

The Rule of Choice:
How economic theories from the 1950s became technologically embedded,
politically contested urban policy in New York City from 2002-2013

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Abstract

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To rule through choice is to create differentiated options for urban citizens who use public infrastructure and to produce information and price signals that guide decisions. It treats urban residents as rational consumers of public goods. Economists, planners and activists developed the rhetoric and tools of choice over the course of a half-century. This strategy moved from the fringes of planning and policy making to become widely accepted and adopted. How did this manifestation of choice become central to urban policy? What are the consequences of policies that emphasize individual choice? What can be done to make them conform to the ethical standards of planning? The dissertation that follows focuses on the origins and development of choice-based policy-making and the public dispute over it in New York City. Two cases elucidate the rule of choice. School choice and congestion pricing were signature policies for New York City Mayor Michael Bloomberg (2002- 2013). In the 1950s two economists, William Vickrey and Milton Friedman, translated fundamental principles in that discipline into policy proposals in education and transportation governance. When the Bloomberg administration sought to govern education and roadway infrastructure through choice, this strategy became the source of public debate and deliberation. The history and contemporary politics of the two cases provide material for reflecting on core theoretical issues in planning, including the changing nature of liberalism, the meanings and uses of data and rationality and the role of the material world in producing and recreating modes of engaging with urban problems.

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DEDICATION

To Ralph and Marlene West

My father, Ralph West, gave me the gift of curiosity. I learned to be a researcher and a teacher by watching him ask good questions and, more importantly, listen closely to peoples' answers. My mother, Marlene West, exemplified passion for justice and professionalism as a social worker caring for premature infants, the terminally ill and people too poor to afford the cancer treatment that they require. Together, they have been a formidable force of kindness and compassion for those lucky enough to have crossed their paths.

Chapter One: Who Decides What Counts?

This dissertation interrogates and expands upon a seemingly simple question asked by a community member. This question was asked in 2009 at a public hearing about a decision by the New York City Department of Education to close a public school. In the context of a public campaign to halt the closure, she demanded, “Who decides what counts?”¹ In doing so, she questioned the way that data was framed and the guiding philosophies behind how it was used and presented. She was contesting a rhetoric of choice in which failures at the school were attributed to educators and the remedy was to enable students and parents to select schools that had been deemed superior through data and information provided as part of a new evaluation system. Why did student test scores and graduation rates count, while a troubling history of mismanagement by the Department of Education, overcrowding and violence did not? Why did selecting among schools count as appropriate political action, while opportunities for discussion and deliberation were foreclosed by the structure of governance?

This woman could easily have been posing these questions about another prominent city policy proposal, congestion pricing. Congestion pricing sought to apply a comprehensive tolling system to dissuade drivers from taking automobile trips through downtown Manhattan. Why did the city decide that shaping drivers’ choices through differential tolling was the means for achieving a reduction in traffic, improving the environment and supporting public transit?

This dissertation answers the question of what counts and why by examining a change in the practices of political authority and participation referred to as the rule of choice. The phrase

¹ Participant observation by author (2009) Alfred E. Smith Career and Technical High School, Bronx New York.

‘rule of choice’ is derived from the work of Timothy Mitchell (2002) who wrote Rule of Experts and Patrick Joyce (2003) who wrote The Rule of Freedom. Both are concerned with the technical and representational aspects of political authority and the subjectivities of citizens. From their perspective, to rule is to do more than announce and enforce police powers, it is also to create systems of understanding, authority and action that are taken for granted, depoliticized and forgotten.

To rule through choice is to create differentiated options for urban citizens who use public infrastructure and to produce information and price signals that guide decisions. Choice-based policies treat urban residents as rational consumers of public goods. Such practices valorize the decisions of individual consumers of public services while at the same time undermining the professional authority of city workers – like the teacher in the example above. Economists, planners and activists developed the rhetoric and tools of choice over the course of a half-century. This strategy moved from the fringes of planning and policy making to become widely accepted and adopted. When the Bloomberg administration sought to govern education and roadway infrastructure through choice, this strategy became the source of public debate and deliberation. The dissertation that follows focuses on the origins and development of choice-based policy-making and the public dispute over it.

Research questions, relevance to planning and approach

This project addresses five interrelated questions about the rule of choice. The first three are substantive and comparative, interrogating the nature, origins, and growth of the rule of choice and responses: First, what was the planning and policy perspective supporting and

supported by the rule of choice?² Second, what were the political, ideological or technical origins of this movement? Third, how and why did choice-based policies become important and consequential? The fourth – who decided what counts? – reflects on the myriad network of actors that proposed, created, enabled, enforced and challenged choice as an urban policy-making construct. Answering these questions offers an opportunity to reflect on broader conclusions about how particular policy perspectives shape the work of planners and the roles of urban citizens. The fifth question – what can be done? – is prescriptive. It prescribes a reformist approach to choice-based policies, while highlighting the importance of actors within the cases who rejected choice-based strategies altogether. Answering it offers insights into how choice-based politics can be brought into line with long-standing values in planning: participation, equality, and comprehensive urban improvement.³

Ameliorative strategies, rather than outright rejection of the choice framework, are necessary and warranted for two reasons. First, the ascendance of micro-economics perspectives and the prevalence of choice as a construct for designing policy systems virtually guarantees that the rule of choice will be enduring. Planners, as always, must remake the world through existing intellectual and material means. The prescriptions that I offer suggest how to bring such policies into line with the core values of planning: to encourage participation, to protect the public good, to promote the interests of the most socially vulnerable and to encourage equality.

Second, engagement with and transformation of choice-based policies are strategies of ontological politics that undermine assertions that economic relationships, individual rational

² Support, here, means intellectual approval by peers, funding from philanthropic organizations, and also support from material technologies, like methodological guides for data collection and analysis, devices for counting, calculating and monitoring, as well as large scale infrastructures, like roadways and schools.

³ See the AICP code of ethics and the list of goals to which planners should aspire (APA, 2005).

actors and market-based allocation are real or fixed. The history that follows reveals choice-based policies to be contingently constructed assemblages. They have been remade over the course of time, with tools that did not exist when they were proposed, to address problems and meet needs that were not envisioned by the intellectuals who first argued for choice. Building on this empirical observation and the theoretical work of post-structuralists who study economic exchange and markets, I argue that there is no ontological fixity, or obdurate reality that determines either the features or consequences of choice-based systems (Callon 1998a, 1998b, 2009, Law 2009 and MacKenzie et al 2007). Strategies that begin and end by bemoaning the inherent biases of micro-economic thinking in general and choice-based policies in particular lend these perspectives the unwarranted ontological standings of real and essential and the unjustifiable status of fixed in their consequences. To engage and pragmatically tinker with choice-based policy systems is to deny them the deterministic qualities that free-market zealots invest in them. Feminist geographer J. K. Gibson-Graham argued “recontextualizing capitalism in a discourse of economic plurality destabilizes its presumptive hegemony” (Gibson-Graham 1996, p. 15).⁴ In the spirit of their contribution, the ameliorative prescriptions offered in the conclusion to this dissertation encourage engagement, recontextualization and remaking over rejection of choice-based policies.

Relevance to Planning

The analysis that follows investigates contemporary, choice-based strategies of urban governance. The policies are relevant to long-standing, core issues in planning such as the

⁴ Gibson-Graham is the pseudonym for two authors, Julie Graham and Kathrine Gibson. In *The End of Capitalism (as we knew it)* they adopt this singular persona as a way of deconstructing identity. I refer to Gibson-Graham as a singular noun, in the spirit of their project.

changing nature of liberal governance, evolving conceptions of rationality and the participatory role that citizens took on in both hewing to and pushing outside of the boundaries envisioned when they created choice-based policy systems.

School choice and congestion pricing, the empirical foci of this dissertation, are examples of urban governance strategies that seek to achieve collective benefit by shaping the choices of individual urban citizens using information and incentives. Infrastructures, including school buildings and roadways that were governed under principles of universal access were reimaged under the principle of individual choice. This reimagining has roots in micro-economic theories proposed in the 1950s which were used by specific intellectuals who translated them into practical ideas; by activists who sought to achieve their own environmental and equity goals; and by the Michael Bloomberg Mayoral Administration (2002 - 2013) in New York City which sought to assert a corporate style of governance.

Approach

Using a historically extended case methodology, this dissertation traces the origins of congestion pricing and school choice, follows the reasons that these ideas became politically and intellectually important, and examines the conflict over their contemporary manifestations. Each case starts by tracing the origins of the policies in the work of intellectuals who applied micro-economic ideas to specific policy problems: William Vickrey (1914-1996) who proposed congestion pricing and Milton Friedman (1912 – 2006) who proposed school choice. The case studies follow their ideas as they were transformed into and through technologies like demand management traffic models, roadway sensor devices, test-based school ranking systems, and formulae for matching student preferences with enrollment availability at schools. In the period from 2002 to 2013, when Mayor Michael Bloomberg championed versions and adaptations of

these policy ideas, they became subject to the constraints of the formal political process, the obduracy of infrastructures (school buildings, roadways, bridges and tunnels), and the work of activists who supported, opposed and shaped the idea of managing choice as a technique of governance. Urban citizens appropriated, repurposed and opposed these policies. Learning from their actions provides guidance as to how choice policies could be more deliberative and participatory.

What is the Rule of Choice?

The rule of choice describes a novel mode of urban governance. It is a historical phenomenon that redefined the role of policy makers and assumptions about the intellectual and political predispositions of urban citizens. Planners and policy makers take on a role akin the designer of a game, using rules and incentives to shape play. Urban citizens are assumed to be rational individual agents who express preferences within the parameters of the choice system. Urban citizens are expected to act individually, as savvy players navigating choice systems to optimize economic benefit. Casting citizens in the role of consumers, the rule of choice minimizes or ignores collective political action as an appropriate means of citizen participation.

The rule of choice is a form of data-driven governance in which city administrators, policy makers, and activists offered urban residents information and options with the goal of shaping their actions. To rule through choice creates distance between the legal authority of city government and the actions of everyday citizens. Policy designers set rules and incentives for citizens who are expected find their preferred use of city services. The same data and incentives that are used to guide citizen choice, are also used to discipline public and private workers. City officials use measures of quality, like report cards for schools, or grades for restaurants to both

inform the public of the quality of services and as a basis to close restaurants and schools and fire teachers.

Designers act in ways akin to game designers, setting parameters, rules and incentives and then expecting urban citizens learn how to navigate towards preferred outcomes. By reorganizing the location and timing of tolls on highways, the strategy undertaken transportation planners who favored congestion pricing, individual drivers would learn new, more efficient pathways through the city. This idea of participation is derived from micro-economic thinking about exchange. In micro-economics, the background, or situatedness of buyers and sellers is bracketed for purposes of the exchange. Questions of ability to pay, the relative positions of power within the market and access to information are left to the side, while the act of decision-making is privileged. Consumers make rational choices about what items to buy and, in doing so, shape the kinds of services that are offered by sellers and produce other public benefits like reducing cost and improving quality. In theory the aggregation of these well-made choices would lead to public and collective benefit.

Choice-based policies propose citizen participation that is informed, responsible, and directed within the confines of a system of incentives defined by planners, policy makers and elected officials. Choice, like economic exchange, is individual, clearly channeled and partitioned from other social relationships. For theorists of markets, it is cooperation without coercion. Choice-based policies use this micro-economic logic to govern city services, creating options for urban citizens and shape their decisions using prices and information. Choice supplants collective political action among citizens as the means for expressing policy preferences.

The Rule of Choice, Bloomberg and Civic Action

Positioning citizens as consumers and shaping their behaviors through structured choice was the dominant mode of citizen engagement during the Bloomberg Administration. The public health campaign that the administration launched against smoking prominently featured a drastic increase in tobacco taxes as a way of incentivizing public behavior change. A proposed but failed tax on sugary drinks used the same logic (Grynbaum 2014). At the Mayor's direction the Department of Health also posted letter grades at the entrance of restaurants reflecting their sanitary conditions. Posters at the entrance of the subway touting a system that showed subway riders how long until future trains arrived boasted that they allowed commuters to 'decide before they swipe' their Metro card.⁵ School choice and congestion pricing are emblematic of the idea that inducing different individual decisions will create collective benefits.

Bloomberg's vision of governance through rule of choice restructured the role of city policy makers and modes of citizen participation and incorporated technologies that mediated the relationship between the local state and citizens. In the cases examined below, city agencies designed and installed technologies including public websites containing masses of data on teachers and students; cameras, sensors and computers for tracking individual drivers; and models to predict how traffic would flow under different pricing conditions. These technologies enabled city agencies to offer urban residents prepackaged choices and simplified facts.

Many New Yorkers embraced the role of the informed and savvy consumer of public goods and data. At the same time, many individuals and civil society organizations resisted, seeking to make the determination of facts and possible choices public and political. In this

⁵ The methodology (Chapter 3) below provides a comprehensive list of choice-based policies put into place by the Mayor and explains why school choice and congestion pricing are useful cases for understanding this phenomenon.

dissertation, I trace the origins of these policy ideas and the technologies that enable them and reveal the process of making and contesting the politics of choice.

The Rule of Choice and the Governance of Contemporary New York City

This study adds to recent histories of contemporary New York City and the influence of the Bloomberg Administration by examining the ways that a corporate governance style was translated into ideas about the role of the state and citizens through specific technologies. Contemporary New York City has been chronicled as a site of the restructuring of global economic processes (Sassen 1991), the locus of neighborhood cultural politics (Zukin 2011), and as a case of contemporary urban redevelopment (Fainstein 2001). By shifting the empirical focus to the practices of policy-making during the Bloomberg administration, this dissertation contributes insights to how the city government sought to reshape the relationship between the local state and urban residents. Julian Brash, in Bloomberg's New York (2011), excoriated the Bloomberg administration for its work in producing a more class-stratified city, both by supporting the development of what he calls 'the luxury city' and by trusting the administration of city affairs to elite planners and policy-makers and reducing the political space for contestation. This dissertation adds to Brash's work by investigating the ways that the Bloomberg administration sought to channel political action – to link the thinking of elites with the actions of everyday urban citizens. Choice provided this link between elites, policy makers and citizens.

Bloomberg campaigned on the idea that he would put his corporate experience to work as Mayor of the city (Bloomberg and Winkler 1997). In public and in political speeches during his tenure, he frequently referred to his experience as the leader of a large media firm when justifying decisions about restructuring city governance (Feuer 2013). One prominent material

and technological manifestation of his efforts, which was widely covered in the media, was the transformation of the organization of management offices within City Hall. Bloomberg put into place ‘bullpen’ style offices, with no walls, low dividers, in which aides and managerial staff were seated together in a large, open room. This layout was adopted from the trading floors of Wall Street, where the Mayor once worked. It placed city workers under constant surveillance, both from managers and from fellow workers. It was designed to open fields of communication and limit obstacles to collaboration (Karni 2014). Choice-based policies extended this logic of openness, multi-directional surveillance and information sharing to the management of city services. The rule of choice was a manifestation of the bullpen approach that extended Bloomberg’s corporate approach to the relationship between city administrations and urban citizens. It enlisted urban citizens in the project of self and collective surveillance and responsible behavior channeled towards the efficient production and use of city services.

Focusing on choice opens up questions about governance and civic participation during Bloomberg’s tenure. To studies of economic transformation, redevelopment politics, and the class character of the city, this dissertation brings to light the modes of governance that legitimated the perspective and policies of the Bloomberg administration through discourses and practices of choice. It also examines how New Yorkers – through local institutions including unions and chambers of commerce – contested, modified and subverted data-driven choice policies.

The Rule of Choice and National and International Governance

The dissertation also intervenes in prominent academic discussions about the changing political discourses at the national and global scales over the last 40 years. The story of choice as a political and policy category moves along the currents of a public discourse that de-emphasizes

the role of 'the social' and focused on the role of individual agents assumed to have certain powers of rationality. Zygmunt Bauman (2001) described individualization as a key feature that distinguishes modern from pre-modern societies. Individualization comes with what he calls the 'mixed blessings of freedom,' the idea that autonomy is both a blessing and a curse, which was prevalent in pre-modern literature and philosophy. Modernization was a process of lionizing the individual and making certain types of autonomy – called rights – the sacrosanct basis for human interaction (Bauman 2001). The rule of choice is an extension of theories of individual agency into the management of public services.

Daniel T. Rodgers (2011) examined the issue of individualization in the context of United States political and social history. He argued that over the last four decades there has been a diminution of the importance of social categories and the reassertion of individualism. He wrote:

the last quarter of the [20th] century was a reformulation, in idea and imagination, of concepts of 'society'. Strong readings of society had been one of the major intellectual projects of the middle decades of the twentieth century...But then in the last quarter of the century, through more and more domains of social thought and argument, the terms that had dominated post-World War II intellectual life began to fracture. One heard less about society, history and power and more about individuals, contingency and choice. (2011, p 4)

Rodgers traced this history of fracture through an examination of presidential speech writing and popular sociological texts.

These philosophical and historical examinations of the growth of the importance of individual choice correspond with policy-making ideas. National political rhetoric both influenced and was influenced by trends in federal policy-making. The New Public Management movement was embraced by center left politicians in The United States in an effort to regain a legitimate place for governmental action in the face of the anti-government sentiment then taking hold, first on the far left of the political spectrum in the early 1970s and then on the right in the

1980s. As the language of social solidarity receded from mainstream political discourse, ideas of entrepreneurialism and individual responsibility took hold (Stein 2011).

The New Public Management was a reiteration of progressive ideals of improving government administration by appropriating techniques from the private sector. In particular, this political movement seized on computer technologies and data as sources for producing efficiency and accountability in governmental action. In the 1980s and 1990s, policy makers and politicians in The New Public Management movement sought to stanch an anti-government, conservative swing in the public mood by 'reinventing government' to reduce bureaucracy and encourage entrepreneurial governing strategies (Peters and Pierre 2000).

Policy-making focused on individual choice also came out of prominent academic trends in law and economics which focused on shaping information and choices to produce better policy outcomes. Presidential advisors Richard Thaler and Cass R. Sunstein in their book Nudge (2008) argued that by structuring information and choices, desired social policy outcomes could be achieved through 'nudges' without the coercion of regulation and enforcement. They write (2008, p. 6):

A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid.

One example of a nudge policy is to rearrange the order of options for individuals in a list of options. For example, they argued that the rate of savings by employees will be increased if the thriftiest options are placed first on a list of potential retirement plans.

This dissertation examines policies that have stronger forms of sanction and reward than nudges. Nudging and ruling through choice, however, are derived from the same behaviorist economic origin, the same overall framework. They share the idea that successful policy-making

creates the right mix of incentives and sanctions -- what Thaler and Sunstein refer to as a ‘choice architecture’ -- to guide individuals to optimal ends.

Managing choice architecture is needed because the decisions that people make often diverge from the choices that economists and policy makers assume that they should make. *Econs*, as Thaler and Sunstein call the rational actors theorized by economists, have perfect information, unlimited cognitive abilities and unflappable self-control. Rather than arguing that economists ought to revisit their assumptions, Thaler and Sunstein asserted that by structuring choices, ordinary people can become more like *econs*, leading to better collective policy outcomes. “Behaviorist economics, has identified specific ways in which people diverge from [the rational economic actor] ideal and sets of tools that help them more readily adhere to it...Our understanding of human behavior can be improved by appreciating how people systematically go wrong" (Thaler and Sunstein 2008, p. 19). The authors proposed that by structuring information and choices differently, nudges can push people towards better individual decisions that make for better aggregate outcomes. These ideas gained purchase at the highest levels of policy-making. Sunstein served as administrator of the federal Office of Information and Regulatory affairs and, in that capacity, advised President Obama and the designers of the Affordable Care Act of 2009 (Walzer 2014).⁶

Choice, Race and Incarceration

Not coincidentally, as attention shifted towards individual behavior, focus on spatial, social and historical phenomena as sources of ongoing stratification receded into the background. The ideology of choice pervades and justifies political and cultural arguments. As Michelle

⁶ The British Cabinet Office created the British Behavioral Insights Team, nicknamed the “Nudge Unit” (<https://www.gov.uk/government/organisations/behavioural-insights-team/about#responsibilities>).

Alexander argued in The New Jim Crow (2010), choice has become more important for justifying what would seem like punitive and patently unfair policies. Darwinian social and biological explanations of difference have become politically incorrect. To deem black people second-class citizens because of natural social inferiority or biological deficiency, as was the case with the first Jim Crow era, is no longer acceptable. To take away voting rights, job opportunities, access to public housing and education opportunities because a black man is arrested for a minor drug offense inserts the idea that he or she could have chosen otherwise and therefore these draconian measures are justified. Because an individual can opt not to commit crime – not to become a criminal – punitive measures are justified rather than arbitrary or race-based.

As with other discourses of choice, historical relationships of power continue to operate. Minorities are targeted for police intervention at a higher rate, though they commit petty drug crimes with no greater frequency than their white affluent peers (Alexander 2010, pp. 3-12). As with other elements of the rule of choice, policing practices were honed towards measures of efficiency, enforced through quotas and achieved with data-driven systems like the police management system Compstat, which served as the model for policy interventions in education and other policy areas during the Bloomberg Administration.

Key Concepts: Liberalism, Governance and Participation

The rule of choice is a strategy of liberal governance. It fits within the tradition of liberalism because it is a proposition regarding the changing roles of governments and citizens, with each imagined as having certain kinds of powers and rights that define specific freedoms and constraints. The activist quoted above, who demanded to know who decides what counts, was free to speak her mind in the public forum, but was no longer free to nominate or elect

officials within the education bureaucracy, as had been the case for the 30 years prior to the creation of school choice policies in 2003. The shifting realm of autonomy and control that characterizes modes of liberalism will be a focal point of both cases examined in this dissertation.

The term governance emphasizes the relationship between influential actors both inside and outside of city government in making choice-based policy. Governance refers to “any form of coordination of independent social relations” (Jessup 2002, p. 52). Here, the term is used to emphasize the interdependence between elected governmental authorities, like the Mayor and governmental institutions, like the Department of Education, on the one hand, and private individuals like Milton Friedman and William Vickrey, and private institutions like think tanks and unions on the other. Together, these collectivities pushed the ideas and practices of choice into the public sphere and shape how they are received, implemented and changed. Governance takes the form of networks of actors that exist both within and outside of city-government which developed and shared rhetorical and political strategies; and shared information and technologies.

Understanding liberal governance requires examining the work of human actors and the accompanying material actors, including systems of data collection and sharing, bridges and tunnels and testing and evaluation tools that shape and structure how these policies are imagined and enacted. The selection of choice as a governing strategy resulted from a constellation of historical actors including: intellectuals and the monetary support that comes from their institutional patrons; experts and technicians and their methodologies and data; politicians pursuing their personal and public agendas; the city’s existing institutional and material

infrastructure; and the physical, political and economic geography of the city. These groupings form networks that enable specific kinds of action and foreclose other opportunities.

The rule of choice exemplified by the two cases proposed and implemented modes of citizen participation and engendered forms of resistance. First, the cases demonstrate how the rule of choice developed over time and became influential in the Bloomberg administration. They are also showing how to make choice-based policies more democratic. Advocates of choice-based policies envisioned them as an apolitical means of achieving public ends. Rather than large-scale interventions by the state, like demolishing neighborhoods for highway construction or busing students to better schools, citizens can act as consumers matching their preferences to options provided by planners and governmental officials. As always, depoliticization is a mere reorganization of politics. Both school choice and congestion pricing met with strong appreciation, approval and support as well as deep discontent, resistance and oppositional action.

Many scholars, politicians and activists rejected choice-based policies and advocated reverting to more collective forms of liberal governance. Observing how actors engaged with these policy systems through collective action, subversion and negotiation suggests ways of politicizing seemingly technocratic issues. They engaged in technical debates about how choices and sanctions are structured, making them more broadly public, as when activists at the closing public school offered critiques of the evaluations used to rank schools. They sought to tie choice to the economic and social positions of those who are assumed to be equally able to choose, as when the City Council in New York sought to means-test the proposed congestion pricing system. In all of these instances, groups of actors worked collectively defying or overflowing the role of citizen-consumer suggested by choice-based politics.

Dissertation Overview

By examining the context surrounding the choices that citizens make, this dissertation politicizes what have become pervasive, common sense ideas about individual agency and collective responsibility in urban policy-making and practice. To considerations about the changing character of national politics, this project unearths a deeper history of specific policy ideas, examines how these ideas were enabled and shaped by particular technologies, and explores how they became enmeshed in the political geography of a single city. Specifying the historical, technological and geographic mediation of these policies, this dissertation reveals unexpected forms of collective action, giving hints to the kinds of public participation that could make them more democratic.

With the rule of choice, city administrators, public intellectuals, and activists who opposed or supported congestion pricing and school choice made the question of what counts openly political. To examine this process, this dissertation precedes as follows: After this introduction (Chapter 1), the following chapter (Chapter 2) places this study within the theoretical literatures on the changing practices of liberalism, rationality in planning and technologically mediated citizenship. Chapter 3 describes the methodological approach: historically-extended case studies of contemporary planning practice. Next, the two cases, which form the empirical heart of this dissertation, are. Each case is composed of two chapters, one of which covers an intellectual, material and political history from the 1950s through the years just prior to Bloomberg's first term as mayor in 2002. The second chapter in each case describes the contemporary politics of each policy in the context of Bloomberg's New York City. So, Chapter 4 is a history of congestion pricing and Chapter 5 describes the contemporary politics of Bloomberg's attempt to adopt congestion pricing and the resistance that led to its demise. Chapter 6 presents an extended history of school choice and Chapter 7 presents the construction

and contestation of school choice policies from 2003-2014 in New York City. Chapter 8 then analyzes and compares the two cases in light of literatures on the changing nature of liberal governance, the role of data and rationality in planning and actor-network theory. Finally Chapter 9 sums up the findings from the cases and theoretical analysis and offers suggestions for planners who want to politicize choice as a category of public participation and make choice-based systems more democratic. This political action will serve as a basis for thinking about how to make choice-based policy more participatory and deliberative.

At the core of this dissertation and is the claim that choice-based systems can be made to conform to the ethical goals of planning. This is especially true with regards to the requirements to maximize democratic participation, make special efforts to promote the interests of the most socially vulnerable and encourage equality.⁷ A corollary to this argument is that the rule of choice should be engaged with, modified, and improved.

⁷ See footnote 3.

Chapter Two Literature Review

Barbara Cruikshank argued that “citizens are not born; they are made,” which is another way of saying that the role that city officials, civic society organizations and citizens play in legitimizing and contesting governmental authority is constructed (1999, p. 3). This dissertation seeks to understand a specific construction of urban citizenship referred to as the rule of choice. Urban citizenship is defined here as the relationship between city residents who use infrastructure, services and spaces and public officials and private organizations that design policies to enlist, shape and control publics. The discourse and practice of choice sought to reposition urban citizens as consumers who produce costs or efficiencies through their decisions. The literature in three areas of sociology and planning – writings on liberal governance, debates about rational policy-making and economics, and the body of scholarship known as actor-network theory – open up questions about the nature of urban citizenship that will be addressed through the empirical and theoretical work of this dissertation.

Liberal governance is a mode of social control and guidance that delineates and operates through the proscribed freedoms of individuals and collectivities. The defining feature of liberal governance is that the formal apparatus of the state is held in check, creating spheres of autonomous action for economic and political actors. As Cruikshank explains, liberal governance is “forms of action and relations of power that aim to guide and shape (rather than force, control, or dominate) the actions of others” (*ibid*, p. 4). Liberal governance always combines limitations imposed by state authority with delineated spheres of autonomous action. The specific form that liberalism takes changes. The literature on liberal governance elucidates its historical transformations and continuity, distinguishing between classical liberalism, welfare liberalism and neoliberalism. These shifting spheres of freedom and control; individual responsibility and

governmental authority are themselves political in that they define the terrain of what is and is not legitimate action.

As liberalism changes, so do ideas about the innate capacities of governmental, social and individual entities. The term rationality is used in planning and economic literature to describe the intellectual and practical capacities of governmental authorities and individuals, setting the boundaries for what is legitimate action for each. The early literature on rationality from Max Weber defined four ideal types of rational thought and action: instrumental, value, affective and tradition-bound (Weber 1949). Weber argued that a crucial aspect of modernization was the growth of instrumental rationality in social interaction. Much of his social critique was based on the idea that societies (particularly Protestant ones) were oriented around instrumental aims of capitalistic growth and that these goals had become severed from their original meaning which was attached to values, emotion and tradition. Individuals within such a society, driven to instrumental ends while being severed from other modes of rational thought and action. He argued poetically that modern, secular capitalists were “specialists without spirit, sensualists without heart; this nullity imagines that it has attained a level of civilization never before achieved” (Weber 1904, p. 123) Discussions of rationality, starting with Weber’s critique, contained the fear of what the 19th century sociologist called ‘rationalization’ or acting on beliefs that are formally rational yet lead to irrational or harmful modes of action or outcomes.

In the 20th century planning scholarship moved from exulting instrumental rationality to efforts to bring in values, emotions and tradition. Planning theorists originally legitimized the role of the profession by arguing that planning processes can offer solutions to urban problems based on expert rather than political authority. They linked this claim to a special relationship with rationality. The first generation of academic planners argued that planners were to concern

themselves solely with the process of efficiently achieving goals defined by political leaders. Planning was to be a bureaucratic entity within the local or national state that concerned itself with instrumentally rational questions. Planners legitimized their expert status and bureaucratic autonomy through claims to rationality and comprehensiveness. (Meyerson and Banfield 1955). A generation of research on planning practice showed the hopelessness of this ideal and the harm done by adhering to it (Meyerson and Banfield 1955, Altshuler 1965). Successive generations of planning scholarship sought to legitimize expert decision-making that incorporates values, emotion and tradition (Krumholz 1982, Forester 1989, Sandercock 1998).

Micro-economic ideas about rationality provided an alternative – removing experts, professionals and bureaucratic forms of authority from decision-making processes and relying on the decisions of individuals to achieve social ends (Rodgers 2011). Such economic ideas rested on claims that instrumentally rational action by individuals, when properly directed, could produce desired collective outcomes. Enshrining individual rational action as the locus of policy change is another important form of politics.

The individual and its rational action are a collaborative and technical construct made durable through the political work of representing people and their interests through the shorthand of data. To understand this construction I turn to actor-network theory (ANT). ANT grants the status of actor to non-human material things. As Barbara Czarniawska argued, “the purpose [of calling things actors] ... is not ... to anthropomorphize insentient beings ... it is to point out the special role that objects play in associations: they stabilize” (Czarniawska 2006, p. 1554). City agencies, politicians and civil society organizations build a particular perspective on urban problems. Material things, like surveys, spreadsheets, modeling tools and physical

infrastructure stabilize and structure the politics of choice. This relationship is built of assemblages of human and non-human actors.

Actor-network theory localizes broad concepts like freedom, citizenship and rationality in specific political technologies of representation and responses to them. Drawing on ANT, I use the concept of *representation* to describe the assertion of authority and the concept of *overflows* to describe resistance to it (Callon 1986 1998, Latour 2002, Disch 2008).

Writings on the changing nature of liberalism, rationality and actor network theory enable me to examine the remaking of urban citizenship as part of a continuing history of how ruling through the structured choice of individuals was enacted and contested during the Bloomberg administration.

Liberal Governance: Making citizenship – public authority and private freedom.

The rule of choice is a strategy of liberal governance, which is to say a way in which the powers of formal government sought to achieve its ends by governing subjects that were constructed as autonomous from the formal state. As Patrick Joyce (2003) wrote of 19th century liberalism:

Liberalism ceded governance to an unknowable and opaque, object of rule, that of the liberal subject. Liberalism was shy of too much governing, and it confronted itself with realities – markets, civil society families and ... cities – in which these subjects could be identified. These realities had their own internal logics and mechanisms of self-regulation which had to be respected. Liberalism therefore depended on cultivating a certain sort of self, one that was reflexive and self-watching (4).

The autonomy of the liberal subject is coupled with the cultivation of this self-watching, reflexive subject.

All forms of liberal governance seek to manage contradictory elements: autonomy and control, or the freedoms of citizens and collective powers that influence and channel the ways

that those freedoms are expressed. The various ways in which liberalism has been imagined and worked out in practice created frameworks for what is and is not legitimate citizen action or participation. A reading of the literature on liberal governance elucidates its key features and how ideas about the capacities of the state and citizens have changed over time. This literature is useful for identifying what is unique about choice as a mode of liberal governance.

Liberalism is premised on the idea that the state operates through aspects of commercial, social and individual life that are separated from total control of governmental power. As Michael Dean writes:

Liberal forms of rule provide a critique of the pretensions to omniscience and omnicompetence of the agencies of [state control] in order to advance the idea of a limited government that operates through the theoretical and scientific knowledge of immanent social and other processes external to the institutions of formal political authority (Dean 2002, p. 42).

The immanent social and other processes that Dean refers to are constructs such as the market, the social and the individual.

To govern liberally is to draw on bodies of knowledge including economics, sociology and psychology in order to determine how the state can facilitate action that harnesses and uses immanent social processes – the growth of markets and the psychological or social make up of citizens towards collective ends. For example, an earlier generation of city officials drew on theories of urban ecology to guide urban renewal. Concepts such as blight, slums and the very concept of renewal relied on the deeply embedded metaphor of the city as an ecological system, a coherent living being that required regeneration to thrive (Park 1925).

Urban renewal has become synonymous with top-down, state-centric governmental policy, yet the authority for such action, and the roles that these actions proposed for urban citizens were the result of processes of knowledge production and legitimation that arose out of civil society, in this case the academic work of early urban sociologists. As Dean writes:

Liberalism proposes what is, in effect, a new form of [state control]. This new form is no less comprehensive [state control] than the old one. However, it employs techniques located within civil society rather than merely issuing regulations and thus must rely on a knowledge of economic, social and other processes outside the formal sphere of the state (Dean 2002, p. 42).

Theorists write of governance rather than government, to capture the porousness between civil society and the formal state.

As stated above, the problematic of liberalism has defined and redefined the relationship between individuals, their freedoms and their capabilities, and aggregations, which Michel Foucault called ‘the social entity’ (1994 [1982]). The reasoning that underlies and defines the relationship between the individual and the social entity is, to requote Dean, “derived knowledge of immanent social and other processes external to the institutions of formal political authority” (*ibid*, p. 42). Such knowledge constructs the characteristics of both social entities and the individual; it defines their capabilities, roles and powers.

Knowledge about the social and the individual is constructed and enacted through technologies. In a series of lectures on contemporary political authority, Foucault asked:

What kind of political techniques, what technology of government, has been put to work and used and developed in the general framework of the reason of the state in order to make the individual a significant element of the state? What I am looking for ... are the techniques, the practices that give a concrete form to this new political rationality and to this new kind of relationship between the social entity and the individual (1994 [1982], p. 409-10).

Since Foucault articulated this question about the technologies, techniques and practices that make individuals a significant aspect of the logic of governing, other scholars, including Christine Boyer (1983), Paul Rabinow, Nikolas Rose (2000), Michael Dean (2002), Patrick Joyce (2003), Timothy Mitchel (2003), and Neil Brenner (2004) set out to answer his questions. The answer to these questions have been historically specific, and periodized – liberal governance and the bodies of knowledge and technologies that infuse and enable it change over

time, while adopting characteristic forms. Nikolas Rose (2000), among others has identified three historically situated types of liberal governance, classical liberalism, welfare liberalism, and advanced liberalism, the last of which is typically referred to as neoliberalism by contemporary scholars (Brenner 2004).

Classical liberalism was characterized by a strategy of constructing self-regulating market relationships and undoing traditional and governmental systems focused on social and collective protection. Tracing this transformation to 17th century policy in Great Britain, Karl Polanyi argues that through disjointed policy action, state and civil society actors created three fictitious commodities – land, labor and money – while at the same time actively undermining existent systems of solidarity and protection that limited the scope of the market (Polanyi 1944, pp. 52-79). This creation was the result of new legal constructs, technologies of mass production and systems of land tenure. Positioning market relationships as a self-regulating social entity that functions best outside the control of the state had been a major intellectual and political project of 17th century political economy, with Adam Smith, David Ricardo and Jeremy Bentham as leading proponents of these ideas (Mitchell 2003).

Individualism, a body of rights and responsibilities assigned to each person, grew with both classical liberalism and responses to it. Patrick Joyce, in Rule of Freedom (2003), argued that new urban infrastructures in the 19th century, like wide, clean straight streets, with sewers below and street lights above, enabled the active, public performance of liberal subjecthood: a walker could stroll unencumbered performing his liberty. Streets were “constituted in such a way as to remove all impediments to this person, this liberal subject, being able to exercise freedom” (2003, p. 11). In Joyce's account, liberal citizenship, as a performance of individual freedom and self-regard, was enabled by new technologies and spaces. In public space and through new

technologies of urban surveillance like maps, surveys and censuses, liberal citizens “cultivated a certain sort of self, one that [is] reflexive and self-watching” (Joyce 2003, p. 4). This self-watching was coupled with a vigilance that sought to create a realm of freedoms at a distance from the state. The study of society became a self-conscious concern with the relationship between individuals and collectivities. “‘Society’ is another name for agreeing and sharing, but also the power which makes what has been agreed and shared dignified” (Bauman 2001, p.2).

Welfare liberalism arose from the displacements associated with classical liberalism, according to Polanyi. Treating labor as a commodity, for example, resulted in what he refers to as the emasculation of those forced to sell their labor. Social policy in response took a specific liberal form. It drew on statistical and actuarial practices to create forms of social insurance, including pensions, welfare and unemployment insurance (Rabinow 1989, Rodgers 2009). At the same time autonomous individuals drew on medical, psychological and social scientific knowledge to assert expert authority, distinct from that of the state and economic actors. Experts were authorized to intervene in social problems, while maintaining their independence from politics, as they are typically understood. Welfare liberalism valorized experts through licensing, credentialing and other means of official recognition. Through knowledge of technique, such experts – sociologists, planners, psychologists – were authorized to represent truths about collective and individual well-being. “Truth is a technical matter – it is the 'know how' that promises to make government possible” and with classical and welfare liberal governance, experts retain authority over technical domains (Rose 2000, p. 291).

Welfare liberalism sought to govern through technical forms of social solidarity like social insurance, comprehensive plans, and universal infrastructural improvement, and through norms of collective protection from predictable collective harms, like being poor, growing old,

losing a job, vacillations in economic growth and the spread of disease (Hommels 2005, Rodgers 1998). Examining the period from 1830 to 1940, Paul Rabinow in French Modern (1989), constructed a history of intellectuals, spaces and techniques that led to the modern, technical, universalistic welfare state in France. He followed specific intellectuals⁸ in the military, colonial administration and state who constructed internally consistent norms drawing from fields of knowledge ranging from hygiene to statistics and found or created forms in the built environment and in social policy that express these norms. For example, probability and ‘the law of averages’ from statistics produced norms for thinking of collective risk and social responsibility. Social insurance became a form for expressing this idea of the collectivization of risk. This intellectual and practical labor contributed to the birth of the modern, French welfare state (Rabinow 1989, pp. 320-358).

Neo-liberalism, a political and philosophical movement that has dominated from the last quarter of the 20th century to the present, shapes the freedom of citizens through regulated choice. Neoliberalism grew out of welfare liberalism. According to Nikolas Rose, “neo-liberalism was potent because it did not merely articulate a range of familiar criticisms of welfare – its cost, its bureaucracy, its granting of discretionary of authority unaccountable professionals and administrators, its paternalism, its inequality its crushing of autonomy – but managed to turn these criticisms governmental – that is to say to render them technical” (2000, p. 294). This was accomplished through theories that made individual choice central to governance. These included theories of the self and society (neo-classical economics), practices (consumerist modes of governance) and technologies (sensors, computers, tests, etc).

⁸ Rabinow defines specific intellectuals as middle-ground figures who worked between academic and political spheres, doing the practical work of spreading ideas and creating spatial and institutional forms that would support those ideas.

Neo-liberal policies can be distinguished as those that created distance between decisions of formal political institutions and other social actors by shaping and utilizing their freedom to choose. As Rose wrote, “whilst welfare sought to govern through society, advanced liberalism [neoliberalism] asks whether it is possible to govern without governing society that is to say, to govern through the regulated and accountable choices of autonomous agents – citizens, consumers, parents, employees, managers investors” (2000 p. 298).

Foucault and the authors above who drew on his scholarship theorized the relationship between technology and governance. They placed these strategies within a historical evolution of liberalism and characterize the salient features of neo-liberalism. These scholars elaborated the theoretical and practical production of over-arching discourses and technologies that organize political and popular understanding.

From a neo-Marxist perspective, contemporary liberal governance encompasses two trends elaborated by David Harvey (2001) and Neil Brenner (2004). First, as Harvey has pointed out, liberal governance has produced inequalities in both economic and state practices. In his telling, a cadre of national political figures – Ronald Reagan in the United States, Margaret Thatcher in the U.K. and Deng Xiaoping in China – created institutional forms that supported the proposition that “human well-being can best be advanced by liberating individual entrepreneurial freedom... strong private property rights, free markets, and free trade” (Harvey 2004 p. 2). Second, as Brenner has pointed out, this form of globalization has produced new scales at which the state governs, from national blocks like the European Union to free trade zones like NAFTA to inner-city reconfigurations, including enterprise zones and urban regions (Brenner 2004, p. 2). Both of these trends have changed the relationship between governmental powers, non-governmental organizations and urban citizens in similar ways. New market-based metaphors,

that echo ideas of entrepreneurialism and enhanced property rights and responsibilities, have structured the principles of public management.

The rule of choice arose in this historical transformation from welfare liberalism to neo-liberalism. The cases that follow draw on scholarship liberalism to trace the origins of choice-based policy and to follow its transformation over time. The cases traces the specific ideas, technologies and institutions that shaped the relationship between city government and citizens during the Bloomberg administration.

