Bicycling

Bicycling experienced an illustrious start in 1817 when Karl von Drais invented a two-wheeled carriage known as the velocipede. The invention was initially met with criticism, but in 1867 Parisian Pierre Michaux began marketing a new velocipede, this time with pedals attached to the front hub. Bikes quickly became popular on both sides of the Atlantic and American Albert Pope began promoting the first safety bicycle which used a chain and gears. By 1906 the city of Minneapolis estimated that cyclists made up a fifth of its downtown traffic.¹³ Though Minneapolis remains a major bicycling center, the statistics today fall far short of this early century high.

The bicycle even assumed a role in the emancipation of women at the turn of the century. As Jeff Mapes explains in his book *The Pedaling Revolution*, “The bicycle gave women a freedom of movement that few had known. Even the restrictive clothing of the day—long dresses that clearly didn’t work on a bike—began to wilt before the new device.”¹⁴ In support of this claim, Susan B. Anthony is held to have stated that, “The bicycle has done more to emancipate women than anything else in the world.”¹⁵ Women’s rights deserve mention here as evidence of the bicycle’s emancipatory power within minority communities. The unique relationship between women and cycling is important to keep in mind when discussing the demographics of Wards 7 and 8, in which female-headed households make up around 75% of homes.¹⁶

¹³ Mapes, J. (2009). *Pedaling Revolution: How Cyclists are Changing American Cities*. Corvallis: Oregon State University Press. p. 34

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Neighborhood Info DC

To return to cycling at large—by the end of the 1900s bicycling was beginning to enter the law books. In 1887 the New York Legislature gave cyclists the same rights and responsibilities as carriages. This decision to codify bicycles as vehicles with the same rights to the road as automobiles, would go on to have interesting effects. It gave bicycles important legal heft, and paved the way for the idea of “vehicular cycling,” coined by John Forester, which holds strong today. Under this framework, bicycles are assumed to ride in accordance with the principles of driving in traffic. Though generally an effective tactic, this method fails to take into account the nuanced differences between cyclists and drivers. For example, merging lanes and making a left turn against oncoming traffic can be a daunting task for cyclists. Some jurisdictions, such as the state of Illinois, have passed laws that take these nuances into account and allow cyclists to run red lights (after coming to a full stop and yielding to traffic); however, vehicular cycling remains the norm.

Bicycling continued to grow in acceptance throughout the 1900s, reaching a peak boom in the 1970s. This boom can be attributed to a rising emphasis on physical fitness, increasing awareness of environmental concerns, and most certainly the Arab oil embargo which saw many American families confronted with skyrocketing oil prices. Additionally, the spike in sales and ridership may have been due to youth riders as the baby boom generation came of age, many of them finding themselves stranded in suburbs without transportation.¹⁷

It was a time of great optimism for the bicycle. With so much revolutionary change going on—women’s liberation, racial equality, the antiwar movement, gay rights—it seemed possible that bikes could form a transportation counterculture. As Dan Burden, an early bike advocate

¹⁷ Mapes, p. 30

recalls, “We were all dreamers. We assumed that at some time maybe 10 percent of all Americans would ride their bikes to work, to shop, to school...”¹⁸

The boom was accompanied by the growth of bicycle advocacy groups. These organizations, such as the Bicycle Federation of America and the League of American Bicyclists (founded in 1880 as the League of American Wheelmen) still play a large role today. America’s bike trail movement also took off at this time. In 1977 local attorney Tedson Meyers and a small cohort of bike activists established the Washington Area Bicyclist Association (WABA). WABA placed Washington, DC at the heart of bicycle advocacy and the organization continues to play a central role in shaping bicycling in DC.

Unfortunately for cycling, by 1975 bicycle sales had dropped off sharply. The decline is puzzling, but perhaps attributable to changes in federal policies and economic conditions. In 1981, price controls were lifted on oil, and bike funding was frozen at the federal level. As Mapes explains, “The thrifty sedans that had symbolized consumer response to gas lines of the 1970s gave way to the hulking SUVs that came to dominate American highways.”¹⁹

And indeed, cars seemed to be expanding at Alice-in-Wonderland-like speeds. The ongoing appeal of the automobile is a complex subject. The term *automobility*, coined by John Urry, refers to the “assemblages of socioeconomic, material, technological and ideological power that not only facilitate and accelerate automobile travel but also help to reproduce and ultimately normalize the cultural conditions in which the automobile is seen, and made to be seen, as a technological savior, powerful status symbol, and a producer of both “modern” subjectivities and

¹⁸ Mapes, p. 27

¹⁹ Ibid, p. 46

“civilized” peoples.”²⁰ In daily life, automobility manifests itself in a bombardment of car advertisements, subsidies to the auto industry, and the continued use of automobiles in entertainment and pop culture.

Arguably, it is multinational corporations (particularly oil conglomerates) who stand to benefit from the production, marketing, sales, and regulation of the automobile, not the average American portrayed as the beneficiary. As Zach Furness explains in his book, *One Less Car: Bicycling and the Politics of Automobility*, “The historical transformation of the United States into a full-blown car culture is commonly, though somewhat erroneously, attributed to choice or desire, as if the aggregation of individual consumer choices and yearnings necessarily built the roads, lobbied the government, zoned the real estate, silenced the critics, subsidized auto makers, underfunded public transit, and passed the necessary laws to oversee all facets of these projects since the 1890s.”²¹

All of which is highly relevant to the research at hand; impediments to expanding bicycling infrastructure remain huge in a car-dominated society, and the emotional pull of cars continues to shape perceptions of bicycling. As far back as 1922 the New York Times wrote that, “Automobility implies higher individual power, better economic distribution and a potentially higher social state.”²² The social status conferred on car owners can make many protective of anything that seems to encroach upon their territory. This status has particular heft among low-income families who have likely worked long arduous hours to afford a car.

²⁰ Furness, Z. (2010). *One Less Car: Bicycling and the Politics of Automobility*. Philadelphia: Temple University Press. p. 6

²¹ Ibid, p. 5

²² Ibid, p. 6

Economic arguments for or against bicycles fall largely to the wayside when confronted with such powerful social symbolism. Yet on every count, bicycles measure out as the most economic and equitable form of transportation. Forty percent of trips made in the US are two miles or less. Such trips can easily be made by bicycle.²³ Anyone can learn to ride a bike, and as a series of Learn to Ride classes hosted by WABA's East of the Anacostia Campaign have shown, learning to ride is not nearly as hard as many remember. Recent research into cycling education has found that the training wheels most children learn to ride with are actually a hindrance. By lowering the bicycle seat and detaching the pedals, a new rider can first learn to balance on a bike, using his or her feet for propulsion. When ready, the pedals are added one at a time until the rider is comfortable pedaling and balancing simultaneously. Nelle Pierson excitedly explained how within an hour of the Learn to Ride classes, "People who had never had confidence to ride before can ride away."²⁴

The statistics regarding affordability are even more encouraging. A recent study from environmental news source *Grist* found that the average American works two hours every day to pay for their car, whereas a bicycle only costs you 3.84 minutes (and that's a conservative estimate, the actual figure for most Americans would likely be lower).²⁵ And for every driver that grumbles that bicyclists don't pay gas taxes, they do still pay property taxes which fund 25% of national spending on public roads.²⁶ Motorists continue to receive many unseen benefits, the

²³ Furness, p. 14

²⁴ Pierson, N. (2012, Mar 7). [Personal Interview].