Data and Rationality

Concerns with the changing forms of liberalism intersect with debates about uses of quantified data and rationality in planning. The literature on liberal governance interrogated the relationship between governmental power and individual freedoms. The literature on data and rationality provided reference points for understanding city officials' claims to expertise, authority and legitimacy.

The origins of centralized state power linked with the ability to generate standardized, especially numeric information, which has the quality of being understandable or readable by outsiders, at a distance (Scott 29-32). The nature of this power is historically embedded and changing over time. Theodore Porter in Trust in Numbers (1995) argued that the turn towards managing public projects with quantified data enabled greater control at a distance, and situated planners as having a comprehensive view of problems.

The use of quantified information to describe and assert authority over collective problems became a veritable political movement with the Progressives in the late-nineteenth

century and into the first half of the twentieth century.⁹ Heather MacDonald wrote, “for the Progressives, data offered a way to disentangle policy responses (whether public or philanthropic) from narrowly ideological concerns, and to broaden discussions of social problems and solutions” (2008, p. 267). From social surveys of poor and working-class living conditions in London, Pittsburgh, Chicago and New York, to the first systems of social insurance, to housing reform across Western Europe and the United States, Progressives used data to make problems public and to create techniques of social solidarity.

During the two world wars and the intervening depression, national governments brought in ideas, people and techniques from the Progressive movement to manage the war-time economy and then to manage the peace and the growth of the welfare state that followed (Graham 1976, Rodgers 1998). With the growth of state functions, the need for data increased; the expansion of the welfare state in the post-war period only enhanced this need.

An intensification of the use of centralized planning, control and monitoring in both the War in Vietnam and the War on Poverty led to greater reliance on and even reverence for quantitative data. As Alice O'Connor wrote, policy makers thought that the War on Poverty would be won with knowledge that would be “statistically rigorous, methodologically sophisticated [...] and most significantly modeled on an approach to policy analysis that was said to have revolutionized the Department of Defense” under Robert McNamara (2001, p. 173). As O'Connor showed, this form of 'poverty knowledge' shifted attention from collective determinants of poverty to the behavior of the poor themselves, a theme that would intensify as the post-war liberal consensus on planned social policy and economic management dissolved.

⁹ The assembly and use of quantitative data for governing precedes the Progressive movement. In the U.S. and U.K. statistical practices and quantification have always been central to state-making (Porter 1995, Desrosières 1998).

Strategies for improving the economy and society became fixated on individuals, especially members of marginalized groups, and how to shape their behaviors (Moynihan 1965).

By the mid-1970s, dissatisfaction with urban renewal and highway placement led to widespread, public protest as well as an intellectual reappraisal of the aims of top-down, quantitative and comprehensive planning. Some planning critics emphasized the complex ecology of neighborhood-level self-help that was undermined by centralized decision making, urban renewal and highway building (Jacobs 1961). Other planning intellectuals argued for more citizen control in planning decisions (Arnstein 1964). Yet others questioned the intellectual justification for planning altogether (Wildavsky 1973, Rittel and Webber 1973).

A set of theories - advocacy planning, equality planning, and communicative/ collaborative planning - each vied to replace synoptic, quantitative planning as the dominant paradigm. These planning theories all argued for greater non-elite representation in planning (Davidoff 1965), an increased ethical commitment to marginalized groups (Krumholz 1982), and greater deliberative participation (Forester 1989). Academic planning trained its attention on bringing in or representing marginalized groups and moving towards deliberative forms of citizen participation. All of these planning theories and strategies pulled back from the centralized, quantitative control envisioned by rational comprehensive planners.

Powerful political actors took a different route. In the 1980s and 1990s, policy makers and politicians in the New Public Management movement sought to staunch an anti-government, conservative swing in the public mood by 'reinventing government' to reduce bureaucracy and encourage entrepreneurial governing strategies (Harvey 1989). This movement towards accountability and business management strategies brought a need for more centralized

quantitative information, and systems of standards and quotas to judge government performance (Strathern 2000).

Data-driven governance reanimates the long-term debate about rationality in planning. Rationality is important in this study as a heuristic for thinking about how choice-based planning policies conceived of moving from quantified knowledge to action, from the authority of governmental action to the implied actions of citizen participants and from the formulation of explicitly value-laden ends to the technical means for achieving them. Literature on rationality provides useful distinctions between rationality as a motivating concept for organizational action and as an intrinsic capability of all human actors as well as the relationship between these two spheres of action (Reade 1985).

For Weber (1904), theories of rational action were heuristics (called ideal types) for considering the kinds of knowing and acting that occurred at different moments and in different spheres of social life, distinguishing between the kind of reasoning that takes place, for example, within a bureaucracy from the kind of thinking that takes place in a religious ceremony. For those who followed Weber, claims to rationality became warrants to expertise and, in turn, turn authority.

The planning literature on rationality provides insights into how city officials legitimated their claims to authority and expertise. The literature held that rational solutions to urban problems were the end result of a process led by experts. This process for producing rational decisions became the focus of planning scholarship (Simon 1956). By using this process, planning agencies claimed that they were rational actors within the apparatus of city government, enacting policy at the behest of elected officials, and at remove from the normativity of political decision making.

Eric Reade (1985) argued that the ‘normal science’ definition of rational action was an act in which “the actor has reason to believe will best or most efficiently produce the consequences which it seeks” (p. 78). In Reade’s definition, the rational actor uses calculative reason to match knowledge with a set of prescribed actions to attain a predefined goal in order to maximize outputs and minimize inputs, which is the definition of efficiency. The rational actor knows what objectives it wishes to achieve, has cognitive abilities to know how to best achieve that action and has access to information for making the best possible decisions. The rational actor theorized by Reade was disembodied and generic, ascribed with standard qualities of seeking the most efficient means to bridge the gap between knowledge and action.

Theories of rationality distinguish between individual and organizational forms, though the underlying assumptions of organizational and individual rationality are the same. Reade argued that “the concept of rationality has been used by social scientists in two main ways. First it has played an important part in thought about social research methodologies... Second the concept of rationality has been used in the more specific task of analyzing public decision-making” (1985, p. 78). Both organizational and methodological conceptions of rationality assume that a rational action used knowledge to efficiently move towards a predefined end. Highway planners seek to maximize the utility of roadways in the same way that individuals seek to maximize utility when setting out on a trip on those highways.

Reade’s ‘normal science’ usage of rationality elided major debates about the term that would be consequential in planning theory. His use of rationality is reflective of a truncation of the original concept as first explored by Max Weber in Objectivity and the Social Sciences in 1904. Weber has influenced generations of sociologists and applied social scientists in their thinking on rationality (Reade 1985). Weber’s theories of rationality are confusing because he

used the word in a generic sense and also provided a series of distinctions. He distinguished four types of rational action. *Zweckrational*, or instrumental rationality, was defined by thinking that connected present action (means) with the attainment of future goals (ends). *Wertrational* action, or value-oriented rationality, was action taken for its intrinsic value, based on, for example a moral or ethical code. Affective rationality, was emotionally-driven decision making. Traditional or conventional rationality was determined by habit or ingrained patterns of behavior that were not reflected upon deeply at a conscious level.

Reade and early theorists emphasized goal-oriented *Zweckrationality* as the domain of planning. Banfield (1955) elaborated on this distinction, arguing that: “It is ‘good’ planning if [the chosen] means are likely to attain the ends or maximize the chances of their attainment” (361). He went on to specify the means, or process, that planners ought to undertake in order to maximize their chances of attaining a specific goal. Other planning scholars, starting with Altschuler (1965), argued that in addition to providing ‘casual knowledge’ of the means most likely to achieve specific ends, planners had a duty to be comprehensive in their proposed solutions to public problems. Comprehensiveness suggests that planners have a special obligation to “understand the overall public interest” with regards to their proposed solutions to particular problems (1965, p. 186). This idea of planners as the guardians of the public interest, rather than answering to a particular faction, became twinned with the aim of determining the most efficient means for achieving a particular end in the phrase rational, comprehensive planning¹⁰.

Rational, comprehensive planning dominated planning theory in the post-war period. In Altschuler, Banfield and Reade’s formulation, different kinds of rational action were to be

¹⁰ Both Meyerson and Banfield (1955) and Altschuler (1965) were critics of claims to rationality in planning.

pursued in different spheres of public life. To return to Weber's distinctions, these planners describe some form of *Zweckrational* action, and finding processes for attaining it, as the sphere of planning practice. *Wertrational* action would be conducted in other spheres of public action, particularly through the democratic process. Politicians and the voting public would make substantively rational decisions on what the goals of governmental action should be. As Altshuler (1965) argued, "goals must win approval from a democratic political process" (186). Planning was theorized as the rational, comprehensive process for attaining the ends or goals identified through, but separate from, the political process.

This theorized basis for legitimacy did not hold up to empirical scrutiny. Almost immediately after planning became institutionalized as an academic discipline that justified its authority based on special access to a rational process for understanding cities and making decisions, the concept came under attack from scholars who observed planning practice (Meyerson and Banfield 1955; Altschuler, 1965). Most recently, Bent Flyvbjerg (1998) continued this tradition with his study of transportation planning in Aalborg, Denmark, arguing that claims to rationality were a technocratic mask for deeply embedded power relationships. He coined the term *realrationalitat* (derived from the term *realpolitik*) to emphasize the ways that claims to rationality disguise what are, in reality, powerful parties pursuing their interests. For critics of rational planning the instrumental rationality that planners claimed was accompanied or superseded by hidden value rationality. Worse yet, planners' claims to a special ability to apply instrumental rationality in the public interest, in practice, disguised value-rational decisions that served the interests of the powerful over those of the weak (Meyerson and Banfield 1955, Altschuler 1965, Flyvbjerg 1998).

The cases that follow document the rise of theories that focused on the rationality of urban citizens. They follow the movement towards data-driven and choice-based policies. They draw on literature on rationality and data in planning and extend analysis of how knowledge is linked with action to the contemporary moment. Assumptions and theories about the rationality of users of city services are derived from data representing their preferences, interests, and achievements. Literature on actor-network theory provides guidelines for understanding and examining the politics involved in these constructions of urban citizens.

Actor-network Theory: Politics as Representation and Overflows

Actor-network theory trains attention on the micro-politics of technologically mediated authority and citizenship. Its chief proponents, John Law, Bruno Latour and Michel Callon called on analysts to focus on the intersection of cultural, social and technological change as the locus of power. In their empirical work they examined specific histories of scientific and technical change in great detail (Law 2007). They argued that knowledge, technology and even abstract systems like economies and democracies were built through relationships in which humans and non-humans shared agency and become sources of contingency or obduracy¹¹.

¹¹The work of Bruno Latour, John Law and Michel Callon defined a new theoretical school within STS called Actor-Network Theory (ANT). When Latour published *Laboratory Life*, in 1979 STS was dominated at the time by the Sociology of Scientific Knowledge (SSK) school, largely based out of Edinburgh, Scotland (also known as simply the Edinburgh school).

The SSK school arose in response to earlier, dominant theories in the sociology of science that had been put forth by American sociologist Robert Merton and American physicist and historian of science Thomas Kuhn. Merton explored the social norms of natural scientists and argued that these norms enable the scientific production of knowledge. Kuhn, on the other hand, argued that scientific discovery does not grow linearly from adhering to scientific norms or method. (Kuhn, 1962, 2). For Kuhn, “personal and historical accident is always a formative ingredient of the beliefs espoused by a given scientific community at a given time” (Kuhn 1962: 4). Moreover, phases of scientific knowledge accumulation are divided into “normal science” in which groups of scientists study defined problems and “scientific revolutions”, times when the basic assumptions of scientific inquiry in specific fields are radically called

Indeed one of the central metaphors in Science and Technology Studies was that of the cyborg, a “fantastical combination of bodies and machines” (Gandy 2005, p. 26). The cyborg metaphor emphasized the complex assemblages of humans and non-humans required to produce citizenship. Bruno Latour argued that the process of democracy can be understood by tracing the mundane, practical paths and instruments that “make it physically possible to collect, through the circulation of paper technologies [ballots], a link between [a voter] and [the nation of] France whose exacting traceability has been slowly elaborated through two centuries of violent political history and contested voting reforms” (Latour 2005, p. 222). To exercise citizenship in France,

into question. While Kuhn argues that the growth of scientific knowledge is meandering process of fits and spurts, he retains the idea that scientific exploration accesses an external 'nature' and produces knowledge about that nature.

Arguing against Merton and Kuhn, authors including David Bloor and Steven Wolgar in the SSK school contended (and continue to contend) that scientific facts are socially constructed. Against Kuhn, they argued that external knowledge about the outside world is never directly accessed and always mediated by social forces. What came to be known as the ‘strong program’ in SSK focused on the value systems of scientists as well as the economic and social conditions under which scientific knowledge is produced. All knowledge, according to this school, is socially produced and therefore scientific knowledge is equivalent to other forms of knowledge (Seguin, 2000). The SSK strong program breaks with earlier sociological investigations of natural science by arguing that the natural and the scientific are socially constructed.

Latour’s break with SSK can be traced to the early to mid-1980s and the publication of *The Pasteurization of France* in 1984 (translated into English in 1988) and the 1987 republication of *Laboratory Life*, with the new subtitle that elided the phrase ‘social construction’ and replaced it simply with *The Construction of Scientific Facts*. Latour became highly critical of the idea of ‘sociological construction’, which sets him in opposition with his Edinburgh colleagues. As I will show below, this small elision is the basis for a radical philosophical turn that argues for a complete redefinition of ‘the social’ to include the influence of non-human as well as human actors. (Bloor, 1999; Latour 1999; Seguin, 2000)

This new school of thought, which became known as Actor-Network Theory (ANT), was formulated with colleagues at the Ecole des Mines, in Paris, France, including Michael Callon and John Law at Lancaster University, in England. At various times Latour has distanced himself from the name ANT, but in *Reassembling the Social* he self-mockingly writes, “actor-network theory, a name so awkward, so confusing, so meaningless that it deserves to be kept” (Latour, 2005: 9). ANT differs from the Sociology of Scientific Knowledge school in its claims about the status of the material world. Whereas SSK argues for the primacy of social explanations of the material world, ANT grants the status of ‘actor’ to non-human, material forces (as I will explore in greater depth below). Latour and his ANT colleagues’ not only challenged the SSK school within STS, but the dominant ontological conception of sociology and the natural sciences.

then, was to be part of a circulation of paper ballots that translated gestures in a voting both to representations on a standardized form of the preference for a certain politician that were tallied at a central location. The tallying of this form put into place another set of equally ordinary and traceable processes that led to a democratic change in power. In that way, individual votes were aggregated as a collective choice. Modern citizenship required each of these transformations and linkages; it used voting machines, ballot forms and a system of tallying. This series of devices and apparatuses co-produced forms of authority and responsibility (Latour 2002). Citizenship was a cyborg concept.

Though these material transformations and aggregations, a politician, a policy maker or a political party became a *porte parole* (literally a word carrier) or spokesperson for an entire nation (Disch 2008). Vote tallies enabled politicians to speak on behalf of an aggregate. Their claims to that authority were verified through legislative practices and ultimately traced to the ballots that represent individual votes. Politicians were mediators, which is to say that at the same time that they represented a constituency, they also shaped who or what they were representing. Their “‘decisive’ competency is to produce ‘a scenario for the collective as a whole’ that brings that whole into being” (Disch 2008, p. 94).

These transformations produced what John Dewey calls a ‘public’ (1927). Andrew Barry elaborates this idea of a public:

The contemporary public sphere cannot be understood as something like a set of spaces in which rational discussion simply takes place in an unmediated fashion. [Publics] are not like the Greek polis of the modern political imagination. Rather they are arrangements of persons and technological devices formed in particular settings, within which it is possible to articulate a range of rhetorical forms...They are not merely social constructs... Effects emerge from a combination of persons and materials (2001, p. 11).

In this telling a public is an uncertain assemblage; of people, materials, and representations of individuals. Voting is one way that citizens become represented as part of a public.

Expert planning authority, which gathers data to speak on behalf the interests of citizens, performs a similar act of representation. Standardizing and classifying was another example of translating things, people and ideas into forms that can be circulated, aggregated and made into publics. STS scholars have been particularly interested in the material and ideological production of standards and categories. Geoffrey Bowker and Susan Leigh Star argued “each category valorizes some point of view and silences another. This was not inherently a bad thing – indeed it is inescapable. But it was an ethical choice, and as such it is dangerous – not bad, but dangerous” (1999, p. 6). Data, technologies, planners and policy makers produced public identities and roles for citizens by deciding how to count them and classify their behavior. Standardization and simplification is a process of constant maintenance of a particular point-of-view that selects out specific qualities – it is a mode of representation and a form of producing a public. This standardization and categorization was a key site of the politics of representation in planning and policy-making.

The identities and roles created in these technical arenas were important sources for negotiating the terms of urban citizenship and public participation. As Mathew Gandy (2005) wrote:

[This form of] public realm, with its hybridized conceptions of agency, is quite different from that envisaged within Habermasian philosophical traditions because of the radical extension of human agency to encompass those technical and organizational systems which the Frankfurt School philosophers sought to specifically exclude from the realm of ethical and political judgment (33).

The public sphere as theorized by these science studies scholars was different from that envisioned by Jürgen Habermas for three reasons: First, non-human agents, including technologies, infrastructures and constructs like the environment were part of the public sphere. Second, there were certain realms where deliberation and debate matters more than others, such as places where decisions are made about what or who counts, how to aggregate individuals or

entities, and how to categorize or weight their performance or behavior. Third, activists and policy makers imposed a particular vision of the role of the state and the role of the citizen on the areas of governance under examination. The state creates choices, managed by policy makers and regulated through incentives (like prices, bonuses or the threat of sanction). These technical realms are 'obligatory passage points' that determine who or what is included and excluded from the public (Callon 1986).¹² They are also means of defining what counts as appropriate action by urban citizens.

Planning and urban studies scholars have used STS to examine the relationship between technical/ scientific expertise and public participation (Healey 1997, Rydin 2007, Corburn 2005), to think about the integration of internet technologies into urban spaces (Graham 2005), to theorize the role of 'things' in planning practice (Beauregard 2012), to consider the role of infrastructure as a source of integration or fracturing of collective urban experience (Graham and Marvin 2001; see also Coutard and Simon 2007) as well as to reflect on the durability of urban infrastructural artifacts (Hommels 2008). The growing literature in planning and urban studies that draws on ANT is useful for thinking about the politics of governing through choice; how planners use data-driven governance to produce public identities and roles for urban citizens and workers and how citizens and workers contest and shape these roles.

While discourses and technologies create roles for citizens and ways of making those roles relevant to urban residents, city workers and activists do not always or even typically fit into the molds created for them. Technologies fail and non-choice-based forms of politics proliferate. From the work of Michel Callon, the concepts of controversies and overflows will be

¹² Flyvbjerg describes these as 'tension points' (2012: 170).

used to interpret push-back, resistance, failure and unintended consequences in the modes of urban governance investigated below. As Callon writes,

Questions that were thought to have been settled definitively are reopened. Arguments multiply and the project constantly overflows the smooth framework outlined by promoters. In the course of controversy, unexpected connections are established between what should have been a simple technical project and a plurality of states that are anything but technical. Thus we see new actors taking up the problem, imposing unexpected themes for discussion, and redefining the possible consequences of the project (2011, p. 15).

Through the process of getting (or attempting to get) choice policies adopted, unexpected controversies arose, policies were modified, and the collectivity or people who supported or opposed the idea and its impacts shifted. It is from these controversies and overflows that this dissertation provides insights on the politics of governing through choice.

Conclusion

The rule of choice was at the center of a historical shift in the theory and practice of planning. The literature on liberal governance directs our attention to the shifting spheres of authority and freedom that shape planning practice. The literature on data and rationality opens up questions of how planners legitimate their authority and construct roles for urban citizens. The concepts of representation and overflows from ANT literature directs attention to the politics of such constructed roles and modes of participation and contestation that non-planners take up in response to them.

Chapter Three: Methodology

The aim of this dissertation is to explain how a particular policy-making perspective – that urban problems should be managed by shaping the choices of individual citizens – became influential and controversial in New York City. To research this change I employ a historically-extended case methodology which uses analysis of historical documents, participant observation and interviews to answer five questions: What was the policy and planning perspective supporting and supported by the rule of choice? What were the political, ideological or technical origins of this movement? How and why did choice-based policies grow in importance and change over time? Who decides what counts? What can be done? The investigative strategy examined intellectual and material history as part of the extended circumstances that shaped contemporary events. The past – in the form of actors, ideas, analogies, institutions, methodologies and technologies – was present in contemporary planning practice and activism. Present day actors – from the Mayor, to his staff, to activists who opposed them – strategically built arguments, policy proposals and technological systems with the material, institutional and intellectual legacies that preceded them. These antecedents shaped planning discourse, practice and the range of political solutions that were viewed as feasible and sensible.

Approach

The historically extended case approach draws from three bodies of philosophical and methodological work. The first was Michael Burroway's concept of an extended case method (Burroway 1998). The second was what Michel Foucault referred to as a 'history of the present' (Foucault 1972, Garland 2014). Third, I drew on Michel Callon, Bruno Latour and John Law,

who describe their work as actor-network theory (Latour 2003; Callon 1983, 2009; Law 1986 2006). In a dissertation that was focused on ideas and ideologies of choice, actor-network theory encouraged me to focus on the material means through which these ideas were generated (e.g. circulating texts and philanthropic institutions) the technologies through which these ideas were expressed and transformed (e.g. tolling devices and evaluation systems) and the obdurate material realities (e.g. bridges, tunnels and school buildings) that bely any simple conception of ‘applying’ concepts and policies. Actor-network theory provided a set baseline assumptions that informed all aspects of conducting and writing about research; that social action is the result of contingent networks of human and non-human action and that apparent truths are constructed and maintained through overlooked material and human infrastructures.

The three methodological stances share a common concern with how historically contingent structures of knowledge, meaning and action – what Foucault calls epistemes – shape and are shaped by the work of present-day actors (Foucault 1965). I used the historically extended research process to trace the development of choice as an epistemic framework and to understand debates about its meaning and consequences in two cases: congestion pricing and school choice.

Research Process:

The development of a method for formulating a research question and systematically exploring it was itself an iterative process. My focus, interests and techniques changed over time as initial research raised questions and pointed to unexpected lines of inquiry. In what follows, I narrate this process. In doing so I reveal the methodology and techniques employed to understand the development of and debate over choice as an epistemic framework. Over the course of this study I conducted preliminary, primary and historical research.

Preliminary Research

From 2007 through 2010 my preliminary research consisted of a study of school closures in Chicago and initial participant observations of the school closure process in New York City. Primary research, from 2011 to 2013, consisted of a formal strategy for systematically gathering information on school choice and congestion pricing using interviews and participant observation. Historical research became a focused area of study from 2012 to 2014. It consisted of seeking to understand the intellectual and material genealogy of choice-based policies by analyzing the writings of policy innovators, methodological texts, plans and policy reports.

The preliminary research started with my Masters thesis which examined a non-profit led youth empowerment program in disinvested public schools in Chicago. The non-profit sought to create youth-led political power in schools by teaching young teens community organizing techniques and facilitating connections between youth leaders and city politicians and administrators. The research question was “what constituted youth empowerment in the context of poor and disinvested communities?” I conducted participatory action research, led afterschool sessions for the non-profit and discussed with students how they conceptualized power (West 2007).

The non-profit was founded by a local politician who had become an influential national political figure before his retirement, operated with the assumption that, first, empowerment consisted of organizing among young people in schools. Second empowerment consisted of connecting youth leaders that emerged out of these organizing efforts with the structures of formal political authority within the city. The non-profit brokered meetings between youth leaders and city officials, found work for the young people in the offices of elected officials, and encouraged its clients to participate in electoral politics. I worked with staff at the non-profit to train students in a local high school in community organizing. I attended meetings at which

students met with aldermen, state and national congress people, and the head of Chicago public schools. I attended rallies at which students gathered with their peers to ask city officials and civic institutions for additional funding for youth programming and anti-violence training in schools (West 2007).

A crisis opened up when new dimensions of power that were unaccounted for both by the non-profit and in my research design became evident. Four months before the end of the school year, Chicago Public Schools (CPS) indicated that the school where I had been working would be closing and replaced with new ones that were more thematically and structurally diverse. CPS made this announcement through the local newspapers with no input from students or staff at the school. The young people were opposed to the closure. None of the techniques that they had been learning helped them to change the outcome of the closure. They met with the top administrator within CPS who insisted on two points: First, that students would have better options after the school was closed and reopened with different management. Second, that administrative data – which was not public – indicated that the school was failing based on the criteria that counted for federal and local policy-making. Student leaders held a rally at the school and marched, with parents teachers and other community leaders, to CPS headquarters. Their political complaints were dismissed or ignored (West 2007).

I concluded that there were other important dimensions of power and empowerment that were not accounted for in the work that the non-profit did. The Mayor and the leaders of public schools excused the disorder caused by closing schools and ignored the complaints of students, community residents and teachers by arguing their actions fit into a larger scheme in which sub-par schools would be replaced with better schools and more options. A hopeful vision of the future, the promise of improved school performance and greater choice, created a framework in

which political claims of teachers and students were dismissed. Still concerned with issues of participation and empowerment I became interested in the logic of city administrators who made closure decisions and the reasons why this reasoning was so convincing and forceful.

In 2009, at the start of my doctoral program in New York City, I studied a campaign of school closures. Unlike CPS, the New York City Department of Education (DOE) was required to hold public hearings before restructuring or closing schools. I attended these meetings to better understand the particular kinds of power that city administrators had in pressing their agenda.

The DOE legitimated its authority through discourses and practices of choice, transparency and accountability. Choice was produced by closing large schools and opening small ones in their place. Transparency was produced using new data-driven systems of evaluation that primarily used student test scores to measure the progress of individual schools and teachers. Accountability was produced by using data to hold specific actors responsible for improvement or a lack thereof within schools. At school closure meetings both opponents of closures and supporters used data – generated, collated and presented to the public in accessible forms by the DOE – to make arguments over the fate of schools (West 2009).

In this debate over data, its meaning and its consequences, I saw a dimension of power – and empowerment – that had been missing from my research in Chicago. The data presented by DOE was rife with the same hopeful, if dubious, assumptions that the CPS used to close schools: that failure was endemic to a school and the educators and students within it and that success would come through the wholesale replacement of large, uniform public schools with many different kinds of innovative smaller schools among which parents could choose. The discourse

of choice and accountability was made legible and an object of political conflict through technical systems that produced data.

Debates over data proliferated. For example, at a hearing I attended in 2009, the primary strategy of opponents of closure was to bring to light the unique connections that the school (a trade high school) had forged with the local business community and the consequences that this had for students. Teachers, small businessmen and alumni testified to successes that did not show up in the DOE's data – from relationships with local unions that helped students find well-paying jobs, to statistics on the short-term income prospects of students, to individual stories by alumni of growing up in poverty and moving into working class jobs that helped students and their families reach financial security. Dismissed as anecdote and irrelevant to the educational objectives of the DOE the school was closed anyway. Moreover embedded in the way that data were formatted and presented were complex ideas about individual and collective responsibility. For example, data could 'prove' that a school was deficient and its teachers and administrators at fault. The arrow of responsibility was one way, however, as there were no consequences for present and past actions of the DOE that may have led to school decline.¹³

As I observed school politics in New York City, I began paying attention to other instances of choice-based urban governance while reading literature on governmental authority and public participation. The same rationale being applied to schools, of structuring choices to improve public services, was prevalent. Preliminary research opened up questions about data, responsibility and accountability and so I turned my focus to governance in New York City more generally.

¹³ This is explored in greater detail in the subsection on the closure of DeVasco High School in Chapter Seven.

Primary Research

For my primary research, which began in the summer of 2012, I set out to understand choice, transparency and accountability as a contested terrain of political power in the Bloomberg administration. I opted to continue my research in New York City because Bloomberg's public and political persona and successes were so closely tied to the idea of the "mayor as CEO", managing the city with data, and positioning urban citizens as consumers (Bloomberg and Winkler 1997). I was interested in the ways that data-driven technologies connected Bloomberg's style of governance with practice through discourses of choice with individual responsibility. Turning my attention towards this city-wide phenomenon, I found that elements of this mode of governance were present not only in education, but also in transportation, public health, the management of city contracts, public information systems, so-called sin taxes, and policing. New York City from 2003-2014 was the primary focus of research.

New York City and the tenure of Mayor Bloomberg also provide insights into the more general phenomenon of governing through managed choices that drives this research. Through intellectual leadership and through philanthropic investment Bloomberg's attitude towards governance set itself up as a model of city management. As New York City was, or claimed to be, at the cutting edge of urban management, I believed that understanding this city and this context would provide insights to other places that are being encouraged to or have taken up policies based on the Bloomberg model.

After considering a methodology that examined choice-based policies in several cities I decided to focus on New York City in depth. I chose to do so because the aim of my research was to contextualize choice-based policies, which in this case meant tracing the historical progression of each policy from intellectual conception through public political controversy. The

context of the case extended historically to each of the sites that made the policy relevant in 2002 and it extended geographically and politically to all of the people, technologies and infrastructure that influence the ways that policy is enacted from federal laws, to national methodologies, to state house politics in Albany and to the authorities that governed particular pieces of infrastructure. To provide context for multiple cities would have been too large a task for the scope of this project. Taking up Latour's directive to 'follow the actors' required understanding the linkages between congestion pricing and school choice in New York City and other important locations and times in history (e.g. the University of Chicago in the 1940s and 1950s, transportation conferences in the 1970s (Latour 1999). The focus remained explaining contemporary governance in New York City. Aiming to explain the phenomenon in one city permitted me to uncover an empirical richness that shaped how global trends fit into a specific urban context. Such specificity provides insights into the tactics that planners can use to make these policies better.

My primary research approach was influenced by readings on the nature of power and social processes that I undertook from 2008 through 2011. That literature examined the role of the material world in producing enduring social relationships and long-term changes in the relationship between governing authorities and the citizens over which they assert control (Jessop 2002). Actor-network theory, with its emphasis on the role of material things in producing social relationships drew my attention to data gathering and sharing technologies that shaped contemporary political practices (Callon 1998 2009, Latour 2005, Ettlinger 2011, Gandy 2005, Law 2009). The connection to governance and liberalism came through readings about the changing nature of liberalism. Paul Rabinow's French Modern (1989) and Patrick Joyce's Rule of Freedom (2003) opened up questions about the changing forms of liberalism in the 19th

century. Nikolas Rose (1999), and David Harvey (2001) described neo-liberalism as a form of private and governmental action that emphasized entrepreneurialism, consumer citizenship, accountability and debureaucratization, all elements that appeared in the controversies over school restructuring.

These empirical and theoretical writings provided models for the kind of research that I wanted to conduct. I still wanted to understand the administrative and political authority that the city government exerted and the types of participation and empowerment this suggested for city residents. Conducting this type of research required a method that paid attention both to the material and technological means through which this power was created and long-term trends that shape governmental authority.

With these theoretical and empirical concerns in mind, a focus on New York City and questions relating to the relationship between governmental authority and public participation, in the summer of 2012 I set out to design a formal research agenda. I came to think of Bloomberg's style of governance as an example of a form of politics with deep roots in the history of liberalism, and connections to national and international policy-making trends.

Understanding governance in Bloomberg's New York was the objective. However, I sought not to approach the study as an affirmation or excoriation of Bloomberg's policies, but rather to understand what kinds of logic and tools his administration employed to assert authority which was personified in his campaign and political speech. I sought to understand why this type of speech, or discourse, resonated with voters and citizens, how it was made operational through data-driven technical means, and the ways in which citizens and groups sought to empower themselves by adopting this form of discourse, critiquing it and proposing alternatives.

Case Methodology and Selection

I decided to approach my study using Michael Burawoy's (1998) extended case methodology, which suggests that a particular case can be used to draw analytical conclusions about broader social phenomena. I found particularly insightful Latour's 1989 The Pasteurization of France and Bent Flyvbjerg's 1998 Rationality and Power. In all of these works the authors argued that a particular example (a case) can provide the basis for making theoretical insights that extend beyond the case under study. Latour and Burawoy also suggest that the limits of a case – its boundaries – are found by examining connections between the case site and other locations and times that impact the events of the case. So, for example, Latour sought to understand the Pasteur's germ theory. by examining Pasteur's laboratory and also the ideas and practices of hygiene that preceded germ theory as well as the French military establishment. The story extended to each of these examples and sites because the actors at these sites influenced the case. The case, therefore, is extended in two ways. First understanding a case requires extending the purview of analysis to other sites and actors that influence action. Second analysis of the case is used to extend out, to make theoretical claims that generalize beyond the case itself. I also decided to compare several cases. A comparative case approach, rather than approach focused on a single example, created the basis for describing the broader phenomenon governance in New York City during the Bloomberg years (Ragin 1987 2000).

Having decided that the site of time and place of my research would be New York City during the Bloomberg administration, I set out to select cases. The cases in this research would be planning and policy initiatives that were indicative of the trend in governance that I sought to understand. I sought planning and policy examples with three characteristics: First, they provided citizens with new kinds of choices, second, they were data-driven, which means that they employed simplified information to define and guide individual and governmental action, and

third they were reliant on the active participation of citizens to achieve policy goals. Before honing in on policies that exhibited these three characteristics, I sought to understand the breadth of data-driven governance policies and practices through case research that would contextualize them. Analysis of these types of data-driven governance informed case selection and the research techniques.

As diagrammed in Table 1, below, I began my analysis by listing examples of policy initiatives that placed an emphasis on data in restructuring public service provision. I thought of ‘data-driven’ as the overall typology and sorted particular policies into meso- and sub categories based on the objectives of the policy. The meso- categories included choice-reliant, smart-user, and internal city management.

Table 1: Typology of Data-driven Governance

Page 1

Meso-Category Subcategory	Choice-reliant				Smart User			Internal City Management	
	Pricing Public Goods	Valuation of Services	Public Infrastructural	Internal Accountability	Internal Accountability and Public Surveillance	City worker/contractor management	Surveillance and punishment	Data-mining	
Example	<i>Congestion Pricing</i>	<i>Cap and Trade, Carbon Market</i>	<i>School Evaluation</i>	<i>Restaurant Grading</i>	<i>Subway Countdown Clocks,</i>	<i>Small Business Services</i>	<i>CompStat</i>	<i>Director of Analytics', NYC</i>	
Data	Identifying information of drivers	Carbon emissions	Student test scores, graduation rates, parent surveys, qualitative evaluations	Sanitary inspection reports	Subway schedules, sensors detecting position of trains	Performance metrics	Performance metrics for police officers and commanders. Crime statistics in communities	Existent city data sets	
Theory of Action	1) Higher prices will cause drivers to take fewer trips, reducing congestion 2) Revenue will support improved infrastructure	1) Higher prices will lead to lower carbon emissions 2) Trading carbon credits will lead to efficient pricing	1) Metrics replace internal layers of bureaucracy creating better monitoring, efficiency 2) Teachers and principals use data to evaluate themselves 3) Parents and students use data to evaluation/choose schools	1) Restaurant owners 'choose' to improve the cleanliness of their restaurants to receive better grades, avoid closure 2) Diners can choose which restaurant to eat at based on grades	Riders feel more ease knowing when trains are coming, can potentially decide not to use public transit if wait is too long	1) Metrics replace internal layers of bureaucracy creating better monitoring, efficiency 2) Monitoring individual workers through statistics drives improvement	1) Metrics replace internal layers of bureaucracy creating better monitoring, efficiency 2) Direct policing towards 'hotspots', low-level offenders to assert order	Patterns in data enables the city to target specific violators/understand more about problems	

Table 1: Typology of Data-driven Governance
Page 2

Examples	<i>Congestion Pricing</i>	<i>Cap and Trade Carbon Market</i>	<i>School Evaluation</i>	<i>Restaurant Grading</i>	<i>Subway Countdown Clocks</i>	<i>Small Business Services</i>	<i>CompStat</i>	<i>Director of Analytics, NYC</i>
<i>Sanction and reward</i>	- Higher trip cost + Reduced traffic	- Higher cost for carbon reliant goods/ services + Reduced carbon	- Reduced enrollment -Threat of firing - School closure - Public humiliation + Bonuses + Grants to better performing schools.	- Losing customers - Closure + Customer confidence	Better trip planning	- Threat of firing + Bonuses	- Threat of firing, public humiliation of commanding officers + Recognition of reduced crime statistics	Applying existing legal sanction and fines to scofflaws identified through data.
<i>Technologies</i>	Modeling, E-Z Pass, license plate recognition	Carbon monitoring technologies, market devices	Tests, evaluation systems, publicly available repositories of data	Computer-based platforms for internal reviews, Publicly accessible databases Restaurant evaluation systems.	Sensors, display screens	Monitoring systems that calculate metrics for individual workers	Data-bases of crime statistics, Mapping programs, monitoring systems that calculate metrics for police officers	Computer technologies capable of gathering city data from different agencies and departments
<i>E. Definition of public benefit/ fairness</i>	Pareto efficiency, taking into account externalities	Pareto efficiency, taking into account externalities	Schools that are better, (defined by improved metrics)	Reduction of foodborne illness	Improved rider experience	Efficiency*, good public service delivery	Efficiency*, Reduced crime	Efficiency, better overall management
<i>Targets Workers</i>	No	No	Principals, Teachers	Restaurant owners, managers and workers	No	Yes	Police officers, and commanding officers	Potentially
<i>Targets Users of Public or Private Services</i>	Drivers	Yes	Parents, students:	Diners	Subway users	No	Targets communities with crime	No

Table 1: Typology of Data-driven Governance

Page 3

Examples	Congestion Pricing	Cap and Trade Carbon Market	School Evaluation	Restaurant Grading	Subway Countdown Clocks	Small Business Services	CompStat	Director of Analytics, NYC
<i>Purported beneficiaries</i>	Drivers, Non-automotive users of roadways, the environment, transit users	The public, the environment	Students, especially those that were in poor performing schools	Restaurant goers	Subway users	Clients of SBS, tax payers who are getting better performance for their money	A safer public, tax payers who are getting better performance for their money	The public
<i>Debates</i>	Pareto v. progressive revenue generation	Pareto v. progressive revenue generation	Data v. Administrative judgment and local knowledge Worker autonomy v. managerial control	Data v. Local knowledge and practices	Improved perception of transit services v. Investments in transit improvement	Worker autonomy v. managerial control	Safety v. Profiling	Transparency v. Privacy

Efficiency here is defined as input over output (I/O), where both are measured in monetary value.

Internal city management policies used data to improve the efficiency of city governance.¹⁴ This was accomplished in three ways which form the subcategories of internal city management. Internal accountability used metrics to track the performance of city workers in order to determine whether they were making progress (measurable through data) towards goals set out by city administrators. In the example of the Small Business Services provided in Figure One, agency administrators were measuring the number and quality of contacts between city employees and small businesses that they were trying to recruit or retain (West 2011).

Internal city management and public surveillance were examples of data-driven governance in which systems of accountability were aimed at city administrative practices. Compstat, a police management system adopted in New York City in 1996, was the touchstone for many data-driven policies, including education reform, as noted below in the case. This example combined the monitoring of city workers (police officers) with surveillance of urban citizens. It used geographic information to track the location of crimes. It monitored the number and kind of interactions that police officers had with suspects, and it tracked data on the number of arrests that police officers made. This data was used in administrative meetings to track the performance of commanding officers. At meetings that gathered commanding officers in front of their superiors, they were singled out for their performance on metrics, including the number of stops that their patrolmen made, the number of arrests, etc. One element of accountability was the public review of data where managers faced potential shaming in front of their peers (City of New York 2008).

¹⁴ Efficiency here is defined as input over output (I/O), where both are measured in monetary value.

Finally, internal city management took the form of big data analysis. One individual in particular became an informal ‘director of analytics’, Michael Flowers within the Bloomberg Administration. Having learned to use administrative data to track patterns and reorient resource allocation as a member of the U.S. armed forces during the Iraq war, he brought this sensibility to his role within city government. Flowers used existent data produced by the city, along with data-mining strategies to identify indicators that were of use for directing city resources. For example, he used data from 19 different agencies to identify dangerous illegal conversions (buildings that were illegally subdivided as rental units). He employed young, recent graduates from economics programs to produce ‘actionable insights’ that the city used to target enforcement efforts. In 2013, a book about Flowers’ work was published Big Data: A Revolution That Will Transform How We Live, Work and Think which described these efforts (Schönberger and Cukier 2013).

Smart User technologies fit into a separate category of data-driven governance. They are systems that share information directly with the public. The primary example of this was the introduction of countdown clocks on subway platforms. A public advertising campaign with the slogan, “Decide before you swipe” gives an idea of the way that the Metropolitan Transit Authority intended them to be used. A rider, approaching the subway turnstile would look at the clock and decide whether to swipe their transit card based on how soon the next train would come. Like other smart user technologies, this system provided public information to enhance choice, but there was no reward or sanction. In other words, it was purely informational rather than regulatory.

Examples under the heading ‘choice-reliant’ provide the public with new information, and use that information as the basis for sanction and reward, to guide individual users of public

services to specific choices. Choice-reliant polices used data to provide new information and also relied on the decisions of individual users to achieve policy goals. Choice reliant policies fell into two sub-categories, those that put prices on public goods, and those that used evaluations to both make determinations about the quality of services and share that information with the public. By setting a new cost for driving, congestion pricing sought to dissuade some drivers from taking trips, achieving the goal of reduced traffic. Whereas the ‘target’ of choice and sanction was exclusively city workers in cases categorized as internal city management, cases categorized as choice-reliant engaged the users of public services. In some instances, as with school choice, sanctions and rewards could be directed at city workers. If schools did not improve on metrics that the city defined as important they would be closed, imperiling the jobs of school based staff including teachers and principals. In this way, school choice contains many of the elements of internal accountability. The same metrics used to determine the viability of schools was shared with the public, enabling them to make decisions on where to enroll ahead of time. School Choice and Smart User technologies were similar in that they used information to format users of public services as savvy consumers of public goods.

The analysis of data-driven governance yielded several important characteristic I sought in the final case selection. First, the issue of internal management was an important aspect that captured both entrepreneurial strategies of governance and the ways that the idea of choice permeated both city work and the consumption of city services by citizens. Second, governmental agencies created and shared data with the public to engage the public in decision making as a form of public participation, whether or not that participation actually effected programmatic ends. These distinctions would become important when designing questions for

interviews and identifying sites of participant observation. The typology of data-driven governance strategies helped me to identify important issues in defining my research program.

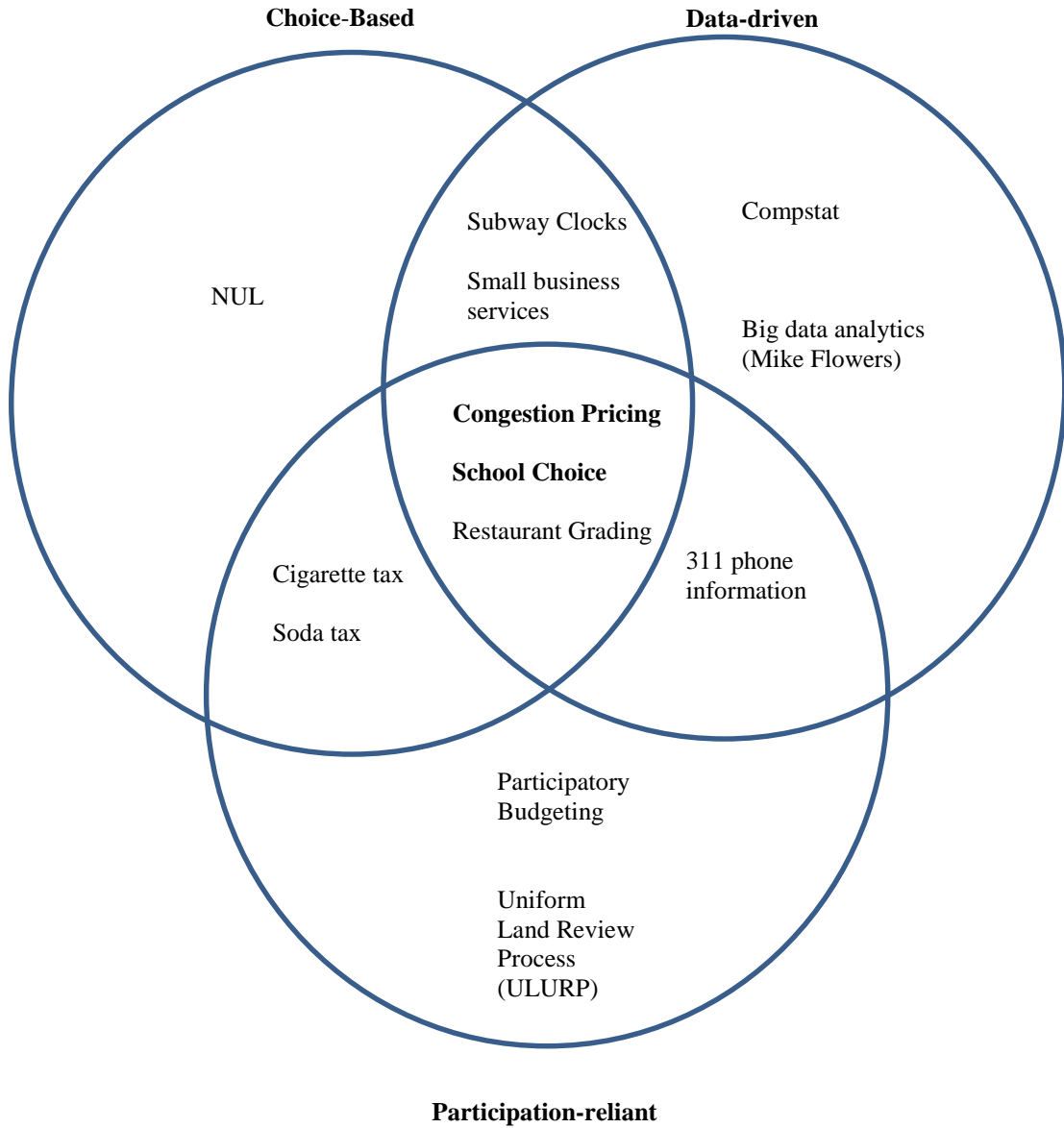
I used a diagramming process to select the cases that I would investigate in greater detail. As mentioned above, my focus on choice as an important governing came about through noticing that many prominent policies in the Bloomberg administration were framed within that language. As my initial interest had been with the data and participation, I sought to identify cases in which the city used data to shape choices of urban residents with the aim of producing better policy outcomes through the active participation of residents in making better choices.

I made final case selection choices based on the three criteria mentioned above:

1. Policies that provided citizens with new kinds of choices.
2. Policies that were data-driven, which means that they employed simplified information to define and guide governmental action.
3. Policies that relied on the active participation of citizens to achieve policy goals.

Figure 1 is a Venn-diagram that illustrates the relationship between these criteria and lists examples that fall into one or more category.

Figure 1: Case Selection Venn-diagram



Numerous policies fit within the first category. The adoption of CrimeStat as a policing tool and the creation of the CityTime payroll system were both new technologically mediated and data-driven policy systems that had been controversial during the Bloomberg administration, but there was no element of consumer choice or public participation. There were many policies that fit within the second category of structuring choices for citizens, including the subway timing system and cigarette tax mentioned above, and also a bevy of policies that were designed to shape the choices of city employees by providing incentives and disincentives based on demonstrable performance. These policies, however were not meaningfully structured by data-driven systems. Finally, everything from the Uniform Land Review Process to The Participatory Budgeting Project encouraged citizen participation as a way of improving planning and policy-making outcomes, but fit none of the other categories (Lerner and Secondo 2013).

Some policies met two of the three criteria. The subway system timing system used technology to offer citizens new choices, but those choices were not enforced through sanction and reward. The Small Business Services case was limited to structuring the internal choices of city workers, and therefore public participation played no role. Other policies, like the 311 telephone system offered the opportunity for citizens to participate in the betterment of their city by providing a free point of telephone contact with the city. This system was also data-driven, with analytics from the telephone calls being used to track real-time urban problems. There was not, however, an element of shaping citizens' decisions through choice. Finally, the cigarette tax sought to engage citizens in improving public health by restructuring the price of tobacco in the city, but it did not have any component of technological mediation.

Three publicly prominent policies met all of my criteria for case selection. The first, of course, was school choice. The second was congestion pricing, which the Bloomberg

Administration had tried, without success to implement and then an activist organization called Move New York City continued to champion. Congestion pricing proposed to impose new tolls on drivers for entering the central district with the goal of making the choice to drive downtown less appealing. It was designed around a technological system – roadway sensors and E-Z Pass. Moreover, the public debate about congestion pricing was ongoing, as Move New York City activists and lobbyists sought to convince key politicians and the general population that this system made sense and was fair. Third, restaurant grading fit all three of the criteria.

Understanding and comparing these cases would provide specific details about the political nature, technology, choice and the role of citizen participation. After having conducted extensive preliminary research on the restaurant grading case, I decided not to include it. This was primarily because I became more interested in the histories of school choice and congestion pricing. In the formal analysis and case selection restaurant grading shared much with the other two cases. As I became more interested in the intellectuals who devised and supported choice-based policy, the restaurant grading case fit less, and less well. Ultimately, I decided not to include it.

Having examined the breadth of data-driven policies and selected two cases in the spring and summer of 2012, I generated a research protocol for each case. For each case, I proposed using three data collection processes: (1) individual interviews with policy designers who worked in the city, civil-society leaders who helped plan or fought to shape monitoring systems; (2) review of public and internal documentation from each of the agencies, and (3) public accounts of each case, such as articles in newspapers, magazines, and press releases as well as trade journals, manuals and technical sources that policy implementers rely on to design systems of data driven governance. I applied for research clearance from the Columbia University

Internal Review Board and received approval for my project on September 13th 2012. As a result of the IRB process I was required to keep the names of all interview subjects secret and use pseudonyms in the cases that follow.

The information that I was hoping to gather through the interview process was relatively open-ended in nature. I sought to understand the overall political context of policies, their origins, what sorts of methodological techniques were used to collect data, how data were used, and what kinds of modifications had to be undertaken to the data gathering process. From those outside the city government, I sought to understand how they interpreted, used and contradicted the data and assumptions of the choice-based policies I set out to study. In Appendix Three I have included drafts of the research questions that I asked during interviews. Through the review of public and internal documentation, I generated more specific research questions for interviews. Internal documents enabled me to verify and contextualize the statements made during interviews. These sources aided me in exploring the chronological evolution of these systems of data-driven governance from their conception through implementation and use. The focus was both the internal organizational politics and the public controversy in creating choice-based policy systems. I studied the cases in sequential order starting with research on the Department of Education in New York in the Fall of 2012.

I began with interviews of the leaders of the Department of Education and the Office of Accountability. Conducting research on Department of Education proved to be more challenging than anticipated in ways that provided insight into the nature of this case. I was required to pass two separate Internal Review Board processes simultaneously, one from Columbia University and one run by the Department of Education. Over the course of this review process, it became clear that I could only conduct interviews and participant observation on the condition that I

grant my research subjects anonymity. For research subjects with a public profile, namely James Liebman, the Director of the Office of Accountability, I used secondary information to write about their work.

Because of the politically contentious nature of school closure policies it was difficult, at first, to get interviews with the DOE officials who had designed the data-driven policy. As a result, my interview strategy shifted. I had intended to find research subjects through a snowball sample in which each interviewer would give me the name of further contacts. I used the snowball technique, but because of the politically contentious nature of the education interviews, in addition to gathering lists of names from research subjects, I sought introductions to further research subjects. It became apparent to me that the snowball sampling technique was reliant on research subjects' perception of my support of the policies that they had enacted. As a result, the referrals that I received pushed me into specific 'camps' within the education policy worlds. To avoid ending up with interviews exclusively from either supporters or detractors of Bloomberg's education reform, I restarted the snowball sample several times, based on initial informants who had different opinions of the overall reform.

I started with research subjects who had worked with the DOE who were currently serving in academic and administrative positions at Columbia University and its affiliate, the Teachers College, I found primary interview subjects who deeply supported and deeply disagreed with the policies undertaken by the DOE under the Bloomberg administration. This led to two separate lists of interview subjects. Proponents of the policies spoke with colleagues within the DOE and encouraged them to participate in my research. Opponents of the DOE opened doors to interview subjects in the United Federation of Teachers (UFT) and the Internal Budget Office (IBO), a city-wide ombudsman that had recently been tasked with reviewing city

data. In total, I conducted 17 interviews with current and former high-level policy workers in the DOE, IBO and one interview with a data-manager from the Board of Education a state agency that had directly controlled schools prior to the creation of the DOE in 2002 (See Table 2).

From these interviews I identified opportunities for participant observation. With proponents of DOE policies I sought and received access to three training sessions for school evaluators, and I participated in a three day long review of one school. From opponents, I identified a school that was at risk of closure, which I have given the pseudonym DeVasco High School. I conducted a further 10 interviews with the administrative staff, teachers and alumni of that school participated in several rallies in opposition to the closure.

Table 2: Primary Research Interview Summary	
<i>Case</i>	<i># of interviews</i>
School Choice	27
Congestion Pricing	8
Grand Total	35

The congestion pricing primary research began in the Fall of 2012 and continued through the Spring of 2013. In 2007 the New York State Senate had rejected the most promising effort to pass congestion pricing. At the time that I began conducting interviews, I spoke with activists and government officials who had been affiliated with efforts to pass the legislation, and who, subsequent to its failure, pushed for different pricing plans. I conducted a total of eight interviews with this network of activists (See Figure 2). In addition, I attended public meetings in the Fall of 2012 at NYU where these activists pushed for their agenda. To understand the city's effort to pass a congestion pricing plan, I relied on public accounts in newspapers, magazines,

city press releases, polling data and plans released by the city and their opponents.

Interviews with research subjects, both in the school choice and congestion pricing cases lasted between 25 minutes and 90 minutes. Each interview was recorded and transcribed within one week. At the conclusion of each interview I rewrote hand written notes and wrote out initial thoughts. After receiving interview transcripts I coded them based on content, themes and style.

I used three basic types of codes to analyze interviews. *Manifest coding*, to code items that are in direct response to questions (for example, whether or not interviewees think creating data and monitoring systems is a good idea). *Latent coding* for items where the responses of interviewees were not explicitly called for by the questions posed during the interview (for example when interviewees would express broad opinions about the structure and functioning of Bloomberg administration). Finally, for each interview I used *global coding*, where I form overall judgments of the interview, the interviewees general style and attitude in responding to question, which took the form a two paragraph summary of each interview (Aberbach and Rockman 2002). This coding scheme was especially useful because interviews were loosely structured, and tailored to the particular expertise of the research subject. At the conclusion of research in the school choice and congestion pricing case in 2013, I began preliminary analysis.

At the conclusion of research for these two cases, I also began preliminary research on restaurant grading. I wrote an extensive case brief based on secondary information, but opted not to pursue this case in detail in favor of devoting time to further study of the interestingly resonant histories of school choice and congestion pricing.

Historical Analysis

By the Spring of 2013, the historical research component of this dissertation began to take shape. Through initial analysis I had noticed a similarity between the congestion pricing and

school choice cases that I had not anticipated. In each case, interview subjects described the choice policies in relationship to two specific intellectuals who they referred to as the ‘architects’ or ‘fathers’ of these policies. In the case of congestion pricing, the first interview subject referred extensively to William Vickrey and proudly held his work as an example. In the school choice case, critics of the DOE’s management invoked Milton Friedman, who they described as a ‘free-market zealot’. This initial response among interview subjects led me to delve more deeply into the intellectual and material history of these two cases.¹⁵

The context out of which these choice policies became politically viable was similar, yet interestingly different. Both policies had proposed by economists in the 1940s and 1950s at a time when much of national policy was devoted to creating federally-supported infrastructures with universal access. In the context of highway building and school policy, the federal government was taking on an expanded role. Both Vickrey and Friedman, when they wrote, were proposing policies that were at odds with this trend. Congestion pricing and school choice both proposed a devolution of control and responsibility to the individual user of public infrastructure.

I traced the intellectual and technological history of school choice backwards, through debates in the 1980s and 1990s about testing and accountability, through voucher proposals that put into place in California and Milwaukee and back to its intellectual source: Milton Friedman. I used histories of education, newspaper accounts and texts and articles written by school choice advocates to follow this history. Friedman was not simply the originator of the idea of school choice, he came out of an especially politicized intellectual community which reviled the enlarged role of the state that resulted from the New Deal. To understand the origins of school

¹⁵ It was also at this point that I abandon the restaurant grading case because of the lack of a relevant historical comparison.

choice, I examined Friedman's writing, especially his original work on school choice from 1956, in the context of the institutions that helped make it popular and consequential, the University of Chicago and the Mont Pelerin Society.

With congestion pricing, from the first moment of participant observation, advocates for the New York City system were attributing the idea to William Vickrey and complaining of state politicians' short-sightedness and pandering as the cause of its failure to be adopted. My research therefore traced the process through which congestion pricing became a politically viable proposition locally, examining plans and advocacy campaigns that designed and promoted specific congestion pricing systems. I used newspaper accounts, Vickrey's writings, secondary histories of transportation, descriptions of debates from transportation conferences and federal methodological guidelines to follow this history. Through this process, I sought to dissect the overlapping political and geographic histories that made congestion pricing both appealing to advocates and verboten for critics. When I turned to understand the influence of Vickrey, I learned that the context of the idea was both more expansive than his proposal for congestion pricing and more conventional. As one colleague told me at the outset of this research, individualized costs and benefits have been part of traffic research methodologies since the beginning of the discipline. Understanding Vickrey's contribution required reading his work in dialogue with methodological texts that predated his proposal for variable pricing on public roads and transit.

While both men proposed choice-based policies that were at odds with policy trends of the times, the origins of these ideas came from contrasting intellectual environments. Vickrey's was technical and academic, while Friedman's was stridently partisan and political. As I delved

into this history I found similarities and contrasts that are informative for thinking about how choice became an important policy and planning idea.

Conclusion

At the conclusion of this research project I undertook a rereading of the literature that had led me an interest in choice as a mode of contemporary governance. Foucault's methodology of excavating the present led me to choice as a broad discursive construct that linked much of the policy work going on during the Bloomberg Administration. My focus was on the local context, in which planners, activists and policy makers shared a belief in choice as a governing strategy – school choice and congestion pricing. Within these policy worlds there were, what John Law (2007) called mini-epistemes. He wrote.

For instance, 'actor- networks' can be seen as scaled-down versions of Michel Foucault's discourses or epistemes. Foucault asks us to attend to the productively strategic and relational character of epochal epistemes (Foucault, p. 1979). The actor-network approach asks us to explore the strategic, relational, and productive character of particular, smaller-scale, heterogeneous actor-networks. We've seen this for the Salk laboratory and for the scallops. Here's another example: Latour's account of the Pasteurization of France. (p. 6).

One of the two main research goals for this dissertation was to understand how these tiny, self-reinforcing worlds in which choice was the common currency for understanding problems came to be. As Callon, Law and Latour have argued, understanding the construction of these mini-epistemes required looking beyond what supporters of these policies said and into the material things, the technologies that helped create systems of meaning and practice. The resulting dissertation is a reading of how intellectuals, city planners, city administrators, activists and the public, with the use of technologies like traffic methodologies and models, tests and student sorting algorithms debated and contested what counted in the mini-episteme I call the rule of choice.

Case I: Congestion Pricing

Case Overview:

Congestion pricing aims to rationalize urban spatial mobility by bringing it in line with a basic economic principle; consumer choice, based on market pricing, leads to efficient allocation of resources. When drivers enter cities they take up space, cause pollution, slow other drivers, have accidents, and hit pedestrians. Each of these negative consequences can be given a specific monetary cost. To improve efficiency, those costs must be turned into a price that will be paid by the drivers who produce them. If drivers pay for the cost of their trips, they will choose fewer trips, negative consequences will abate and efficiency will improve. This principle of consumer choice went from being at the fringes of transportation planning in the 1950s to the center of local politics in New York City in the 2007 and 2008.

Efficiency goals with congestion pricing take on an expanded meaning over the course of this history. It is initially defined as maximizing economic benefit for drivers, which is to say minimizing inputs and maximizing outputs (I/O). The initial policy idea aims to reduce the costs incurred by drivers, especially the cost of time spent waiting in traffic. With congestion pricing efficiency expands over time when taken up by diverse actors for their own aims. It expands to mean maximizing benefit and minimizing costs to drivers as well as other actors and entities, including pedestrians, the environment, and eventually overall local mobility. Eventually other values and concerns, especially the distribution or equity of how costs and benefits are allocated become central to congestion pricing. In many ways, this history of congestion pricing is a story of the expansion of a simple, narrowly defined, efficiency goal growing to accommodate other aims in order to become more politically appealing.

In two parts, this case traces the intellectual and material processes through which congestion pricing moved from an “impractical and futuristic idea” to a series of concrete proposals and how it changed along the way (Arnott 1998, p. 104). The case pays particular attention to how supporters and opponents of congestion pricing defined the issues of fairness, efficiency and equity and how these ideas shaped and were shaped by real and hypothetical technological innovations from traffic statistics, to traffic models, to tolling technologies, to bureaucratic arrangements for linking tolls rates to driver’s income. Technocratic visions of efficiency and ethical ideas of fairness were linked to the material means of making them real.

When congestion pricing was turned into plans for the City of New York, the visions of planners intersected with broader city and state politics as Mayor Michael Bloomberg sought to pass congestion pricing legislation and opponents sought to thwart him. In the end, legislation to enact congestion pricing was never brought for a vote in the New York State Senate. In the aftermath of the defeat a core group of activists reassembled themselves to propose a plan framed squarely as fair.¹⁶

Chapter Four links the idea of congestion pricing to transportation planning methods and technologies and follows this history through the first pricing plan. Starting with William Vickrey (1914-1996), the economist who first conceived of congestion pricing in the early 1950s, Chapter Three focuses on his ideas of efficiency and fairness. His ideas are shaped by and shape a deeper history of economic thinking and tools of economic calculation in transportation planning. Methodological standards issued by the federal government, data collection practices by state agencies, and the evolution of traffic modeling tools established a basic economic

¹⁶ Fair, here is defined in terms of equitable distribution of impacts. The later plans were designed to reduce the unequal impact of charging new tolls.

grammar for understanding transportation planning problems. Over time these methods, data and models were modified to accommodate Vickrey's ideas because of the rising prominence of market-based allocation in urban policy and in response to the global energy crisis of the 1970s. Chapter Three ends with an examination of the earliest proposal for a pricing system in New York City. The Regional Plan Association put forth a schematic proposal in 1996, then a complete plan in 2003. In the transition from economic principle to a geographically and politically situated plan, relational definitions of fairness and equity – which New Yorkers would pay into the system and under what conditions – eclipsed the abstract version of fairness and efficiency put forth by Vickrey and transit planners.

Chapter Four follows the active, public campaigning for and against congestion pricing. This political story is organized around four research documents, plans and proposals explaining and supporting congestion pricing put forward from 2006 to 2014: Growth or Gridlock?, 2006, PlaNYC, 2007, Balancing Free Transit and Congestion Pricing, 2008, and The Fair Plan, 2008. Some of these documents were created by well-funded and politically powerful advocacy groups like The Partnership for New York City and others were pushed by small group of activists and lobbyists organized under the name Move New York City. These diverse groups used the tools and discourse of individual choice and market discipline to put forth novel visions of reorganizing the costs of mobility.

Congestion pricing was taken up by individuals and coalitions with different goals in mind. As Ben Friend, a staff writer for the activist transportation policy website Streetsblog wrote (2008):

Clearly, there are (at least) two ways to tell the story of congestion pricing: one is to say traffic will be mitigated by allocating scarce road space more efficiently; the other narrative is about reclaiming city streets from the private auto, making motorists pay the cost of their own pollution while funding alternatives that make

it easier for people to get around without a car. These two ways of viewing pricing are not mutually exclusive. The Bush administration has conflated the first narrative with an anti-transit agenda, and with their belief in privatizing roads. This perspective neglects what's been going on in New York. Here, the advocates pushing pricing forward subscribe mostly to the second view; local plans have proposed using the revenue to support mass transit and livable streets.

Transit advocates, environmental activists, and proponents of walking and cycling expanded congestion pricing beyond its roots in neo-classical economic theory and the Federal context of highway privatization. Chapter Four follows opponents and supporters of congestion pricing as they accommodate the ideology and tools of pricing to their arguments; it explores the political and ethical flexibility of congestion pricing.

Chapter Four: From 1952 to 2003, an ‘Impractical and Futuristic’ Idea becomes a Plan that Interests the Mayor

Congestion pricing stories typically begin with William Vickrey, the prominent Columbia University economist who first proposed congestion pricing for roadways in the early 1950s. The following brief history places Vickrey’s work in dialogue with two other factors: (1) the standardization data collection and methodologies adopted by the Federal transportation planners, (2) technologies developed to model traffic behavior and to collect tolls. It is an historical account of the mutual shaping of ideas, methodology and technology ending with the first proposal for congestion pricing in New York City in 2003.

Vickrey: Economist, Technologist, “Gadfly”

William Vickrey first applied the economic concept of market pricing for public utilities to electricity in 1939, then to subway fares in 1951, and finally to roadways in 1959 with the first proposal for automotive congestion pricing.¹⁷ His most comprehensive and often cited work on the issue was published in The American Economic Review as “Congestion Theory and Transportation Investment” in 1969 (Press Office, Columbia University 1996; Arnott 1998; Drèze 1996).

Vickrey was a world renowned academic. He linked economic theory to public policy problems and devised technologies to bridge theory and practice. He was an activist and “gadfly”

¹⁷ “His first study of efficient pricing of public utilities in 1939 and 1940 was of the electric power industry for The Twentieth Century Fund. In 1951, he studied transit fares for Mayor William O’Dwyer’s Committee on Management Survey in New York and in 1959 he presented to Congress a proposal to control the District of Columbia’s traffic congestion with electronically assessed user fees” (Columbia University Press Office 1996, no pagination).

who sought public and political adoption of his ideas¹⁸. A Quaker, born in British Columbia, Vickrey was educated and would spend his career in elite scholarly institutions in the United States. He graduated from Philips Andover Academy in 1931, received a BA in Mathematics from Yale in 1935 and then an M.A. in Economics at Columbia University in 1937. A conscientious objector during World War II, he worked at the National Resources Planning Board in the Division of Tax Research and played a key role in designing national tax systems for Japan and other nations at the end of the war. He was awarded his Ph.D. in Economics at Columbia University in 1948. His career as a professor at Columbia spanned from 1945 through 1982, when he became Emeritus. He remained active in the field, becoming the president of The American Economic Association in 1992. He continued his work until his death on October 11, 1996, three days after the announcement that he would receive the Nobel Prize in Economics for his work on auction theory that he had begun in 1961 (Arnott 1998, Columbia University Press Office 1996, Drèze 1996).¹⁹

From his prominent position at Columbia and as a consultant to local and national governments, he linked academic economic theory with public policy advocacy through applied research.

Vickrey's cast of mind was that of a theorist. His interests, however, lay in public policy. This combination of traits—in addition to genius—resulted in his producing a magnificent body of research in applied economic theory (Arnott 1998, p. 93).

¹⁸ This characterization comes from a long-time transit advocate in New York City and was meant as a compliment to highlight Vickrey's persistence as a political actor (Zupan 2012).

¹⁹ The paper, cited as his 'most famous' in his Nobel Prize announcement, was: "Counterspeculation, Auctions and Competitive Sealed Tenders," *Journal of Finance* 16, 1 (March 1961) 8-37. He shared the Nobel Prize with James Mirrlees, who worked with him on auction theory.

His work touched on everything from the philosophical basis of utilitarianism to a practical strategy for ending the political practice of gerrymandering to his most influential work on taxation, auction theory, and pricing public goods.

Beyond applying economic ideas to policy, he imagined bureaucratic and technological innovations to put theory into action. He devised variable tolling technologies that could enable congestion pricing. “He ... kept up with every conceivable technological development in [tolling] visiting experimental designs on-site and attending specialized conferences” (Drèze 1998, p. 4). In a volume dedicated to his work, four prominent economists summed up his ability to move between economic principle and applications through technologies:

With remarkable intuition, Vickrey sensed very early how new ideas or tools – ranging from decision theory to electronics technology – could contribute new solutions to old problems; and he sensed how new problems – associated with ... urban congestion and pollution – required appropriate solutions inspired by well-established principles (Arnott, Arrow, Atkinson, and Drèze 1994, p. 4).

Vickrey was a practical theoretician. He applied well-established principles in economics to everyday problems, envisioned technologies that could put those principles into practice, and advocated publicly for those principles.

His facility for moving from basic principles to technologies and policies was exemplified in his earliest work proposing congestion pricing. His ability to link ideas, technologies and policies is evident in a report on subway fares undertaken in 1951 on behalf of the Mayor’s Committee on Management Survey as part of a study of the finances of the City of New York. In 1955 the report was published as an academic economics paper. He wrote that the focus of the study was, “the effect of fare structure on the efficiency with which the facilities ... [were] utilized by the traveling public” (Vickrey 1994 [1955], p. 278). He started with an economic principle: using market pricing for allocation maximizes benefit and minimizes cost. Subways were run by state sanctioned monopolies and public agencies in the post-war era when

Vickrey was writing. Fares were determined politically. In the absence of a functioning market, efficiency could be achieved if the state set the price of fares at the marginal cost for each additional rider. Such costs would vary with higher fares at rush hour and lower at off-peak hours, reflecting changing demand condition. “Only as the fare fully reflects at all times and between all points the cost of carrying additional passengers will the fare structure achieve an efficient utilization of the facilities” (Vickrey 1994 [1955], p. 278). Each passenger should bear the cost of his or her trip, when this condition is met, transit usage will be efficient (i.e. in aggregate all parties would have received maximum benefit).

Having applied economic principle to the public policy problem of subway fare structures, he devised a technical system for charging each rider a variable fare. He envisioned a mechanical tolling device. Each rider would be given a token that he called a ‘check’. He wrote:

The aim of efficient utilization can be closely approached only if it is possible to provide reasonably cheaply for the actual collection of a fare that corresponds fairly closely with marginal cost. Fortunately it was possible to devise a method of collecting such a fare that meets these requirements. Briefly, it was proposed to require each passenger to deposit a quarter in an entrance turnstile, which would deliver to each passenger a metal check that the passenger would be required to carry with him to his destination. The check would bear notches or perhaps magnetic patterns coded to represent the station of zone of entry, and perhaps also the date; the passenger would insert this check into an exit turnstile as he left the subway; the exit turnstile would be able to determine from the check the origin of the passenger and then ...would determine the proper refund to deliver to the passenger (Vickrey 1994 [1955], p. 289).

Such a fare system would vary the tolls of individual riders depending on distance and time of day. Crucially, the system would not slow riders as they enter or exit the transit system, adding no new costs or delay.

Vickrey considered the political acceptance of such a variable fare structure, while acknowledging that his economic vision ran contrary to popular opinion. When he wrote in 1955 transit fares in New York were widely understood to be an explicitly political problem. The cost

of a ride was set at 15 cents, having just been raised from 10 cents two years earlier, but well below the cost of operating the system with the balance made up by Federal and local taxes. Vickrey viewed the issue differently. He wrote that “The fare structures thus indicated on grounds of efficiency, collection cost, revenue and income distribution may turn out at many points to go counter to popular notions of what is equitable and proper” (Vickrey 1955 [1994], p. 304).

He took offense at what he understood to be the impositions and waste of the overconsumption of public goods that resulted from political price setting. In a report commissioned by Congress to address the issue of traffic in Washington D.C. entitled Pricing in Urban and Suburban Transport, he applied the principles of congestion pricing to roadway travel. Vickrey quantified the negative effects of driving as costs and suggested recuperating them through tolls (Vickrey 1959 [1994]). He wrote: “Dividing the extra cost by the extra rush-hour traffic, it turned out that for each additional car making a daily trip that contributes to the dominant flow, during the peak hour, an additional investment of \$23,000 was projected.” Injecting a tone of indignation he continues: “In other words, a man [sic] who bought a \$3,000 dollar car for the purpose of driving downtown to work every day would be asking the community, in effect to match his ... investment with \$23,000 from general highway funds” (Vickrey 1959 [1994], p. 311).

The cost of congestion included the value of the time lost waiting in traffic, and the underutilization of facilities during off-peak times. In the 1970s he added an analysis of the costs of pollution, creating a basis for considering more externalities. Once defined, identified and priced, externalities of any sort could be recuperated in tolls. For Vickrey these costs were real and objective. Applying costs to drivers who make demands on public infrastructure, slow others

in their commute, and pollute would induce different choices and make society as a whole better off. In the case of congestion, the savings in time would offset the cost of tolls. He wrote: “In the short run, commuters are just as well off paying the variable toll and having no queue as they were before with no toll but with an equivalent queue... The revenue derived from the charges thus represents clear gain” (Vickrey 1969, p. 255). Time spent waiting in traffic is equated with a specific individual monetary cost.²⁰

That these trade-offs would be made by individuals with more or less income and wealth factors into his economic analysis. He largely dismissed the impacts of congestion pricing on different economic classes as an ethical concern. In his three major articles on congestion pricing the issue of excluding drivers who are less well-off is only addressed once.²¹ He wrote:

There is, to be sure an outcry at this point that pricing discriminates against the poor by forcing them off the congested highways. Actually, the number of really poor individuals who are under any strong compulsion to drive cars with any regularity on the congested highways at peak hours appears to be quite negligible (Vickrey 1969 [1994], p. 330).

This statement was not accompanied by the same painstaking cost estimations and equations that support his demonstrations of the improved efficiencies that would result from congestion pricing. He continued that if the ‘poorest’ need subsidy, “there are surely better ways of determining needs than the amount of congested driving done” (Vickrey 1969 [1994], p. 330). He does not specify how this determination would be made or what if any subsidy should be

²⁰ As an economist, Vickrey’s interest was to find a way of allocating cost that would maximize efficiency. However, in the politics of congestion charging, as we will see, the idea that traffic can be turned into a revenue stream becomes a powerful political tool, enticing politicians and agencies that are seeking to fund capital projects and fill budget gaps.

²¹ The three major writings are about transit in New York (Vickrey 1955), roadways in Washington (Vickrey 1963), and the formal economic reasoning behind congestion pricing. The first two were reports for policy makers and the final one was an academic article.

provided.²² When politicians, planners and activists took up the issue of congestion pricing forty-four years later, these issues of equity and exclusion were at the top of the political agenda.

The idea of market pricing for public roads (and transit) grew more relevant as it spread through scholarly and academic channels, through Vickrey's activism, and eventually through the arguments of activists and planners. It grew in importance through Vickrey's scholarly writing and its use by transportation planners who took up his ideas and popularized them. It was incorporated into economics classes and planning and public policy classes and eventually introductory transit planning courses and text books.

The idea also spread through Vickrey's activism in New York City. He was an early critic of automobile commuting. In a compendium of his academic work, one of his former Ph.D. students, Jacques Drèze, recalls seeing Vickrey, "a tall grey-haired man, roller-skating at a good speed with a bulging briefcase under one hand and under the other, a three sided cardboard box spun with threads" (Arnott et al. 1994, p.7).²³ When the student asked the economist why he chose such an unusual mode of transit, Vickrey's answer was, "sheer deductive logic applied to the joint choice of residence and means of commuting – train plus roller-skates" (Arnott et al. 1994, p. 7). Referring to the automobile, Vickrey said, he was not enamored with "America's rubber shod sacred cow" (Arnott et al. 1994, p. 7).

In addition to being ahead of his time on multi-modal transportation in his personal transit choice, Vickrey argued for variable pricing in public and professional settings well before the idea was popular. As one of his biographers wrote: "When Vickrey was crusading for

²² Vickrey's work on taxation addressed issues of ethical and efficient means of deriving revenue for government directly. He does note on the next page that the political arguments against market pricing were weaker in air transit because it served more affluent users (Vickrey 1969).

²³ The box with threads was a homemade teaching aid (i.e. an economic model made of cardboard and threads, rather than numbers, symbols and computers).

congestion pricing on urban auto travel in the sixties and seventies, his ideas were regarded as impractical and futuristic” (Arnott 1998, p. 104). In 2012 congestion pricing advocate Jeff Zupan and Senior Fellow at the Regional Plan Association remembered Vickrey the activist as follows:

I go back to the 60s and 70s in my career and he was always looked at as a gadfly. He would come to meetings. You know he was this ruffled Columbia professor. He would come to meetings and it didn't matter what the subject was about transportation. It was, well, you have to charge differential prices because [people will] use [roadways and transit] more efficiently (Zupan 2012).

Vickrey's stature as an economist was used by later congestion pricing advocates. Congestion pricing advocates who wished to legitimize and strengthen their argument referenced its origins, with the quirky, visionary, Noble Prize winning economist. Regional Plan Association President H. Claude Shostal (1996) emphasized Vickrey's status as a Nobel Prize:

Congestion pricing is an idea blessed by the Nobel Prize. There would be no greater tribute to the legacy of Bill Vickrey but to see whether we can actually advance the idea and tackle the very real practical problems in the political process and make things happen (Shostal 1996).

This statement was misleading because his Noble Prize was for work unrelated to congestion pricing. Associating the policy with a 'Nobel Prize winning economist' was a tactic advocates used to spread the idea. In 2012, Charles Komanoff, a modern congestion pricing activist who proposed one of the five plans discussed below said that he hoped that Vickrey would have seen him “as a potential acolyte who would have been interested in putting his ideas into practice” (Komanoff 2012).

Vickrey's academic prestige, his application of economic theory to practical policy questions, and his willingness to act as a gadfly in local politics spread ideas that were viewed as futuristic and politically impossible when he proposed them.

Methodology: The Grammar of Economic Thinking/ Choice

Vickrey's ideas, based on an individual agent who pays for access to roadways, seemed far-fetched to his contemporaries because it ran against the grain of another infrastructural ideal: universal access paid for with taxation and justified on the grounds of national security (Graham and Marvin 2001). The largest non-military federal expenditure ever when signed into law, the 1956 Federal Highway Act, created a highway system with universal access and no tolls. The National System of Interstate and Defense Highways was planned to be 41,000 miles in extent and link 90 percent of cities with populations over 50,000 people. Legislation "authorized the expenditure of \$24.8 billion in thirteen fiscal years from 1957 to 1969" to achieve the goal of widespread free access to roadways (Weiner 1999, p. 29). This program started as congressional studies in 1948 and became legislation in 1958 almost exactly the same time that Vickrey proposed market-based allocation of mass transit and roadway space.

In another sense, however, tolling and the basic grammar of congestion pricing – that individual drivers incur quantifiable costs and benefits – pre-dated Vickrey's economic arguments. Toll roads preceded Federally subsidized highways in America. From the inception of standardized highway planning methodologies, planners have used economic analysis to make the evaluation of possible routes calculable in terms of cost. The basic grammar is the language of utilitarianism, reformulated as individual rational choice and economic analysis. The federal government, in highway studies, recommended these methodologies from the 1930s to the 1960s as it sought first to coordinate the building of state roadway systems and then to make a national highway network.

One of the first Federal highway studies Toll Roads and Free Roads (1939) used economic analysis to decide whether a national system of highways could be supported by tolls alone. It argued the following:

If higher [toll] rates were assumed, it would be necessary to reduce the estimated potential toll-paying traffic, probably by an amount that would result in a net reduction of the total yield. If lower rates were assumed, it is doubtful that the increased traffic would be sufficient to produce a greater total yield (Bureau of Public Roads 1939, p. 2).

The trade-off between the cost of tolls, the volume of utilization and the total revenue generated drove this early analysis. This same thinking would later be repurposed by pricing advocates to answer questions about setting tolls to reduce congestion.

The standardization of methods of analysis was also accompanied by increasingly regularized data collection approaches. Toll Roads or Free Roads compiled national data on roadway use for the first time. It used data from 46 state highway surveys to analyze traffic patterns across the country. These data were the product of federal policy that made money for highway building contingent on collecting and sharing information which, in turn, was used to answer the question of whether a federal highway system could be paid for with tolls alone. The commission answered in the negative (Bureau of Public Roads 1939, p. 2).

Planners, both in New York City and those working on federal methodologies, recognized that traffic in cities was different from highway traffic and required different techniques for data collection. Federal planners produced the first manual, Procedures for Home Interview Traffic Studies in 1944, which prescribed household surveys (Weiner 1999, p. 17).

These data collection techniques responded to the unique traffic issues of cities:

Because of the complex nature of urban street systems and the shifting of travel from route to route, traffic volumes were not a satisfactory guide to needed improvements. A study of origins and destinations of trips and basic factors affecting travel was needed. The method developed to meet this need was the home interview origin and destination survey. Household members were interviewed to obtain information about the number, purpose, mode, origin, and destination of all trips made on a particular day (Weiner 1999, p. 7).

Public and private planning agencies created a standardized survey instrument for interviewers.

In New York City, the Regional Plan Association began a specialized “Hub-bound Traffic Survey” series conducted first in 1924 and then every eight years until 1960, at which point the New York Metropolitan Transportation Council (NYMTC) began collecting the information on an annual basis and continues to do so at present.²⁴ The Bureau of the Census began the National Personal Transportation Study in 1969 and continues to gather information on national patterns of passenger travel. These surveys enabled transportation planners to chart the trips of individual drivers. When seen through the lens of economics, transit planners could ascribe meaning and motivation to the choices that these data revealed.

In addition to creating new methods for data collection, federal highway planners created standardized techniques of analysis. Data collected according to uniform rules would be analyzed in the same way by each city and state in order to coordinate the creation of a national system of highways.

The first federal text that set forth a standardized methodology for highway planning used profitability as the metric for selecting between roadway improvement projects. In 1952, The Committee on Planning and Design Policies of the American Association of State Highway Officials noted “a definite lack of similarity in [methodological] procedures” among state agencies and with A Report on User Benefit Analysis put forth “a detailed but simple method of analysis” (AASHO 1952, p. 1).²⁵ The method provided “justification of the expenditure required

²⁴ These data were used in the first sketch of a congestion pricing plan offered by the Regional Plan Association in 1994.

²⁵ Weiner (1999, 11) wrote: “As new knowledge became available on the performance of vehicles and highway design features, there was a need to incorporate it into practice. [The ASSHO Planning Committee] was formed in 1937 for this purpose”. The Committee on Planning and Design Policies of the ASSHO reported to the Federal Bureau of Public Roads. It was a research organization that made recommendations about highway planning methods. Its recommended polices were adopted if approved by a two-thirds of states.

and the comparative worth of proposed improvement, particularly when comparing likely alternatives” (AASHO 1952, p. 1). The analytical technique was based on the “tenet that a profit should be returned on an investment applies equally as well to highway projects as to general business ventures” (AASHO 1952, p. 1).