²⁵ Mims, C. (2012). You work 3.84 minutes per day to pay for your bicycle, 2 hours for your car. *Grist*. Retrieved from http://grist.org/list/you-work-3-84-minutes-per-day-to-pay-for-your-bicycle-2-hours-for-your-car/?fb_ref=fbrw

²⁶ Mapes, p. 18

bulk of which are actually parking subsidies since many cities subsidize free or cheap parking. A study done by UCLA Professor Donald Shoup calculated that the entirety of America's parking spaces take up an area roughly equivalent to the size of Connecticut.²⁷ It need hardly be said that a bicycle takes up a fraction of the space of a parked car. Unlike car upkeep, bicycle maintenance is generally cheap and easily learned by anyone (as the Bike House proves), though it does require access to bike shops and ongoing consumables like bike tubes and brake pads.

Clearly bicycling can (and does) provide a valuable time and cost-saving transportation option for low-income communities. Access to other transportation, like access to affordable housing and quality grocery stores, can be limited in such neighborhoods. DC's Wards 7 and 8 have vibrant bus networks, but frustrations at a recent Ward 7 Transportation meeting make clear that even such networks are not sufficient for the size of the population and their travel needs. With bus and metro fares on the rise throughout the District bicycling is an increasingly viable option. For cities, as well as citizens, bicycling is affordable. For example, the entirety of Portland, Oregon's bike network installed between 1993 and 2008 totaled up to less than \$100 million. By way of comparison it cost the city more than \$143 million to rebuild just one of the city's freeway interchanges on Highway 26.²⁸ Despite these favorable statistics, funding for bicycle infrastructure remains limited.

The environmental benefits of cycling need hardly be mentioned. In a world increasingly confronted by the specter of peak oil, rising gas prices may soon nudge people toward bicycling as they did during the 1970s. Paul Higgins, a scientist at UC Berkeley, estimates that if everyone cycled for an hour and reduced their driving by an equivalent distance, the US would cut its

²⁷ Mapes, p. 19

²⁸ Ibid, p. 143

gasoline consumption by 38%. Greenhouse gas emissions would drop by 12% (greater than the reductions called for by the Kyoto Treaty), and the average person would lose 13 pounds a year.²⁹ This health benefit is increasingly important in America where obesity and heart disease rates are on the rise, and are disproportionately affecting low-income minority communities such as those East of the River.

America has seen some surprising bike advocates amongst its leaders. In 1975 while serving as the US Ambassador to China, George Bush Senior said, “The more I think about the US domestic transportation problems from this vantage point of halfway around the world, the more I see an increased role for the bicycle in American life...I am convinced after riding bikes an enormous amount here in China, that it is a sensible, economical, clean form of transportation and makes enormous good sense.”³⁰ Over the years, a host of US Senators have advocated for diverting funding from highway projects toward bicycle infrastructure, but such leaders are rarely vocal enough to gain mass public appeal.

Since the 1980s decline, bicycling has experienced a shaky but steady revival, visible here in DC.

The Politics of Bicycling in Washington, DC

The early 1990s fiscal crisis in Washington, DC saw the elimination of the DDOT Bike Coordinator position and a dearth of funding for cycling infrastructure. By 2000, only three of the city’s 1,102 miles of streets had bike lanes, the most recent bike map hailed from 1982, and a bicycle transportation plan envisioning a 75-mile network of bikeways had been languishing for

²⁹ Mapes, p. 14

³⁰ Ibid, p. 38

25 years.³¹ Thanks to heavy lobbying from WABA and a resurgence of interest, bicycling was pushed back on the agenda, and in 2001 DDOT hired Jim Sebastian as the Bicycling and Pedestrian Program Manager, the first in ten years.

Since then the program has expanded and now includes seven other employees; two for the Bikeshare program, one for bike parking, one for bike and pedestrian matters, one for the Safe Routes to School program, one for Transportation Demand Management, and one to manage DC's trail network. The program continues to grow and expand, as Jim Sebastian explains himself, "I think we're riding the wave for sure...there was some initial interest here, and then they hired me and then we made some progress so there was more interest and there was national growth. So I think there was just a positive feedback loop the whole time since I've been here."³²

This positive feedback loop was given a serious boost by the administration of Adrian Fenty, who served one term as the mayor of DC from 2007 to 2011. A Washington, DC native and DC Council Member for six years, Fenty was nonetheless viewed as something of a young radical among long-term DC residents. In predicting Fenty's defeat to opposing democratic candidate Vincent Gray in 2010, the Washington Post pointed to polls which suggested that Fenty was, "...unable to reverse the widespread belief among blacks that he favored residents of predominantly white, wealthier neighborhoods."³³ In the actual election, there was a noticeable

³¹ Biking in the District. (2001, May 25). Live Online Discussion, the Washington Post. Retrieved from http://www.washingtonpost.com/wp-srv/liveonline/01/metro/metro_sebastian052401.htm

³² Sebastian & Thomas

³³ Craig, T. & Nikita. S. (2010). Gray decisively defeats Fenty in race for DC mayor, the Washington Post. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2010/09/14/AR2010091407328.html>

voting divide between residents east of Rock Creek Park who supported Gray and newcomers and more affluent voters in DC's wealthier wards who voted in favor of Fenty.

The tension under Fenty was due to a combination of complex causes including frustration with the education policies of Michelle Rhee, Chancellor of DC Public Schools, high unemployment, and a series of public relations blunders. Although Fenty was dogged in his pursuit of development throughout DC, many residents felt that their needs were not adequately consulted.

For better or worse Fenty was also a huge bicycling advocate. Fenty, and his District Transportation Director Gabe Klein, embarked upon an aggressive campaign to reinvent the city's bicycling infrastructure. DDOT employee Charles Thomas recalls how during the Fenty years there was a noticeable energy amongst the DDOT staff, with many riding to meetings, messenger bags slung over their shoulders. Fenty himself, an avid triathlete, was frequently seen biking through town.

However the Fenty approach to infrastructure would prove to be problematic. Alex Baca, an Assistant Editor at the Washington City Paper describes the period as the "paint-first, ask-questions-later Fenty days."³⁴ And indeed bike lanes and sharrows did seem to be springing up overnight, often leading a few blocks down the road only to end mysteriously. Many residents grumbled that the lanes inhibited car parking. The new infrastructure was highly visible East of the River where infrastructure had been neglected for so many years. For many neighborhood residents, the bike lanes were a red flag of impending gentrification and generated all the mixed emotions and fears discussed earlier. As Baca puts it, "The white-striped lanes became a

³⁴ Baca, Alex. "Sometimes a Bike Is Just a Bike: On the Symbolism—and Politics—of Bicycling in D.C." The Washington City Paper, August 19 2011. p. 1

powerful visual implication that change was coming; they looked like a welcome mat for newcomers.”³⁵

These newcomers were commonly understood to be new White DC residents encroaching upon historic minority, specifically Black, communities. As the Fenty administration rolled along, bikes became an increasingly villainized symbol--emblematic of what many saw as priority given to new residents. In her article entitled “Sometimes a Bike is Just a Bike: the Symbolism—and Politics—of Bicycling in DC,” Alex Baca cites David Alpert, editor of the blog Greater Greater Washington, who puts it succinctly: “I think to some extent it became an easy shorthand for people writing about race relations and about divisions in DC.”³⁶ Veronica Davis, the co-founder of Black Women Bike DC, agrees that the mayoral race played a huge role in the racial polarization of bicycling. “What happened,” she says, “and it happens everywhere, but specifically in DC, people take a theme and regardless of whether there’s an issue behind it, it gets extrapolated into ‘this is what it is.’”³⁷

Arguably, fear of the unknown and wariness of change were the real culprits behind the anti-bike sentiment generated during this period. Such feelings are universal. Indeed, in nearby New York City, resistance to cycle tracks in the affluent Park Slope neighborhood is strong evidence that bicycling is not a simple Black and White issue. In “Sometimes a Bike is Just a Bike” Andy Clarke, president of the League of American Bicyclists suggests that, “I don’t think

³⁵ Baca “Sometimes a Bike,” p. 1

³⁶ Ibid, p. 2

³⁷ Davis, V. (2012, Mar 20). [Personal Interview].

race or class or income is the issue. I think it's fear of the unknown and fearing losing something that you've had is the most common denominator."³⁸

In DC, tensions have ebbed somewhat under Mayor Vince Gray's administration. Current DDOT Transportation Director Terry Bellamy has taken a much less aggressive approach to bicycling, often citing the need for extended multiyear studies of potential infrastructure improvements. This cautiousness has led to some grumbling amongst the bicycling community. However as Jim Sebastian explains, the slowdown is in some ways part of a natural progression. "The first 30 or 40 miles of bike lanes were relatively easy," he says, "Well not easy, because everything's hard, but there weren't as many difficult decisions about space and time. We were able to get a lot of lanes in without changing anything. And then we've done some road diets that have been fairly painless in terms of traffic. But every time we take a look and do an analysis for the traffic, and so far so good, but that gets harder and harder as you start running out of places that are easy."³⁹ Currently there are roughly 50 miles of bike lanes, 4 of which have been installed since the beginning of 2012. Additionally, on April 6th DDOT announced that it would be going ahead with an eagerly awaited crosstown cycle track on L Street.