How could a system of roadways supported by the largest infusion of federal tax dollars in U.S. history be considered profitable? The answer lay in offsetting building and maintenance costs with benefits to drivers. Making these benefits part of the calculations for determining the ‘profitability’ of highway projects required quantifying and monetizing drivers’ automotive expenditures, time and convenience. A Report on User Benefit Analysis priced goods that could be verified by nation-wide price averages, like gasoline at \$0.28 per gallon, oil at \$0.30 per quart and tires at \$100 per set. The methodological report also set out to quantify other costs: time at \$1.35 per hour and comfort and convenience, ranging from 0 cents per vehicle mile to 1 cent per vehicle mile depending on the level of congestion and the surfacing of the highway (AASHO 1952, p. 11). These costs are hypothetical: No individual was actually paying \$1.35 for an hour-long commute, or \$0.01 per mile for the inconvenience of riding on an unsurfaced and congested road. These costs were also diffuse; drivers were paying retail outlets for tires and oil companies for gasoline.

Costs became consequential for roadway planning when they were entered into a single ledger. Once costs to users were defined, highway projects that saved drivers on repairs, gasoline, time and convenience could be shown to be profitable, or at least less costly than alternatives. The AASHO study was accompanied by cost estimates illustrated in Appendix One.

Seven “principle items or factors” were factored into highway planning: 1) solvency of the highway system; 2) land and community benefits, 3) costs of construction or improvement;

4) cost of highway maintenance; 5) direct benefits to drivers, such as reduced vehicle operating costs and time savings on trips; 6) Benefit to road users in the form of comfort and convenience; and 7) benefits from accident reduction (AASHO 1952, p. 2). These factors were brought together in an equation. The report gave instructions on how each of these elements was to be quantified and turned into dollar amounts. Costs were calculated by summing the capital costs (C), interest and amortization costs (K), and maintenance costs (M), so that Highway Costs = C + K + M. Benefit was calculated as a ratio, Benefit Ratio = $\frac{R-R1}{H1-H}$, in which R is annual user costs for the existing road and R1 is the annual user cost for the improvement and H is the annual highway cost of the existing road and H1 is the cost for the improvement (AASHO 1952, p. 19-20). Planners were encouraged to select the least costly, and therefore the most profitable highway projects, when comparing alternatives among new highway routes or improvements.²⁶

This method put costs and benefits incurred by different parties in the same equation linking costs incurred by the state and benefits accrued by individuals. Drivers would get the benefits of reduced travel times, fuel costs and accidents. Cities, states and the federal government would pay the costs for construction and improvement. Benefits went to diffuse agents who were unaware of the profits accrued on their behalf by highway planners, while a single agent paid costs: governmental authorities.

In the era of the universal infrastructural ideal, the equation is indicative of an aggregate, social or national benefit to these expenditures and savings, regardless of which party paid (Graham and Marvin 2001). This national interest was expressed, first and foremost, in terms of military security; the Federal Highway Act of 1956 authorized the funds for building a highway

²⁶ The Bureau of Public Roads, would continue to put out reports on transportation method issues until 1966 when the Department of Transportation was created and took over this task (Weiner, 1999: 48).

system that could also be used to mobilize a military response to a Soviet communist invasion. National mobility and economic development were also important rationales mentioned in the act.

Under a different understanding of collective benefit, one stressing market discipline and environmentalism, the same underlying methodology, would be used to *disaggregate*; to apply costs to each individual driver in order to influence their behavior through choices structured by variable tolls. With market pricing planners would seek to shift the costs of automotive mobility – congestion, environmental degradation, and infrastructural maintenance – onto the individual driver.

The early studies and methodological handbooks established data-gathering and calculative practices that enabled an analyst to move from aggregation to disaggregation within the same mental framework. Vickrey's ideas looked out of place during a period when universal, free access to public goods was the norm, and service provision was seen as a national security and political issue, rather than an economic problem. Transportation *methods*, however, never strayed from individualistic economic analysis.

Traffic Models

Models turn data and method into relational understandings of flows of traffic, land-use change and efficiency. Starting in the 1950s, economic ideas, methods of calculation and data came together in models used to describe and forecast patterns of roadway traffic and urban change (Weiner 1999). Transportation models are designed to mathematically describe and predict patterns of roadway and transportation use and its impact on land use. Planners made these models with the aim of determining which transportation investments have the greatest net benefit. Over time, these modeling techniques moved from what one planner in the 1960s called

“highly technical studies conducted in a political vacuum” to participatory tools that were used in real-time debates over congestion pricing proposals (Black 1990, p. 27).

Early urban transportation plans, including the Detroit Metropolitan Area Traffic Study of 1953-55 was led by the influential regional transportation planner Dr. Douglas Carroll. He adopted a method known as the gravity model, which combined ideas of economic efficiency with an analogy from Newtonian physics to explain the relationship between traffic flows and land-use.²⁷ Using trip origin and destination data, planners calculated the impact of different roadway planning scenarios with pencil and paper and with the aid of tabulating machines. They calculated benefit-cost ratios to estimate the ideal locations for highways in the Detroit area and how they would affect urban land use (Weiner 1999, p. 4).

The Chicago Area Transportation Study (CATS) initiated in the early 1960s and led, again, by Carroll, integrated ideas from the Detroit study but with greater sophistication and new calculative tools. Planners at CATS used computers to model data on the travel habits of Chicagoans. Alan Black, a planner who worked on the CATS study, recalled the difficulty of doing analysis that required substantial and scarce computing power:

Traffic assignment presented a formidable calculation problem, since the highway networks had about 3,000 nodes and 5,000 links. It required the largest high-speed computer existing, the IBM 709. CATS could not find one available in the Chicago area and arranged to buy time during the graveyard shift on one owned by General Electric in Cincinnati. To run an assignment, Schneider [a planner at CATS] would fly to Cincinnati and stay up all night with the computer (1990, p. 32).

These planners, working at the cutting edge of transportation methods, took years to produce planning scenarios as a result of the time required for manual tabulation, scheduling time on computers and writing conclusions.

²⁷ The analogy of gravity for understanding spatial distribution had been important to the field of geography since the 1920s (Weiner, 199: 27-8).

Models like the one used by CATS were calibrated to replicate existing travel patterns from surveys. They were then used to forecast the costs and benefits of land-use and transportation alternatives. The Bureau of Public Roads and the Bureau of Standards developed modeling programs for IBM computers and by 1967 their computer package contained about 60 programs (Weiner 1999, p. 37).

The questions these models were designed to answer evolved over time as a result of technical innovation, changes in the political acceptability of highway building in urban areas, and the energy and environmental concerns of the 1970s.

There was little incentive until this time to attempt to recast travel-forecasting procedures. Oil crises during the 1970s precipitated research into various energy use reduction strategies, including demand management measures and transportation system management techniques. It was then that the inability of existing forecasting models, which were mostly static and aggregate, to predict behavioral responses to such policy measures became apparent (Iacoco et al. 2008 p. 332).

In other words: “policy issues and options had changed, but travel demand forecasting techniques had not” (Weiner 1999, p. 80). In addition to fuel prices, planners were responding to the highway revolts in which activists aimed to thwart the demolition of neighborhoods for highway expansion. Environmental and air quality concerns and suburban congestion were precipitating factors that led planners to find alternatives to highway expansion as well (Komanoff 2012, Jacobs 1961).

Planners in the early 1970s recognized a need to create models that could incorporate two important new concepts. The first was demand management which referred to policies designed to reduce the volume of drivers either at peak commuting hours or overall. The second important concept was behavioral responses which referred to the choices that drivers make when faced with new information and incentive structures.

Transportation planners took up the challenges of making models based around the concepts of demand management and behavioral responses at the 1972 Urban Demand Forecasting Conference in Williamsburg Virginia. They sought to adapt travel-forecasting models to new ways of thinking about the problem of traffic. Then-current models were “not suitable for evaluation of ... demand responsive systems, (or) pricing alternatives” (Weiner 1999, p. 79- 80). Transportation planners recommended tapping into new domains of knowledge, including consumer theory and psychological theory, to persuade commuters to change their habits. Models and conceptual tools should be reorganized around the issue of behavior or shaping the choices of individual commuters. The 1972 Williamsburg conference launched “a decade of extensive research and activity in disaggregate urban travel demand forecasting” (Weiner 1999, p. 80). Acting on the recommendations of the Williamsburg Conference, the Transportation Research Board formed a “Committee on Traveler Behavior and Values.” This group organized a series of international conferences on behavioral travel demand that took place approximately every other year from 1973 through the 1990s. (Weiner 1999, p. 80).

Finally, quick-response travel forecasting techniques became important to planners as they shifted their attention in the late 1970s and early 1980s from the long-range, regional planning for large-scale highway investment to “shorter term time horizon ... low capital improvements and environmental impact” (Weiner 1999, p. 111). In 1978 the COMSIS Corporation developed the Quick Response System (QRS) and Quick Response System II (QRS II) and successfully marketed them to planning agencies from the late 1970s through the end of the 1980s. With the adoption of more powerful microprocessors in the late 1980s, planners were able to use these tools both for short-term analysis and longer-term regional planning.

Modeling tools evolved in response to new ideas, technologies and political constraints, which had the net effect of making it easier for planners to calculate the relationship between incentives and driver behavior. At the same time, greater computing power and an increased need for short-term planning made modeling tools less remote and more timely. By the early 1990s methods, data collection and modeling tools were capable of answering demand management questions like the ones posed by congestion pricing.

At the same time, in the early 1990s congestion pricing was gaining a foothold in legislation in the U.S. Federal Government. The Federal Highway Administration passed legislation encouraging congestion pricing demonstration projects in the 1991 Intermodal Surface Transportation Efficiency Act. The first demonstration of these policies in the United States was a new lane added to State Road 91 (SR 91) in Orange County California in 1995. Cars in this lane would be tolled according to the time of day. These so-called “Lexus lanes” enabled drivers who were willing to pay a premium to avoid traffic. The SR 91 system used transponders that were purchased by drivers, thus enabling them to be tolled without stopping to pay cash (Weiner 1999, p. 178-179).²⁸

A year later the Regional Plan Association proposed the first congestion pricing system for the City of New York. By the late 1990s and early 2000s planners could reference examples, including Singapore and Stockholm, of congestion pricing systems in major urban areas. The most important example would be London, which put a system into place in 2003. As explored below, New York planners used the London example as a source of technical information and political inspiration.

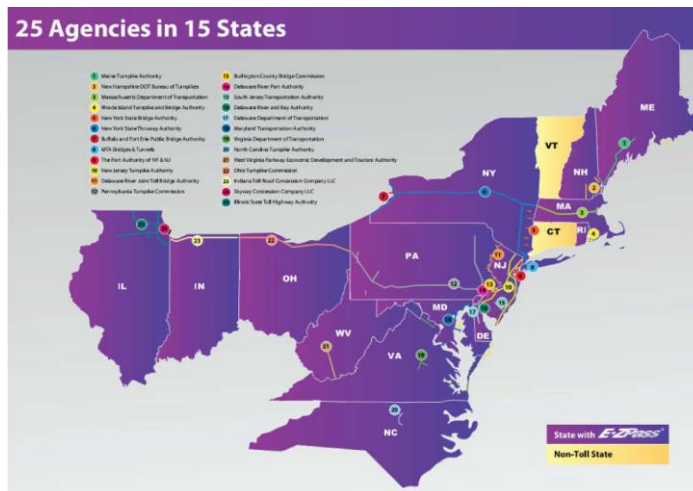
²⁸ Congestion pricing in the United States grew on limited access highways, with variable tolling, often run, operated and leased by private for profit companies. This strategy is popular especially in Texas.

The Regional Plan Association and The First New York City Congestion Pricing Plans

The Regional Plan Association (RPA), from 1996 to 2003 became the first organization to put together data, models, plans, and a political strategy with a vision for implementing congestion pricing in New York City. The idea expanded from imposing variable pricing on specific bridges and tunnels in and around the city to a comprehensive system that would create a cordon of tolls surrounding the downtown area so that anyone entering lower Manhattan would pay.

From the perspective of the RPA, transponder-based electronic tolling played a crucial role in making congestion pricing possible. The New York State Thruway Authority introduced EZ-Pass, an electronic tolling system, in 1993. EZ-Pass was both a bureaucratic and

Figure 2: EZ-Pass Jurisdictions (2013)



Source: Rhode Island Turnpike and Bridge Authority

technological innovation. In 1991 seven toll collecting agencies from New York, New Jersey and Pennsylvania formed an alliance called the E-Z Pass Interagency Group (IAG). Their “goal was to implement a regionally-compatible, non-interfering system that would satisfy not only the divergent toll collection and traffic management needs of the seven participating agencies, but would also provide improved regional mobility and convenience to their customers” (McCall,

New York State Comptroller's Office 1996, no pagination). The IAG adopted a common technological system that would be used for electronic toll collection first among toll collecting agencies in the three states mentioned above and eventually in 15 states, creating a common standard among 25 authorities (see Figure 2).

EZ Pass was designed to identify each car passing through its tolling stations and deduct a fee from a pre-paid account set up by drivers. EZ pass employed basic technologies: transponders, toll station antennae, and networked computer technologies. Drivers obtained Radio Frequency Identification (RFID) transponders which are about the size of a pack of cards. The transponder was designed to be placed on the windshield (or in some special cases on the front bumper) of the car. When the transponder passed through a toll station, the antennae collected a unique identifying radio signal (see Figure 3). The tolling station relays this information to networked computer centers that determined whether the driver has sufficient funds to pay the toll. A driver with insufficient funds would either not be allowed to pass through the tolling station when the station was equipped with a toll barrier (an arm that only raises when the toll has been assessed), or in tolling stations not equipped with barriers, automatic cameras would take photos of license plates and vehicles with insufficient funds. This license plate information would be used to identify drivers and send a fine to the driver in the mail.

Jeffrey Zupan, a Senior Researcher at RPA wrote that "EZ Pass was a technological 'foot in the door' for variable pricing at toll facilities" (2000, p. 7). He drew this conclusion based on earlier efforts at introducing demand responsive tolling. In 1979, the Port Authority of New York and New Jersey examined variable pricing and rejected it because the added time for toll collection with a traditional booth that required drivers to stop pay and wait for change was one of two major concerns. The other concern was that when drivers saw the increased fees they

would attempt to turn around at the entrance to bridges and tunnels, thus creating more congestion and safety hazards (Port Authority of New York and New Jersey, Toll Pricing Study, January 1979). Electronic tolling, as the RPA described it, would eliminate these concerns.

In 1996, the RPA touted EZ Pass and congestion pricing in their comprehensive plan for the metropolitan area: A Region at Risk: The Third Regional Plan for the New York - New Jersey - Connecticut Metropolitan Area. The tolling technology would “allow prepaid nonstop toll collection and solve past objections to toll barriers as the cause of still more congestion” (Yaro and Hiss 1996, p. 172). E-Z Pass grew in popularity in the New York City Metropolitan region. It was first installed on the Tappan Zee Bridge in 1993. By 1995 the New York State Thruway had installed E-Z Pass at all of its toll facilities. The Metropolitan Transportation Authority’s Bridges and Tunnels division began installation at its nine water crossings, and the Port Authority installed it on its six crossings connecting New Jersey and New York in 1996. By 2000 market penetration (the rate of cars using EZ Pass transponders) approached 70 percent (Zupan 2006).²⁹

A Region at Risk included a description and sales pitch” for congestion pricing followed by an explanation of how it might work in New York City. ‘Congestion Busting Through Market Approaches’ describes the pricing plan along with proposals for transportation vouchers that employers would offer workers in lieu of free parking and other ways of using price to dissuade drivers from commuting at times of peak traffic.

The description and pitch for congestion pricing mixes formal economic language and comically jingoistic language deriding the communism of public roads.

Variable prices to match service supply with available demand are very common...examples include offering discounts for using electricity and telephones

²⁹ Tolling authorities encouraged adoption by charging drivers with EZ pass less than those paying cash.

at night or on weekends, ‘super-saver’ airline tickets bought for nonpeak travel periods; ‘early-bird’ specials at restaurants, (etc) ... ‘Road pricing’ is alluring to economists and theoreticians. Yet the public agencies that provide the foundation for our entire economy – our highway agencies – have shown only minimal interest in these tools. Instead we are forced to rely on a ‘first come, first-served’ highway system as inefficient as a bread line in an old Soviet market. And we slash productivity rather than congestion, diminish our quality of life rather than boosting it, and foul our air instead of cleaning it (Yaro and Hiss 1996, p. 172).

This language resonates with arguments from the mid-1950s . The Federal-Aid Highway Act proposed a toll free, public system of highways that could be used to mobilize troops in response to a communist invasion. By the mid-1990s the ‘communist threat’ in transportation was untolled infrastructure.

The RPA then provided a moralistic economics lesson. It is the “last or marginal vehicle that imposes the most delay on all others. Maximizing one’s own needs – in this case insisting on traveling on a particular road – diminishes the convenience for everyone else” (*ibid*, 96). If this last driver was faced with the true cost of their trip, they would have made decisions that did not inconvenience others. In a separate section, entitled ‘Psst, Wanna Buy A Bridge’ Yaro and Hiss takes this free-market triumphalism to its logical end point by suggesting to sell the East River bridges to a private buyer who would impose tolls and be responsible for maintenance (Yaro and Hiss 1996, p. 172-3).

The history of federal and local underfunding of bridges, tunnels, and street infrastructure from the mid-1970s onward was the serious context behind the overwrought writing in the plan. Bridges and tunnels run by the City of New York were chronically underfunded and under-maintained, to the point where transit planners feared bridge collapse and routinely closed infrastructure for emergency repairs (Schwartz 2014). Congestion pricing and new ownership arrangements were policy tools offered to address the issue of infrastructure funding, while at the same time reducing traffic.

Congestion pricing was a new avatar for a much older political fight having to do with raising revenue in New York City: tolling the four free East River bridges which connect the less affluent boroughs of Queens and Brooklyn with lower Manhattan, the central business district for the New York Metropolitan Region. Tolls on these bridges would be the means for applying costs to roadway travel. The Brooklyn Bridge, the oldest of the East River bridges, charged a five cent toll for carriages and horse-drawn trucks at the time of its opening in 1883. The three other East River bridges – the Williamsburg, completed in 1903 and the Manhattan and Queensboro, both completed in 1909 – all charged tolls at their inception, but “by the great depression, tolls were a thing of the past” (Chan 2008).

Many powerful people proposed tolls for the East River bridges, including six mayors and a Federal judge who in 1977 ruled in favor of an injunction by the Environmental Protection Agency to use tolls to reduce the number of drivers and pollution in New York City.³⁰ All of these efforts failed in the face of a broad belief that inner-urban roadways were a free public good. Organized interests – trucking and carting associations, the AAA automotive club, parking garage owners in the city center, and commuters, especially from Queens and Brooklyn – played an important role in thwarting this effort through lobbying and law suits (Zupan 1999).

By the time that the RPA proposed congestion pricing, the free bridges were unique in a region where other authorities imposed tolls on many bridges and tunnels providing drivers access to New York City. Tollway authorities, including the Port Authority, the Metropolitan Transportation Authority, the New York State Thruway, the New Jersey Turnpike and the Garden State Parkway built and maintained bridges and tunnels in the metropolitan area. These

³⁰ John P. O’Brien (1933); Vincent R. Impellitteri (1950-3); John V. Lindsey (1966-73), Edward I. Koch (1978-89); David I. Dinkins (1990-3) and Michael R. Bloomberg (2002-13)

authorities, set up as part of a wave of good governance reforms from the 1920s to the 1950s, were designed to place technocratic planners and decision makers at a remove from the voting public and the political machines that would use infrastructural investment for patronage jobs and influence. Because of this political distance these authorities had a relatively free hand at imposing tolls.³¹

The tolls imposed by these authorities were highly remunerative. In 2011, the Port Authority and the Metropolitan Transportation Authority collected \$2.5 billion or approximately 21% of the \$11.8 billion in tolls collected nation-wide. Within a 40 mile radius of Manhattan, a quarter of all roadway tolls in the United States were collected (Jaffe 2013). In 2003, about 45% of national tolls were collected in New York and New Jersey (Zupan and Perrotta 2003, p. 3).

Transit planners and environmentalists sought to use tolls to do more than just collect money; they would be a tool to reduce pollution and congestion. The Tri-state Transportation Campaign, an advocacy group that worked closely with the RPA, urged the planning authorities to conduct studies on congestion pricing around the same time that A Region at Risk was published. The advocacy group consisted of environmental organizations, including the Federated Conservationists of Westchester, Scenic Hudson, and The Environmental Defense Fund (Zupan 2004).

In 1995, The Tri-State Transportation Campaign lobbied the Port Authority to consider variable tolling that would reduce traffic. The Port Authority hired a private firm, The Caliper Corporation, to model the effects of variable pricing. In the study, released in 1995, titled “Regional Transportation Economics Study: Auto Pricing Demand Simulation Model”, planners

³¹ As seen below with the Fair Plan, these multiple jurisdictions make coordinating or ‘rationalizing’ roadway tolls an exceedingly difficult political task.

used the model to estimate the impact of raising tolls from \$4.00 to \$5.00 at tunnels that link downtown Manhattan with New Jersey and Brooklyn. They estimated that the higher daytime toll would reduce congestion by approximately one third (Caliper Corporation 1995, quoted in Zupan 2000, p. 3).

In 1996, again at the urging of the Tri-state Transportation Campaign, the New York State Thruway authority conducted its own congestion pricing study for the Tappan Zee Bridge, just north of New York City. With federal funding it hired Resource Systems Group and Wilbur Smith and Associates to develop a “stated preference” model (Zupan 2004). “By 1999 the model was in place and testing toll scenarios” (Zupan 2006, no pagination). Revenue generation was not the aim of changing tolls. They modeled revenue neutral tolling scenarios with the exclusive goal of reducing congestion. The results showed that, by setting tolls at \$2.50 from 7am to 9 am, stepping it down to \$2.00 during off-peak daytime hours and then down \$1.50 at times that would draw people away from peak hours, volumes would decrease overall by 11 percent. This was at a time when cash tolls were \$3.50 and EZ pass tolls were \$1.00 (Zupan 2006). The political coalition, lobbying work and modeling tools brought together by the RPA and its partners paved the way for more ambitious efforts at promoting congestion pricing.

The ideological and political disposition of the RPA becomes important here as its coalition building efforts for congestion pricing intensified. The RPA viewed itself as a technocratic organization, primarily predisposed to propose and support efforts that attract higher income and elite residents to the urban core, while more recently supporting environmental causes. Formerly a strong supporter of building more capacity for automotive travel, its support of congestion pricing coincided with a changing cultural disposition among urban elites, preferring walkable streets and a more environmentally sound urban core. The RPA has long

been supported by the Rockefeller and Ford Foundations, large, national foundations with elite, expert, liberal, tendencies. (O'Connor 1996). The Eno Transportation Foundation also supported the RPA's work on congestion pricing.

Following the Third Regional Plan, functioning equal parts as a research organization and an advocacy group, the RPA released a series white papers and proposals on congestion pricing in 2001, 2003, 2004, 2005 and 2006³². It also issued the first comprehensive proposal for implementing congestion pricing in New York City.

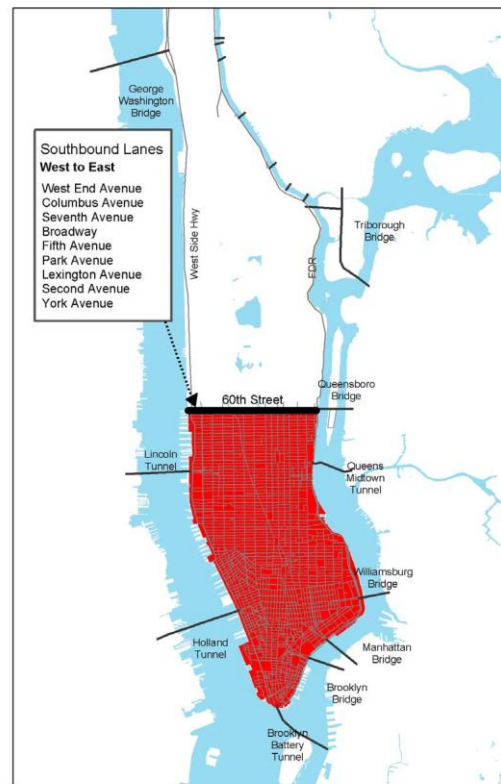
³² Moving Toward Congestion-Reducing Toll Policies at the Port Authority and Throughout the Region (2001), An Exploration of Motor Vehicle Congestion Pricing in New York (2003), The Application of Motor Vehicle Congestion Charges in New York (2004), Moving Quickly Through The Gate: Why Not The MTA? (2004), Congestion Pricing in New York: Can We Do What London Did? (2005), Using Market Forces to Manage Transportation (2006)

The Plan: The First Lower-Manhattan Cordon

In 2003 the RPA proposed a detailed congestion pricing plan in a report titled An Exploration of Motor Vehicle Congestion Pricing in New York and written by Jeffrey Zupan and Alexis Perrotta. The report proposed four different variations on congestion pricing, all of which would have tolled the four East River bridges with EZ Pass. The plan offered scenarios with flat tolls and variable tolls. Two of the proposals suggested a complete cordon around lower Manhattan with tolls to be administered at 60th Street on all nine southbound city streets as seen in Figure 3. The cordon would be a feature of every future congestion plan.

The example of London provided the immediate context for formulating the plan. The City of London adopted a cordon

Figure 3: RPA Congestion Pricing Cordon



Source: RPA 2003: 4

congestion pricing system in February of 2003. At the RPA the London system was a source of technical information and political inspiration. London published reports at three months, six months, nine months, and a year with full data on the impacts of the program. Planners at RPA scoured it for insights into how congestion pricing would work in New York City. The RPA used

London data to estimate how many drivers would be deterred by higher prices in their New York City modeling efforts (Perrotta 2014).

Modeling, which required a team of transportation planners and hard-to-access, cutting-edge computing in the 1960s CATS report, was done at the RPA in 2003 with a relatively small commitment of person-hours on low cost, nearly ubiquitous desktop computers. In developing the plan, the RPA made a traffic model to estimate the impacts of their four pricing proposals. They built the model in Microsoft Excel using desktop computers (Perrotta 2014). Charles Komanoff, who would go on to co-author a congestion pricing plan, advised the model builders. He was a veteran of environmental and transportation advocacy who had a developed economic analysis skills working in the Lindsey administration on nuclear energy policy in the 1970s. By 2003, he was working with Transportation Alternatives, an advocacy group that supported the RPA as it prepared An Exploration of Motor Vehicle Congestion Pricing.

The RPA had ready access to data on traffic flows in and out of the city. Data came from New York Metropolitan Transportation Council (NYMTC), bridge counts from the New York City Department of Transportation (DOT), the Port Authority and the MTA, and, U.S. Bureau of the Census Journey to Work survey. Data that took years' worth of person-hours to assemble was collated and formatted enabling planners at the RPA to use it with relatively minimal effort. Moreover, by 2003 much of the data had been collated and formatted for use in common computer programs like Excel. It was also increasingly available on line. These ideas, technologies and data had existed for decades, but by 2003 planners had been introduced to Vickrey's ideas in the classroom, had ready access to data and models formulated to estimate the impacts of price changes, and they had software and hardware that made complex calculative tasks manageable.

The congestion pricing plan was first presented on November 3rd, 2003 at the Eno Transportation Foundation Conference on Congestion Pricing in New York City. The finished report framed congestion pricing as a cure for traffic delays. Using NYMTC data, it demonstrated an increase in the number of vehicles entering downtown Manhattan using a table titled Vehicles Entering Manhattan CBD: The Inexorable Climb Toward Gridlock by Adding 8,000 Vehicles Each Year (Zupan and Perrotta 2003). Not only was the volume of traffic increasing, the free crossings on the East River bridges were directing traffic towards the urban core in Manhattan rather than away from it. They wrote: “These four free crossings bear the brunt of the traffic volumes crossing from the east into the CBD, as over 250,000 vehicles a day [use the free bridges] while only 79,000 used the two tolled tunnels” (Perrotta and Zupan 2003, p. 11).

An Exploration of Motor Vehicle Congestion Pricing then described what it calls ‘breakthroughs’ in congestion pricing, starting with economic theory and its application (2003, p. 12):

The principle of charging different amounts for essentially the same product is as old as our mercantile system – charge more for scarce goods and services and less for plentiful ones. The corollary: if goods or services are underpriced they are overused, distorting economic and social efficiency. More specifically, variable time pricing has long been a fundamental part of our economy, including electric utilities, telephone service, water, lodgings, restaurants (‘early-bird specials’) and movie theaters.

These principles had also been applied to roadways, the report continues, citing federal policy in the U.S., tolling systems on bridges, and examples of cordon congestion pricing systems in Singapore, Melbourne and Oslo.

The report then devoted an entire section to “Lessons from London”. The authors emphasize two factors that led to the political success there: First, the London planners framed

the project in terms of traffic delays. London's Mayor Ken Livingston made the case for congestion pricing primarily on the basis of congestion relief rather than as a source for raising revenue. Second, the report described how London had used revenues from the tolls for transportation investments. Mayor Livingston "earmarked all revenue for transit investment for at least the next ten years", froze bus fares and added 300 buses to the urban fleet.³³ Drawing on this example the authors also suggested a method of monitoring, marketing and legal defense against possible challenges.

Four pricing scenarios were explored in the report, as seen in Table 3 (on the next page). All of the scenarios called for tolling the East River bridges. Scenario One would only make one change, to toll the East River bridges at \$7. The second scenario would create a variable toll on all of the bridges and tunnels that enter downtown Manhattan. The third scenario would impose a flat toll of \$7 on the East River bridges and the street crossings at 60th street in Manhattan to create a cordon around the downtown area. The fourth scenario would implement the cordon and create variable pricing at all downtown entry points. The RPA planners modeled each of these scenarios to estimate changes in flows of roadway traffic in and out of the cordon as well as the additional transit trips the plans would generate as drivers switched over to busses and the

³³ Here it is important to recount the political and jurisdictional differences between New York City and the City of London. The City of London had fewer jurisdictions to contend with when it implemented congestion pricing, once the proposal had passed the London Assembly, the municipality had the authority to impose the new tolling scheme. Moreover it had unitary control over Transport for London, the local transportation agency and used this control to make congestion pricing more palatable. It extended bus service to outlying areas that were to be effected by the pricing cordon and increased the frequency of service. The City of New York had no such power. Cities in the United States are, as they say, creatures of their states, which means that their ability to determine local policy is both made possible and limited by state law. New York City needed permission from the State of New York to begin tolling the four free East River bridges and had to coordinate with the Port Authority and the Metropolitan Transportation Authority on roadway and transit policy.

Table 3: Comparison of Scenarios

SCENARIO DESCRIPTIONS	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Scenario Name	Toll East River Bridges like MTA	Variable Pricing on East River Bridges; MTA to Match	Like London	Full Variable Pricing
Main differences from status quo	Implements flat East River Bridge tolls	Puts variable pricing on MTA crossings and East River Bridges	Implements charges to cross south of 60th street during the weekday	Coordinates charges by time of day on all entries to the zone
East River Bridge tolls vary by time of day?	No	Yes	No	Yes
Duration of tolls	24-hours	24-hours, with deep discounts over night	13 hours, weekdays only	24-hours with deep discounts overnight
Auto Tolls on East River Bridges (currently at \$0)	\$7	\$7, \$10 in peak, \$4 at night	\$7	\$7, \$10 in peak, \$4 at night
Auto Tolls on MTA tunnels (currently at \$7.00 with EZ Pass)	\$7	\$7, \$10 in peak, \$4 at night	\$7	\$7, \$10 in peak, \$4 at night
Auto Tolls on Port Authority tunnels (currently at \$5 peak, \$4 offpeak with EZ Pass, \$6 cash)	\$4, \$5 at peak	\$4, \$5 at peak	\$4, \$5 at peak	\$7, \$10 in peak, \$4 at night
Auto Tolls on southbound avenues crossing 60th Street (currently at \$0)	\$0	\$0	\$7	\$7, \$10 in peak, \$4 at night

Source: *Regional Plan Association, 2003: 21*

subway (*ibid*, p. 29, 30). They estimated time savings and revenues to transportation agencies and authorities under the different scenarios (*ibid*, p. 33, 35).

Finally, An Exploration of Motor Vehicle Congestion Pricing highlighted arguments that might hinder or help public officials if they advocated for the plan. This section was remarkable in that it anticipated many of the central political issues that congestion pricing advocates would address when lobbying politicians and when speaking and writing in the popular media. The first two arguments identified constituencies that would benefit monetarily, or at least not be harmed, by congestion pricing. The last argument relies on a definition of fairness central to economic thinking.

First, the plan addressed “Economic Impacts”. This section was primarily concerned with the costs to central city businesses as traffic was diverted from the urban core. It cited figures from a survey conducted by the Transport for London that showed the majority of downtown business owners thought that the pricing cordon had had either no effect or a positive effect on business (*ibid*, p. 22).

Second, it addressed “income and geographic equity.” In response to the criticism that “bridge tolls and congestion charges are often considered regressive” the plan argued that “tolls disproportionately benefit those in lower income groups who depend more heavily on city services provided with revenue from the tolls (such as transit)” (*ibid*, p. 23). The plan displayed the amount of revenue that would be generated for the MTA and the Port Authority as well as the City of New York. Table 4 shows an estimate of total revenues and revenues for each of the agencies that run the bridges, tunnels and streets provide access to downtown Manhattan (*ibid*, p. 35).

Table 4: RPA Plan Revenue Estimates

Revenue Estimates	Scenario 1 "Toll East River Bridges Like MTA"	Scenario 2 "Variable Pricing on East River Bridges; MTA to Match"	Scenario 3 "Like London"	Scenario 4 "Full Variable Pricing"
Change in Yearly Revenue Weekdays Only	\$483,710,847	\$528,740,110	\$731,967,267	\$1,237,152,567
Change in Yearly Revenue Including Weekends				
<i>All Agencies</i>	\$706,217,837	\$740,236,154	\$761,375,789	\$1,732,013,594
New York City	\$546,877,151	\$482,411,328	\$658,445,959	\$1,398,340,119
MTA*	\$159,340,685	\$257,824,826	\$102,929,830	\$257,824,826
Port Authority*	\$0	\$0	\$0	\$75,848,649

*MTA and Port Authority revenue impacts are only shown for the Brooklyn Battery, Queens Midtown, Holland and Lincoln Tunnels.

Source: Regional Plan Association 2003 p. 35

This redistribution from drivers to transit agencies would benefit lower income New Yorkers, they argued.³⁴ The RPA cited reports by the Independent Budget Office and Charles Komanoff showing that “drivers who are very likely to use the free East River bridges earn ... \$14,300 more than their neighbors who commute by transit or other means” (*ibid*, p. 23). Then the plan also took on the issue of geographic equity, and the notion that there were “poor alternatives to driving” for many New Yorkers because some neighborhoods do not have public transit options for traveling to lower-Manhattan. This unequal access to public transportation was a result of the historic pattern of growth of the subway system and bus system. Zupan and Perrotta cite statistics that show that 80 percent of all travelers to the core use public transportation and “there are few areas from which more than 50 percent drive” (*ibid*, p. 24).³⁵

Finally, anticipating arguments against the fairness of tolling city streets, the authors made an ethical argument that echoed Vickrey’s writings. The plan argued that pricing was fairer than other means of supporting the costs of building and maintaining roadways such as income taxes or property taxes.

The burden of (roadway maintenance) costs falls on all tax payers today, including those who do not add to the burden [Such as people who live in New York City and pay taxes to support roadways, but do not drive]. It seems logical that those who use the system and contribute to its deterioration the most should pay the most (*ibid*, p. 24-25).

In other words, fairness is defined as individuals paying for the cost of the goods that they consume, be it roadway space, the resultant pollution, or accidents. When confronted with such costs they would opt to drive less.

³⁴ This assumes that the money will actually be spent on transit projects that will benefit the less affluent people who live in the same neighborhoods as the people that were driving to work. Analysts used census data broken down at the scale of the Public Use Micro-Survey (PUMS) area, which may have grouped together drivers who live in parts of New York that are not served by transit with those who are.

³⁵ Again, the boundaries of an ‘area’ are problematic.

This argument clearly articulated an economist's version of fairness that would have been familiar to Vickrey. As one of his biographers noted:

A curious feature of Vickrey's policy advocacy, despite the moral sentiment which permeates his work—that the goal of economics is to improve the human condition—is that his policy proposals are aimed at improving efficiency and horizontal equity. On vertical equity he was typically silent. (Arnott 1998, p. 99).

Fairness is defined as choosing to pay for what you use. When rational individuals are faced with choices that force them to pay for what they use, society will maximize aggregate efficiency.

Horizontal equity implied that every individual had equal ability to make these choices, and that those decisions would be made by the individuals consuming the goods. For Vickrey and the writers of the RPA report the moral and efficiency arguments at the heart of the idea of congestion pricing are like conjoined twins.

As congestion pricing advocacy continued, the ethical principles of choice and efficiency embedded in Vickrey's thinking receded. A 'vertical' articulation of fairness became dominant; one which was concerned with how revenues to support the transit system would be generated and who would end up paying. Like the RPA plan, future plans would enumerate the benefits of congestion – especially the large sums of money that would be generated to support and improve the public transportation – and also the gains to specific industries, the local economy, the environment and public health. This shift from individual gains in efficiency to aggregate gains in terms of revenues, profits, competitiveness, and a clean environment marked a shift in the political movement for congestion pricing. It started with the RPA plan and was taken up in four proposals. The individual, profit-maximizing individuals theorized in economics, and performed in economic models and plans met with the situated political preferences of New Yorkers and the strategies of institutions and politician

Chapter Five: Congestion Pricing Goes Public

In 2005, for the first time, Mayor Bloomberg expressed interest in congestion pricing. At the Regional Assembly, hosted by the RPA, he praised An Exploration of Motor Vehicle Congestion Pricing (Perrotta 2014). The morning after Bloomberg's re-election in 2006, Wilde was quoted in The New York Times saying "Many of our members go to London quite a bit. They're asking, 'Can we do that here?'" With the Mayor's interest and the support of The Partnership, focus shifted towards convincing powerful business interests in the region to support the idea of pricing roadway space.³⁶

Congestion pricing became more plausible because in December of 2006 the Federal Highway Administration created the Urban Partnerships Program. Urban Partnerships promised that "the selected cities with the most aggressive congestion-relief programs would receive priority consideration" for Federal discretionary funds of \$1 billion for up to ten cities (Federal Highway Administration 2006). Congestion pricing was emphasized as one of the policies that would make cities eligible for these funds; it was congruent with a broader transportation policy push under President George W. Bush, towards privatization and 'market solutions' for highway and transit improvement (Friend 2010).

The Partnership For New York City: Growth or Gridlock?

In December of 2006, The Partnership for New York City published a report titled Growth or Gridlock? The Economic Case for Traffic Relief and Transit Improvement for Greater New York. As the subheading of the report suggested, The Partnership quantified the aggregate costs of congestion to the local economy. The report analyzed the local economy as the

³⁶ As an election issue, the Mayor kept his distance and relied on his allies, particularly the New York City Partnership.

aggregate expenditures of regional employers, and firms. The policy document enumerated the costs of congestion to businesses in the New York metro-region. The RPA report had proposed congestion pricing scenarios and highlighted the revenues that would be generated through the new tolling system. The Partnership, by contrast, did not propose a specific congestion pricing system, writing in the introduction that it “has not yet taken a position on how to solve the congestion problem” (Partnership 2006, p. 3). As a local business consortium, the report focused on the “more than \$13 billion in annual costs to businesses and consumers... and tens of thousands of lost jobs” that result from congestion (*ibid*, p. 2).

The report was written at the same time that The Partnership had begun promoting the idea that congestion was a problem that could be solved in the local press. On November 11, 2005 the man who was coordinating research and writing for the report, Ernest Tollerson, a senior vice president of The Partnership, was quoted in The New York Times, arguing that the city as a unified entity ‘wants’ reduced traffic. He said: “is there an opportunity to create a congestion-relief zone that would help this global city? This is a city that wants to add tens of thousands of jobs, but we can't continue to build streets and roads. For the long-term growth of the city, we need demand-management tools” (Chan 2005). In April of 2005 Tollerson had begun to oversee a working group brought together by The Partnership.

Growth or Gridlock was the result of collaboration between the Partnership, elite private consulting firms, and environmental advocacy groups. The report listed 19 contributors of “expert information funding and other resources to support this report” (Partnership 2006: 62). Tollerson coordinated the working group from April of 2005 to its publication. Three private research firms led the research and writing: Booz Allen Hamilton, Inc, a multinational consulting group that works for military, private and public clients; HDR HLB Decision Economics, Inc. a

consulting firm that specialized in economic analysis of public investments in transportation; and Parsons Brinkerhoff's PB Consult, a multinational consulting firm that contributed a team of analysts including Janet Sadik-Khan, who would later become the Commissioner of the New York City Department of Transportation (Partnership 2006, p. Acknowledgements).

The Partnership report was collaborative in a second sense, too. On the title page The Partnership explained its aim: "to leverage its network of CEO partners" through research, issue advocacy, and policy formulation (*ibid*). Growth or Gridlock prominently displayed support for the idea from elite institutions and influential people, and formal political power to put into place a pricing plan. (A full list of the people acknowledged in the Growth or Gridlock plan can be found in Appendix 3.) Calling itself "the city's business leadership organization" the report highlighted the business interests which should be concerned about the issue of congestion (It included a list 68 members of the Board of Directors on the front page, including local and national business potentates including Rupert Murdoch, the owner of Fox News, and E. Stanley O'Neil who was then the Chairman of the Board of Merrill Lynch (*ibid*)).

With these powerful interests prominently listed, the report analyzed the economic consequences of congestion. The use of economic analysis serves at least two functions in the report, one technical, and the other rhetorical. The main technical analysis "quantified the impact of congestion on the economy as a whole and on various industry sectors" (p. 16). The authors also argued that transportation planners had been concerned primarily with lost time and its value to commuters – Growth or Gridlock would be concerned exclusively with impacts on local firms. Invoking a pro-business perspective, the authors used economic language to distance their work from "transportation experts, and environmentalists" who concerned themselves with roadway capacity, wasted fuel, transit, air pollution and lost time for commuters. The authors positioned

congestion pricing against issues that conflict with a pro-business or pro-growth stance such as the pedestrian campaigns and environmentalism.

The report also described large sums of money that could have been realized by various industries if congestion was reduced. The authors of Growth or Gridlock employed a methodology that drew on the economic analysis to quantify the costs of congestion to local firms and specific industries. From the perspective of the local economy, a certain amount of congestion was economically efficient, but beyond that point costs were greater than benefits, the report argued. To make this distinction, they used term ‘excess congestion’:

Congestion beyond the point that is economically efficient... Traffic that costs more in losses to the economy than the benefits provided by accommodating additional shoppers, trucker, commuters, tourists, etc., on crowded roads (*ibid*, p. 16).

Here, economic efficiency referred not to what was efficient for drivers, but rather to a combination of the costs internalized by commuters and the costs borne by firms located in the region.

If excess congestion was ‘traffic that exceeds the tipping point’ at which ‘costs are greater than benefits to the economy,’ then where is the point of shrinking returns? To answer this question HDR HLB used an economic model that “included assumptions regarding elasticity of demand, cost of travel per mile and the impact on speed of a change in a road’s volume to capacity ratio” (*ibid*, p. 17).³⁷ With this model, analysts compared an estimate of the hours of travel with no congestion against an estimate of actual travel conditions.³⁸ It calculated the difference between these two estimates and found that the total congestion in the region was an

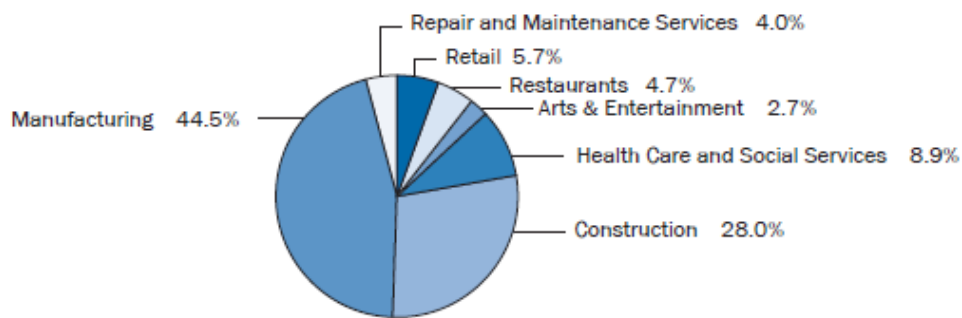
³⁷ These factors are listed in the report but the numerical values that they used for elasticities were excluded.

³⁸ The model relied on New York Metropolitan Transportation Commission data on average vehicle speeds.

estimated 1,122,000 vehicle hours of delay per day. With that baseline figure, HDR HLB concluded that 589,000 vehicle hours of delay or 48% of total delays were ‘excess’ using an economic modeling technique that is not specified in the report.

The analysts linked poorly structured individual choices with costs to specific industries and the regional economy; putting the choices of drivers in the same equations as the profitability of firms. “In theory, excess congestion happens because road users do not account for the delay that their presence on the road causes other motorists. If each driver took into account his or her own contribution to making the roads congested, economists argue, a city would achieve *economically efficient* congestion [original emphasis]” (*ibid*, p. 16). Excess congestion results from a lack of proper incentives for making good choices. Estimating a cost of \$23 per vehicle hour as a baseline, analysts calculated that congestion costs \$13 billion per year.

Figure 4: Gridlock or Growth Distribution of Revenue



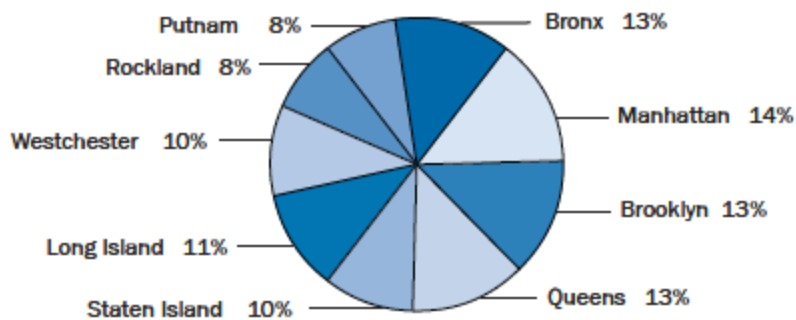
Source: *The Partnership for New York City 2006*

Costs were then broken down to specific industries, with loss of business revenue, increases in business costs and job losses enumerated for eight industries, as seen in Figure 4, above. Each industry was given a special section within the report. So for example a real estate developer, or a building trades union leader could turn to page 35 and find that the impact of congestion on the construction industry: it “increased operating costs are estimated by HDR at

\$155.7 million a year. Revenue losses are estimated at \$1.3 billion annually and overall employment losses at 5,200 full-time positions.”

At the more abstract level of the regional economy, Tollersen’s quote that “this is a city that wants” to add jobs and grow reveals the underlying aggregate economic thinking that framed the analysis of Growth or Gridlock. From this perspective there was an optimal level of congestion that would maximize overall revenues for firms within the New York City metropolitan area. With this calculative framework set, The Partnership could argue that annually the regional economy lost between \$3.2 and \$4.0 billion in Gross Regional Product and 37,000 to 52,000 jobs (Partnership 2006, p. 2-3). Commuters during the weekday lost between \$5 billion and \$6.5 billion in productivity and up to \$2 billion in wasted fuel. Businesses lost \$1.9 billion in increased operating costs for fuel and the additional costs of moving people and goods around the city. Industry also lost \$4.6 billion according to their estimates, for the total of \$13 billion cited above. These estimates were broken down geographically, with estimates for the costs to drivers and industry in Manhattan, the boroughs and surrounding suburbs, as seen in Figure 5.

Figure 5: Gridlock or Growth Distribution of Congestion



Source: *The Partnership for New York City 2006*

Issues of equality of choice or the fairness of allocating costs, which were part of the rationale for congestion pricing for Vickrey's and the RPA, were not mentioned. Whereas the RPA highlighted revenue that would be generated by public agencies through congestion pricing, Growth or Gridlock emphasized the private gain that businesses in the metro-region would realize if congestion was brought to an optimal level. Next, the City of New York put forth a congestion pricing proposal that was similar in design to the RPA proposal and had the backing of the Mayor, The Partnership and its powerful members.

PlaNYC: Congestion Pricing as the Lynchpin of Regional Transit Finance

Mayor Bloomberg had floated the idea of tolling the East River bridges in 2004 and touted the idea of congestion pricing at a Regional Plan Association convention in 2005. After his first re-election in early 2006, he began work on a multi-issue strategic planning document that included a congestion pricing plan. The result, PlaNYC 2030: A Greener, Greater New York was launched on April 22nd, 2007 and initiated a year-long political struggle between the Mayor, the City Council, two different Governors, and the State Legislature to pass legislation that would enable the City to create a cordon-based congestion pricing system. After some notable successes, including approval by the City Council and the State Senate, the proposal failed to pass the State Assembly. With PlaNYC, congestion pricing advocacy became public in the sense that public officials led the campaign for the plan and also in the sense that it became the source of fierce debates played out in City Hall, State Assembly chambers and the editorial pages of local newspapers.

PlaNYC Process

The process of researching and writing PlaNYC took place entirely within the Mayor's Office. It grew out of an effort to streamline and market the Mayor's second term agenda. In

early 2006 Deputy Mayor for Economic Development and Rebuilding Daniel Doctoroff, began work on a strategic land use plan that grew in size and scope. Two of Doctoroff's staff worked on the initiative in addition to performing their other work duties. As the project became more complex, and more of a priority for the Mayor, Doctoroff became convinced that he needed someone whose sole responsibility was to develop the plan and monitor its implementation. "The Mayor and Deputy Mayor wanted someone who would wake up every morning thinking only about this plan" (ICLEI 2010, p. 17). In the June of 2006 Bloomberg created a new administrative center: the Mayor's Office of Long-Term Planning and Sustainability (OLTPS) which reported to the Mayor's Office of Operations. Doctoroff hired Rohit "Rit" Aggarawala, a former management consultant at the consulting company McKinsey and Company to head OLTPS as it created the long-term strategic plan. By June 20th of 2006 funding was in place for the new office and it held an interagency meeting to gather information from various city agencies that had been doing research and analysis for the long-term plan. The public did not learn of the creation of the office for two more months when it was announced on September 21 (ICLEI 2010, pp. 17-19).

The OLTPS identified sustainability and climate change as crosscutting themes that held together strategic planning initiatives in land use and infrastructural improvement. Aggarawala's role to was frame the goals of city agencies to match these themes. In the process he sought to generate support from agency heads.

The new director was not starting with a clean slate; rather, an extensive amount of analysis had already gone into the planning process... The handover did provide the director with the opportunity to revisit the scope and purpose of the strategic land use plan and rethink how the issues were being framed to the public (ICLEI 2010, p. 18).

This process would be reflected in the plan itself, which consisted of objectives, from planting trees to building water mains to congestion pricing, all linked by an environmental sustainability theme.

With this basic sketch of the issues and framing of the plan in place, Aggarawala and his team created the Sustainability Advisory Board which held its first meeting on September 27. The board consisted of elites from inside and outside city government who would “provide advice and ideas ... on potential content for the plan, but not author the plan” (*ibid*, p. 20). The board consisted of 17 members: two members of the City Council, including the Speaker, Christine Quinn; six representatives of the business establishment, including Kathryn Wylde from The Partnership for New York; six non-profit executives including Bob Yaro, the President of the Regional Plan Association, an academic, the program director from the Rockefeller Brothers Fund philanthropy and the Executive Director of the Central Labor Council. (A full list of the board can be found in Appendix 4.) The role of the board was strictly advisory; though the Mayor’s office saw its support as crucial to the success of the plan.

At meetings attended by the Mayor, Deputy Director Doctoroff and Aggarawala the Sustainability Advisory Board and the OLTPS defined a central problem that the plan would address: the pressure of population growth on aging infrastructure and the environment. With the team of powerful stakeholders in place and the problem defined, from November to December in 2006 Aggarawala met with advocacy organizations – both potential supporters and detractors – to listen to their ideas and educate them on the sustainability initiative. This process “helped to build support from advocates and community leaders who are typically quoted in the press, and in turn minimize criticism of the planning process and the plan itself” (*ibid*, p. 24). During that same period, the Mayor launched, on December 12, a publicity campaign with an announcement

of ten sustainability goals followed by a panel discussion with “distinguished New Yorkers” moderated by television news anchor Tom Brokaw (*ibid*, p. 24).

The plan was introduced to the public through public input sessions which were akin to a combination of advertising focus groups and a marketing campaign. The sessions were designed to win support and minimize the time spent on debate and controversy.

With only three years left in the Mayor’s second term in office, OLTPS was concerned with releasing the plan as quickly as possible and making sure the public supported the plan so they could begin implementation immediately. The pressure imposed by term limits played a major role in shaping the outreach process; the plan could not be released as a draft plan. OLTPS wanted to make the hard decisions first and get started on the implementation immediately after the plan was released, instead of publishing the plan and having to spend a significant amount of time debating the options in public meetings (ICLEI 2010, p. 24).³⁹

Public input was viewed as a consensus gathering exercise on the way to implementation. It was to be navigated as quickly as possible. Through the public input session, OLTPS reported learning how to better market the plan and thus what to emphasize and what to minimize when presenting it. As Tom Angotti, an urban planning professor and critic of the Mayor wrote, “I must confess that I sat through [some of the consultation that OLTPS initiated] and felt ashamed that the many committed and bright community representatives in the room were treated like subjects in a marketing campaign” (Angotti 2010).

Aggarawala’s office was writing the final plan at the same time that public meetings were taking place. The writing process consisted of moving from high-level concepts like environmental sustainability and infrastructural improvement to specific tasks to be monitored and managed by city agencies responsible for their implementation. OLTPS and Doctoroff consulted with the Mayor frequently during the writing process. The final plan consisted of 127

³⁹ The Mayor would go on to serve a third term, but this was unknown at the time.

initiatives grouped into six categories: Land, Water, Transportation (which contained the congestion pricing proposal), Energy, Air and Climate Change. The text of the plan was full of photographs, maps and charts identifying the problem that each initiative sought to address and detailing the tasks that would be taken to resolve it.

An appendix at the end of the document, “Implementation,” held the key to understanding how the plan was to be used. The appendix consisted of a spreadsheet, listing each of the initiatives and the agency responsible for completing the task (See an example in Appendix 5). From Angotti’s perspective the plan was less of a statement of a comprehensive vision and more of a massive management task list that was defined in the Mayor’s office and could be monitored and controlled from there.

[It was] 127 initiatives that could be managed from a giant spreadsheet. PlaNYC did not look at the city from the perspective of its hundred neighborhoods or incorporate the vast experiences and histories of its neighborhoods. Only after the giant spreadsheet was made, were the city-wide programs and projects broken down, but mostly for reporting purposes (2010).

Angotti drew attention to the perspective from which the plan was written and the perspective from which it makes sense.

The Mayor’s strategy for garnering public support was mobilizing his administration’s marketing savvy, expert opinion and, at times, Bloomberg’s own personal wealth. With congestion pricing, which had little public support and required legislative changes by the State, all of these resources had to be brought to bear.⁴⁰

Launch of PlaNYC/ Congestion Pricing Politics

⁴⁰ In a Quinnipiac public opinion poll taken on January 18 2007, just four months before PlaNYC was formally announced, 62% of survey respondents in New York City opposed charging vehicle owners a fee to drive below 60th street and 78% opposed charging tolls on the East River bridges.

On Earth Day, April 22th 2007, Mayor Bloomberg announced PlaNYC at a press conference held under the 94 foot long fiberglass Blue Whale model in the Natural History Museum of New York. The press conference was designed to communicate the environmental sustainability framing of the plan. Introducing Bloomberg was Arnold Schwarzenegger, then Governor of California. Quoted in a New York Times article, Schwarzenegger called himself “an environmental warrior” and used the term to describe the Mayor as well. With PlaNYC “New York leaps to the forefront of cities dedicated to attacking climate change and protecting our environment,” Schwarzenegger said (Glaiser 2007). In a live streaming video Tony Blair, the Prime Minister of the UK at the time, endorsed the plan saying, “your announcement will mark out New York as a global leader in the fight against climate change” (Glaiser 2007). Schwarzenegger and Blair spoke of environmentalism, but the Mayor’s preferred term for encapsulating the plan was sustainability, a concept that could be applied to the myriad aims of the plan.

The congestion pricing proposal quickly became a focal point of PlaNYC. As Zupan of the RPA said “PlaNYC had 120 some odd different things in [it] and 120 some odd, minus one were ignored” (Zupan 2012). The one item that caught the public’s attention was congestion pricing, which garnered greater media and political attention than any other PlaNYC proposal. Congestion pricing would have created a new revenue stream that would have injected hundreds of millions of dollars a year into the budget of the City, the Port Authority and the Metropolitan Transportation Agency. Perhaps more importantly, the proposal would change the commuting experience of millions of New Yorkers each year. For an earlier generation of transportation planners, congestion pricing was a futuristic economic theory. With vivid images and anecdotes from New Yorkers about their commutes and how they would be improved with congestion

pricing, PlaNYC created an appealing account of how this theory would turn into everyday practice.

The section of PlaNYC on transportation sustainability referred to maintaining or improving service capacity in the face of the predicted population growth. Environmental and health benefits were mentioned but not emphasized. The transportation plan was focused on what might be called financial sustainability or producing revenues that would enable local transportation agencies to maintain and improve roadways, bridges and tunnels, as well as public transportation. The primary transportation aims of the plan were: “Congestion: Improve travel times by adding transit capacity for millions more residents, visitors and workers” and “State of Good Repair: Reach a full ‘state of good repair’ on New York City’s roads, subways and rails for the first time in history” (PlaNYC 2007, p. 74).

Congestion pricing was first mentioned in the plan as one of “three streams of funding” for supporting transportation investment through a new independent State entity. The plan called for a new authority that would collect an estimated \$380 million in revenue the first year from congestion pricing and from City Department of Transportation and from the State, with each contributing \$220 million. The Sustainable Mobility and Regional Transportation (SMART) Financing Authority was to be governed by an board appointed jointly by City and State officials. Its mandate was to allocate funds, rather than to build or to operate infrastructure (as with the Port Authority and Metropolitan Transportation Authority). By controlling the purse strings for new infrastructure investment, the SMART was envisioned as a single governance entity for coordinating investment among the Metropolitan Transportation Authority and the Port Authority and the New York City Department of Transportation (PlaNYC 2007 pp. 77, 93). It

was the lynchpin of the plan's vision to rationalize transportation investment across the region. Congestion pricing would have contributed an estimated 46 percent of its total revenue.

The plan offered a distributional rationale for congestion pricing, arguing that the vast majority of New Yorkers who take public transit would be better off. "By reinvesting the proceeds in mass transit, nearly all New Yorkers can benefit, especially the 95%... who do not drive to jobs in Manhattan" (The City of New York 2007, p. 77). The plan also considered fairness in terms of equal access to transportation. The stated goal of the pricing system was to create incentives to change the choices of drivers, specifically by convincing them to take transit. Addressing the fact that certain neighborhoods lacked access to public transportation, the plan promised to focus first on improvements in areas with limited mass transit options.

[The SMART Authority would] fund significant expansions and upgrades in transit across the city and the region. In the short-term the focus would be on neighborhoods with limited mass transit options and high concentrations of drivers.

Before giving the details of the pricing proposal, a promise of improved public transportation came next in the text of the plan, listing nine initiatives to expand the capacity and coverage of existing public transit. An entire page is taken up by a map listing 'Near-term Improvement to Transit Service' and highlighting the improvements that were proposed to take place in areas poorly served by public transportation.

The congestion pricing proposal consisted of a three-year pilot pricing plan that would charge a flat fee for entering an area of lower Manhattan referred to as 'The Zone'. The plan first notes that congestion "costs the region \$13 billion dollars every year", that pricing had been tried in other major cities, and that it would "cut emissions with no material impact on the economy, including retail activity" (*ibid*, p. 88). The plan outlined benefits to drivers. Traffic in lower Manhattan would decrease by 6.3% and speeds would increase by 7.2%. Neighborhoods surrounding lower Manhattan would also experience a reduction in traffic, as fewer drivers

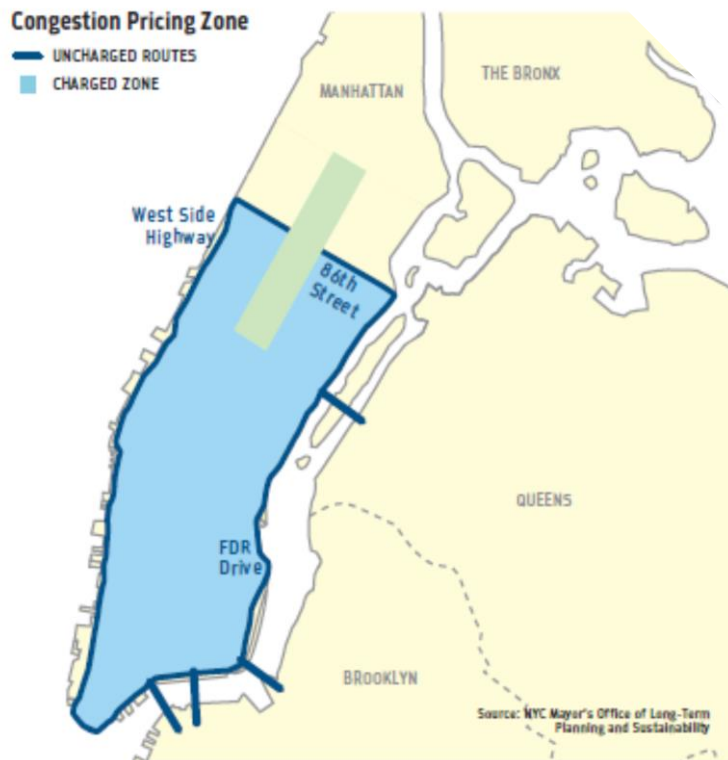
would be passing through. These gains, it was promised would accrue especially to those workers who provide services and therefore must frequently drive within the Zone.

Like the RPA plan, the PlaNYC congestion pricing strategy proposed a cordon. The northern boundary would have been 86th street as shown in Figure 6. High speed sensors would be put at each of the entry points to the Zone. For those drivers without E-Z pass, cameras would photograph driver’s license plates and they would have two days to pay the fee online, over the telephone or at retail outlets. It would have tracked and tolled every trip within the Zone using

E-Z Pass sensors and license plate recognition technology. E-Z pass would be the “technological backbone” of the system (89).

When entering or leaving the cordon, drivers would be assessed a daily fee of \$8 for cars, and \$21 for trucks. For trips within the cordon area, which would have been tracked with license plate recognition technology, cars would pay a \$4 fee. The plan called for free passage around the cordon via The FDR Drive, The West Side Highway and the East River bridges.

Figure 6: PlaNYC Congestion Pricing Zone Cordon



Source: PlaNYC, 2007: 84

When the plan emerged from the Mayor's Office the underlying method and data sources were not revealed to the public. The analytical content of the plan was overlaid with a marketing gloss; big numbers in term of revenue were shown and bold promises with regards to future improvements were made. PlaNYC did not include an explanation of the methods used to arrive at any of the figures.

The PlaNYC congestion pricing proposal relied on economic modeling tools from Parsons Brinkerhoff, the same firm that conducted analysis for Growth or Gridlock. Both documents contain the same estimates in terms of economic costs and benefits, showing the close analytical association between the two proposals. The economic modeling created by this private consultancy working on behalf of The Partnership for New York was never made available for public scrutiny or verification. When Democratic State Assemblyman Richard Brodsky, who represented Westchester, a suburb near the city, sought to conduct an independent analysis of the claims made in the report, his office made two separated formal requests to the Director of Operations in the Office of the Mayor. The City's responses, first in May and then in July, provided data from two different data sets, making comparison impossible (Brodsky 2007, p. 2). No independent entity was given public access to the analysis conducted for the PlaNYC congestion pricing proposal and the figures produced in the report were never independently reproduced or replicated by individuals outside the Mayor's Office.

The pricing plan was quickly turned into legislation. The legislative battle played out in two phases over a year. From early May to mid-July, supporters sought to quickly pass congestion pricing legislation based on the proposal in PlaNYC. When this effort failed, State and City officials, business leaders and transit advocates revised the plan. From August 2007 through April 2008, for the first time, there were public hearings on the issue of congestion

pricing; there was scrutiny by experts outside of the Mayor's Office; and pricing proponents were forced to craft responses to the criticisms.

Senate Bill 6068 was the enabling legislation for congestion pricing in the New York State Assembly. It was introduced in early May, 2007. On June 7th the Senate printed the Mayor's proposed legislation. On the same day, the initiative picked up two strong supporters. First, the United States Transportation Secretary Mary E. Peters announced that \$1.1 billion in federal funds for market-based transportation initiatives. She used the promise of funds to prod for quick action noting that other cities were in contention and that the State should have specific legislation passed by August (Hakim and Rivera 2007).

Second, Governor Elliot Spitzer reiterated that the State Assembly should act quickly to pass the legislation to ensure that New York would get the federal funds. He said in a public statement: "Part of this process is certainly to ensure that we can give the secretary the assurance that this plan will happen ... [Secretary Peters] wants that assurance and therefore we need to create a persuasive argument that Albany is behind this" (Hakim and Rivera 2007). The terms of the political debate were set; the Mayor, the Governor and the federal Department of Transportation worked to move legislation through the State Legislature.

Opposition to the bill formed around several concerns. Civil libertarians were concerned that the cameras capturing license plate information would enable the City to invade the privacy of drivers and pedestrians. The New York Civil Liberties Union (NYCLU) became a staunch critic. During hearings in the Assembly, Donna Lieberman, the Executive Director of the NYCLU, argued that the bill contained "no acknowledgement ... that the government has any responsibility to address" the privacy concerns that arise from installing 1,000 new cameras "or that there are any safeguards in place to ensure that we are becoming a surveillance society"

(Lieberman, quoted in Brodsky 2007, p. 9). The legislation was amended on June 16th to address these concerns. Even with these amendments the NYCLU continued to oppose the legislation.

The most consequential critics of the plan were within the Democratically-controlled State Assembly. Brodsky wrote an extended report on his concerns about congestion pricing. The report was written shortly after the Assembly held legislative hearings at which Mayor Bloomberg testified. Brodsky argued that the enabling legislation did not adhere to the proposal in PlaNYC, was too broad and left substantial questions unanswered. Though the plan called for a pilot program, the enabling legislation gave the Mayor sole authority in deciding whether to make the program permanent.⁴¹ PlaNYC coupled congestion pricing with new residential permit parking requirements. The promised changes in the parking code were absent from SB 6068. The legislation did not specify that revenues from congestion pricing be used on capital projects that would expand the transit system. Nor did the legislation contain any specific proposal to enhance public transit *prior* to the imposition of the new tolls. While Secretary Peters, the Governor and the Mayor indicated that transit improvements would mitigate the hardship of drivers living in poorly served neighborhoods, nothing in the legislation required this.

During testimony and in subsequent writings, a debate arose over the issue of fairness. The PlaNYC proposal made no mention of the distributive effects of congestion pricing except to argue that only a small percentage of New Yorkers commute by car and those who do make more money than people who use transit. Opponents were concerned with who would pay the fee and the precedent of using pricing mechanisms to fund transit and other public goods.

⁴¹ The City sought to sell bonds on the new revenue stream that congestion pricing would create. This bond selling would not be possible if congestion pricing was subject to public review after the pilot period was over. Instead of a public process for making congestion pricing permanent, enabling legislation gave the Mayor discretion to make that determination. Financial and democratic requirements could not be met together.

Brodsky argued that pricing tools in general and congestion pricing in particular were unfair. In a legislative report, Brodsky wrote that pricing mechanisms “are explicitly designed to change individual behavior based on ability to pay. Much of the struggle for social progress in the United States has sought to create government policy which mitigates the consequences of pricing mechanisms” (Brodsky 2007, p. 8).

Mayor Bloomberg was called to testify at a legislative hearing chaired by Brodsky. In testimony, he took exception to Brodsky’s description of the place of markets in society. He responded as follows (11):

We live in a capitalistic society. We use economics to encourage lots of things and there’s nothing necessarily wrong with that. Those that want it more will pay more. And it is true that some people have more so that is in their benefit. But we’ve always done that.”

He reasoned in a capitalist society the fact that the fact that some could more easily afford the tolls did not matter. Bloomberg claimed that market pricing for congestion was a natural consequence of a capitalistic society.

Brodsky and others disagreed with Bloomberg’s claim that there was nothing necessarily wrong with a policy that disproportionately benefits those people who have more. Critics worried that congestion pricing would set a precedent of using market mechanisms to distribute public goods in “education, housing, mass transportation, and almost every other area of daily life,” (*ibid*, p. 8). Moreover, they argued that pricing mechanisms undermined a “political philosophy” in the State Assembly that encouraged “economic fairness” (*ibid*, p. 9).

The Republican controlled State Senate supported congestion pricing legislation while the Assembly, controlled by Democrats was less inclined to do so. Ideological issues, like using market mechanisms to support public spending, may have been the basis for some of this divide. Another source of division arose from interpretations of who would end up paying the tolls

associated with congestion pricing. Brodsky’s report contained analysis done by his staff on the distributional effects of the plan. In a subsection Congestion Pricing is a Regressive Tax, the report argued that congestion pricing fit the definition of a tax that is regressive: It “takes a larger percentage from the income of low-income people than from the income of high-income people” (*ibid*, p. 10). Based on analysis of data provided by the Mayor’s Office, the report claimed the following:

Residents of Queens, the Bronx, Brooklyn and Staten Island who drive in the Zone [were projected to] pay 47% of the total fees. They make 24% of the trips in the Zone. Their average income is about \$46,004 annually. Residents of Manhattan who drive in the Zone pay 42% of the total fees. They make 72% of the trips in the Zone. Their average income is \$74,676 annually (*ibid*, p.10).

The report referred to an appendix that contained the data that this analysis was based on. There, the assumptions of the analysts and the limitations of their claims were clearly noted. The appendix contained the data reproduced below in Table 5.

Table 5: Brodsky Pricing Impact Estimates

Region	Baseline Trips	Percent of Trips	\$ Per Day	Percentage of \$ Per Day	Average Household Income with Cars
Manhattan	800,000	61	831,320	35	149,397
*Outer Boroughs	313,803	24	935,194	38	65,415
Long Island	34,530	3	89,866	4	90,678
**Suburban Counties	28,615	2	118,026	5	101,055
New Jersey	122,640	9	351,413	15	83,344
Connecticut	8,435	1	38,967	2	88,678
***Other	5,173	0	21,200	1	75,030

Source: Brodsky, 2007: Appendix 1

Supporters of congestion pricing from the RPA on had made the argument that congestion pricing was a progressively redistributive policy because, on the whole, drivers are more affluent than transit users. PlaNYC did not specifically argue that congestion pricing would progressively redistribute money. Instead it gave a majoritarian argument, that 95% of New Yorkers, those who don’t drive, would benefit from reduced traffic and improved public transit.

Analysis done by opponents of congestion pricing argued that it disproportionately burdened those with less money. This difference was in part methodological. When the RPA and the writers of PlaNYC addressed the issue of distribution, they showed that drivers made more money than people who took transit. Based on this logic, because tolls from drivers would be used for transit, they argued that congestion pricing would be progressively redistributive. This analysis was based on comparisons between drivers and non-drivers within the same general geographic area.⁴² PlaNYC focused on a majoritarian argument: 95 percent of commuters do not drive, and that large majority would benefit from tolling this minority. The Brodsky report, by contrast addressed the issue of equity by comparing the total amount that drivers would pay in the different boroughs of New York City and the surrounding counties. Their methodology compared drivers in different geographic areas. They found that drivers on the periphery of the city would pay the greatest percentage of the total revenue and that those drivers had lower incomes than those who resided in the congestion pricing zone or who commuted from the suburbs. In other words, the policy would have the strongest negative impact on residents of The Bronx, Brooklyn, Staten Island and Queens.

Brodsky was joined by David Weprin, a State Assemblyman representing the 24th district in Queens and Anthony Weiner (a Congressman who represented Queens and Brooklyn) in their vocal opposition to the Mayor's plan. These politicians represented districts on the periphery of the urban core in suburbs and the boroughs that Brodsky's analysis showed would pay the most.

These opponents' methodological approach directly corresponded with the political tactic of rallying people on periphery of the city against pricing. They tapped into a rich source of political and cultural difference (and resentment) when they framed the issue as the working

⁴² The geographic area was Census Public Use Micro Areas.

class boroughs against elite downtown interests. State legislators and city council members in the outer-boroughs opposed the plan to a much greater extent than those in Manhattan.

Organizations that opposed congestion pricing reflected the division between core and periphery. An anti-congestion pricing lobbying organization, Keep NYC Congestion Tax Free, consisted of the Queens chambers of commerce, businesses, civic associations, community boards and labor unions. The groups represented by Keep NYC Congestion Tax Free were located mainly in Queens and Brooklyn, with ten community boards in those boroughs listing themselves as members. Business and labor groups that supported Keep NYC Congestion Tax Free represented constituencies located in Queens, such as the Queens Civic Congress, or constituencies whose direct business interests might have been or were perceived to have been potentially harmed by the congestion pricing proposal, including labor organizations representing the trades, the Metropolitan Parking Association, and the AAA (automotive club) of New York. (A complete list of supporters of Keep NYC Congestion Tax Free is included in Appendix 7.) These organizations used money from supporters to produce opposition research, counter-arguments and press releases undercutting the congestion pricing proposal.

Opponents of congestion pricing framed their grievances in terms of protecting certain neighborhoods or sections of the city, while supporters argued in terms of public aims. Members of Keep NYC Congestion Tax Free represented themselves as speaking for the interests of residents of those neighborhoods, while making claims on the principles of equity and opposition to domination by elites in Manhattan. By contrast, the supporters of congestion pricing listed in Growth or Gridlock and those who served on the panel that advised the OLTSP as it wrote PlaNYC consisted of leaders of major corporations, executive directors of national non-profits, and members of the real-estate industry in New York, among others. They represented

organizations headquartered in Manhattan. Supporters portrayed themselves as watching out for the interests of the city as a whole, the regional economy and global environmental protection. They framed the issue in terms of public health and the environment; as part of New York's competition with other global cities and as part of an international effort to slow climate change.

Both supporters and opponents engaged in aggressive, local political strategies to achieve their goals. The alignment of interests for and against congestion pricing became more complex in view of campaign contributions and electoral strategy within the State Legislature. Congestion pricing supporters produced evidence that Richard Brodsky, who represented a near suburb of New York City, Westchester, received campaign contributions from the owners of parking garages. Parking garages stood to lose customers if a pricing plan was put into place (Streetsblog 2007).⁴³

While the Mayor portrayed his plan as apolitical at its launch and sought to avoid the complications of making the planning process participatory, he was deeply engaged in an effort to elect state politicians that favored his agenda. He contributed personal money directly to the campaigns of Republican supporters in the State legislature. He was "one of the largest individual donors to the Senate Republican leadership, giving them more than several hundred thousand last year [in 2006]" (Hakim and Rivera). One Democratic Senator, Liz Kruger, responded to the Mayor's lobbying saying the following:

I think several members during the meeting with the Mayor referenced their disappointment that he left the Republican Party but still swore his allegiance, basically to keeping [Republican] Joe Bruno as the [Senate] majority leader. The

⁴³ Brodsky vehemently denied the allegation that these contributions influenced his opposition to congestion pricing. He wrote that he introduced legislation against congestion pricing in 1995 (Brodsky, 2008). He said: "I don't believe public places should be distributed based on an ability to pay". "In the end I'm a progressive before I'm an environmentalist." (Berger, April 20, 2008)

Mayor tried to explain that he wasn't political. But most of us in politics don't believe that any mayor is not political (Hakim and Confessore).

Mayor Bloomberg undertook a political strategy that linked the lofty goals of PlaNYC with campaign contributions to the State politicians who could pass or halt the legislation necessary to make his vision happen. The Mayor's political strategy avoided public input during the drafting of the plan and engaged in legislative politics when there was a formal political body that had the power to override his agenda.

In the summer of 2007, ideological and political battle lines crystalized. Mayor Bloomberg sought to convince State Senators to pass the congestion pricing legislation in a special legislative session held on July 16. Democrats in the Senate voted as a bloc to oppose the issue, defeating it as there were not enough Republican senators who supported it to overcome their opposition.

Shortly after this legislative defeat, on July 18th with pressure from Governor Spitzer, the State government created the New York City Traffic Congestion Mitigation Commission, a 17 person study panel that would make recommendations to the New York City Council and State legislators who would have to approve any proposed plan. It would consist of three appointees by the Mayor, the City Council, the Governor, the Senate Majority Leader, and the State Assembly Speaker, respectively, and one a single appointee for the minority leader in each house of the legislature. The commission was empowered to examine solutions to the problem of congestion other than the pricing system in PlaNYC (Traffic Congestion Mitigation Commission 2008).

Soon after the State created the commission, on August 14, 2007 , the push for congestion pricing legislation again received a boost from the Federal Department of Transportation, which specified that it would allocate \$1.6 million dollars immediately for any

proposal that contained a congestion pricing plan program and another \$354.5 million if a bill was passed by the State legislature. As part of the terms of the larger grant, the City and the State legislature had to enact a plan that would reduce vehicle miles traveled by 6.3 percent or more and operate a congestion pricing system for at least 18 months. These technical standards and debates over alternative plans to determine if they meet them would become an important part of the Traffic Mitigation Commission's work (Traffic Congestion Mitigation Commission 2008).

Governor Spitzer was quick to support the idea of a commission that would continue the work of making a congestion pricing plan that could succeed in the state legislature:

Congestion pricing holds immense promise for the future of New York City. It has the potential to mitigate the City's severe congestion and its associated economic costs while also improving public health by reducing harmful pollutants. I applaud Secretary Mary Peters for her innovative thinking and for recognizing the benefit of choosing the country's largest city to begin implementing this initiative. The funding provided by the Federal Department of Transportation represents a down payment on a healthier, more environmentally friendly New York. (Chan 2007).

With a commission empaneled, federal money as an incentive and the continued support of the Governor and the Mayor, congestion pricing was given a second chance. The political wrangling over pricing legislation would continue as well.

The political strategy and intensity of an election on November 4, 2008 played an important role in shaping its chances. On August 21st the members of the Traffic Commission were announced (for a full list see Appendix 8). The State Assembly Speaker, Sheldon Silver, appointed Richard Broskey, the writer of the report critical of congestion pricing above and Herman "Denny" Farrell, Jr., who would be the strongest opponents. Silver, a Democrat with a history of undermining Mayor Bloomberg's agenda in the State Assembly, represented a sizable majority in the Assembly. Republicans controlled the State Senate, but by only one vote. In the run up to the election, on March 4th, 2008, Mayor Bloomberg openly declared that he spent his personal money in an attempt to retain the Republican Senate majority and to punish

oppositional State Senators by supporting their challengers in primaries (Hakim and Peters 2008).

The Traffic Mitigation Commission met for the first time on September 25th. Over the next six months the commission significantly modified the PlaNYC congestion pricing plan to make it less costly to implement and to shift more of the costs to Manhattan commuters. On October 18th it announced meetings in all five boroughs, and two in neighboring suburban counties, Westchester and Nassau. These meetings took place from October 23 to November 5. In meetings, speakers were given five minutes to comment. This participatory element was perfunctory at best. Members of the Traffic Mitigation Committee were not required to respond to public comment and for the most part they did not. In total, 149 individuals testified at the seven hearings. Of that total, 107 were politicians or other parties that were part of organized efforts to pass or stop congestion pricing. Forty-two people unaffiliated with an institution or political office testified. Though this process was extremely attenuated for a plan that would affect hundreds of thousands of commuters each day,⁴⁴ it was the first time that the public had a formal venue for commenting on the congestion pricing proposal (Giacobbi 2007, Environmental Defense Fund 2007).

While the Commission deliberated, the opposition produced critical research and alternative proposals. Keep NYC Congestion Tax Free issued 11 reports critical of congestion pricing from November 5th through February 4th. It also put out a counter plan Alternative Approaches to Traffic Congestion Mitigation in the Manhattan Central Business District that purported to reduce congestion, raise revenues in equal amounts or greater amounts than the PlaNYC congestion pricing proposal without imposing a toll cordon around the central business

⁴⁴ Both PlaNYC and Brodsky's analysis estimated that over one million drivers enter Manhattan each day.

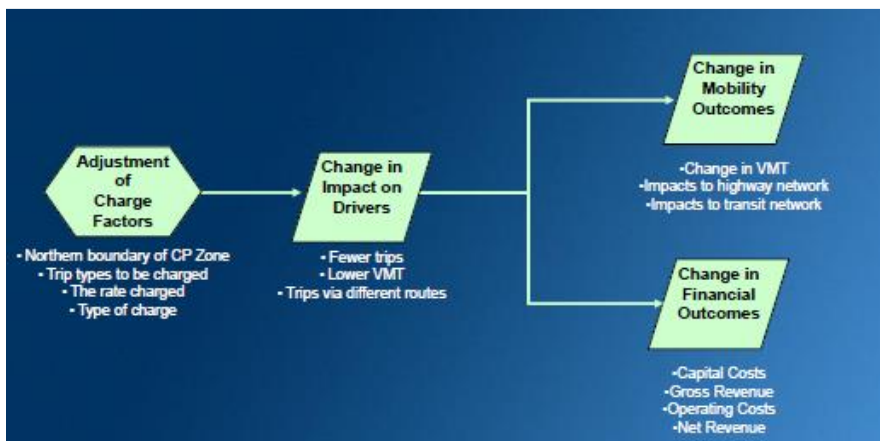
district. Alternative Approaches, written by Appleseed Incorporated an economic consulting firm, suggested a combination of raising fees on bridges and tunnels that were already tolled or making tolls variable, introducing new parking fees for on-street parking in the CBD, eliminating parking placards that enabled government employees to park for free, creating taxi passenger pick-up points to reduce cruising by cabs, raising taxi fares during the times of greatest congestion, expanding express bus and ferry service to the city, restoring two-way truck tolls on the Verrazano Narrow Bridge, and major transit improvements that included adding bus and subway lines.

The Traffic Mitigation Commission brought in a powerful tool for examining claims like the ones made in Alternative Approaches. Bruce Schaller, the New York City Department of Transportation Deputy Commissioner, deployed the department's traffic modeling to evaluate proposals put forth by members of the commission. This analysis used the NYMTC Best Practices Model (BPM). The commission described it as "an advanced travel demand model that estimates how regional traffic and transit flows respond to changing land use, infrastructure and fare policy conditions" (Traffic Commission, Final Report 2008, p. 20). It was the "standard federally accepted tool for NYMTC's members, used in all regional air quality analysis and planning activities" (Traffic Commission, Final Report 2008, p. 20).

Source: NYMTC 2007 I

Schaller's presentation focused on how different policy options would reduce the number of vehicle miles travel and add revenues for the city. The model followed the process illustrated in Figure 7.