The new cycle track has been awaiting the conclusion of studies on existing cycle tracks on 15th Street and Pennsylvania Avenue. Cycle tracks themselves are unique in that they are road segments exclusive to bikes and entirely separated from other vehicles, often by a row of parked cars, additional curbs, or other barriers.⁴⁰ They are rare in the US but common in Europe, and

³⁸ Baca "Sometimes a Bike", p. 2

³⁹ Sebastian & Thomas

⁴⁰ Malouff, D. (2011). Guide to Bikeway Typology. Greater Greater Washington. Retrieved Mar 10, 2012, from <http://greatergreaterwashington.org/post/11695/guide-to-bikeway-typology/>

universally regarded as one of the safest options for cyclists. They are more cost and design intensive and not suitable for all roads, however Jim Sebastian says he would like to see a “spinal network” of cycle tracks throughout town.⁴¹

The most easily implemented infrastructure are sharrows (directional arrows with an image of a bicyclist, painted directly on the road), these indicate to drivers that they should expect cyclists and encourage cyclists to ride confidently in the road. Another easy solution, occasionally found in DC, are bus and bicycle lanes. The next step up are exclusive bike lanes, which are painted corridors designated for use by cyclists; such lanes, however, are not physically protected from traffic. Sharrows and bike lanes make up the majority of the cycling infrastructure in DC. Other less used options are side paths, off-street lanes designated for cyclists that usually run in tandem with a pedestrian path, and multi-use trails, car-free paths shared with pedestrians that take scenic routes to avoid interactions with cars. Many multi-use trails have been built on former railroad tracks (spearheaded by the organization Rails-to-Trails Conservancy).

DC has a vibrant trail network but as with other infrastructure, trails East of the River are more limited. DDOT is currently working on a plan for an Anacostia River Walk Trail to run along the east and west sides of the Anacostia River, parallel to the burgeoning Historic Anacostia district. Installing such trails, lanes, and sharrows will no doubt go a huge way toward increasing ridership East of the River, however expanded infrastructure is only a part of the solution. A quick overview of a couple key actors East of the River is helpful before diving into more holistic solutions.

⁴¹ Sebastian & Thomas

Until recently, WABA had functioned much like its fellow advocacy groups—agitating for increased trail and lane networks, fighting for the legal rights of cyclists, and pushing for increased representation of cyclists in transportation departments. While it is still actively engaged in these areas, WABA has made an additional clear commitment to working in underserved communities, a commitment that sets it apart from many advocacy groups. Current WABA Director Shane Farthing was chosen for his position in 2010 from a pool of over one hundred applicants, and as Pierson explains, “His clear commitment was, ‘I’m bringing bicycles to areas of the city that have not been touched by bicycles, and that is what WABA should be doing.’”⁴² What grew out of this goal was WABA’s revolutionary East of the Anacostia Campaign. As Pierson explains, “Really it’s one of the first projects of its kind in the bicycle advocacy world. And it’s been wildly successful in just one year alone.”⁴³

The campaign was launched last spring with “little more than the recognition of a crucial need and the faith that the bicycling community would rally to support our efforts and meet that need.”⁴⁴ With limited resources WABA was able to host three free Learn to Ride classes (empowering 26 new cyclists), lead family rides throughout the area, give away 50 free Capital Bikeshare memberships, and host a series of mobile bike shops. Funding for these shops came from a DDOT grant which had been languishing for a few years since the money was specifically dedicated for mobile clinics. When Nelle Pierson joined WABA in 2010, she

⁴² Pierson

⁴³ Ibid

⁴⁴ Farthing, S. (2012). Help WABA Launch the 2012 East of the Anacostia Campaign Retrieved 7 April 2012, from <http://www.waba.org/blog/author/shanewaba-org/>

suggested that WABA collaborate with the Bike House who were already running a stationary clinic on a similar model.

The Bike House was eager to be involved although the logistics were intimidating. Ten locations were selected throughout Ward 7 and Ward 8, ranging from recreation centers to metro stations to abandoned liquor stores. As Pierson recounts, “We found that, wherever you placed them, as long as there was foot traffic, you were going to get 30 to 40 people coming out.”⁴⁵ The clinics were advertised solely through flyers and by word of mouth.

Pierson recalls, “The days that were the most fun were when you’d have ten little kids riding around racing each other shirtless laughing up a storm, and you’d look over and all the moms would be sitting in their lawn chairs eating popsicles. We’d have people feed us and come bring music. It was like hosting neighborhood bike parties.”⁴⁶

In addition to being an enjoyable time for all, the clinics teach an important lesson; there is huge demand for bicycle programming East of the River, so much in fact that clinics were forced to shut down sign-up lists early, overwhelmed by the turnout. Furthermore, the mobile clinics prove that bicycling doesn’t have to be a divisive issue. A rollicking bike block-party with popsicles and barbecue is good proof that DC residents on both sides of the river are ready to see beyond color lines and start thinking as one community.

Deconstructing divisions has and will continue to require honest dialogue about race and inequality in DC. During interviews I regularly asked people to address the idea that bicycling was racially polarized. What did they believe accounted for lower ridership among minority communities? And what concrete steps would they propose to break down barriers to cycling? In

⁴⁵ Pierson

⁴⁶ Ibid

tackling these questions, many people acknowledged that there is a general wariness to discuss race. It has become such a taboo topic that politicians and legislators go to great lengths to skirt the issue. Charles Thomas, himself a black resident of Ward 7, puts it simply, “People really really don’t like to talk about the race issue, they get kind of scared, people clam up.”⁴⁷ Nearly universally, the individuals I interviewed agreed that there needs to be more honest discussion about race. In a city where poverty, unemployment, and access to the most basic resources tend to follow very stark racial lines, it might be time to throw tightlipped political correctness out the window and start honestly talking about what race means in America today. The danger is, of course, that the discussion can get derailed by sloppy shorthand symbols (such as bicycling) and a human desire to make sense of complex issues by filing them into easy categories, remedied by one-stop solutions. To move toward true racial equality in America will require complex holistic solutions to the many factors which continue to disadvantage Black and other minority communities.

One bike activist confronting race issues head-on is Veronica Davis, co-founder of Black Women Bike DC. An engineer by training, Davis started her own consulting firm Nspiregreen LLC in Historic Anacostia. She explains that she only began biking recently when rising gas prices pushed her toward Capital Bikeshare and then a hand-me-down bike. In her own words, Black Women Bike came about when, “I was biking home one day and I went through Potomac gardens, and this little black girl was like, 'Mommyyyyy there’s a black woman on a bike!’ She was so excited. But think about it, even though there are bike lanes on that street, I’m probably the first black woman [on a bike] that this little girl had ever seen.”⁴⁸ Davis shared the story on

⁴⁷ Sebastian & Thomas

⁴⁸ Davis

Twitter, using the hash tag #BlackWomenBike, and soon a thriving conversation was unfurling online among black women cyclists in the area. Davis and co-founders Nse Ufot and Najeema Washington, decided to take the discussion to the streets and started organizing group rides and happy hours.

They kept the name Black Women Bike DC exactly because it is so blatant. Davis explains, “It’s very in your face. It’s not like, women bike who may look a little different from the norm—it’s *Black women* bike.”⁴⁹ The group quickly exploded, growing from 3 to 450 members in under a year. “What that says is, there were already people who were there but everyone felt like they were alone...a lot of people who became members and joined our Facebook group were like, ‘I thought I was the only one.’”⁵⁰ Davis says.

The group continues to rely on social media to network, and has developed a system of internal committees which include external advocacy to get black women a seat at the bargaining table, internal advocacy to get members on the road and comfortable riding (Davis explains that there are literally people who announce “I just bought my bike yesterday so I could ride with y’all!”), and even a committee that is working on preparing members for competitive rides.

The success and importance of the group was apparent from early on, and it was soon featured in the *Washington Post*. This sparked discussions of race in other jurisdictions; Portland, Oregon, Austin, Texas, and Minneapolis, Minnesota, all did articles on Black women biking in their area. Veronica explains that some of the Facebook members live far from DC but are eager to be a part of the movement. “All of this synergy is happening in DC...it’s like everyone is

⁴⁹ Davis

⁵⁰ Ibid

waiting to see what happens in DC and how it plays out.”⁵¹ The group is working hard to meet the demand and create the structure needed for a sustainable organization. Davis says she would love to see Black Women Bike grow into a powerful advocacy group “putting a face to a community and to an issue, and really advocating on behalf of our children and our communities.”⁵² She would also like to see more competitive black women cyclists and more rides (currently at about one a month in good weather).

The media attention extends beyond Black Women Bike DC. In August of 2010, Alex Baca’s comprehensive and articulate City Paper article “Sometimes a Bike is Just a Bike: On the Symbolism—and Politics—of Bicycling in DC” put the subject of bicycling, access, race, and gentrification on the front page of one of DC’s most prominent papers. She explains that the article was initially focused on the proposed L and M Street cycle tracks and evolved through questions of ‘Who rides a bike and why?’ and ‘Why do we care?’ into ‘Why do we treat bikes as we do?’ ‘Why are they this semiotic thing’ and ‘Really why does it matter, does it matter at all?’⁵³ The article was well received and generated a lively online discussion with people eager to add their two cents to the issue. Once again, the attention is clearly reflective of a growing sense, District-wide, that bicycling is a topic worthy of increased attention.

To add to this discussion, the following sections detail my findings which grew from my research on ‘Why is bicycle ridership low East of the River?’ and ‘What steps can be taken to improve equitable access to bicycling and increase ridership?’ The central dilemmas and barriers and their proposed solutions break down into five general categories: Geography and

⁵¹ Davis

⁵² Ibid

⁵³ Baca [Interview]

Connectivity, Maintenance and Amenities, Education, Demographic Concerns, and Community Consultation.

East of the River: Barriers and Solutions

I. Geography and Connectivity

Above and beyond any socially or politically constructed barriers, the simple reality is that the neighborhoods East of the River are hilly. The sheer challenging geography of the area came up time after time in interviews. As Pierson puts it, “The topography is brutal. Talk about steep inclines and declines, there’s a reason there are so many forts over there, it’s because there are so many damn hills.”⁵⁴ Sebastian adds that the area is relatively “new” in the larger sense, in that it is not part of the original L’Enfant areas of the city with their wide avenues ideal for cycling infrastructure.⁵⁵

In this sense, Wards 7 and 8 are very similar to Ward 3 which faces similar topographic challenges and newer streets. In Ward 3 proper way-finding signage and a decent network of lanes has been enough to get cyclists out in spite of the hills. Investments in infrastructure in Wards 7 and 8 could have a similar effect. This is perhaps, the most glaring straightforward suggestion, but it bears mentioning that sustained and increased investment is necessary.

Sharrows, lanes, and trails East of the River should be fast-tracked whenever possible (without skimping on community consultation). The Anacostia River Walk Trail, when completed, will be a great addition to the community. However, far Southeast and Northeast cannot be ignored. DDOT does have 11 new miles of trails and upgrades in the works for

⁵⁴ Pierson

⁵⁵ Sebastian & Thomas

Southeast alone, including upgrades and extensions to the Oxon Run Trail, additional bike lanes on Southern Avenue and Mississippi Avenue, a side path on Malcolm X Avenue, potential bike lanes on rebuilt MLK Avenue, and a new South Capitol Street Trail project. DDOT should increase its focus on north-to-south connections like the South Capitol Street Trail. Internal connections are critically important because they increase access to basic necessities such as schools, grocery stores, and health centers. Furthermore, they can, and will, play a huge role in shifting bicycling from a precarious activity to a practical activity East of the River. Installing way-finding signage to direct cyclists along safe routes is one cost efficient short-term solution.

Connections to the rest of DC must be improved as well. Crossing the Anacostia River by bike is no easy feat; speaking from personal experience, the crossing can require a frustrating amount of navigating thin sidewalks, merging in high-speed traffic, and sometimes even running across lanes and clambering over barriers. This lack of connectivity is unacceptable. DDOT is aware of the shortcomings and is working on improvements, but ever more are needed. Existing bridges range from acceptable (the John Phillip Sousa Bridge) to unsettling (the Benning Road Bridge). In some good news, the new Anacostia Riverwalk Trail Bridge (exclusively for pedestrians and cyclists) will be opening on April 24, 2012. Additionally, the southernmost 11th Street Bridge is in the midst of a massive renovation set for completion in 2013, to include a shared path for pedestrians and bicyclists, which will greatly improve access to Southeast. Again, whenever and wherever possible, such river crossing connections should be strengthened.

Additionally, Capital Bikeshare facilities should be adapted and expanded in the area. Mentioned briefly before, Capital Bikeshare began about two years ago and is the largest shared bike system of its kind in the United States. Sebastian explains that interest in the idea was

already running high when he joined DDOT. After a short experiment with Clear Channel-funded “Smart Bikes,” the Capital Bikeshare system (already implemented in Arlington) was chosen. What began with 10 stations and 100 bikes has expanded to include 140 stations and 1200 bikes. The funding comes partly from federal CMAQ (Congestion Mitigation and Air Quality) funds and partially from revenues, and the every-growing system seems well on track to become self-sustaining in the future.

The now iconic bright red Bikeshare bikes are rented from stations equipped with credit-card payment systems. Users can purchase a one year membership online which then allows them to check out any available bike for up to half an hour for free (users can continue riding freely so long as they re-dock the bike, or pay an additional fee for continued usage). Alternately, bikes can be rented on a one-time basis at the station, with fees increasing steadily with additional time. All bikes must be returned to a station, not necessarily their original.

As could be expected, the bulk of stations are clustered around downtown Washington, DC, where ridership is highest. The most current 2011 DC Bike Map lists only 10 stations East of the River. As Sebastian explains, the process of selecting new Bikeshare stations is complex and takes in a number of criteria including population density, employment density, bike to work rate, bike facilities, and public input.⁵⁶ Put quite simply, demand is not yet high enough East of the River to warrant further stations on a purely supply and demand model. “Most of the criteria aren’t super favorable for Bikesharing,” Sebastian says, “but we’re doing it anyway because it’s the right thing to do.”⁵⁷

⁵⁶ Sebastian & Thomas

⁵⁷ Ibid

It's a classic chicken and egg problem; without access to bikes, ridership will remain low, and without high ridership the bikes won't come. Certainly DDOT should be commended for its commitment to expand the system, however in addition to increasing station density East of the River, DDOT should adapt its marketing and approach to the unique dynamics of the area. Davis suggests DDOT could increase efforts to explain to the community how Bikeshare can be a part of someone's commute, particularly in making "last-mile connections"—those critical connections from home or work to bus malls or metro stations, thereby creating a whole contiguous transportation network. By utilizing this hub system, Capital Bikeshare could feasibly resolve many of the simple connectivity problems which plague residents East of the River. On a related note, many residents complain that the Bikeshare registration system is difficult to navigate (and requires credit card use, excluding some residents); streamlining and simplifying the process will also help increase usage across DC.