Figure 7: Analytic Process for Congestion Pricing Proposals



The BPM was well suited for this task:

Since the model includes multivariate statistical simulations of the actual choices made by travelers, it weighs the importance of policies like license plate rationing against other inputs into travelers' choices (such as the price, availability, and convenience of transit versus driving). This makes it ideal to study policies that may have multiple, or even counterintuitive, impacts. (Traffic Commission, Final Report 2008, p. 20, footnote 22)

Using this process, Schaller adjusted factors including the pricing boundaries and the toll rate charged and estimated how changes would impact the choices of drivers.

By the time the commission began analyzing congestion pricing scenarios, the initial framing of PlaNYC, sustainability, was no longer an important part of the justification for congestion pricing. The definitions of success put forth by the federal Department of Transportation, which emphasized VMT, revenue and a requirement that a congestion pricing system be put into place, dominated the commission's analysis, along with the inputs and outputs produced with the BMP.

Many of the proposals suggested by Brodsky and other opponents were shown by the model to fail both at reducing VMT and generating revenue.⁴⁵ The commission analyzed alternatives including increasing the cost of parking in downtown Manhattan, creating taxi stands to reduce taxis ‘cruising’ for customers, a surcharge on taxi fares, license plate rationing, and mandatory carpooling. These options were found to either not reduce VMT adequately or to raise insufficient funds. Moreover, because these options did not include a commitment to create a congestion pricing system they would not have been eligible for the federal subsidy.

The model also tested improvements for the congestion pricing system. Three changes showed promise. First, moving the northern boundary of the congestion pricing zone from 86th to 60th Street, would have reduced revenues but not greatly. Second eliminating the \$4 charge for trips that take place only within the zone would have reduced capital costs by \$94 million and annual operating costs by \$135 million. With no inter-zonal charge the system would not have to track every car in the zone. Tracking equipment could simply be put on the periphery, capturing cars as they enter and leave the zone. Finally, placing the tolling equipment on the East River bridges would have had three effects. First it would have reduced operating cost. East River tolling facilities would have collected from most of the same lower-Manhattan drivers. Third, when combined with the 60th street cordon it would have reduced VMT by 13.4 percent, well above the amount necessary to be eligible for federal funding (Traffic Commission, Final Report 2008).

The Traffic Mitigation Commission held another round of public hearings in all five New York City boroughs and in the suburban counties of Westchester and Nassau starting on January

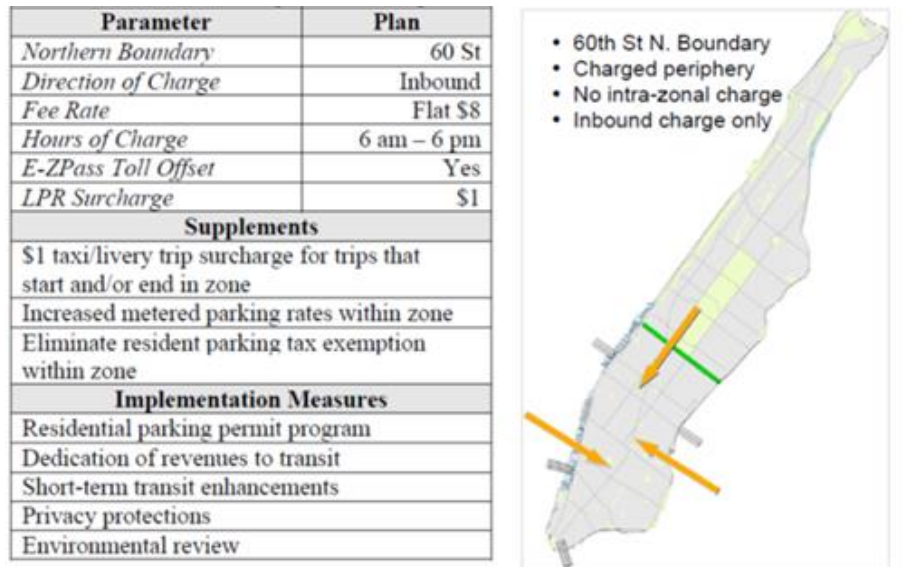
⁴⁵ These two policy issues could have been addressed separately. Defining success as achieving these two goals with one policy tool set congestion pricing up to win.

24th. These meetings were better attended, with hundreds attending a meeting at Hunter College in Manhattan. A week later the commission released its final report after voting 13 – 2 in favor of a pricing plan (described in detail below). The two dissenting votes came from State Assemblymen Brodsky and Farrell, an ominous sign given that passage through the assembly had long been understood as the most significant challenge to congestion pricing.

The commission recommended the adoption of many of the elements that did well in the modeling exercises. The revised plan proposed a cordon that would assess fees on each of the un-tolled East River bridges and at 60th Street in Manhattan. From 6:00 am to 6:00 pm cars would have paid a \$7 fee and trucks would have paid a \$21 fee.⁴⁶ In addition to the cordon, the plan proposed increased parking in the zone, short-term improvements to transit and a surcharge on taxis. Finally the plan proposed several measures to assure that new revenue streams would be devoted to transit improvement including a dedicated transit account aimed to fund the MTA Capital Plan. In total this plan was estimated to reduce VMT by 6.8 percent and net \$491 million per year for transit investment. A summary of the recommended plan is in Figure 8 and the accompanying map taken from the commission report. An evaluation of these recommendations by the commission can be found in Appendix 7.

⁴⁶ With an exception for low emissions trucks, which would have paid \$7.

Figure 8: Revised Congestion Pricing Proposal



Source: Traffic Commission, 2007

Congestion pricing advocates familiar with the work of the Traffic Mitigation Commission pointed out that their recommendations sought to reduce VMT and raise revenue. They also embraced solutions that were politically efficacious. These changes were intended to address a perception that the plan favored Manhattanites, especially those who lived in the wealthiest areas south of 86th street. As Jeff Zupan said:

The city’s logic was, well that’s where the congestion starts, so we should start charging at 86th Street and south. What they didn’t account for is yes but that’s not where the businesses start. That’s where residence starts. So now you’re not catching the people who live there; for the most part who are quite wealthy and they would get off cheap (Zupan 2012).

Moving the cordon would capture more revenue from residents who live between 60th Street and 86th Street. The surcharge on taxi and livery services sought to target higher income residents of lower Manhattan as well.

The dedicated transit funds were designed to win political support and ward off fears about the misuse of congestion pricing revenue. Polling showed that a majority of New Yorkers opposed congestion pricing, but if revenues were put towards transit fares or improved transit

service, then about 60 percent of New Yorkers consistently approved. (For polling analysis see Appendix 9.) However, New Yorkers did not trust the local government to use funds for transit. Elected officials who opposed congestion pricing fed into this fear.⁴⁷

David Weprin a New York City Councilor representing Queens (and the brother of State Assemblyman Mark Weprin, who was also a congestion pricing opponent), suggested that the State government (which his brother and father had worked for) could not be trusted to allocate the new revenue to transit. Citing an initiative to use money from a State lottery for education, he said, “We don’t want a substitution. We don’t want a situation like the lottery where 100 percent of the money is going to education and 100 percent that [was in the budget before] is not being taken out.” He was quoted with Walter McCaffrey of Keep NYC Congestion Tax Free who said, “It’s a political trick that has been used for a long time? How are you going to guarantee that there are no shenanigans?” (Edozien 2008).

A consistent majority of more than two thirds thought it was unlikely that congestion pricing would prevent an increase in transit fares. A narrower majority, 54 percent, also did not believe that the funds would be used to improve transit (see Appendix 9-8).

Though designed with political considerations in mind, the report did not change the positions of prominent supporters and opponents of congestion pricing. Once again, Governor Spitzer was quick to endorse congestion pricing legislation. At a press conference held on the same day that the commission endorsed the plan, he sought to address the concerns of politicians and residents on the periphery of the city.

There will be significant investments in Queens and Brooklyn, Staten Island, up into Westchester and north to show that this is going to be a much more developed,

⁴⁷ Manville and King (2010) call this the ‘credible commitment’ problem.

much more efficient transportation system that will benefit all taxpayers ... [Congestion pricing is] essential to the future of New York City (Neuman 2008).

Brodsky released yet another alternative report that focused on increasing the cost of taxi trips. He claimed to have the support of 30 members of the State Assembly. The public launch of his proposal was attended by four of them.

Mayor Bloomberg once again gave a significant amount of money to State Republicans with a campaign contribution of \$500,000 revealed on March 4, 2008. He justified his decision saying, “in terms of making a donation to help Republicans, they’ve been there for us. I’ve said repeatedly, I will help those who help us” (Hakim and Peters 2008). The Mayor went on to indicate that those he supported had ‘stood up for the city’. State Democrats decried this tactic. Assemblyman Carl Heastie, a Bronx Democrat said: “You don’t want to stick your thumb in the eye of people that you want to help you.” Brodsky was blunt in his reaction when he said, “whatever pressure there was on Democrats to support [congestion pricing] is now gone” (Hakim and Peters 2008).

The State legislature had to pass a congestion pricing bill by April 7th to remain eligible for the federal funds. Its chances narrowed when Governor Spitzer resigned on March 12, 2008 as a result of a personal scandal unrelated to congestion pricing. In the wake of his resignation Brodsky predicted victory: “Whatever political efforts he was intending to make [in favor of congestion pricing] are certainly not going to be there over the next days and weeks. That certainly means we’re in a fair fight, which we’ll win” (Rau 2008). Shortly after taking office, Governor David Patterson announced his support for congestion pricing, having been undecided on the issue prior to his inauguration as governor.

Congestion pricing passed both the New York City Council and the New York State Senate on March 31st, 2008. The bodies, once again, amended the congestion fee bill. These

amendments addressed issues of regional equity by requiring the Port Authority to contribute \$1 billion to the MTA capital plan in an effort to generate new revenue from New Jersey residents.⁴⁸ Another amendment sought to limit the impact on the poor; those eligible to receive an earned income would be reimbursed for any tolls collected above the cost of a monthly transit pass. It also exempted people with handicapped license plates. Finally, in a concession to local unions it included an amendment requiring that prevailing wages be paid on any projects funded with revenue from the new tolls.

As this list of amendments indicates, the idea of congestion pricing had moved from an abstract concept premised on the idea of individual choice to system of compromises addressing the situated needs of drivers and the political realities of passing legislation. The environmental framing of PlaNYC had also been shed by this point, with issues of regional equity, reducing the cost to the poor and vulnerable, and specific concessions to politically powerful groups gaining prominence. Even Mayor Bloomberg in his statement endorsing the Senate amendments emphasized fairness, equity and mitigating the ‘burden on lower income New Yorkers,’ only mentioning pollution once, at the end (State of New York 2008).

Despite these concessions, the geography of support and opposition did not change. After strong lobbying by Mayor Bloomberg and Speaker Quinn, the City Council passed a resolution in favor of the pricing plan on March 31, 2008 with a vote of 30 members for the proposal and 20 against (Cardwell 2008). This victory was muted by the votes of dissent within the Council. As Diane Cardwell of The New York Times wrote, “City Hall officials sought to play down the

⁴⁸ If the Port Authority failed to make this payment, then commuters coming from New Jersey would be forced to pay the full congestion fee when entering the cordon area. The traffic commission and the Bloomberg plan had guaranteed an offset so that these drivers would not pay twice i.e. crossing the Hudson River bridges and Tunnels and then entering the cordon zone.

narrowness of their hard-won victory, among the closest of this administration in a body that typically votes in near unanimity” (Caldwell 2008). City Councilors who opposed the resolution were from the periphery of the city: Queens, Brooklyn and Staten Island.

On the day of the federal deadline, leaders of the State legislature met to discuss congestion pricing. There was no agreement. Bruno, the Speaker of the Senate and proponent of congestion pricing said, “It’s kind of a loss ... Were not taking it up today, the Assembly already indicated that it was dead, and there’s no sense in our being in session deliberating and debating if it’s not going to pass both houses”(Katz 2008). The Democratic leadership conference of the State Assembly, led by Sheldon Silver, did not bring the measure to a vote. Mark Weprin said, “Shelly just came out of our conference and said our conference does not have the support to bring this to the floor ... I want to be clear that the conference was overwhelmingly against it” (Paybarah 2008).

Because the bill never came to a formal vote, the exact composition of the opposition could not be determined. Opponents pointed to Silver who retorted:

“It’s funny. If you read the newspaper accounts, the front page of The New York Times is loaded with individual members telling The Times they’re not prepared to vote on this legislation. So, it’s not a matter of one person. I mean, I, as one person, probably would have voted for the bill. But clearly the case wasn’t made, or convincingly. That’s why the bill did not succeed. When you say one person, it works both ways. He [Bloomberg] is one person as well.” (Paybarah, April 9 2008).

The PlaNYC congestion pricing proposal was devised with no public input and was seen as the project of one man, Bloomberg. The proposal died behind closed doors as well and the animus among supporters was directed at one man, Silver.

Balancing Free Transit and The Fair Plan: The Plans of Weak Advocates

Months before the bill had stalled in the legislature, a small group of congestion pricing advocates had begun a more populist path to public acceptance of congestion pricing. The

Balancing Free Transit and Congestion Pricing in New York City plan was released on January 3rd, 2008, in the waning days of the public debate over PlaNYC congestion pricing. The plan arose independently and parallel to PlaNYC and was based on a simple principle – create a congestion charging toll system that generates enough revenue to permanently eliminate fares on subways and busses.

The plan originated as a collaboration between Theodore Kheel and Charles Komanoff. Kheel (1914-2010) was a prominent labor negotiator and public figure in New York City. His foundation Nurture New York's Nature paid for the research and writing of Balancing Free Transit. Komanoff was a long time environmental and bicycle advocate. He became the Director of Transportation Alternatives (TA), a bicycle advocacy group in 1996. Under his tenure, TA began collecting data on bicycle and car-related accidents. It also lobbied the City to collect its own statistics. This data collection fed into TA's advocacy program and became one of the bases for analyzing the costs and benefits of congestion pricing (Komanoff 2012). Komanoff's role in congestion pricing was both technical and political. He also helped the RPA create the model for their congestion pricing plan in 2003.

Kheel's personal history as a mediator of conflicting interests is used in the plan as a metaphor. Congestion pricing was positioned in the text as mediating between the goals of economic development and environmental stewardship. The plan started by invoking Kheel's "extraordinary genius for resolving conflicts" and argued that there are similar conflicts in transportation that require mediation (Haikalis et al. 2007, p. 1). The metaphor of mediation was further articulated in terms of balance, weighing the costs and benefits of automotive travel versus public transit. The image of balance was articulated in the plan in mathematical terms (Haikalis et al. 2007, p. 2):

The fundamental principle behind our plan is that car travel and transit are interrelated, like two sides of an equation, two weights counterpoised on a scale. Ideally there should be a balance, but instead, our system is enormously, unconscionably out of balance [in favor of automotive travel].

Driving had costs including the time lost waiting in traffic, a less livable city and the pollution that automotive travel causes. In the plan, each of these elements is weighed against a series of choices. For example, automotive traffic was to be reduced through tolling, and the proceeds of that tolling would have been used to increase the capacity of public transit. Space was another factor in this equation. With fewer cars and trucks in the urban core, more space would be given over to express bus lanes, bike lanes, and wider sidewalks. The plan quantifies and counts the interests of drivers, commuters, bikers and city residents, and each of these elements is given a market price. The plan sums these costs and comes to an optimal or balanced equation, opting for a \$16 toll to enter a cordon area that starts at 60th Street in Manhattan and includes all of the bridges and tunnels that lead to the southern tip of the island. These tolls are coupled with new parking fees and a taxi surcharge.

Komanoff launched Balancing Free Transit months before the final vote was taken on congestion pricing proposal that originated in PlaNYC. The lack of coordination between grassroots supporters of congestion pricing and Mayor Bloomberg's efforts was noted by activists who spoke on the condition of anonymity. Transportation advocates argued that they were left out of the planning process and brought in at the last moment, creating problems between the already established advocacy movement and the organizations lobbying for PlaNYC. As one advocate said, "All of a sudden, *boom!* There was no coordination... the whole process of trying to sell it was, essentially, as many people, and I think rightfully said, it was Bloomberg trying to ram his 'do good'" agenda (Anonymous Interview 1 2012). Another said, "The Mayor [...] did not do a great job in [during the run-up and release of PlaNYC] of working

well with others” with regards to building support among transit advocates (Anonymous Interview 2 2012). The process of making PlaNYC took place out of the view of the public. In the process it shut out input and support from environmental and transportation allies.

The timing of Balancing Free Transit was indicative of this political disconnect, as was the justification for congestion pricing. Komanoff and others saw the sustainability framing of PlaNYC as a poor rationale for justifying congestion pricing. He said:

...I tried to talk to people at the environmental defense fund in ‘07 and early ‘08 [to convince PlaNYC advocates to] get off the environmental thing, because A that’s not what the public cares about and B it’s not a big of a deal as you think it is because it’s not 1970 anymore [because air quality has improved] (Komanoff).

Pollution was not an issue that resonated with New Yorkers or people living in cities in the same way as it had in the 1970s, according to this longtime advocate.

Instead, Balancing Free Transit was framed to offer a clear payoff for a large majority of New Yorkers. As Komanoff said in an interview: “The idea with free transit, was that this would be such a game changer that you could break through the political apathy of who should be supporters and the political opposition and [those] who would be proponents” (Komanoff 2012).

The outsized ambition of the plan, (i.e. eliminating transit fares) combined with the poor timing of its launch and the lack of a coordinated political movement to make it a reality meant that it received relatively little attention in comparison to the PlaNYC proposal. In terms of legislative or political action the plan went nowhere. Komanoff claimed this was because they did the technical analysis in advance and left what he called the “spade work” of political organizing until after the plan was released. He also said that “all of the oxygen was being consumed by the Mayor’s plan” (Komanoff 2012).

The partnership between Kheel and Komanoff resulted in a modeling tool created by the latter. Komanoff’s specific role was the further development and elaboration of a transit

modeling tool for estimating the impacts of pricing systems. Komanoff described the beginning of the partnership as follows:

In September of that year (2007) I got completely enthralled with the modeling. I met Ted [Kheel], I had lunch with him, I had lunch with him in late '07 and I brought my model. I thought it would be an hour lunch at his 5th avenue apartment. I was there all afternoon... He was an amazing figure. By the end of '07 the modeling that I was doing had gotten to be so all encompassing that in effect I was able to kick everybody else off the project ... That idea of balancing was always Ted's thing. That's why this spreadsheet became known as the Balanced Transportation Analyzer... Published a year after the start... It took four and a half months. It was a really heady experience (Komanoff 2012).

This 'heady experience' resulted in an equation built in Excel that models traffic behavior and then estimates the impact in terms of cost and benefits for toll changes, transit fare changes, and other policy decisions. It is built on economic assumptions of individual rational action, and prices various externalities. Like the Department of Transportation's Practices Model, it estimated the impact of different traffic reduction proposals. Komanoff's model would be public and accessible to anyone with an internet connection and the inclination to use it.

The model is an aggregator and organizer of research and ideas from around the world. Komanoff spent months pricing externalities, examining evidence including data on how gas prices and toll charges affect driver behavior and how fare costs affect public transit use. Komanoff started with a Brookings Institution report that estimated the value of US airline passengers time at \$52 per hour. He adjusted this figure based on local income, and value of time of drivers, rather than airline passengers. He adjusted it for specific kinds of drivers – those commuting, those taking taxis and the mix of cars and trucks. He concluded that the average driver in the CBD has a time value of \$53.39 per hour. To estimate demand elasticity and the total delay caused by each car, he relied on a formula devised by an economist at UC Irvine, Ken Small. He estimated that every car entering lower Manhattan caused \$128 in lost time. (Komanoff 2012; Salmon 2010). Drawing on research from Los Angeles, London, Hong Kong,

and Stockholm Komanoff's model weaved the work of local advocates into a world-wide network of scholarly research all operating within the same rational market assumptions. It stabilized and related flows of information to produce a new tool for estimating the consequences of transit planning scenarios.

The Balanced Transit Analyzer was user friendly and public, setting it apart from the modeling and planning process that had been used for the 1996 RPA plan, the 2003 congestion pricing proposal, Growth or Gridlock, and PlaNYC. The BTA was a dynamic tool that could be manipulated by users to estimate the impacts of different policies.⁴⁹ Pricing advocates including Komanoff used to show the potential impacts of different congestion pricing and tolling policies. They would maintain an updated version of the modeling tool on a website where it could be downloaded for free.

The BTA has served as the platform for envisioning pricing schemes that are more explicitly focused on equity. Initially Komanoff formed a tentative alliance with the Working Families Party and other left leaning groups. He sought to design a means-tested version of congestion pricing. This proved politically untenable. Later, he became a supporter of a plan by Sam Schwartz the former head of The Traffic Department, the agency that would become New York City Department of Transportation. Schwartz proposed rationalizing the tolls on all of the bridges and tunnels in New York City to direct traffic in ways that both reduced congestion in the urban core, and reduced tolls on drivers on the periphery of the city. Komanoff and his allies circulated throughout the city and the state with his PowerPoint presentation that showcased the

⁴⁹ The ultimate accuracy or validity of the assumptions of the model are unknown. In planning literature, modeling future behavior has been shown to be notoriously unreliable (Black , 1990). Accuracy, or more precisely the methods of certifying accuracy have a politics all their own, which are not within of the scope of this chapter. See MacKenzie (1990)

Balanced Transit Analyzer. He attempted to convince classrooms and auditoriums of people that the distinctions that he made and the relationships that he described are sound. Whereas modeling had been used to arrive at and defend a best plan up to this point, with the BTA, the advocates showed opponents the estimated impacts of their own ideas (Komanoff 2012).

Both Komanoff's and Schwarz's plan sought to address the issues of equity and fairness that stymied PlaNYC, but through different means. Komanoff's solution relied on more tracking technology, which in the end led him to abandon it. He explains this as follows:

The thing that we've done is retired our plan and we are now acolytes for Sam's plan. It took me a while to come to that. My ego sort of got in the way... We had a thing where people really didn't care for. We were going to have a means tested toll chip where ... if your income was below a certain amount and you were a certain distance away from a one stop transit trip to the CBD you would get half off.

Schwartz's plan sought to address the issue of fairness without resorting to more complicated means-testing schemes. Jeff Zupan had also considered systems that sought to shift the burden from lower income drivers, and for workers who needed to access the city at times when transit runs infrequently. He explained this position as follows:

The problem(s) with those (ideas) are as you make the system more complicated, it can be difficult to explain. You get into the question so that's social engineering. So the small number of people... who are afraid of big government, (see this as) social engineering (Zupan 2012).

According to these advocates the technical tools for addressing the unequal implications of congestion pricing were too invasive or explicitly targeted to be politically acceptable.

Komanoff formed a group composed of transportation and environmental advocates called Move New York City. The organization included Komanoff, George Haikalis, Alex Mattheisen and Sam Schwartz. Since the spring of 2012, they have been working to gather support around a second proposal put forth by transportation reform advocates called the Fair Plan.

Schwartz's vision for a system to reduce congestion was focused on the issue of changing the tolling structure on the bridges and tunnels that link downtown Manhattan to the boroughs, the boroughs to each other, and the boroughs to the suburbs. At the center of this plan was a strategy to toll the East River bridges, and reduce tolls on peripheral bridges, directing traffic around, rather than through the areas where most congestion occurs.

In his account, these ideas came out of his experiences working in the Traffic Department, the predecessor to the Department of Transportation. During the Mayoral administration of John Lindsey in the 1970s when the EPA first began regulating mobile sources of pollution (cars and trucks), the department created a plan that would toll the East River bridges to come into compliance with the new laws. He designed the toll booths for this plan. This proposal to toll the East River bridges was defeated by Senator Daniel Patrick Moynihan through an act of Congress.

Schwartz, as Deputy Director of the Traffic, was in charge of organizing a transit and traffic mitigation response to a strike in 1980 that lasted for 11 months. He implemented bans on single occupancy vehicles entering lower-Manhattan to reduce the number of cars entering the city and installed bike lanes and a "bus (only) street on Madison avenue" (Schwartz 2012). These solutions opened up city spaces that had been exclusively used by cars, which, according to Schwartz, the public approved of. Mayor Ed Koch sought to make some of the changes permanent, but these efforts were defeated by a lawsuit filed by the Automobile Club of New York and the Metropolitan Garage Board of Trade (Schwartz 2012). Having witnessed the possibilities of a radically altered mobility and then having been defeated, Schwartz was particularly attentive to the political constraints of creating a congestion pricing plan.

For the congestion pricing plan he envisioned a populist roadway pricing system designed to enlist the support or at least address the complaints of specific opponents of the Mayor's plan. In addition to charging new fees for entering the central business district, it reorganized roadway pricing across the entire five boroughs. He proposed a cordon of tolls around lower Manhattan which would charge cars \$5 for entering at 60th street and cars crossing the East River bridges. It would reduce tolls on two other entry points to lower Manhattan and reduce tolls on the periphery (Fair Plan 2012; see Appendix 10 for details).

Schwartz marketed this plan using personal history and touting its practical benefits. He explained the plan in terms of his personal roots in Brooklyn and his understanding of the values of the people who typically oppose congestion pricing. He said:

The first thing they had to see is there is logic and it's not a tax. And I have to address what's in it for me. My roots are in Brooklyn. My roots are in the parts of Brooklyn that wouldn't vote for it at all, Bensonhurst Brooklyn. I know the mentality of people there and it's changed a lot and the ethnicity has changed. But still the outer parts of Brooklyn are areas I know well cause I grew up there. And in those areas they like their cars. They like to drive. They like no nonsense. They like to understand. You could see things. And if you tell them about a future plan of 2025, they're not going to buy into it cause they've been promised and lied to so many times. But if you can show them something like, that the Verrazano Bridge in your backyard, that toll is [sic] dropping by \$5 the same way we put the tolls up here. There's a connection. (Schwartz 2012).

He also created a plan that was designed to display direct benefits to commuters on the periphery who are poorly served by transit. Perhaps most important politically the plan was designed to make drivers from Manhattan pay the most. His plan achieved this goal by lowering peripheral tolls on taxis and maintaining high surcharges on taxis and livery services in the downtown area.

The Fair Plan was announced at a transit policy at New York University in 2012. Since then it has received support from the Bill Keller, the former editor of The New York Times and the plan has even garnered endorsement of the New York City Automotive Club. Move New York City has not, however, found a formal political leader to champion the issue.

Conclusion

Congestion pricing plans were flexible in terms of the political constituencies that the plans purport to serve, the technologies that would be used to implement them and how they define fairness. The plans responded to the political needs and goals of the groups of planners and advocates that produced them. The writers showed various ways that congestion pricing could be imagined and mobilized. Each plan married economic efficiency with other goals: funding transportation infrastructure, guarding business interests, environmental protection, and transit advocacy.

From Vickrey forward, each congestion pricing advocate and congestion pricing plan decried greater congestion and argued that this congestion was a form of waste that could be quantified using prices. In the abstract, Vickrey posed this as a problem of an irrational pricing system leading to economic inefficiency. When pricing was proposed in New York City, this congestion pricing was linked with the specific political and economic geographies.

In each iteration, congestion pricing was a means of linking individual choices with ethical goals. Vickrey's biographer articulated this in terms of horizontal equity – that those who create a cost should be made responsible through a corresponding price. Once congestion pricing became spatialized in New York City, vertical equality or the amount that social groups with different means pay into the system became the dominant issue.

Pricing advocates and opponents, through analysis and rhetoric, spoke on behalf of groups of people who were either taking advantage of poorly structured existent tolls or stood to be overburdened with new tolls. These arguments fit into existing debates about urban infrastructure with regards to the free East River bridges, which, for proponents of congestion pricing, irrationally rewarded 'toll shoppers' who drive through the core of the city to avoid costs. For opponents of the system, the uneven distribution of public transportation infrastructure

became the basis for an argument that the system would unduly burden people on the periphery. While for proponents, this same fact became the basis for an argument in favor of pricing; the new tolls would be the financial means to fill transit funding gaps.

These specific arguments about the geographic coverage of transit infrastructure fit into a more fundamental political discourse of a privileged core, Manhattan, gaining calmer streets at the expense of a working class periphery that would be forced to pay for part of this new luxury. Each successive plan became more oriented around overcoming the political challenges of putting into place a congestion pricing plan. As a result, issues of equity and fairness came increasingly to the fore.

The first plans sought to mobilize congestion pricing through elite channels. The RPA plan created a basic template for all congestion pricing plans to follow and addressed political concerns generally. Growth or Gridlock sought to enlist corporate New York City by quantifying specific benefits to different sectors of the city's economy. PlaNYC had two distinct political phases. Through the planning process and its environmental framing the Mayor sought to mobilize New York City elites concerned with sustainability issues and to push the plan quickly through the State Legislature.

After this elite strategy stalled, the legislature created the Traffic Mitigation Commission a public forum where proponents of congestion pricing sought to gather support at public meetings and technical analysis. PlaNYC supporters also sought to make explicit the connection between toll generation and transit funding through the SMART Financing Authority. Later, proponents modified this proposal and linked it with legal arrangements that were designed to guarantee that funds would be spent for transit improvements. Finally, the City Council modified

the congestion pricing plan to reduce the burden of the new tolls on poorer New Yorkers living in the periphery.

Through the course of this political process the plan became more and more targeted on specific equity concerns. Balancing Free Transit and Congestion Pricing was written with a specific kind of political trade-off in mind: free public transportation for increased tolls, but this received relatively little attention. The Fair Plan sought to achieve goals that would address the concerns of opponents on the periphery through restructuring the tolls across the region. The proposal was as politically audacious as Balancing Free Transit, because it would have required coordination among transportation and tolling authorities. It had the advantage of not requiring new bureaucratic or administrative systems for achieving redistributive political goals.

Moving from the idea of congestion pricing, which is economic theory applied to roadways, to the cases of congestion pricing advocacy in New York City, the primacy of the individual choosing agent recedes into the background. Negotiated settlements among activists come into focus.

Case II: Choice Merges with Accountability

Case Overview:

This case traces the history of school choice from a policy idea suggested by charismatic outsider intellectual – Milton Friedman – through a series of transformations and translations as the policy was taken up by actors with diverse ideological objectives – from racial separation, to racial inclusion – and at multiple scales from single school district to the federal government and back to a single school in New York City. When Friedman proposed school choice in 1956 his policy was designed to dramatically reduce the role of planning and government from education policy.

When school choice was enacted in 2003 it drastically augmented the role of a new group of expert city officials operating a centrally controlled education bureaucracy. These changes in the governance structure were considered a trade-off: Schools were held to strictly defined and enforced quality standards set by the DOE. While at the same time, school-based educators had greater flexibility in determining policy. In the parlance of one of the leading innovators within the Department of Education, schools traded autonomy – or greater flexibility in hiring and firing teachers and staff, and some control over pedagogical content – for accountability – or greater scrutiny of results or the ‘output’ of schools, especially student test scores and graduation rates (DOE 2011, Liebman 2012). As one administrator who participated in the creation and implementation of the changes said:

It was sort of a big, big paradigm shift... We’re going to roll out this accountability [system] but in exchange for the accountability you are getting sort of all of these freedoms to do what you think is best. We entrust you with the life of kids and therefore we entrust you to make all the key decisions associated with that, but we will hold you accountable for the outcomes” (Valerie 2012).

Over the course of this history, key intellectuals, policy makers, school administrators, teachers and parents imagined new formations of professional, administrative and personal responsibility. This is a case of the reimagination of liberal governance through the contested concepts of choice and accountability.

The case presented here traces a 50 year process during which consumer choice in education became linked with centralized, bureaucratic accountability. The linkages between these ideas were forged through political compromise, private philanthropic experimentation, rearrangements in formal governmental authority allowing the Mayor and his close allies break up big schools into smaller distinctive schools, and evaluative tools for determining the quality of schools and technological methods for measuring counting, sorting and matching students with preferred schools. Friedman imagined a return to laissez-faire policy in education in which market relationships would supplant governmental and institutional ones. The eventual form of school choice was hewn through political, technical and activist intervention.

Chapter Six, places the first intellectual champion of school choice within the context of a contrarian political movement – the Mont Pèlerin Society. With the intellectual and financial support of The Society, Friedman became a public champion of market based reforms, including his proposal for schools. His prescription arose out of an intellectual milieu in the 1930's and 1940s that was critical of the enhanced role of planning and the state which had grown through New Deal policies and war-time controls. Friedman articulated the criticisms of the Mont Pèlerin Society with renewed confidence and to a wider audience through new networks of philanthropic and private support (Burgin 2013). Friedman proposed a school choice system based on a principle: The intrinsic value of freedom, defined as individual consumer choice (Friedman 1956). His views on education challenged the federal support of universal public education,

which was growing at the time of his writings and also longstanding orthodoxy that encouraged the depoliticization and professionalization of education. He envisioned a system in which consumer pressures would be the primary drivers of school improvement.

Elements of his idea were taken up by other intellectuals, activists and educators, many of whom did not support Friedman's ideology. This included policy makers in the Office of Economic Opportunity in the 1960s and 1970s, and supporters of non-traditional public school education in one school district (District No. 4) within the City of New York, which would serve as a model for future changes in educational governance (Jencks 1966, Fliegel 1990). From 1980 to 1992, President Ronald Reagan and the first president George Bush took up the idea of choice and, for tactical reasons, modified it in ways that both resonated and contradicted Friedman's original thinking. Through this translation, the discourse and practice of accountability – holding all schools to measurable standards – became the second pillar (along with choice) of education reform, drawing in more centrist national and local political figures (Henig 1994).

Chapter Seven, which elaborates the contemporary politics of school choice in New York City starts in 2003 when Mayor Bloomberg was given authority by the state to reorganize city-wide school governance. Under the aegis of a new federal policy, No Child Left Behind, which became law in 2002, he implemented a system that sought to marry the idea of choice with that of accountability. He created the New York City Department of Education, a unified school district for city schools and a system of governance in which new freedoms of choice for parents were linked to greater scrutiny of educators' performance and stronger sanctions for underperformance⁵⁰. Under this model, schools would operate as vendors of educational

⁵⁰ The State Legislature and Mayor Bloomberg replaced The Board of Education, which consisted of 36 distinct districts with the unified New York City Department of Education in 2003.

services, increasingly free to determine school-based policies. As the school administration was centralized under the Mayor, opportunities for political participation were diminished (Gyrko and Henig 2010).

In New York City accountability and choice became complementary ideas.⁵¹ The idea of holding schools to account was translated into a system of evaluations by The Office of Accountability, which was created within the Department of Education in 2006. Evaluations created new data-driven distinctions among public schools, purporting to represent their relative quality. Evaluations were designed to be used by the public, guiding parents and students in choosing schools. These same evaluations were used to guide internal sanctions that culminated in school closure. Closures, in turn, created the space to make new choices available. New and more schools were opened in the vacated buildings left behind. Focusing on the example of DeVasco High School, this case examines how teachers, parents and community members took up and contested ideas of choice and accountability in one instance where a school was targeted for closure.

⁵¹ This is in part true for all school districts after the passage of No Child Left Behind.

Chapter Six: A History of School Choice: From Laissez-faire to a Corporate Model in New York City

School choice is premised on idea that consumer pressure and preference can drive systematic improvement in schools. From its inception with Milton Friedman in 1956, the policy idea relied on the most Darwinian aspects of laissez-faire economic discourse: the market will sort out winners and losers through the disaggregated, self-interested actions of market participants. Good schools will survive and thrive under a choice system, while bad schools that fail will go away. In New York City and nationally the laissez-faire roots of school choice have been melded with another idea, accountability, which places strong governmental action at the center of school administration. Schools deemed to be performing poorly based on criteria defined by administrators faced closure and restructuring.

This section traces a historical irony. School choice began as an argument for drastically reducing the role of government in schools and ended by serving as a vehicle an enlarged bureaucracy and state intervention. Friedman proposed a system in which parents and students would use their own money, supplemented by vouchers, to directly pay for educational services from deregulated public and private schools.⁵² This, in his estimation, would undermine the monopoly of government provided education as well as the influence of teachers and administrators. In practice, school choice took on a life of its own. What resulted was a melding of the idea of choice and accountability with a strong role for centralized bureaucracy.

⁵² Voucher systems were elaborated by later theorists and becomes one pole in the education reform debate of the mid-1990s and early 2000s. It was enacted in a few school districts but lost momentum to other market-based reforms, city run choice systems and charter schools.

Choice

Friedman's Voucher Proposal: The Idea

The modern school choice movement started in 1955 when Friedman published, The Role of Government in Education. Friedman proposed replacing most school regulation, professional licensure, and political accountability with a market tool: vouchers. Friedman wrote, “governments could require a minimum level of school, financed by giving parents vouchers redeemable for ‘approved’ educational services” (Friedman 1962, p. 89). Vouchers, like traditional public schooling would be supported by taxes. However, parents would choose how to allocate the tax dollars by spending their vouchers on the schools that they preferred. Friedman proposed that vouchers would be redeemable in public, private or parochial schools. Parents would be permitted to supplement the vouchers with their own money. The voucher system was designed to generate demand for the kinds of schools that parents and students wanted.

The voucher proposal was a method of reorganizing authority over schools. Friedman argued that the market mechanism enhanced the control of parents, as consumers, and decreased the control and power of professional educators. He writes:

[Vouchers] “would eliminate the governmental machinery now required to collect tax funds from all residents during the whole of their lives and then pay it back mostly to the same people during the period when their children are in school. It would reduce the likelihood that governments would also administer schools (Friedman 1962, p. 75).

In his estimation, because parents have a direct monetary stake in the performance of the school they would more vigilantly monitor the educational services being offered. Exerting this control was as simple as deciding where and how to spend the voucher money. Parents were not required to act politically, lobby school boards, or challenge institutional relationships to exert political control. Deciding which education services to consume would drive political change, rather than government.

Parents already had a stake in the quality of education that their children were receiving, Friedman recognized. The protected and professional status of educators undermined the control that parents could exert. Because schools, the teaching profession and public school governance were highly regulated, parents could not exert the control that consumers typically exert over producers. He argued that schools should be deregulated, requiring only the most basic of certification. The push and pull of supply and demand theorized in classical economics, rather than regulation, would guide school policy.

Friedman's argument was explicitly normative, starting with an ethical principle and deducing what policy prescriptions most closely adhered to it. For his axiomatic point of departure he wrote, "I shall assume a society that takes freedom of the individual, or more realistically the family, as its ultimate objective seeks to further this objective by relying primarily on voluntary exchange among individuals for the organization of economic activity" (Friedman 1962, p. 123). He described his writing process that he, "applied the principles to a varied set of special problems" (Friedman 1962, p. 8). His writing on education was an application of his conception of freedom.

For Friedman, markets were more than places or types of exchange. Market relationships were the opposite of planned relationships. They were spontaneous arrangements that form in all of the space opened up by non-state action. Individuals entered into market relationships to make one another better off through exchange. Markets did not require or result in coercion or imposition of forms of aggregate or social power. Friedman's version of freedom was closely aligned with his vision of the prominent place that markets should play in society. Parents were freer when they were able to exert greater consumer control over the schools that their children attend: they were less free when the state, or teachers' unions limit choice. Friedman binds the

idea of freedom to consumer choice. He re-envisioned school governance as a system that reflected this normative pairing.

Even as an advocate of markets, deregulation and consumer choice, Friedman recognized that education was, in some ways, unlike other consumer goods because of the specific properties of children and the bonds of familial attachment. For this reason, he advocated for a role for government in administering educational services though he maintained that the role was to create a market-based system. He argued that government has an interest in schooling on two narrow grounds. First, schooling should be required because “a stable, democratic society is impossible without a minimum degree of literacy and knowledge on the part of most citizens and without widespread acceptance of some common set of values” (Friedman 1962, p. 87). Minimal, common education was necessary for civic cohesion with the “great streams of immigrants ... flooding the United States from all over the world speaking different languages and observing diverse customs” (Friedman 1962, p. 87). To this end, “the most obvious [government intervention] is to require that each child receive a minimum amount of schooling of a specified kind” (Friedman 1962, p. 87). Schools serve the common function of producing a cohesive American citizenry, which justified mandating that children attend school for a designated amount of time.

The government should pay at least part of the cost of educating children, Friedman went on to argue. This second type of state intervention in education justified the expenditure of public funds on the voucher system. The properties of children and families relative to other kinds of things, for Friedman, justified public expenditures. He writes:

What kind of governmental action is justified [...]? The most obvious is to require that each child receive a minimum amount of schooling of a specified kind. Such a requirement could be imposed upon the parents without further government action, just as owners of buildings, and frequently of automobiles, are required to adhere

to specified standards to protect the safety of others. There is, however, a difference between the two cases. Individuals who cannot pay the costs of meeting the standards required for buildings or automobiles can generally divest themselves of the property by selling it. The requirement can thus generally be enforced without government subsidy. The separation of a child from a parent who cannot pay for the minimum required schooling is clearly inconsistent with our reliance on the family as the basic social unit and our belief in the freedom of the individual. Moreover, it would be very likely to detract from his education for citizenship in a free society (1962, p. 86).

Parents cannot, or should not, divest themselves of children if they cannot meet mandated standards of upkeep. Owners of buildings, restaurants and automobiles are “required to adhere to specified standards” and they must bear that cost on their own. Friedman acknowledged that there is “a difference between the two cases... Individuals who cannot pay the costs of meeting the standards required for buildings or automobiles can generally divest themselves of the property by selling it” (1962, p. 86). In other words, parents cannot rid themselves of children just because they cannot afford to pay for all the cost of raising them. Separation of a child from a parent who cannot pay for school is inconstant with his belief in the family as the basic unit of society and the freedom of the individual. Therefore, taxation for vouchers was justified.

Friedman’s arguments can be extreme and his embrace of the market strident when dissected into its component parts. His talent for analogy (and stretching analogies that might not completely fit) made his arguments more palatable. He wrote:

The role of the government would be limited to insuring that the schools met certain minimum standards, such as the inclusion of a minimum common content in their programs, much as it now inspects restaurants to insure that they maintain minimum sanitary standards. An excellent example of a program of this sort is the United States educational program for veterans after World War II. Each veteran who qualified was given a maximum sum per year that could be spent at any institution of his choice, provided it met certain minimum standards (1962 78).

Friedman likened the voucher program to a program that was part of the G.I. Bill which subsidized college costs for soldiers returning from service in World War II and Korea. By

comparing the program to existing policy he rendered his idea more familiar. In subsequent writings and talks on his voucher proposal, Friedman described school vouchers as similar to the Food Stamp program, another in-kind payment that subsidized consumption and allowed recipients to decide how they spent their stipend.

Freedom, defined as non-interference of government, was an end in itself. When Friedman did link the goal of freedom with a substantive goal, it was to promote increased choice. “In terms of effects, denationalizing schooling would widen the range of choice available to parents” (Friedman 1962, p. 91). Because freedom and consumer choice were so closely linked in Friedman’s world-view, this line of argument, which sought to justify choice, was in many ways a tautology. Freedom, defined as choice, is desirable because it produces more choice.

Choice Was at Odds with Education Policy of the Time

Friedman’s proposal for school choice was consistent with his personal philosophy of the supremacy of markets over governmental action. It was also deeply out-of-step with two long-standing currents in education policy and understandings of the history of education: depoliticization of school governance and professionalization of educators. From the 1840s to the time of Friedman’s intervention in the 1950s scholars and politicians debated whether political or professional forms of accountability better served the public. Friedman and supporters of school choice sought to create systems that enshrined the autonomy and authority of parents (Tyeck and Cuban 1995, Herbst 2006).

Depoliticization of education was a response to big-city political machines in the late 19th and early 20th century. Politicians routinely used schools as sources of patronage jobs and graft (Ravitch 1974). In response, reformers created independent boards of education and created

tenure systems to insure that educators were not fired for political reasons. Education policy at the time of Friedman's writing was concerned with maintaining autonomy of schools, teachers and administrators with the goal of preventing impositions by local politicians. Eventually, the federal government took on a role – both in the legislative and judicial branches. Congress provided federal funding and the Federal Courts ruled in favor of racial integration. By the time of Friedman's writing in the 1950s, schools were controlled by experts whose roles were determined by but autonomous from political bodies, in structures with strong school boards and superintendents (Ravitch 1974 2011, Henig 2011, Tyack and Cuban 1995).

Education policy in New York City, since its inception, was controlled by the State. The State of New York through the Board of Regents determined what schools were accredited and received public money. Throughout the second half of the 19th century and first half of the 20th the Board developed systems to certify and protect teachers as professionals, including the tenure system and professional education degrees. Reformers argued that expertise, rather than the whims of a political ward boss, ought to determine what constituted an adequate education and what educational responsibilities parents had to their children (Ravitch 1974).

In New York City principals, teachers and other school-based staff enhanced their autonomy and status as professionals, through unionization and new regulations that required college education, and teaching certificates to work in classrooms. In New York City, a movement towards professional autonomy of educators had been underway since the early 20th Century as part of the Progressive Movement and this was, in many ways, institutionalized in New York City with the creation of a city-wide union, the United Federation of Teachers in 1914. Professionalization, unionization and increasing state financial support of education were the dominant trends. By the late 1950s, to the extent that schools were considered a problem, the

solutions came from the federal government and were designed to enhance public education for all students. The 1959 Education and National Defense and the Elementary Act and the Secondary Education Act of 1965 increased funding and involvement of the Federal Government. The 1959 Act provided more federal support for education and was linked with fear about the technological advancement of the Soviet Union, which had recently launched the satellite Sputnik into orbit. The second focused on providing funding for schools that serve needy children. Public policy and planning enacted through the elected branches of government was the mechanism for meeting this challenge (Ravitch 2011).

Friedman's voucher proposal was at odds with federal, state and New York City trends, which operated on the principle that the remedy to the planned economy of the Soviet Union was a project of anti-planning in the United States. In 1955 he proposed the first system of school choice that devolved authority to what he considered the most basic units of society, the individual and the family. Friedman based this proposal on the principle that state intervention, regulation and government involvement – in any sphere of public life – was undesirable. To the greatest extent possible, market relationships should coordinate social action.

The Intellectual and Institutional Origins of School Choice

Friedman wrote against the prevailing tide of educational policy His ideas came out of a growing local and international context. They can be traced to two institutions that were crucial to his early intellectual and political development: the University of Chicago economics department and the Mont Pèlerin Society. During and right at the end of World War II, when state intervention in the U.S. and Europe was ascendant, these institutions mounted a critique of planning that eventually elevated market mechanisms as tools of public policy (Graham 1976). Friedman played a major role in making these ideas relevant through his scholarly work, his

rhetorical style, his personal charisma, and as an entrepreneurial recipient of new forms of philanthropic support.

A Bastion of Laissez-Faire, the University of Chicago

After receiving a Bachelors in Economics from Rutgers University in 1932, Friedman arrived at the University of Chicago with “no notable political convictions and the modest goal of becoming an actuary” (Burgin 2012, p. 45). Friedman received a Masters of Arts in Economics from the University of Chicago in 1933, then received a fellowship from Columbia University where he received his Ph.D. in Economics in 1945. His dissertation, titled Incomes from Independent Professional Practice, was co-authored with Simon Kuznets a former co-worker at the National Bureau of Economic Research.

Politically and intellectually the University of Chicago’s Department of Economics was out-of-step with widespread support for government intervention and planning, a view associated with John Maynard Keynes and The New Deal. It was viewed as a bastion of laissez-faire approaches to political economy at a time when governmental intervention and Keynesian economics was increasingly popular. Friedman recalled, later in life, that outside the University of Chicago Economics Department, the “general intellectual atmosphere was strongly prosocialist. It was strongly in favor of government going all the way to take over the whole economy” (Quoted in Burgin 2012, p.174). By contrast, his department had “a reputation for inculcating a conservative approach to political economy among its graduate students” (Quoted in Burgin 2012, p.174). Friedman became a leading proponent of this conservative approach.

The Mont Pèlerin Society and the Renewal of Liberalism

Friedman’s public role began with his participation in The Mont Pèlerin Society in 1947. As with the University of Chicago, the identity of this group was forged against the prevailing

political-economic views of the time. Labeling the ideology of The Mont Pèlerin Society is challenging in part because the actors involved in this movement never settled on a single name for their efforts. Milton Friedman sought to reclaim the terms ‘laissez-faire’ and ‘liberal’ for intellectuals who argued against politics, planning and state power and for market allocation and a limited role for the state. Friedman saw himself as returning to the beliefs of Adam Smith and David Ricardo which had been dominant in the 19th century. Despite the terms that he chose to use to define his beliefs, Friedman translated laissez-faire into a new form of economic and political thinking that was extremely consequential for policies like school choice.

This translation was part of a political and philosophical movement that began with Walter Lippmann who wrote a defense of what he called laissez-faire liberalism, Inquiry into the Principles of the Good Society. Published in 1937, not ten years after the beginning of the Great Depression, Lippmann wrote his Inquiry as an early response to the growing role of planning in confronting the economic crisis. Inquiry was syndicated in newspapers across Europe and North America. His publication linked new intellectual networks and resulted in institutional forms, including the formation of The Mont Pèlerin Society. “As academics began to write Lippmann letters from locations around the Atlantic world to express grateful approbation of his newfound role” as a critic of planning, he assembled this correspondence into a political movement (Burgin 2012, p. 55). This network of contacts was brought together at an international conference in 1938 which became known as the “Colloque Lippmann”. Friedrich von Hayek and other supporters of a renewed form of liberal political economy began to consider ways of forging ongoing transatlantic connections among sympathetic scholars.

An outgrowth of the “Colloque Lippmann”, The Mont Pèlerin Society met for the first time in 1947. Named for the Swiss town where the group held annual meetings, it continued the

project of linking transatlantic scholars sympathetic to the goal of revitalizing liberalism through a robust defense of the role of individual autonomy and markets. Friedman was invited to participate in the 1947 meeting. Travel to Europe was both logistically challenging and costly in the post-war period. The Volker Fund – a Kansas City-based charitable foundation supported by the trust of a local furniture magnate – paid for Friedman’s berth on the cruise liner that took him across the Atlantic and for his accommodations during his stay in Switzerland (Burgin 2012, p. 96).

The 1947 meeting was revelatory for Friedman, who found himself for the first time in the company of intellectuals and scholars committed to renewing the intellectual and institutional supports for an uninhibited capitalism and who viewed planning and collectivism as the enemies of their movement. The meeting was a forum where like-minded scholars and academics confidently expressed marginalized positions on political economy to receptive audiences. The group had no formal program and they had little in the way of a plan for action. They shared a common spirit of support of markets and suspicion of state planning. As Bergin writes (2012, p. 103):

Long isolated in home environments where they were “forced constantly to defend the basic elements of their beliefs,” the participants now found themselves among others who shared an “agreement on fundamentals.” Through sustained debate with like-minded colleagues, they would be able to develop the comprehensive revision of liberalism that books like [Lippmann’s] An Inquiry Into the Principles of the Good Society and [von Hayek’s 1944] The Road to Serfdom had promised but did not provide.

These two texts seeded the ground for the Mont Pèlerin meeting and created a context for the group’s nascent ideas that was more fertile than mainstream state and civil society of the day. An Inquiry was published in serial form in Lippman’s column, which was syndicated to hundreds of journals on both sides of the Atlantic. The Road to Serfdom was published an abridged form in Reader’s Digest in 1959, the highest circulating magazine of the era. Major U.S companies,

including General Motors and New Jersey Power and Light gave copies to their employees. The National Association of Manufacturers mailed 14,000 free copies to all of its members. The Hearst newspaper empire exhorted readers to purchase the book in editorials and published condensed versions.

Upon arriving in the United States to take a temporary faculty position at the University of Chicago, Hayek promoted the book by giving talks before chambers of commerce and bankers' associations. Hayek's style of presentation and his academic work spread through these journalistic and academic institutions, but over time he would be overshadowed by Friedman (Burgin 2012, p. 89).

Friedman Surpasses Mont Pèlerin Roots

The young scholar from the University of Chicago became the most famous and influential member of this group. He was a free-market evangelist, populist and policy maker. Friedman's membership marked a decisive turning point in the group as his ideas reached a wider audience. Friedman's style of free-market populism had three characteristics elaborated at length in what follows. First he sought out and received new types of politically aggressive philanthropic support. Second, he developed a populist rhetorical style. Third, Friedman's reinvention of liberalism did not rest on critique, rather it contained positive proposals for translating the principles that he valued into novel institutional forms.

To elaborate on the first point, Friedman embraced the support of philanthropic institutions in ways that were atypical at the time. His first foray into public, political writing in 1946 was supported financially by the Foundation for Economic Education. Friedman and a colleague received \$650 dollars to write a pamphlet that provided an economic justification for opposing rent control. Five hundred thousand copies of the report were distributed to The

National Association of Real Estate Boards (Burgin 2012, p. 166). He unabashedly supported market mechanisms for allocating resources and his early career demonstrates that this belief applied to the propagation of ideas as well. His political and economic ideas corresponded with the interests of powerful and wealthy patrons, and they were deeply held by Friedman himself, making him an obvious candidate for their support.

The Volker Foundation, which had paid for his trip to Monte Pelèrin, provided Friedman with financial support that resulted in his first widely read, popular publication, Capitalism and Freedom, which was also the first publication that contained a school choice proposal. It was the explicit intention of the Volker Fund to move from a period of scholarly discussion, like the meetings that it fostered in Switzerland, to dissemination of practical ideas. With the support of the foundation, Friedman gave public talks at conferences with like-minded economists and at universities around the United States.

Capitalism and Freedom resulted from a series of public lectures given in 1955.⁵³ Later he wrote that “those seminars forced me to systematize my thoughts and present them in a coherent way” (Quoted in Burgin 2012, p. 173). During this period, Friedman honed his systematic world-view which argued that liberal economics and limited government was not only preferable to state planning, but also reflected and protected American democracy and the values inscribed in The Constitution. Friedman translated laissez-faire into an economic and political world-view that was both ideal and grounded in a version of the American ethos. He developed a style of argumentation to explain, justify and defend his positions in public discussions. Finally,

⁵³ He credited its creation to his wife Rose, who was organizing and editing his lectures and suggested that they would fit together well in a single volume. As with much of his popular writing, *Capitalism and Freedom* includes a credit for his wife reading “Milton Freidman, with the Assistance of Rose Friedman” on the title page.

as is the case with the story of school choice, he translated the ideals of laissez-faire liberalism into novel policies including the first proposal for school choice.

To elaborate on the second point, Friedman adopted new rhetorical strategies for supporting markets and attacking planning. Friedman's style can be characterized as free-market populism. He maintained that non-state intervention and markets are a good in and of themselves because they promote freedom.

Friedman's language for describing the reinvigorated liberalism that he advocated was more strident than earlier members of the society, who had honed their arguments during the crisis of the 1930s and the growth of state planning under the auspices of the New Deal in the United States. Lippman and Hayek argued for the preservation of market mechanisms in the face of increasing state planning. Friedman argued that defining capitalism was essential to other freedoms and a bulwark against creeping 'collectivist' forms of government. These rhetorical strategies resonated with the Cold War response to an 'international other,' the Soviet Union.

Friedman, wrote of himself as a proud inheritor of 19th century liberal political economic thought (Friedman 1962:6). He defined freedom as an individual capacity that was promoted through the non-interference of other people and especially the state. He argued that economic freedom was an essential social good, both in principle and in consequence.

Economic arrangements play a dual role in the promotion of a free society. On the one hand, freedom in economic arrangements is itself a component of freedom broadly understood, so economic freedom is an end in itself. In the second place, economic freedom is also an indispensable means towards the achievement of political freedom (Friedman 1962, p. 8).

Economic freedom was a necessary component of political freedom. He wrote: "only certain combinations of political and economic arrangements are possible, and that in particular, a society which is socialistic cannot also be democratic in the sense of guaranteeing individual freedom" (Friedman 1962, p. 8).

He translated these arguments based on economic principle into engagements with contemporary political discourse. Capitalism and Freedom opens with an extended critique of President John F. Kennedy's inaugural address, in which the new leader exhorted Americans to "Ask not what your country can do for you, but what you can do for your country". The economist argued that it,

implies that government is the master or the deity, the citizen, the servant or the votary. To the free man, the country is the collection of individuals who compose it, not something over and above them. He is proud of a common heritage and loyal to common traditions. But he regards government as a means, an instrumentality, neither a grantor of favors and gifts, nor a master or god to be blindly worshipped and served (Friedman 1962, p. 9).

In a rhetorical move that would come to characterize conservative politics for generations to come, Friedman argued that patriotism is to be loyal to basic principles of constitutional and economic individualism rather than a fealty to governmental projects that claim to produce collective benefit.

Another aspect of Friedman's rhetorical strategy was to convince opponents rather than consolidate support among those who already agreed with him. He argued that the principles that he advocated for were the best means for attaining the goals of progressive reformers who typically argue for a greater role for planning and the state. He supported issues typically associated with his opponents such as gender equality, racial integration and demilitarization.

With school choice he took up the Progressive concern with poor and marginalized students. His argument for school choice focused closely on the impact that it would have on poor children, particularly those in segregated school systems. He wrote (1962, p. 80):

Ask yourself in what respect the inhabitant of a low income neighborhood, let alone of a Negro neighborhood in a large city, is most disadvantaged. If he attaches enough importance to, say, a new automobile, he can, by dint of saving, accumulate enough money to buy the same car as a resident of a high-income suburb. To do so, he need not move to that suburb. On the contrary, he can get the money partly by economizing on his living quarters. And this goes equally for clothes, or furniture,

or books, or what not. But let a poor family in a slum have a gifted child and let it set such high value on his or her schooling that it is willing to scrimp and save for the purpose. Unless it can get special treatment, or scholarship assistance, at one of the very few private schools, the family is in a very difficult position. The "good" public schools are in the high income neighborhoods. The family might be willing to spend something in addition to what it pays in taxes to get better schooling for its child. But it can hardly afford simultaneously to move to the expensive neighborhood.

Vouchers, in this argument would enable poor minority students to overcome residential barriers to attend better schools⁵⁴. This rhetorical form – speaking on behalf of the interests of poor and marginalized students – would become a hallmark of the school choice movement. The movement grew and Friedman’s specific proposals to achieve school choice lost popularity, but the strategy of speaking on behalf of poor students and speaking against professional educators and regulation became a core component of the education reform movement that both carried forward and diverged from his ideas.

The third novel aspect of Friedman’s work was to translate his rhetoric into new forms of governance; like his system of school vouchers that obviated or limited government intervention and created market like conditions. Friedman combined institutional support and rhetorical strategies with a positive program for transforming his pro-market ideas into practices in many different facets of public life. Friedman’s scholarly activism relied on the idea of returning to an earlier era of mutual self-help. This took the form of strident opposition to state regulation and professional standards. He argued: “A citizen of the United States who under the laws of various states is not free to follow the occupation of his own choosing unless he can get a license for it, is likewise being deprived of an essential part of his freedom” (Friedman 1962, p. 9). Such

⁵⁴ Friedman also acknowledges, but dismisses the concern that choice could become a vehicle for maintaining segregation. As we will see below, maintaining segregations is the first use to which a voucher system is put.

licensure and professionalization sets artificial barriers to market entry – some might want to hire those without the proper license, but be prevented from doing so because of the law. In the place of state authority for standards and regulations, individual seekers and providers of services should be able to use their own sense to determine whether or not to engage in economic exchange and the mechanism of price also distinguished better and worse goods. This conflict between free-market ideals and professional standards became a central issue in the school choice movement in New York City forty years later.

The reinterpretation of liberalism put forth in Capitalism and Freedom was productive, rather than solely critical. Friedman called for activism, policy-making and engagement in the expansion of the role of markets and in the protection of his definition of freedom. The call for deregulation was accompanied with new proposals that modified the role of the state in education policy. Capitalism and Freedom translated principles of laissez-faire liberalism into governmental reforms. The volume contained 13 chapters.

The first chapter set out a general approach to economics and politics: The primary goal of societal organization should be the preservation of freedom. Markets have unique characteristics that enable collective coordination without onerous impositions of state power, “the market... permits unanimity without conformity... it is a system of effectively proportional representation (Friedman 1962:23). Markets, because of their desirable qualities should substitute for planning and policy.

The widespread use of the market reduces the strain on the social fabric by rendering conformity unnecessary with respect to any of the activities that it encompasses. The wider the range of activities covered by the market, the fewer are the issues on which explicitly political decisions are required.

Governmental functions were to be replaced to the greatest extent possible with markets designed to meet public aims.

After the first two chapters, Capitalism as Freedom contains a series of proposals for using markets to solve problems in monetary policy, international trade, fiscal policy, poverty, discrimination and, our focus, education.⁵⁵ The education chapter is notably brief. It is 23 pages in a 200-page book and the portion of the education argument that pertains to primary education (compulsory grammar school and high school) is fewer than 10 pages.

Early Adopters: Integrationists and Segregationists

Friedman derived his proposal for school vouchers from a normative, political principle honed from transatlantic conversations with critics of the New Deal and planning and policy-making more generally. His ideas were taken up by people and institutions whose ends were sometimes aligned with his. Often, however, this was not the case. The earliest adopters of voucher systems were segregationists and liberals – two groups with very different aims, neither of which aligned with Friedman’s goal of reducing the role of government in schools.

The Supreme Court Decision *Brown v. Kansas Board of Education* marked the other massive federal intervention into education policy. The 1954 decision marked the beginning of policies designed to reduce or eliminate school segregation. In the 1950s and 1960s, the politics of choice were refracted through the political lens of the desegregation order.

Desegregation and Magnets

Magnet schools, which were first put into place in Dallas in 1971, sought to achieve desegregation by enticing white students to attend integrated public schools by offering high quality and specialized courses of study. Magnet schools operated on the principle of choice – or

⁵⁵ The education argument had been published seven years earlier during his lecture tour, and received little notice. Even after it was included in *Capitalism and Freedom* it garnered little attention in scholarly and popular reviews of the book (Henig, 1994, 64).

creating an incentive for whites to send their children to school with non-whites. As the name implies, magnet schools are designed to attract. Other policies, like mandatory busing and forced integration of public schools were not optional and resulted in massive pushback among white parents who were required to send their children to schools with predominantly minority populations, and accept minority students at their local schools (see. Lukas 1986 for a detailed case study of mandatory desegregation through busing in Boston).

Magnet schools became increasingly prominent. Magnet schools were permitted to enroll students across school district boundaries as long as those enrollments decreased racial segregation in both communities. The growth of the magnet school movement had two phases both of which were the result of retreats from more activist objectives by policy makers on both the political left and the right.

On the political left, the period following the *Brown* was marked by interventionist policies designed to reduce or eliminate segregation in the South. With the passage of the Civil Rights act of 1964, school integration moved from places where there was a specific racial ideology of limiting the access of blacks to white schools to policies that sought to achieve the result of racial balance within schools regardless of explicit racial ideology (Henig 1994).

In the wake of the Civil Rights Act, federal courts through Title IV were empowered to cut off federal funding for segregated schools.⁵⁶ In a ruling based on Title IV, *Green v. County School Board of New Kent County*, the court found that districts had “the affirmative duty to take whatever steps might be necessary to convert to a unitary system in which racial discrimination

⁵⁶ This was increasingly consequential as the Federal Government began providing funds to support the education of poor students. The Elementary and Secondary Education Act of 1965 (ESEA) provided general aid to education. Title One of ESEA granted over \$1.5 billion.

was eliminated root and branch” (Raffel 2002p. 26).⁵⁷ In 1971, the Court issued a decision, *Swann v. Charlotte-Mecklenberg Board of Education*, which specified numerical targets for racial balance. The Court noted that because of the pattern of residential racial segregation in America, students might not be able to attend the schools closest to their homes. The remedies, it argued, might be “administratively awkward, inconvenient and even bizarre” but that they were necessary to end segregation (Raffel 2002, p. 26). At first the administrative means for achieving desegregation was busing in which students were required to travel from their neighborhood schools to achieve racial balance.⁵⁸

Busing proved to be massively unpopular with white parents that could afford it moved their children to private and parochial schools, and those that could not were unhappy with the policy and its consequences (Lindseth 2002, p. 46). Politicians, policy makers and educators sought other policy mechanisms that achieved the racial balance required by *Swann*. Magnet schools became popular as a less onerous means for achieving desegregation.

Though magnets were less intrusive than busing as a mechanism for desegregation, they were frequently ordered by court mandate. School districts were resistant to magnets because they upset racial boundaries and because they were expensive to implement. The magnet model was premised on creating public schools so outstanding or attractive that white parents would send their children far from home to attend integrated schools. As a result, magnet school systems were often the result of court orders or the threat thereof (Henig 1994, p.153). Magnets and other forms of school choice largely grew because of pressure from the courts.

⁵⁷ Note that desegregation did not have to occur across district lines leaving large cities like New York susceptible to white flight.

⁵⁸ In *Miliken v. Bradley* (1974) the Supreme Court ruled that schools in different municipal boundaries were not required to send students to other districts to achieve racial balance.

Segregationists and Choice

Southern states as a block undertook a coordinated effort to avoid integration of public schools. In 1956 most southern members of Congress put forth a “Southern Manifesto” which argued that the *Brown* decision was unconstitutional. They passed laws and constitutional amendments to prevent or delay implementation of the desegregation order (Henig 1994).

When direct resistance failed, southern politicians turned to choice mechanisms to maintain segregation. In one arrangement, “After formally desegregating, a Southern school district granted to any student who constituted a racial minority in their new school the option of transferring back to their old school in which their race was a majority” (Henig 1994, p. 103).

White students who were put into schools where African Americans were in the majority could transfer back to their original school. African American students who had the nerve to request transfers to majority white schools were formally discouraged and informally harassed by white supremacist organizations, including the KKK. Choice remained a strategy for maintaining segregation in the south until at least 1965 when it was reported “in more than 100 districts with approved freedom-of-choice plans, community attitudes were so strong that not a single Negro student chose to enroll in any white school” (Henig 1994, p. 104).

Public funding for school choice in the form of vouchers first came about as a strategy to maintain segregation in Virginia’s Prince Edward County. This county had been party to the *Brown* decision; it had been an example of an extremely segregated school district. After the decisions, officials refused to operate public schools at all. Starting in 1959 Prince Edward County no longer raised money for public schools. This tactic was in place for four years. White parents in the defunct district sent their children to a private school that accepted only white children and was established simultaneously with the decision to defund the public system. In 1960, using property tax revenues, the state and county began providing students with vouchers

of up to \$225 per student. Much of this money went to the Prince Edward School Foundation, a charity set up to build and operate alternative private schools for white students. White parents only needed to pay about \$15 in tuition. There were more than seven thousand students enrolled in more than 25 private, segregated academies by 1967 (Henig 1994, p. 106).

The association between voucher-based school choice proposals and segregation was a matter of consternation to Friedman. In the 1962 edition of Capitalism and Freedom he added an addendum to the education chapter that read as follows:

The preceding chapter, written initially without any regard at all to the problem of segregation or integration, gives the appropriate solution that permits the avoidance of both evils a nice illustration of how arrangements designed to enhance freedom in general cope with problems of freedom in particular. The appropriate solution is to eliminate government operation of the schools and permit parents to choose the kind of school they want their children to attend (Friedman 1962, p. 99).

Contrary to evidence, Friedman argued that eliminating governmental provision of schools and allowing market mechanisms to take their place would lead to integration. He argued that integration would be achieved with attitudinal changes which in turn would change the choices of parents. He wrote “we should all of us, insofar as we possibly can, try by behavior and speech to foster the growth of attitudes and opinions that would lead mixed schools to become the rule and segregated schools the rare exception” (Friedman 1962, p. 99).

Early Adopters: Liberals

At the same time that vouchers were being used for segregation in local jurisdictions, at the federal level they were championed within the United States Office of Economic Opportunity (OEO), a central policy-making institution of President Lyndon Johnson’s War on Poverty. The OEO was the home of activists and advocates for the Community Action Program (CAP) and other initiatives that sought to undermine entrenched structures of power and patronage. CAP was both renowned and controversial for supporting ‘maximum feasible participation’ in

community development programming, meaning that it sought to engage communities in the policy-making process by-passing powerful local politicians.

For those on the political left, school vouchers were a vehicle for achieving the goal of autonomous community control. Christopher Jenks was an education editor of the New Republic in the 1960s who was hired as a consultant at the OEO in the late 1960s and TheodoreSizer, the dean of the Harvard Graduate School of Education during the same period, supported highly-regulated voucher systems. Their model voucher system offered schools more money for educating poor children, a compensatory payment system that was designed to encourage schools and educators to accept the most challenging students under a system of school choice. Their idea was to use subsidies by the state to give poor children an advantage in getting placed in the schools of their choice. Following this logic they argued that parents were not permitted to supplement the vouchers with personal money. Supporters on the left sought a highly regulated voucher-based choice system in which government subsidies created market incentives to enhance the education of poor children (Henig 1994, p. 64-5).

In an article in Public Interest in 1966 Jenks argued for a voucher-based system in which competition was the motivating force for educational improvements. Vouchers were to be used as a tool to reduce poverty. He identified inequitable funding between poor and rich school districts as a fundamental means through which divisions of class reproduce themselves. Mentioning Friedman, Jencks also put forth similar arguments against bureaucracy and for consumer sovereignty. He believed that this message was particularly appealing to a political constituency that had little overlap with Friedman's advocates of markets and limited government intervention. The New Left, with its emphasis on direct community control was a natural supporter. "This alternative [vouchers], which should be especially appealing to the New Left

and to the prophets of ‘community action,’ is perhaps better described as a new kind of public control than as private control” (Jencks 1966, p. 27).

Reducing inequality is the focus of Jencks’ argument and school choice was the mechanism for achieving it. Simply, giving more money to poor school districts would not work because more affluent parents were willing to pay more - vastly more in his estimation - to preserve their children’s advantage. “Most parents want their children to have a more than equal chance of success” (Jencks 1966, p. 21). The uniformity of public schools compounded this problem. Parents distinguished among educational opportunities solely based on the affluence of students and other parents, seeking to enroll their children in schools with populations that are at least as affluent as they are. Creating a variety of different types of schools gave parents criteria for evaluating schools other than the socio-economic mix of the student. Jencks advocated for a variety of schooling options, and consumer sovereignty as mechanisms for achieving equality

Alum Rock County school district in California was the first to enact a governance system explicitly premised on the idea of choice (Henig 1994, Herbst 2006). The OEO provided funds to support six voucher school systems, billed as experiments, in the early 1970s. Alum Rock was the sole district that agreed to participate. It adopted a system that had more in common with Jencks’ vision than Friedman’s, which is unsurprising given that the former was a consultant at the OEO at the time. The program was initiated in 1972 and lasted for five years. Its aim was to reduce inequality by offering larger vouchers to poorer students (Herbst 2006).

The Alum Rock experiment diverged from the visions of Friedman and Jencks in two significant regards that were repeated in future school choice policies. First, in Alum Rock, vouchers were not permitted to be used outside of the public system. Instead, to enhance choice, the district created new mini-schools within the public school system, producing diversified

schooling options among which parents and students could select. This compromise shaped the way that public infrastructure in the district was used and allocated. The district divided public school buildings, which had housed one school, into multiple separate mini-schools, each one of which had different identities and strengths.

Second, the punitive aspects of choice were almost completely eliminated. Teachers and administrators lobbied against allowing schools to close as a result of under-enrollment. Schools that parents and students did not choose would not be closed, as the district had to maintain guaranteed minimum enrollments at all schools. These two compromises checked the influence of consumer preferences, which in the market-based vision was to be the driving force behind educational improvement.

As future commenters including Friedman noted, professional educators acted politically to place limits on the choice mechanism. School administrators and teachers and the unions and professional organizations that represented them argued that the voucher system put into place in Alum Rock was a form of reprivatizing a public service. In this early example, school choice created political fault lines between professional educators and reform advocates who argued that teachers and principals were putting their own interests and positions ahead of the needs of children and education reform more generally. From the start, Friedman had argued that school choice was a mechanism for reorganizing the political alliances in education. Professional educators would answer directly parents and students who enforced their will through consumer choices. Educators recognized this potential realignment from Alum Rock on and sought to modify school choice proposals in ways that did not undermine their professional autonomy. Teachers and administrators were already well organized, within schools and in unions and professional organizations that connected them nationally. Friedman's proposed constituency,

parents and students who make demands as consumers, was diffuse and politically weak (Herbst 2006).

Supporters described Alum Rock as an experiment (Jencks 1970). Part of the appeal of trying out the policy, for supporters, was to generate conclusive evidence as to whether choice improved schools. The policy experiment was designed with a data collection strategy for assessing its success, including panel surveys of parents, classroom observation, teacher interviews and assessments of student performance. This data was collected at the ‘treatment site,’ Alum Rock, and at a control school that was not subject to any policy changes. These data were judged to be inconclusive both by contemporary social scientists and future commentators; with some indicators showing that student performance improved and others showing that parents and students were not well informed when choosing their schools (Rand 1973).

Future commentators who were dissatisfied with the ambiguity of results argued that the choice system in Alum Rock strayed so far from the original proposals of Friedman and Jencks, that it was not a “not a test of anything in particular” (Chubb and Moe 1990). “Principals and central staff did not want to get involved in a popularity contest among public schools, let alone private schools. Nobody in the school system wanted competition to dominate educators’ behavior” (Herbst 2006, p. 101). To their mind the deviations from an ideal market made the results unsuitable for determining or predicting how governance based on the principle of choice actually worked in schools.

In at least three ways Alum Rock was predictive of the future of school choice. First, it showed that choice was modular – specific elements of the idea could be adopted while others were not. Friedman offered the components of choice as an integrated ideal of consumer choice, competition among public, private and parochial schools, and market forces driving the success

or failure of any particular school. That these policy components proved to be modular, each part could be taken individually and combined with existing institutions. In this initial experiment, consumer choice was implemented, but competition and school failure due to lack of success in that competition were minimized or eliminated. Second, it anticipated the political factions that would support or oppose such policies. Professional educators opposed choice at Alum Rock and their opposition continued in future examples. This had been predicted by and was in fact an integral component of Friedman's initial proposal. Third, the experiment hinted at the multiple, endemic problems of expecting data and measures – empirical evidence – to definitively indicate the value of school choice. Over time, supporters and detractors of school choice claimed irrefutable proof of success or failure as controversy raged (Weiler 1974, Henig 1994).

Early Adopters: Harlem District No. 4

School choice came to New York City through a reform movement initiated by teachers and educators out of desperation, with little of the market ideology that was central to Friedman's initial proposal (Meier 1995). Educators and administrators in District No. 4, which served predominantly poor and working class sections of East Harlem, proposed a variety of reforms that became the central policy elements of school choice in New York City. Faced with a low graduation rate in 1973, the district undertook a policy of creating stronger connections between students and their schools and teachers. The primary strategy for achieving this goal was to close larger, comprehensive middle schools and reopen smaller administratively-distinct theme-specific ones in their place. Educators sought to create a more intimate school experience for middle school students. Educators, led by Deborah Meyer, Sy Fliegel and Anthony Alvarado defined their push for choice as part of the alternative school movement in the 1970s and then as part of the magnet school movement in the 1980s (Meier 1995, Fliegel 1990). The alternative

school movement created smaller schools that offered curricula and teaching philosophies that diverged from what was then the standard, traditional schooling format. The magnet school movement sought to entice middle class, non-minority students into districts and schools with high minority concentrations. Educators saw their efforts as a rejection of centralized bureaucracy and a method for offering poor students in large school districts opportunities to select schools based on individual preference that mirrored the private and parochial systems.

In the initial phase, from 1974 to 1982, teachers and school administrators broke large comprehensive schools of between 2,000 and 2,500 students into three to five smaller schools with specialized curricula. Educators believed that each student would receive closer attention and become integrated into a school community as a result of these reforms. After nearly a decade, educators created a system of controlled choice, in which students from within the district could select among the newly opened alternative, theme-based schools that focused on, for example, the performing arts.

In District No. 4 the making of small, alternative schools preceded an administrative mechanism for choice by about ten years. In 1974, District No. 4 offered three alternative middle schools: the BETA [Better Education through Alternatives] School, the East Harlem Performing Arts School, and Central Park East. These schools targeted specific populations: the BETA school was designed as an alternative school for students who had been deemed problematic at other schools within the system. East Harlem Performing Arts offered a specialized curriculum of dance, theater and music and was later renamed the Jose Feliciano School, after the popular Puerto Rican musician. Central Park East had an experimental teaching and learning philosophy similar to private high schools. These schools built neighborhood constituencies and support and defined themselves in opposition to the ‘conservative’ New York City school bureaucracy (Meier

1995, Fliegel 1990).

Three educators who would become influential through their writing and continued work in education policy came out of the District 4 movement: Sy Fliegel, Anthony Alvarado and Deborah Meier. These educators started as teachers, principals and administrators in the district. They went on to publish widely on the experience, with Fliegel and Alvarado becoming prominent supporters of school choice, while Meier stayed closer to the alternative school vision that initially animated the reforms. Over time, their visions of the reforms undertaken in District No. 4 became defined with regards to their stance on choice and accountability (Henig 1994).

Fliegel a former principle of the BETA school, bridged the discursive and practical divide between the alternative school movement and the school choice movement and later became a supporter of accountability. With regards to the first, he wrote about the importance of creating non-standard educational experiences for poor performing students: “We were able to provide those ‘acting out’ youngsters with a learning environment that accepted them as individuals who had difficulties adjusting to the regular school program” (Fliegel 1990, p. 202). Fliegel, who went on to be an administrator in District No. 4, recalled the process of building a community-based constituency and fund raising to support unique programming. Before the language of entrepreneurship and start-up culture came to education, Fliegel described it in terms that resonated with New Left politics of civil disobedience and participation, titling a book chapter in an edited volume on education choice “Creative Non-Compliance.”

By 1976 Fleigel was appointed Director of the alternative school program and District No. 4 offered six alternative schools. Over the next ten years Fleigel established a total of 23 new schools. He described this process of opening new, themed small schools as ‘phase one’ of the District No. 4 reforms. He emphasized that the process was teacher and administrator led, which

was unique at a time when most decisions were made by the central Board of Education. He wrote:

[T]eachers or principals came forward with proposals for new alternative schools, each with a philosophy or organizing theme for the new school and were met with approval and encouragement from the leadership of the district. Revealingly, despite the diversity of personalities and philosophies of the teachers who presented ideas and plans for the new programs, their reactions, when given the final okay, were always the same. They were shocked and surprised... Their expectation of the educational system was that even when people express admiration and support for a new idea, the establishment would always find a reason [to avoid change] (Fliegel 1990, p. 204).

Meier was the principal of the original Central Park East as it expanded from one elementary school to three. In 1985 she launched a middle school version of the successful model. By 1987 when she left, the school offered first through 12th grades. The model consisted of organizing a common curriculum and teaching philosophy. She was awarded the MacArthur ‘genius’ grant that same year and went to work with other education scholars to expand the reach of her small, alternative school vision through the Coalition of Essential Schools, a national organization of public and private high schools. She worked there under TheodoreSizer, then head of the coalition and Dean of Education at Brown University, and a supporter of the Alum Rock school choice initiative (Henig 1994).

The first eight years of the District No. 4 experiment focused on building a wider variety of schools and more small schools. Educators present during this process argued that building schools slowly, within a supportive environment was an important element of the program. Fliegel wrote: “Once a school director is identified, a sympathetic administrator must be responsible to provide real support: adequate space, funds, and personnel. Any new school needs time, encouragement, and protection for its philosophical base. The district leadership must have confidence in the new school’s leadership even when they do foolish things” (1990 p. 211). Only

years after this process had begun did the district begin to experiment with choice. For Fliegel the pace and timing of these reforms mattered. As he wrote, “choice has to be approached carefully and slowly” (Fliegel 1990, p. 211).

Reforms, which had started in response to low student achievement in the poor neighborhoods that they served, became part of efforts to entice more affluent parents into public school system. In “The Middle Class Parent’s Guide to Public Schools,” an article published in New York Magazine in 1986, Kathrine Davis-Fishman argued that new schools offered educational experiences that were compatible with the needs of affluent parents burdened by the cost of private education (Davis-Fishman 1986). In a glossy 11-page article featuring pictures of highly acclaimed educators, local celebrities working with students in public schools, and happy (predominantly white) students, Davis-Fishman offered advice for parents on how to select among the new schooling options. She advised parents to select schools with enrichment programs and parent-teacher associations that were actively engaged in school performance, and raised funds to support the schools (Davis-Fishman 1986).

By 1986, Davis-Fishman’s ‘guide’ made sense. Parents had a variety of ways of selecting the schools that they preferred within the vast New York City public schooling system which was composed of 32 separate districts with a total of 623 elementary, 179 middle and 111 high schools. Before choice was the official policy for all schools, some students were given ‘variances’ or permission by the Board of Education to fill empty seats outside of their district. Some schools, relying on the incompetence of the central bureaucracy, simply ignored district boundaries; other schools were designated district-wide magnets (e.g. Brooklyn Tech and Bronx Science) that had their own competitive entrance process (Davis-Fishman 1986).

In 1982, District No. 4 put into a place a system of ‘controlled choice’ for students in

which parents and students could select among any of the schooling options within the district. Students were given the opportunity to select among the almost two dozen (23) alternative middle schools that they preferred to attend. The schools were distinguished from one another based on the thematic content and teaching philosophy, thus creating a range of distinct options. In addition to the examples of highly selective schools like Bronx Science and Brooklyn Tech, there were performing arts and alternative schools to select among. The system began with a limited choices. At first students in the district were sent an application form with three alternatives. Along with the form came a pamphlet describing programming, educational philosophy and special rules or requirements at each of the schools. However, schools had the ultimate say in who was admitted (Fliegel 1990, p. 207).

Choice in District No. 4 was highly controlled and regulated to meet multiple objectives. The District No. 4 choice system sought to promote values of inclusion and integration. Prior to this system, parents who sought to place their children in better schools were encouraged to move to districts that had better schools, establish residency in higher performing districts (regardless of whether or not they were going to move), or enroll their students in private schools (Fliegel 1990p. 213). The choice system provided motivated parents with options that did not require changing address or paying for school. It also married the goal of meeting parental and student preference while preventing the pooling of the best and worst performing students. It did so by mandating that all choice schools accepted the same proportion of students who were academically strong, average and weak. Schools had to take 25 percent of student applicants who were performing six months ahead of what was expected for their grade level, 50 percent who were performing at grade level, and 25 percent who were performing below grade level. This determination was based on student performance on state reading tests. In this way, schools were

required to take students with levels of proficiency (Davis-Fishman 1986). This model led to shortages of seats for students at the schools they wanted to attend, especially those among students who performed above average on state tests (Fliegel 1990p. 211).

The District No. 4 alternative school and choice system became prominent as student performance improved. The percentage of students reading at grade level increased from 16% in 1972 to 63 percent in 1987 (Fliegel 1987, p. 3). Born out of local circumstances and a pragmatic goal of serving students, these school reforms were examined and promoted through the ideological lens of choice. Scholars from the Manhattan Institute, a pro-market think-tank, published articles in local media extolling the virtues of choice. They published a book, Miracle in East Harlem (Fliegel and MacGuire 1993) that interpreted the success of the district in terms of the principles that voucher advocates had promoted. They argued that the school transformation was an effort toward reducing bureaucracy and that it was a system that “placed the needs of students ahead the needs of professional educators” (Henig 1994, p. 162). They argued that it was an example of local innovation, rather than governmental mandate to improve schools.