Lastly, safety is a frequently cited concern East of the River. Apart from improving the roads themselves, proper lighting is necessary, particularly on the tree-lined residential streets East of the River. Bike parking remains limited in the area, which can deter people from cycling, or investing in a bike if there are few places to lock it safely. Businesses should be given incentives to install bike parking outside (again, possibly through tax credits or grants) and the city should continue to install bike racks in public spaces. Though daunting, geographical and connectivity barriers can be overcome.

Geography & Connectivity: Summary of Recommendations

- Increase investment in infrastructure, particularly for north-to-south connections
- Improve bridge crossings
- Expand Capital Bikeshare on a last-mile connection model
- Provide more commuter education
- Invest in bike racks and safe bike parking.

II. Maintenance and Amenities

In terms of functioning bike shops East of the River, the story is simple: there are none. The importance of bicycle maintenance is obvious; no matter how well striped and safe streets are, without access to the simplest fixes, flat tires and rusty chains will quickly incapacitate a community. Certainly, there's a place for home repair and neighborhood knowledge, but in an area with a population of over 150,000, dedicated bike shops are a necessity. The problem, as with Capital Bikeshare, is that demand is not yet high enough to entice private bike business across the river. Interestingly, a few years ago the area did have a functioning bike shop—even more interesting, the fully equipped shop still exists, although it is not currently open for operation.

In 2006, Watts Branch Park was rededicated as Marvin Gaye Park; it was the culmination of a multiyear effort, one that would continue in the coming years, to revitalize the longest municipal park in Washington, DC. The park, which includes the Watts Branch Stream (a tributary of the Anacostia) has undergone periods of neglect and renewal since the 1870s (even at

one point receiving attention from Laurance S. Rockefeller and First Lady Lady Bird Johnson). By 2000, the park had become a dumping ground, known locally as “needle park” for the discarded drug paraphernalia and rampant drug use within its borders.⁵⁸

In 2001, a network of nonprofits and community organizations known as Washington Parks and People embarked on a multimillion dollar project to revitalize the park. Over the next five years, 24,000 volunteers removed more than 3.5 million pounds of trash, 9,000 hypodermic needles, and 78 abandoned cars from the stream. 1,000 native trees were planted, miles of multi-use trails installed, an amphitheater built and a nearby nightclub was refurbished as a community hub known as the Riverside Center.

The building is a center for health and community, classes and even community-wide public art projects. Autumn Saxton-Ross, a local resident and an employee at the Department of Health, was instrumental in the park rejuvenation effort. Concerned with the neighborhood’s health and sensing an opportunity, Saxton-Ross partnered with Phoenix Bikes, a community bike coop in Arlington, Virginia to create a 12 week Build a Bike program in which youth participants learned to build a bike and got to keep the finished product. She recounts how during the park cleanup many bikes were pulled out of the river, quite likely abandoned when broken parts and small problems left the bike unrideable in the absence of local maintenance facilities. Saxton-Ross also stresses that many youth do ride bikes East of the River, and that there is a huge demand for cycling facilities and infrastructure.

For six months the Riverside Center jumped into programming, hosting group rides escorted by police officers and neighborhood boys enlisted into leadership roles, hiring a bike

⁵⁸ "Marvin Gaye Park Backgrounder." National Recreation and Park Association. <http://www.nrpa.org/uploadedFiles/Events/MGP%20Backgrounder.pdf?n=1508>.

mechanic, and training young people in the neighborhood. A bike pump was installed outside, free and accessible to anyone. However, like many nonprofits, the Center was plagued by a scarcity of sustainable funding and the bike program now lies dormant, lacking the staff and money necessary to operate. Saxton-Ross points to a larger dynamic at fault; local municipalities leave programming to nonprofits which ultimately are unsustainable. She is hopeful that with enough time as the neighborhood continues to develop and streets become safer for cyclists private investment will be drawn across the river.

The resources of the Riverside Center should be tapped, and the center itself used as a pilot model for area bike shops. Thanks to its already active cycling history and other health-related programming, the Center is accepted as a trusted place in the community and with an injection of funding could be equipped to reopen shop. Whether such funding would come from DDOT and federal funds or from donors and grants is an area for further investigation; regardless, this money must be accompanied by a sustainability plan to ensure that operations continue for years to come.

Local residents, perhaps those engaged previously, should be employed, especially youth. There are numerous models for youth engagement around bicycles, such as the nonprofit Recycle-a-Bicycle in New York City which hosts Earn-A-Bike classes, Green Jobs Training Programs, High School Internships, Recycled Arts Workshops, a Summer Youth Employment Program, and even a Kids Ride Club.⁵⁹ Already mentioned, Phoenix Bikes in Arlington runs similar programs. Such organizations can serve as models for future centers in Wards 7 and 8. Thanks to DC's rising prominence as a cycling city with a commitment to social equity,

⁵⁹ Recycle-A-Bicycle: About Us. Retrieved 10 April, 2012, from <http://www.recycleabicycle.org/about-us>

programs such as Bikes for the World and the Dream Bike Project are beginning to express interest in having a presence East of the River. Connecting these organizations with the Riverside Center and other community hubs could have powerful results.

To lure private bike businesses across the river, DC could offer grants, loans, tax credits, and financial and technical assistance as it does for grocery stores under the Feed DC Act. In fact, the Feed DC Act, passed by the DC Council in 2010, provides an excellent model of legislation designed to support private sector growth and its provisions could be easily turned toward bike shops and cycling amenities.

Bikeshare stations should follow new bike shops into the neighborhoods; currently, there is only one Bikeshare station along the Marvin Gaye Park trail, locating a station near the Riverside Center would be a great start. With a bit of creative flexibility, the Capital Bikeshare bikes can also be used as teaching tools; the Learn to Ride classes run by WABA paired up with Capital Bikeshare to use the bikes during lessons with glowing success. The WABA/Bike House mobile bike clinics, which WABA estimates reached over 400 people,⁶⁰ are also a great model for developing bike maintenance East of the River and are well worthy of expansion.

Making bike maintenance accessible to everyone will require some innovative thinking, a willingness to experiment, and a mix of public and private investment. It's an essential endeavor, one that will greatly compliment other infrastructure developments.

⁶⁰ Pierson

Maintenance & Amenities: Summary of Recommendations

- Revitalize the Riverside Center bike shop
- Open additional centers throughout the area which engage local residents (particularly youth)
- Create incentives for private investment (perhaps using the FEED DC Act as a model)
- Continue and expand the mobile bike clinics.

III. Education

Investing in infrastructure and expanding bike maintenance facilities are important steps but a third area requires serious attention: education. As a child growing up in Portland, Oregon I was required to take part in a bike education program at my elementary school. For a few weeks my classmates and I dutifully lined up on the playground equipped with helmets and child-sized bikes. We were drilled in proper hand signals, tested on bicyclists' rights to the road (handy years later when studying for the DMV driving exam), given terrifying demonstrations of what happens to your head without a helmet in an accident (using watermelons of course), and taught turning, braking, and merging techniques through drills with construction cones, the culmination of which was a neighborhood bike ride. The program was all inclusive and kids who had not yet learned to ride were taught without feeling excluded.

With time I've realized how unique and powerful the experience was. Safe riding programs in schools are growing across the United States but in the big picture it is still only a

fraction of students who receive the opportunity. The National Center for Safe Routes to School helps to coordinate and provide a framework and materials for safe riding programs at schools. The center also gives out mini grants and helps connect schools with private, local, and federal funding. This year 12,611 schools are set to receive funding for Safe Routes to Schools programs which function much like my childhood program.

The benefits of supplying cycling education to America's youth are numerous: with childhood obesity on the rise keeping kids active is essential; bicycling can help children, especially those of working families, commute to school, sports, and after-school activities; and at the rate at which the world is burning through oil it is likely that cycling will continue to play a larger and larger role in transportation of the future. Certainly, learning to ride at school is not the only way to start cycling. The majority of cyclists will always learn to ride at home, but for those children without access to a bicycle—whether for financial or logistical reasons, or simply lack of interest at home—there should be an alternative option at school. Safe Routes to Schools programs also teach kids safe riding techniques and rules of the road which they may not learn at home. Additionally, the programs can help children with way-finding and identifying safe and convenient routes to and from school.

The Safe Routes to School program in DC began early on, before there was even a federal program, doing basic education in schools with WABA. Since then DDOT was able to hire a full-time Safe Routes to School employee who coordinates in-school training and actively visits schools two to three times a week. Recently, DDOT put out a call for applications for a safe riding pilot program, intending to do one school in each ward; when 12 schools applied

DDOT went ahead and enrolled all 12. The program worked closely with parent/teacher committees, coming up with plans and reports for each school, to great success.

It goes without saying that Safe Routes to School should be expanded. In an ideal world, every elementary school in DC would be able to take part in a program each year. Funding and staffing hurdles will make this challenging in the short term, but with enough outreach and advocacy, communities and parent networks could feasibly pool together the resources necessary. Conducting outreach to explain to families the importance and benefits of safe riding programs is critical. A study done by the National Center for Safe Routes to School found that high performing schools were likely to have (1) strong program leadership within the school, (2) conduct frequent activities that reinforced students to walk and bicycle, (3) have strong support from parent groups and (4) have policies that supported walking and bicycling to and from school.⁶¹ These findings should be shared with enrolling schools and strategies adjusted accordingly.

Of course, education doesn't stop at elementary school. Reaching out to high-school aged youths and young adults is of the utmost importance as well. As Davis explains, the area East of the River has a very high youth population, and this population often gets sidelined in development plans. The large red Capital Bikeshare bikes are simply not accessible to many children and youth due to their height. There's this sense that, "We're planning a city that is not for you." Davis explains, "You have all these shiny red bikes, and you have these kids looking at the bike, and they don't understand. They've been told this thing, oh white people are going to

⁶¹ Getting More Students to Walk and Bicycle: Four Elements of Successful Programs. (2012): National Center for Safe Routes to School.

come in, there's going to be no future for you. And now ok we're going to have these bikes, oh no these bikes aren't for you sweetie.”⁶²

Adapting the Bikeshare bikes to youth will require some creative engineering, but DC could at least experiment with a pilot program. This program could make bikes available to youth, perhaps those involved in the Summer Youth Employment Program, a locally funded initiative which provides youth ages 14 to 21 with subsidized placements in private and government sectors. At a Ward 7 Transportation Summit on February 25th, one articulate young representative from the Mayor's Youth Leadership Institute presented a list of area youth concerns and recommendations, which included helping fund transport for youth in the employment program. As he pointed out, the pay rate for 14 to 15 year olds this year was lowered to \$5.25 an hour, barely enough to cover transportation and food costs and still leave room to save. A pilot program bringing bikes to these youth could help overcome financial barriers.

Beyond high-school, there is also an important place for adult riding education. The Learn to Ride classes, previously described, provide a perfect model upon which to expand. WABA very smartly choose diverse and accessible locations, even getting the members of controversial DC icon Marion Barry's office out on one occasion.

Expanding educational opportunities will require a high level of coordination between public schools, the federal government, and local officials and advocates. Such cooperation and strategic planning is necessary to bring safe riding skills to people of all ages.

⁶² Davis

Education: Summary of Recommendations

- Expand Safe Routes to School and integrate successful strategies from studies of existing programs
- Create a pilot program to make Capital Bikeshare accessible to youth in the Summer Youth Employment Program
- Continue and expand the Learn to Ride classes

IV. Demographic Concerns

The needs of the large and underserved youth demographic have already been addressed, however there are other demographic concerns which must be taken into account. As mentioned previously, 77% of households in Ward 7, and 74% in Ward 8, are female-headed households with kids. As the child of a working mom I know first hand the incredible burden single moms carry; between working, cooking, cleaning, ensuring children make it to and from school safely, and helping with homework, there is little time and energy to spare. With the cost of automobiles often prohibitively high and gas prices on the rise, bicycling could be a powerful alternative option.

However, in order for cycling to be a viable option for mothers and women East of the River, all of the aforementioned changes and more are necessary. Investing in separated trails is a critical first step in mobilizing families; trails provide a safe space for children and beginning riders as well as a fun recreational outlet, particularly when on-street cycling is unsafe due to traffic or road conditions. There must also be a shift in the way cycling is marketed.

Though times are certainly changing, bicycling is still in many ways a “man’s sport.” There are few professional female cyclists, few female bike mechanics, and it can be hard to find bikes made to female specifications. Levi’s recently sparked a heated controversy when it released its new line of commuter cycling clothes, marketed exclusively for men. Despite outcry it has yet to create a similar line for women. These are nit-picky, but not unimportant, discrepancies. Personally, I know just as many strong, capable women cyclists as men, but statistics reveal that the national averages are still skewed; according to the 2009 National Household Travel Survey, 24% of all bicycle trips are made by women and 76% by men.⁶³ A further study by the National Highway Traffic Safety Administration found that males are more likely to have access to a bicycle (51%) in comparison to females (42%).⁶⁴

To begin overcoming this divide, the bike industry must shift the way cycling is marketed. There must be more bikes designed for women, taking into account height, body types, clothing needs, and reasons for cycling. These bikes should not be marketed as alternative “easier” or “gentler” models, but as equally utilitarian and competitive vehicles. Cargo bikes, bikes built with large front or back carriers are common in many European countries but do not yet have a large presence in the US. These bikes are especially useful for families who often travel with a hefty load of kid necessities.

Commuter clothing should adapt to women’s needs, and this doesn’t mean simply more lines of bright pink spandex. It means mature, practical, fun, and appealing garments.

⁶³ *National Household Travel Survey*. (2009). US Department of Transportation Retrieved from <http://nhts.ornl.gov>.

⁶⁴ Royal, D. & Miller-Steiger, D. (2008). *National Survey of Bicyclist and Pedestrian Attitudes and Behavior*. (DOT HS 810 972). Washington, DC: Retrieved from <http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/810972.pdf>.

Furthermore, there is no reason why business attire has to be antithetical to cycling, and apparel companies would be smart to realize this growing niche. Capital Bikeshare as well should reach out to female and minority groups and continue to portray riders of every age, race, gender, and occupation in its advertisements. In every way, companies stand to benefit by reaching out to the huge female cycling community; and female cyclists will benefit as marketing normalizes what should be, in every sense, a gender-neutral sport.

Group rides and cycling clubs geared specifically toward women will be instrumental in changing gender dynamics. As Black Women Bike DC proves, there is a huge untapped network of eager and powerful women cyclists. Unified and connected they hold even greater transformative potential. The same can be said of rides and groups that are not female-specific; all will make cycling more visible, appealing, and accepted and should be encouraged and supported East of the River. These developments will, in large part, have to come organically from the community (as with Black Women Bike DC), but integrating areas East of the River into wider district-wide events can help promote growth. For the first time this year, DC's Bike to Work Day included a pit stop in Anacostia, and on April 14th Lumen8 Anacostia—an art, music, and culture festival in historic Anacostia—included a bike valet where attendees could leave bikes.

There is also a large older demographic East of the River. Age doesn't have to be prohibitive when it comes to cycling; during a recent trip to the Netherlands, a country renowned for its intricate network of bike lanes and high ridership, I was excited to see many men and women in their late sixties and older cycling. Again, support networks stemming from groups and rides could help make new and returning riders comfortable. Even if older residents are

unable or uninterested in cycling themselves, they are a hugely vocal faction of the community and their support should be enlisted. Advocates can come in all ages, shapes, and sizes, and grandparents and older family members care deeply about ensuring the health and safety of their families and communities.

A largely untapped source of support could come from local churches and spiritual groups. Churches play a vital role in community life East of the River and are often, besides being a place of worship, the site of meetings around political and social issues. With well established internal communication systems, churches could be instrumental in mobilizing the community for cycling events such as Learn to Ride classes or group rides and serve as central meeting places.

Lastly, more could be done to make cycling fun, cool, and even (go ahead and smile) sexy. Bogota, Colombia has come up with one innovative solution—the Ciclovía—regular Sunday and holiday affairs in which main streets are blocked off to cars, stages are erected, and art, performances, even yoga, and above all, cycling, turn the areas into romping street festivals. DC could begin a similar tradition and build upon the energy from festivals such as Lumen8 Anacostia. As always, more rides and more block parties can only help.

Efforts to expand access to bicycles and increase ridership East of the River must be sensitive to demographic needs. Customizing approaches around youth, women, and the older community will yield the most powerful results.

Demographic Concerns: Summary of Recommendations

- Engage women, particularly mothers
- Organize more group rides and clubs, for all demographics
- Increase product design for women (perhaps even a pilot project with cargo bikes?)
- Gear respectful and compelling marketing toward women and minorities
- Reach out to the older community
- Enlist the help of churches
- Make cycling fun and appealing through street festivals and other events

V. Community Consultation

The last, but certainly not least, area of contention is community consultation. As discussed previously, lack of community input was a huge source of conflict during the Fenty years. Outcry has diminished under Gray, due perhaps in some part to a slowdown in new infrastructure, and perhaps also to growing acceptance. Regardless, there is room for improvement in the way that outreach and community consultation is undertaken, both in the way opinions are sought and in the way in which change is framed.

DDOT is still working from the 2005 Bike Plan, implementing and refining it, and adding new sharrows and lanes whenever possible during routine upgrades. A new Transportation Plan is slated for this year and will include an updated and integrated Bike Plan. Detailed time intensive studies go into the process of selecting new sites and the Department remains

responsive after developments have been implemented. Gabriel Onyeador, the lead Ward 8 Transportation Planner, recounts how the Department responded to strong public outcry over safety concerns around bike lanes on Pennsylvania Avenue, Southeast.

In 2010, DDOT announced a new approach to analysis with its Livability Studies Program. Of the three initial study areas, two were Far Southeast and Far Northeast (both East of the River). These studies integrate older recommendations with ongoing analysis toward the goal of creating more “livable” spaces and are a healthy step toward more holistic study and design.

To assess community needs and opinions, neighborhood meetings and summits are held, naturally free and open to the public. To publicize the events, flyers are posted on doors, in community spaces, and online. For critical issues DDOT also supplies childcare and breakfast. As contentious meetings over a new proposed streetcar line prove, people will turn out in large numbers to voice their opinions on transportation issues.

It is a well-grounded community consultation model with its heart in the right place, but it has also been plagued by problems. The reality, at least here in DC, is that often the same familiar faces reappear time after time—these people are commendable for their commitment to neighborhood activism—however, those who don’t come may be absent for a variety of complex reasons: perhaps lack of access to a car or transportation, perhaps they are kept at home by family obligations, perhaps they are simply busy at work. Their voices may go unheard. A further reality, is that those who are able to attend, hail disproportionately from the older community, perhaps retired with more available time and a long-term commitment to their community. These older residents are frequently the most vocal against bicycling, which goes back to the point about reaching out to the older community.

How to best capture the sentiments of those not present could easily be the subject of a whole new research project. New and innovative public consultation models in use in other cities should be investigated. The Bicycle Advisory Council (BAC), a group of cyclists appointed by the DC Council to advise the District on cycling issues, has been experimenting with Twitter to collect suggestions around cycling East of the River, as have many other groups. Further innovative online tools may be out there and should be sought.

It will be particularly important to improve outreach and ensure that community members East of the River have a seat at the bargaining table in the months leading up to the creation of the new Transportation Plan, which will set the agenda for the coming years. There are plans for an East of the River cycling forum soon, this is a smart and essential step. To some extent, human nature is such that people may never feel they have been adequately consulted; when and where to move ahead with changes will remain the challenge of every responsible government body.

To this end, the most critical refinement that can be made to the consultation process is to frame street changes not as investments in cycling, but as investments in neighborhood health and safety. The reality is that bike infrastructure slows traffic, creating calmer streets for everyone. One common tactic is to put a street on a “road diet:” slim traffic to one way each direction with a turn lane in the middle (preventing congestion from turning cars) and install bike lanes, again resulting in a calmer safer street, easier even for cars to navigate. Bikes benefit, pedestrians benefit, neighborhood families benefit. Framing infrastructure as an investment in cyclists risks alienating the non-biking population and; as seen under Fenty, bikes are quickly villainized. As Davis puts it, “You have to figure out what matters to a community, and speak to

that community...you have to message to someone's specific concern. And show how this solution will solve their concern, even if it may be supporting another group.”⁶⁵

DDOT is increasingly embracing such an approach, with their Complete Streets policy, whose specific language states that DDOT projects “shall accommodate the safety and convenience of all users.”⁶⁶ This landmark shift gives equal priority to pedestrians and cyclists and is part of a larger movement to look at projects in a comprehensive manner. Framing projects in a holistic way to the public will avoid tension and allow DDOT to devote its attention to the business of making safer streets for all. The Complete Streets policy is an excellent approach well worthy of expansion and implementation throughout DC.

Community Consultation: Summary of Recommendations

- Continue and expand the Livability Study approach
- Seek innovative public consultation tools
- Host an East of the River forum leading up to revision of the 2005 Bike Plan
- Increase awareness of how cycling investment can create safer neighborhoods
- Ensure universal application of the Complete Streets policy

⁶⁵ Davis

⁶⁶ Miller, S. (2010). DDOT now has a Complete Streets policy. Retrieved 11 April, 2012, from <http://greatergreaterwashington.org/post/7703/ddot-now-has-a-complete-streets-policy/>

Conclusion

The preceding suggestions grew from my review of existing literature, extensive interviews with members of the cycling community, and my personal experiences and views. It is by no means an exhaustive list, and as attention to cycling grows I am sure a growing body of research will follow. The numerous primary interviews are the true strength of this research and represent a nearly even split of men and women and Black and White residents. However, it should be understood that this was a survey primarily of those actively engaged in transportation issues and/or the cycling community. Due to time constraints I was unable to interview all of the actors involved. Further research could and should be done, particularly on the perspectives of non-cyclists. 71% of Americans say they would like to bicycle more than they do now⁶⁷—the concerns of these potential cyclists must be addressed and remedied.

For the purposes of this paper I chose not to conduct ridership and opinion surveys, but quantitative research is clearly much needed. Capital Bikeshare has done an excellent job collecting and disseminating its ridership statistics, however more grassroots neighborhood research is called for. Specifically more statistical research among minority communities.

Because of the majority Black population East of the River I focused heavily on the Black community in my research. However more studies on the Hispanic, Asian/Pacific Islander, and other minority communities are necessary as well. Additionally, more research should be done into how other cities are grappling with similar demographic and cycling concerns. The attention toward Black Women Bike DC indicates that there is a desire for national collaboration.

⁶⁷ *National Survey of Bicyclist and Pedestrian Attitudes and Behavior.*

The United States should also learn from other models overseas, particularly from European countries with high ridership and vibrant cycling cultures.

In every way, DC stands poised to assume national leadership as a safe and equitable bicycling city. The most recent 2012 Alliance for Bicycling and Walking *Benchmark Report on Bicycling and Walking* ranked DC number two for bicycling and walking levels in the entire United States (following Boston in first place).⁶⁸ Last year the District received a Silver Bicycle Friendly Community from the League of American Bicyclists, a step up from its Bronze award in 2007. At the ceremony Mayor Vince Gray announced, “Silver is fine, gold is better, platinum is best. Let’s work to become the best in the world in terms of our bicycling program here in the District of Columbia.”⁶⁹ It’s a lofty but feasible goal and the resources are out there. As Sebastian, DDOT's Bicycling and Pedestrian Program Manager, explains, the city was ranked number two for funding toward bicycle and pedestrian programs this year.⁷⁰

Most importantly, DC is beginning to tackle the issue of equity in bicycling, particularly East of the River. From WABA’s East of the Anacostia Campaign, to DDOT’s Far Southeast and Northeast Livability Studies, DC has made a clear statement of its commitment to underserved communities. A number of local visionaries, from the policy level to the neighborhood level, are leading the city in its efforts.

Challenges and successes in DC will serve as a model for other cities across the United States; with enough creativity, determination, and collaboration, DC can help lead the way

⁶⁸ Bicycling and Walking in the United States: 2012 Benchmarking Report. Facts Sheet. (2012): The Alliance for Bicycling and Walking.

⁶⁹ *District Celebrates Bike to Work Day, Mayor Gray Accepts Bicycle Friendly Community Award*. (2011). Retrieved from <http://ddot.dc.gov/DC/DDOT/About+DDOT/News+Room/ci.District+Celebrates+Bike+to+Work+Day,+Mayor+Gray+Accepts+Bicycle+Friendly+Community+Award.print>.

⁷⁰ Sebastian

toward a greener, more sustainable, and more equitable future in which biking is a viable transportation option without regard to gender, social class or race.

References

- Alexander, C. (1977). *A Pattern Language*. New York: Oxford University Press.
- Baca, A. (2012, February 23). [Personal Interview].
- Baca, A. (2011, August 19). Sometimes a Bike is Just a Bike: On the Symbolism—and Politics—of Bicycling in D.C., *the Washington City Paper*.
- Bicycling and Walking in the United States: 2012 Benchmarking Report. Facts Sheet. (2012): The Alliance for Bicycling and Walking.
- Biking in the District. (2001, May 25). Live Online Discussion, *the Washington Post*. Retrieved from http://www.washingtonpost.com/wp-srv/liveonline/01/metro/metro_sebastian052401.htm
- City Reader, The*. (2007). (4th ed.). New York: Routledge.
- Craig, T. & Nikita. S. (2010). Gray decisively defeats Fenty in race for DC mayor, *the Washington Post*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2010/09/14/AR2010091407328.html>
- Davis, V. (2012, Mar 20). [Personal Interview].
- Davis, V. (2011). Why is Capital Bikeshare usage low east of the river? Retrieved Mar 10, 2012, from <http://greatergreaterwashington.org/post/9020/why-is-capital-bikeshare-usage-low-east-of-the-river/>
- District Celebrates Bike to Work Day, Mayor Gray Accepts Bicycle Friendly Community Award*. (2011). Retrieved from <http://ddot.dc.gov/DC/DDOT/About+DDOT/News+Room/ci.District+Celebrates+Bike+to+Work+Day,+Mayor+Gray+Accepts+Bicycle+Friendly+Community+Award.print>

District of Columbia Bicycle Master Plan, The. (2005). Washington, DC.

Farrar, M. (2008). *Building the Body Politic: Power and Urban Space in Washington, D.C.*

Urbana and Chicago: University of Illinois Press.

Farthing, S. (2012). Help WABA Launch the 2012 East of the Anacostia Campaign Retrieved 7

April 2012, from <http://www.waba.org/blog/author/shanewaba-org/>

Furness, Z. (2010). *One Less Car: Bicycling and the Politics of Automobility.* Philadelphia:

Temple University Press.

Getting More Students to Walk and Bicycle: Four Elements of Successful Programs. (2012):

National Center for Safe Routes to School.

GINI Index. (2012). from The World Bank. <http://data.worldbank.org/indicator/SI.POV.GINI>

Gray, P. (2012, Mar 22). [Personal Interview].

Household Income for States 2008 and 2009: Gini Index of Income Inequality. (2012). from the

US Census Bureau. <http://www.census.gov/prod/2010pubs/acsbr09-2.pdf>

Keith Holt on Bike Shops, Low-Income Communities and Communities of Color. (2011)

[YouTube Video]. In Rails-to-Trails Conservancy (Producer). YouTube.

Improving Conditions for Bicycling and Walking: a Best Practices Report. (1998): Rails-to-

Trails Conservancy and the Association of Pedestrian and Bicycle Professionals.

Malouff, D. (2011). Guide to Bikeway Typology. *Greater Greater Washington*. Retrieved Mar

10, 2012, from <http://greatergreaterwashington.org/post/11695/guide-to-bikeway-typology/>

Mapes, J. (2009). *Pedaling Revolution: How Cyclists are Changing American Cities.* Corvallis:

Oregon State University Press.

Marvin Gaye Park Backgrounder. National Recreation and Park Association. Retrieved from

<http://www.nrpa.org/uploadedFiles/Events/MGP%20Backgrounder.pdf?n=1508>

Miller, S. (2010). DDOT now has a Complete Streets policy. Retrieved 11 April, 2012, from

<http://greatergreaterwashington.org/post/7703/ddot-now-has-a-complete-streets-policy/>

Mims, C. (2012). You work 3.84 minutes per day to pay for your bicycle, 2 hours for your car.

Grist. Retrieved from http://grist.org/list/you-work-3-84-minutes-per-day-to-pay-for-your-bicycle-2-hours-for-your-car/?fb_ref=fbrw

Minutes from the Far Southeast Livability Study Rolling Meeting. (2011) Retrieved Mar 10,

2012, from <http://dcbac.blogspot.com/2011/10/minutes-from-far-southeast-livability.html>

National Household Travel Survey. (2009). US Department of Transportation Retrieved from

<http://nhts.ornl.gov>.

National Women's Cycling Forum, Washington, DC. (2012, Mar 20).

Neighborhood Info DC. Retrieved April 2, 2012, from <http://www.neighborhoodinfodc.org/>

Onyeador, G. (2012, Mar 29). [Personal Interview].

Pierson, N. (2012, Mar 7). [Personal Interview].

Recycle-A-Bicycle: About Us. Retrieved 10 April, 2012, from <http://www.recycleabicycle.org/>

[about-us](#)

Royal, D. & Miller-Steiger, D. (2008). *National Survey of Bicyclist and Pedestrian Attitudes and*

Behavior. (DOT HS 810 972). Washington, DC: Retrieved from <http://www.nhtsa.gov/>

[DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/810972.pdf](http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/810972.pdf).

Saxton-Ross, A. (2012, Mar 27). [Phone Interview].

Sebastian, J. & Thomas, C. (2012, Mar 9). [Personal Interview].

Smith, N. (1996). *The New Urban Frontier: Gentrification and the revanchist society*. London and New York: Routledge.

Virginia Tech Capital Bikeshare Study: A Closer Look at Casual Users and Operations. (2012).

Prepared for Capital Bikeshare, Arlington, VA, DDOT: Virginia Tech University.

Ward 7 Transportation Summit, Washington, DC. (2012, Feb 25).