The experience of District No. 4 spread through the initiative of a charismatic education professional as well, Anthony Alvarado. Alvarado had been an administrator in District No. 4 and with its success, he sought and received a promotion to be principal of District 2 school, which served portions of lower-Manhattan and the Upper East Side. In this new position, Alvarado implemented similar reforms, splitting larger schools into smaller ones and giving parents and students the ability to apply to any school within the district.

The Strategic Retreat of Choice Advocates

Magnets, controlled choice and other non-voucher based systems of choice grew in

prominence in the 1980s and 1990s out of what Henig (1994) called the “strategic retreat” of President Reagan, a supporter of market-based innovation in education. The Reagan administration’s education platform proposed passing a constitutional amendment to allow school prayer and eliminate the federal Department of Education which was in line with an overall program of cutting domestic spending and deregulation. Once elected, his attention turned to passing Federal legislation supporting the creation of voucher systems that enabled parents to select among public, private and parochial schools. At his urging, the House of Representatives sought to pass voucher systems in 1983, 1985, and 1986 with no success. In an effort to solicit votes from moderates, these voucher policies were successively less extreme than the system that Friedman had envisioned. The 1986 proposal would have made vouchers optional for school districts and limited their use to remedial education (Henig 1994, pp. 71-3). Reagan was forced to back off from vouchers, but this did not mean that he gave up on choice.

Reagan’s strategic retreat took the form of embracing magnet schools. In 1988, he gave a speech on public education to Suitland High School, a public school in Prince Georges County. He proclaimed that the magnet program was “one of the great successes of the education reform movement” (Henig 1994, p. 78). By supporting public magnet schools – which is in effect a fully public system of choice – he avoided many of the thorny political and legal challenges that beset vouchers. He made choice seem like less of a threat to his political opponents. The contemporary school choice movement from that time forward has been oriented around the idea of producing a variety of options within the public school system.⁵⁹

⁵⁹ The notable exceptions to this have been the school districts of Milwaukee which passed voucher systems. Also President George H.W. Bush proposed the “G.I. Bill for Children” in 1992 which would have given \$1,000 vouchers to children to spend at any legally authorized school, public, private or parochial. The proposal came late in his term as part of an effort to burnish his domestic policy credentials (Henig 1994: 92).

New Choices in New York City: Magnets

The New York City Board of Education and philanthropic organizations led efforts to create new schools that varied in terms of theme. In 1992, New York City Schools Chancellor created 50 new schools in collaboration with the Center for Collaborative Education, New Visions for Public Schools (a Gates Foundation supported philanthropy) and ACORN.⁶⁰ This effort yielded an expanded project called the New York Network for School Renewal within the New York City Board of Education. In 1994 the Annenberg Foundation gave \$25 million to support the network which was designed to create small schools within the system (MDRC 2010). By the late 1990s New York City had almost 140 small schools at the elementary, middle and high school levels.

This round of small school creation in the 1990s identified large schools as intrinsically alienating for students. The program focused on the most problematic schools, and especially schools in the Bronx and specific high-poverty areas in Brooklyn. This preference for small schools, and the spatial pattern of closures and replacements continued into the Bloomberg Administration.

In District No. 4, as in any system of magnet schools, students were able to select among a variety of schools, making public schools more desirable and match more closely with the consumer preferences of students and parents. This element of the reforms followed closely with Friedman's ideal of positioning parents and students as consumers of educational services. These systems also married the idea of choice with other public goals. In the case of District No. 4, this included creating thematic schools that resonated with the educational strengths of students. Nationally, this took the form of reducing segregation.

⁶⁰ Association of Community Organizations for Reform Now.

Accountability

Friedman strenuously disapproved of a strong governmental role in magnet and controlled choice policies both at the time that he wrote Capitalism and Freedom and as he became a more prominent public intellectual. In his 1980 book, Free to Choose he explicitly argued against constrained choice systems like the one that District No. 4 had adopted. Part of this had to do with his anti-government stance. It also had to do with what he saw as the other strength of market-based systems – determining winners and losers to produce more efficient education governance.

Supporters of market-based education were attracted to the disciplinary role that choice could play. When schools underperformed, parents sent their vouchers elsewhere, undermining the financial viability of the school in the same way that a purveyor of low quality, high price manufactured goods failed in an open market. Choices were most effective when coupled with market pressures, especially the pressure of parents purchasing educational services from alternative vendors.⁶¹

For reasons extending far beyond the idealism of District No. 4 educators, choice at this moment was primarily about stoking the desire of parents and students to attend newly opened schools. It was contingent upon the idea of attracting parents and students to preferred schooling experiences. District No. 4 arrived at a system that harnessed consumer preference towards the end of improving schooling outcomes to serve a highly impoverished community. Magnet schools were designed to use this consumerist preference towards a different policy end, that of desegregation. Whereas choice was used as a mechanism for segregation in Prince Edward

⁶¹ In the modern school choice movement the focus of the application process became a part of a bureaucratic system for matching students with their highest choices. This highly technical process, known as the stable marriage problem is described below.

County, Virginia in the 1960s and 1970s it was used as a mechanism of integration with magnet policies.

The other half of Friedman's vision for choice, the disciplinary aspect, was not lost. It took a different form than what he had envisioned. He had proposed vouchers as a single solution, giving parents new options while at the same time forcing schools to improve through market pressures. The education reformers found other mechanisms for achieving the same results: systems of accountability.

Accountability be it democratic, professional or data-driven, has always been part of school governance. What follows is a brief history of the modes of accountability in New York City and State. The mechanisms of school accountability were originally designed to sort students into categories, i.e., to determine which students were suitable for blue collar, professional and college preparatory education. School reform efforts, beginning in the 1990s reversed this relationship. Data would be used to measure the performance of teachers and schools. It became a means of disciplining individuals and institutions.

This change in the meaning of accountability hinged on a corporate model for school reform that arose in response to the corruption associated with democratic forms of accountability. From the mid-19th century to 1966, education reformers sought a system that distanced the electorate from direct control over school policy, as progressive reformers sought to eliminate cronyism and self-dealing in school politics. They did so by governing schools through professional, unelected institutions, like the New York State Regents, and the Board of Education (Ravitch 2000). In 1966, neighborhood activism and a philanthropic initiative by the Ford Foundation led to a push for greater direct electoral control for schools, which took the form of a decentralized school governance system, with 32 school districts in New York City

(Barube and Gittell 1969). With this decentralized system, reformers once again became concerned about corruption. These concerns along with the growing belief that school governance required a corporate structure led mayors, who would serve as Chief Executive Officer city schools led to the recentralization of New York City schools under the direct control of Mayor Bloomberg (Usdan 2006).

Accountability: Centralization, Testing and Professionalization

The earliest period of state involvement in education in New York City, from 1853-1896 was characterized by two factors: political patronage and the beginning of state testing. First, the infamous Boss Tweed ring began using school resources as a source of political patronage almost as soon as popular elections became the means for determining school leadership in 1853. Teacher and administrator jobs were given out on the basis of political favors. When new political parties came into power, teaching staff was subject to firing (Ravitch 2000, p. 85).

Second, the federal government's support of universities through the Land Grant programs, which were part of the Morrill acts of 1862 and 1890, led to the first statewide use of tests in New York. As a result of the Land Grant program, universities grew and they needed to sort and categorize students for admission. The State of New York began evaluating students based on a test called the Regents in 1878 in order to select students who would continue to the newly enlarged land grant university system (Rhoten et al. 2003, p. 13). These tests were open-ended; students wrote long-form answers to questions ranging from Greek to Agronomy (Ravitch 2010, p. 151).

From 1896 to 1966 the State of New York undertook reforms to depoliticized school oversight by restructuring school governance; through accreditation and unionization, teachers attained a professional status; and state and federal governments put into place new tests.

Paralleling the Progressive movement in urban planning and public policy more generally, reformers professionalized public educators and removed education systems from the direct control of city-wide elected officials (Friedman 1987, p. 58-61).

Nicholas Murray Butler, a reformer and professor at Columbia University, led the political movement for progressive education reforms in New York City. As a result of his efforts, on April 22, 1896, the State of New York created a new governance structure designed to depoliticize education. The Board of Education became directly elected and elections for The Board were held during off years to limit political participation and, it was hoped, the opportunity and incentive for corruption. Also, teachers were guaranteed tenure after a trial period to avoid the mass firings with each new political regime (Ravitch 2000, p. 87-95).

Second, during this same period the creation of unions for teachers and administrators further solidified their professional autonomy. Unionization came later and took longer than Butler's structural reforms: though prominent public intellectual John Dewey signed the first United Federation of Teachers Union Card in 1916, it was not until 1961 that New York City teachers elected that union as their sole collective bargaining agent (Ravitch 2000, p. 318). During the Progressive period, popular representation was minimized and expertise derived from professional competence became the justification for authority over schools.

Third, World War I led to important changes in testing. War psychologists, who sought scientific and objective criteria for assessing and sorting incoming troops, criticized tests with written answers as subjective. They created standardized, multiple choice tests. After the war educators became convinced that these tests represented the leading edge of scientific technology and embraced quantifiable exams both because of their purported objectivity and because they were efficient to administer and grade (Ravitch 2010, p. 151).

The National Defense Education Act of 1958 and the Elementary and Secondary Education Act of 1965 created new sources of reporting data and new aspirations for uniform educational testing. “Part of the expansion of federal involvement in education was the planning and development of a national student assessment system during the 1960s” (Vinoviskis 1998, p. 5). The National Assessment of Education Progress (NAEP) which is a Federally funded national test of student performance, arose out of this movement in the 1960s. Concerns about the powers of federalism versus states’ rights plagued the testing movement from the 1960s on, with some educators supporting in-depth, national comprehensive exams. The movement for in-depth testing foundered over concerns about federal overreach on the right and multi-culturalism on the left. As a result of this conflict, one reason that current tests are limited in their content is because of the inability to create and use a nation-wide exam that sets a common bench-mark for students (Ravitch 2011).

Accountability: Democracy and Decentralization

From 1966 to 1982, racial equality and local, democratic control of schools became the dominant issues in education policy. The legal authority of judges became an important source of expert authority in this period, with justices ordering desegregation in cities, and fiscal parity at the state-wide level (Liebman 2003).

In New York City, the failure of city or region-wide integration led black activists and liberal supporters, including the Ford Foundation and Mayor John Lindsay, to demand local autonomy. The Brownsville-Ocean Hill controversy revolved around two different claims to knowledge and authority. Community members and the foundations and politicians that supported them wanted control over schools. Community-based African American and Latino activists sought the power to hire and fire teachers at will, based on a claim of autonomy and

local control. Activists claimed that local teachers of color were better suited to teaching black students. The UFT insisted that professional certification and contractual obligations were more important. The Brownsville-Ocean Hill school control controversy pitted African American parents and community members against a largely white, unionized teaching force (Podair 2002).

The rift between community members and teachers led to another reorganization of the structure of public education. The State of New York devolved control from the centralized Board of Education to 32 Community School Districts that elected their own school officials (Podair 2002). This form of governance maintained the professional and union status of the teachers and the State Regents test continued to be the final determinant of whether students receive a high school diploma and were offered a slot in the public university system. While the Community Boards were plagued with corruption almost from the start, they remained unchanged from 1969 to 2002 when Mayor Michael Bloomberg won centralized control over the schools (Podair 2002).

This period in education policy paralleled a shift away from technocratic claims to authority in public policy and urban planning. In New York, the community control movement in education and community development in planning overlapped both chronologically and in terms of important actors. The Brownsville-Ocean Hill controversy also revolved around two different claims to knowledge and authority. Community-based African American and Latino activists demanded the power to hire and fire teachers at will, based on a claim of autonomy and local control. Activists claimed that local teachers of color were better suited to teaching black students, while the UFT insisted that professional and contractual obligations were more important. Indeed local activists and their foundation sponsors argued that community control of schools was a form of community development and local planning.

Accountability and the National Movement Toward Recentralization

National concern with educational performance created the context for the recentralization of school authority. The publication of A Nation at Risk in 1983, a report by President Reagan's National Commission on Excellence in Education, created increased concern about the role of education in maintaining national economic competitiveness. The authors of the report wrote ominously: "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur – others are matching and surpassing our educational attainments" (1983, pp. 4-5). Concerns about equity and segregation became less prominent while appeals for education improvement became grounded in the idea of improving student performance.

The sense of urgency generated by A Nation at Risk led to rapid, successive urban school reforms in cities across the United States with little positive impact. By the 1990's scholars argued that schools were not improving because of haphazard implementation of reform ideas and a rapid succession of reforms (Stone et al. 2001). Fredrick Hess (1999) in Spinning Wheels: The Politics of Urban School Reform described the rapid adoption and failure of reforms as policy churn.

As a remedy for policy churn and political corruption, Hess and others argued for a shift of focus – from trendy pedagogical and management reforms within schools to a focus on school management and school outputs as measured by standardized tests. Education scholars drew on management scholarship by William Ouchi, a widely cited education and public administration scholar, who suggested that managers focus on monitoring performance indicators in private and

public management.⁶² For the first time, education scholars began to elevate testing and other quantifiable measures of student performance as a means of guiding school policy. Also, prominent scholars such as Terrance Moe of the Heritage Foundation began identifying teachers, their collective bargaining rights and their political power as causes of dysfunctional education governance (Moe 2005).

The Move Towards Data-based Accountability in New York City

In the mid-1980s the Board of Education sought to bring the changes put into place in District No. 4 to the rest of the city, but ran into problems with cronyism and corruption. In 1983, Anthony Alvarado, who had been a leader in District No. 4, was appointed Chancellor of New York City Schools. His tenure proved to be short-lived. He appointed political allies to prominent positions in the school bureaucracy, borrowed money from subordinates and failed to report income to the I.R.S. He resigned in May of 1984. His tenure marked a growing concern that school reform was impeded by lax oversight in the school bureaucracy (Fliegel 1990).

In the period from 1994 to 2002 Mayor Rudolf Giuliani intensified the use of quantitative evaluation systems in urban policy and education. From the Progressive era through the Giuliani administration, the New York City Board of Education had direct control of schools through the Board of Regents, a panel of education experts appointed by the New York State Legislature. A Chancellor who was separate, administratively and politically, from city government and the Mayor's control led the NYC Board of Education. As seen above, these measures to separate

⁶²Testing and accountability were also seen as more 'moderate' steps than educational privatization and the widespread use of vouchers that right leaning educational scholars, such as Terry Moe, were advocating for.

control of schools from city politics were aimed at eliminating patronage and corruption (Henig 1994).

When Giuliani was elected in 1994, the Mayor had scant control over education policy in the City but over the course of his administration he imposed greater influence over the system. Rudy Crew was appointed the Chancellor of New York City Schools in 1995. Both men saw increased scrutiny of data, in the form of test scores, as a means for producing greater accountability over schools, though their differing visions for how data were used became a source of acrimony that fed a public dispute.⁶³ In an interview, an analyst in the Board of Education in the 1990s, Roger, described Crew as “a data hawk” (Rogers 2012).

The State Board of Education used the Regents Exam to measure student performance in schools.⁶⁴ The results of these tests were published in local newspapers and they were “used by many organizations and individuals and officials to assess how the individual schools were doing but also to assess how the school system itself was doing” (Roger 2012). The direct administrative use data was to allocate Title 1 funds. The Decentralization Law of 1970 prescribed the ways that schools were to be evaluated and ranked by the Board of Education. Schools that performed poorly on tests were allocated a larger share of funds with the idea of improving school performance.

The Crew administration undertook an important policy innovation to compare schools in ways that were seen as fairer. He sought to use test scores to evaluate superintendents, but realized that comparing school performance based on raw test score data was unfair because

⁶³ Crew and Giuliani also disagreed on the issue of vouchers. Giuliani favored a system that would give students in poor performing public schools a sum of money (a voucher) that these students could use to pay for private and parochial schools. Crew opposed this idea (Rogers 2012).

⁶⁴ The Regents was and continues to be used as an entrance exam to the State’s public university system.

schools and school districts served different populations of students. Some served poorer students and students with a less likelihood of academic success. To make the comparisons fair, the Board adopted new calculative tools. According to the administrator in charge of collecting and using student data during the Crew administration who is referred to as ‘Roger’ in what follows, “Similar Schools Analysis started in 1995 or 1996, which took into account the demographics of a school” (Roger 2012). They ranked schools among ‘peers’ that served demographically similar populations and analyzed how educators at ‘similar schools’ performed relative to one another. Similar Schools Analysis statistically controlled for variations in student populations in order to more accurately compare the performance of superintendents and schools.

In this era, test scores were also used by the Mayor to assert control over the Chancellor who reported to the Board of Education.

[Test scores] could be used to bludgeon a chancellor into submission. And Giuliani was a very tough mayor. And bludgeoning was not beyond his arsenal. Often they were used in the newspapers, the media. So [the] mayor would put articles into the media that [Chancellor Crews] schools were not doing well and chancellor is not doing well. [These unflattering articles would suggest that] perhaps the Board of Education should consider a replacement (Roger 2012).

At the height of the conflict between Giuliani and Crew in 1999, student test scores fell, which provided fodder for the campaign to remove the Chancellor. According to staff in the Board of Education, the poor performance on these test scores was the result of a calculative error by the test publisher. Administrative staff at the Board was given access to raw data on student performance and calculated that instead of a 3% drop in student performance, there was, in fact a 5% improvement (Roger 2012).

School policy during the Giuliani administration paralleled and contrasted with data-driven reforms in policing. Working with William Bratton, who became Police Commissioner,

the Giuliani administration put into place CompStat in 1995. CompStat, which is short for Computer Statistics, is still used in New York City and it has been adopted in other major metropolitan police departments. CompStat influenced the creation of accountability tools in education. As one former Board of Education staff member said: “The general climate of accountability that was developing under Crew was heavily influenced by what was happening in the police department” (Rogers 2012). Giuliani sought to bring a management structure similar to CompStat to the Board of Education, which set the stage for the accountability system put into place under Bloomberg.

CompStat is a method of managing police personnel by using data to assign responsibility to individual officers and commanders. Commanders were assigned districts. If crime increased in a particular commander’s area he or she would be held accountable. This was part of a broader transformation, in which the Mayor sought to govern the city as a businessman, rather than as a politician. This style of governing was exemplified by CompStat, which was “at the root of his claim that he transformed the Mayor's office from a political job to that of a governmental C.E.O” (Berry 2001). Compstat started as a series of paper maps with pins placed at locations where crimes were committed, and later used computer-based mapping capabilities to track and locate crimes. This system of tracking crime was coupled with new management practices. Police commanders were brought in front of the commissioner on a regular basis and they were questioned about statistics within their geographical command. In these meetings, attended by superiors and peers, managers within the Police Department used peer pressure and the threat of sanction to motivate change. This new organization of statistics, managers and police personal produced a system of data-driven accountability, with commanders accountable to the Police Commissioner and detectives and patrol officers accountable to their commanders.

Data, in the form of crime statistics, served as a common intellectual and material referent for producing accountability. Data circulated out of localized context where crime is committed to the highest levels of management, while remaining attached to responsible persons within the police department. Semi-public scrutiny of data and the threat of dismissal produced incentives for improved performance within the system. Commanders and police officers that show increments of improvement remained secure in their jobs or advanced, while poor performance led to sanction.

Though CompStat became a model for management under Mayor Giuliani, Chancellor Crew resisted certain aspects of the management tool, especially those having to do with peer pressure. During the Crew administration, superintendents were brought into the Chancellor's office to discuss school performance, based on Similar Schools Analysis, which largely mirrored the data and management strategy deployed in the police department, with one exception. Superintendents discussed the performance of their schools in private meetings with the Chancellor. As Roger (2012) explained, Crew, "assiduously avoided ... accountability in front of peers." Superintendents were also permitted to bring staff to examine and explain statistics on school performance (Roger 2012).

The meetings between the Chancellor and superintendents were often contentious, the latter often rejected the evaluation of their performance and the management decisions that were made on the basis of statistics, arguing that their school districts served poor and marginalized students who typically did worse on evaluations. Nonetheless, Crew used these management tools to dismiss several superintendents.

Test scores were combined with demographics in order to derive better estimates of the impact of particular managers within the Board of Education— superintendents in this case. This

coupling of test scores to school characteristics and the attribution of success or failure to superintendents was described as a means of holding individuals accountable for performance. This earlier era of accountability was also significantly different from both CompStat and what came next in the Bloomberg administration. CompStat used peer pressure and semi-public presentations of crime statistics to change the behavior of managers within the police department, as well as rank and file police officers.

The National Move Towards Data-based Accountability

The growth of accountability as a policy idea and management strategy was accompanied by legislation at the state and federal level. As with every major school reform since *Brown*, supporters of accountability and choice argued that it was a remedy for unequal outcomes between white and minority students. According to James Leibman, a Columbia Law professor who later became the first head of the New York City Office of Accountability, legal strategies for improving education for disadvantaged populations, such as desegregation and equitable finance litigation, had foundered by the end of 1970s (Leibman 2003). In “School governance and Legal Reform,” Leibman (2003, p. 191) wrote: “...two reform cycles in which courts first determined to conform existing institutions [schools] to constitutional values [equality], recognized the limits of doctrinally directed interventions, and, disheartened, abandon their original ameliorative ambitions in order to defend the integrity of the judiciary.” As a result the courts backed off.

Performance outcomes became a way of “institutionalizing ... collaboration between protagonists in civil society under the authority of the courts” (Leibman 2003, p. 233).

Promoting accountability, it was argued, could achieve the goals of integration and fiscal parity –

improving education for all – through means that were less reliant on the courts and more reliant on civil society and data.

By the early 1990's, Kentucky and Texas had begun experimenting with accountability systems that use quantitative evaluation of student performance based on test scores. On March 29, 1990 the Kentucky General Assembly enacted House Bill 940, or the Kentucky Education Reform Act. From 1984 through 1991, Texas put in a series of accountability reforms that used tests to determine rewards and punishments for educational professionals (Rhoten et. al. 2003 pp. 7, 23). Politicians, including then Governor George W. Bush of Texas, embraced quantitative systems of accountability.

No Child Left Behind

The trend towards accountability became mandated in federal legislation. In 2002 with strong bipartisan support, President George W. Bush enacted No Child Left Behind (NCLB), which mandated increased evaluation and data collection at the federal level. NCLB was a reauthorization of the Elementary and Secondary Education Act of 1965. This federal legislation was a brokered compromise between the Bush Administration and Democratic Senator Edward Kennedy, a Democrat of Massachusetts. Bush had been an early and ardent supporter of accountability-based education reform while Governor of the State of Texas. Senator Kennedy sought increased funding for public schools at the Federal Level. NCLB legislation met both of these goals.⁶⁵

⁶⁵ President Bush proposed the legislation on January 23, 2001. It was co-authored by an equal number of Republican and Democratic members of Congress: in the House of Representatives John Boehner, a Republican from Ohio, and George Miller, a Democrat from California; in the Senate Edward Kennedy, a Democrat from Massachusetts and Judd Gregg, a Republican from New Hampshire. It passed the House of Representatives on May 23, 2001 384 for and 45 against. It passed the Senate on June 14, 2001 with 91

NCLB required new accountability mechanisms that held each local school district to the goal of bringing student test scores to standards specified at the state level. In the language of the law, school districts were required to make Adequate Yearly Progress towards proficiency. Each state was required to create a measure of progress. Section 1111 (b)(F) requires that “each state shall establish a timeline for adequate yearly progress.” Adequacy was defined as progress for all students toward the state proficiency goal. The act mandated that all students reach proficiency within a 12 year period. For the first time, the Federal subsidies that are part of the Elementary and Secondary Education Act were contingent upon school improvement on tests (NCLB 2003).

NCLB specified the methods for assessing school performance and achieving school improvement. States became responsible for making test-based assessment programs set standards of proficiency and created measurable objectives for student improvement and for specific sub-groups including poor and disabled and students with limited English proficiency. In doing so, NCLB narrowly defined what constituted assessment, research and evidence. States were required to assess 95% of students and report on progress towards the goal of proficiency for all students and for specified subgroups. The act required that states implement a uniform curriculum and provide ‘highly qualified’ teachers (NCLB 2003)

When schools failed to make progress, school districts were required to take actions that increased scrutiny and escalated punitive consequences for underperforming schools and offered new options for students in those schools. If a school failed to meet adequate yearly progress for two years straight, it was publicly labeled *in need of improvement* and was required to develop a two year improvement plan. The district was required to permit students to transfer to a better

Senators voting favor and eight voting against. President Bush signed the legislation into law on January 8, 2002 (NCLB 2002).

school. If it missed a third consecutive year, the school was required to offer remaining students free tutoring and other educational services. A fourth year of failing to make required progress initiated mandatory organizational restructuring which might take the form of replacing the staff of the school, introducing a new curriculum or changing school hours. After five years the school was required to restructure. This often meant closing the school and firing the staff that was currently working there. Closed schools were replaced with charter schools, private vendors, or the state took control of it (NCLB 2003).

The No Child Left Behind school closure mechanism and similar district-level systems used to identify underperforming schools created the space for new schools. Schools with new thematic content, teaching philosophy and privately managed, publicly funded charter systems created the supply of new schools amongst which parents and students could select.

Conclusion

If Friedman's idea was to give parents control over the money spent on school services, the eventual outcome was something radically different – federalized school policy and centrally managed school districts undoing the common school system and replacing it with new vendors of educational services. The market for education services was created by Federal legislation and the reorganization of school districts at the state and local levels. Ultimately, elected bodies state governments and city mayors created systems of choice by creating schools that vary in terms of focus and theme and in terms of ownership and responsibility, with for example, charter schools.

Friedman's free market liberalism was based on the principle of reducing the role of the state and creating space for market mechanisms to take over service provision. From 1955 when he conceived of choice through 2002 when No Child Left Behind was signed into law, the role for markets and government that Friedman advocated never materialized. Rather, local, State and

Federal governments produced policies that sought to create choice and accountability, modeled after the metaphor of the market that Friedman had originally proposed, but with drastically different means and a greater role for the education bureaucracy..

Chapter Seven: School Choice in The Bloomberg Era

When Michael Bloomberg was elected in 2001, the New York State Board of Education returned control of schools to the city mayor for the first time in more than a century less than a year later. Mayor Bloomberg used this opportunity to create a system of governance that relied on choice and accountability to improve educational outcomes. Accountability and testing were on the rise nation-wide and Bloomberg embraced these changes with vigor. Bloomberg was sworn in as mayor on January, 1 2002, and by June 6 of the same year the State Legislature had abolished both the Community School Districts and the Board of Education given the new mayor control over city public schools. He used this reorganization to create a governance system with strong mayoral control. One education scholar who had been consulted by the Mayor at the time recalled in an interview, “My advice to [Mayor Bloomberg] was to have the strongest [meaning the most control with the Mayor] system you could have... I guess he liked that” (John 2012).

The Mayor’s policy for education was called Children First. As part of Children First, the Mayor created the New York City Department of Education (DOE). He appointed the Chancellor and the majority of members to a new governing body called the Panel for Education Policy to lead the DOE. The Mayor and his appointed school staff set out to enhance the options available to students and parents. What follows traces Children First reforms and the meanings of and debates over accountability and choice. It explains how the Department of Education made new options and a system of accountability. It explores these innovations at the city-wide scale through an examination of one site where debates over the meaning of accountability and choice was particularly fierce, DeVasco High School in the Bronx.

Making a City-wide School Management

The first reforms that the Mayor put into place were spatial and geographic. When Mayor Bloomberg created the Department of Education he moved top management functions from Downtown Brooklyn, where the Board had functioned at a geographic and administrative distance from the Mayor's office, to the Tweed Courthouse, which is adjacent to the office where the Mayor and his staff worked. Bloomberg redesigned the office space in a 'bullpen' layout, open offices consisting of low cubicles for lower-level workers and managers alike. This layout was designed to permit management to circulate among DOE staff and keep tabs on their work, to communicate with them as a group without disrupting work and create an environment of office transparency.

Mayor Bloomberg brought in people from outside the Board of Education and especially people from outside the ranks of professional educators, hiring Joel Klien, a former lawyer as the Chancellor of the new DOE and James Liebman, a civil rights law professor, as the head of the first Office of Accountability. Lower-level staff was recruited from law, public policy and business schools. Management judged hires based on talent – here meaning their educational pedigree, with business management and legal backgrounds being preferred over a background in education (Liebman 2012). This attitude towards recruiting permeated the Department of Education. The DOE in partnership with the non-profits created institutional mechanisms for bringing professionals into teaching and school administration careers. Two institutions were set up to recruit from private sector workers and train them in expedited fashion to become teachers. The Leadership Academy, a non-profit training institution that was started with funding from the Wallace Foundation, retrained professionals to become principals in as little as six months (<http://www.nyleadershipacademy.org>). The Teaching Fellows, which was started through a collaboration between the DOE and the non-profit New Teacher Project, recruited graduates of

prestigious colleges and mid-career professionals to work as teachers, giving them as little as six weeks of training before entering the classroom (www.teachingfellows.org). These programs were at odds with the culture of the Board of Education which typically promoted teachers to administrative positions after long periods of apprenticeship.

Bloomberg's Management Style

Bloomberg's approach to public policy and to the re-engineering of public schools arose out of his background using new technologies to restructure the flow of information in investment firms in the private sector. In his autobiography, Bloomberg by Bloomberg (1997, p. 311) he wrote, “two things haven't changed in twenty years or twenty centuries: the need for information and the users of the data, with their bravery jealousy, adventurousness and fear of the new. No matter what systems we create in the next decade these two statements will be the same” (Bloomberg and Winkler 1997, p. 311). His belief in the need for information and the mixed reaction of workers confronted with that information seemed to guide much of his restructuring of the DOE as Mayor.

Bloomberg applied a technocratic approach that emphasized the systematic use of quantitative information in policy-making. Julian Brash (2011, p. 79), the author of Bloomberg's New York wrote:

Drawing on ‘best practices’ in governmental management and on the corporate experience of its members, the administration developed a comprehensive system of measurement and reporting aimed at supplying different ‘audiences’ – the public agency managers, and ‘senior executives’ (that is, the Mayor and his deputy mayors) – with data of appropriate detail and frequency. The majority of these data, in keeping with the private-sector faith in ostensibly objective ‘benchmarks,’ were quantitative in form.

The information collected in these systems was used for internal policy-making and was also, to a large extent shared with the public.

Mayor Bloomberg and his Chancellor of Schools applied a streamlined and technocratic management system to the new Department of Education. When Bloomberg was granted control over schools in 2002, the bureaucratic responsibility and power of superintendents was greatly diminished. The Panel for Education Policy replaced the upper-level professional layer of bureaucracy. This reorganization eliminated mid-layers of authority within the education bureaucracy and centralized control in the administrative headquarters.

The goal was to allow schools to operate as autonomous 'firms' that were responsible for their own performance, but accountable to evaluation from the top. Mid-level positions were eliminated and resources were shifted 'down' to schools in the form of increased resources and 'up' to the central city bureaucracy. Notably, superintendents were stripped of their traditional role as managers of multiple schools and transitioned to a coaching position, in which they were 'hired' by principals to provide advice. Data on student performance would substitute for the managerial judgment of these mid-level administrators. As explored in greater detail below, simplified information would flow directly from schools to top administrators who were empowered to make decisions (Wohlstetter et al. 2013).

Bloomberg's model of education was similar to his corporate management style, which put him at odds with the free-market vision of Friedman. The economist's model of choice relied on the distributed rationality of many individual agents making decisions to improve public policy outcomes. Parents, as savvy consumers of education, knew best how to invest their vouchers and thus push the producers of education services to enhance their offerings. Bloomberg had a different idea about improvement. Data interpreted by technocrats at the top of the education bureaucracy was the ultimate marker of success within the system. Corporate

school reform focused on the “bottom line, which in this case was student performance outcomes, graduation rates and other simplified measures.

Theories of Action

Children First was structured around four theories of action which were translated into four governance mechanisms: choice, transparency/ data production, administrative accountability and political accountability.

Choice was an intrinsic goal; that parents and students would be happier and do better if they could select schools that most closely matched their preferences. The disciplinary, Darwinian aspects of consumer choice that Friedman had envisioned as a mechanism for the improvement of schools was, for the most part absent from the Children First governance system. Parents choose among schools, but the mechanism for determining success and failure rested with the internal, bureaucratic accountability system.

Transparency took the form of simplified measures of school performance. The DOE measured the performance of students, teachers, schools and the Department as a whole served as the conduit linking together the parts of the system. Administrators knew how to manage staff and schools based on data representing their performance. The public knew whether to support specific schools and the overall reforms through new public data. And students were matched with schools through data on their achievement.

Administrative accountability gave punitive consequence to transparency. With internal accountability teachers and principals were held responsible for performance improvements by administrators in the newly centralized Department of Education. Schools were also monitored and held to account for their overall performance.

Lastly data was shared publicly with the aim of drawing civic society actors into the administrations' goals of closing poor performing schools and replacing them with better ones. The creation of new, public school performance metrics, parents and community members could select better performing schools or put political pressure on schools that were underperforming. At the very least, these data would help justify decisions made by the Department of Education.

What follows traces the creation of each of these four governance mechanisms, the intended and unintended consequences of each and how they functioned as a whole in one instance, the transformation of the DeVasco High School campus.

Making Choice

Under Children First, choice was highly controlled and managed by central administrators within the Department of Education. As elaborated below, the choice mechanism had more in common with the District No. 4 system than Friedman's original voucher proposal. The DOE created new schools that were differentiated in terms of theme, size and institutional structure (i.e., charters or traditional public). In important ways the choice system diverged from other governance systems that had come before. The pace of school closures schools would be much more rapid than anything that had been tried before. Moreover, creating new small schools would be part of a process that required closing large comprehensive schools, a process that was often politically fraught⁶⁶.

Creating new educational options required making space for new schools. Making room for schools was a continuation and intensification of the process of closing large comprehensive schools, primarily in the poorest parts of New York City and creating many small schools. In

⁶⁶ Small schools are defined as those that serve up to 550 students, mid-sized schools serve between 551 and 1400, and large schools serve more than 1400 students (MDRC 2010).

economic parlance, which was embraced by the Department of Education, this was the process of enhancing the supply of schools amongst which students and parents could select.

Making room for choice resulted from an intensification of the pattern that began in the late 1990s as part of the New York Networks for School Renewal (MDRC 2010, pps. 185-187). The Gates Foundation, which had been a supporter of the reforms in the 1990s, expanded its role in 2001 with the founding of New Century High School.⁶⁷ This program, which received \$70 million from philanthropies, supported the creation of small schools and continued during the Bloomberg Administration. Between 2002 and 2008, the Gates Foundation contributed \$150 million. This funding was distributed widely among schools, providing funds for 85% of all small schools in the city. Nationally, the foundation contributed \$4.5 billion to help start or redesign 2,600 small schools between 2000 and 2008 (MDRC 2012).

Making Space for New Schools

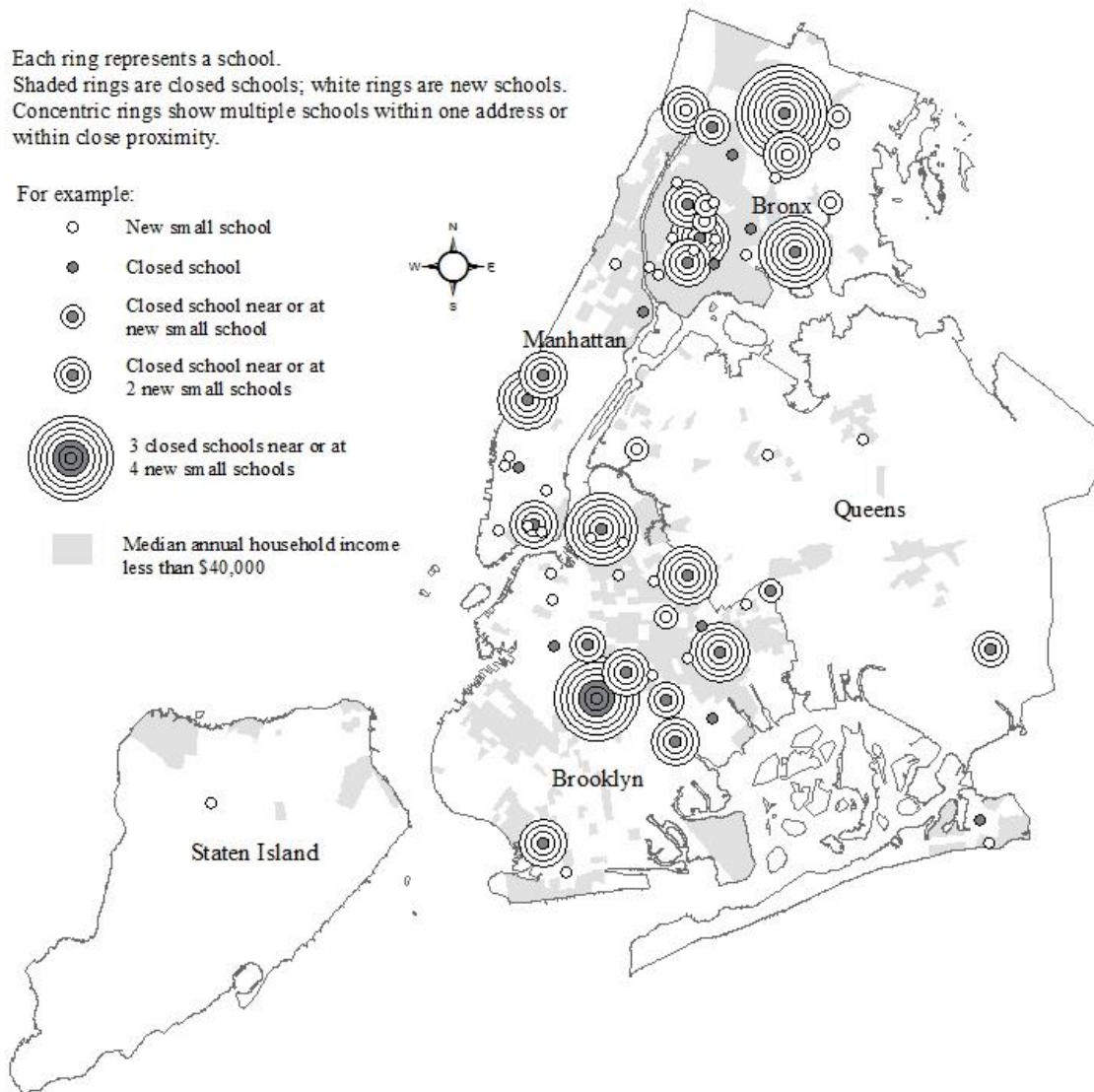
To make room for new, small schools the Department of Education closed 132 schools over the 12 years of the Bloomberg administration (Furtig 2014). Over the same period, the Department of Education opened 656 schools (Department of Education 2013) to accommodate students from closed schools as well as an influx of more students.⁶⁸ Mostly, large high schools were closed and small high schools were opened in their place. In 2002, there were 71 large schools and by 2008 there were 62. The number of small schools almost tripled over the same period, from 58 to 161 (MDRC 2010, p . 22). In all, 23 large and mid-sized schools were closed.

⁶⁷ This program was also supported by the Carnegie Corporation and the Open Society Institute.

⁶⁸ Total number of schools closed during his administration. In his last year in office Bloomberg slated 22 more schools for closure in the two years following the end of his tenure. (Furtig 2012). Overall enrollment also increased from 280,000 in 2003 to 312, 000 in 2008 (MDRC 2010)

Large and mid-sized schools with zoned attendance (meaning that they drew their students from the surrounding neighborhoods) were typically closed. These schools served thousands of students from poor and non-white areas. Closures were geographically concentrated in the South Bronx and northern Brooklyn, as seen in Figure 8. New small schools were located near the closing bigger schools, sometimes in the same building. On average, when a large high school was closed, four new small schools were placed in the building that it vacated (MDRC 2010 p. 25)

Figure 9: New York City School Closures and Small School Locations



Source: Reproduced from MDRC 2013, p. 2

Making Options

As large high schools were removed and new smaller schools replaced them, schools diversified in: management structure, selectivity and thematic offerings. Starting in 1998 with the State of New York Charter School Act, the State Legislature permitted a ‘capped’ number of charter schools. Charter schools are publicly funded, privately operated schools and they also often have philanthropic or private funding. In the City of New York, Charter Schools are required to be non-profit organizations. Operators apply to the State to receive a ‘charter’ to start a new school. The charter is reviewed and typically renewed every five years. Charter schools are distinct from public schools in that they are managed independently from the state or city education bureaucracy allowing them to manage, organize, hire and fire according to their own standards. As one proponent wrote, “they are free to organize themselves and provide education as they see fit, subject to the market reality that their taxpayer funding is determined by their head count” (Whitehurst and Whitfield 2013 pp. 5-6).⁶⁹

Charter schools expanded drastically during the Bloomberg administration. When the Mayor took office in 2002 there were 17 charter schools serving 2,400 students. By 2013, there were 183 Charter Schools with over 59,000 students enrolled (Chapman and Brown 2014).

Several organizations operated more than one charter school. By the end of Bloomberg’s term, The Success Academy, Knowledge is Power Program (Known as KIPP Academies) and New Visions for Public High School were the largest charter operators in the city. These operators represent a high percentage of all charters operated in neighborhoods where large schools have been closed. For example New Visions and KIPP together operated eight of the 15

⁶⁹ This is an overstatement. Charter schools are subject to guidelines set by the State of New York.

charter schools in the Bronx. Charter schools and larger charter operations undertook significant recruiting and parent organizing (Department of Education 2013 p. 540). In doing so they also created and reinforced constituencies of students, teachers and administrators who supported school reforms in favor of choice.

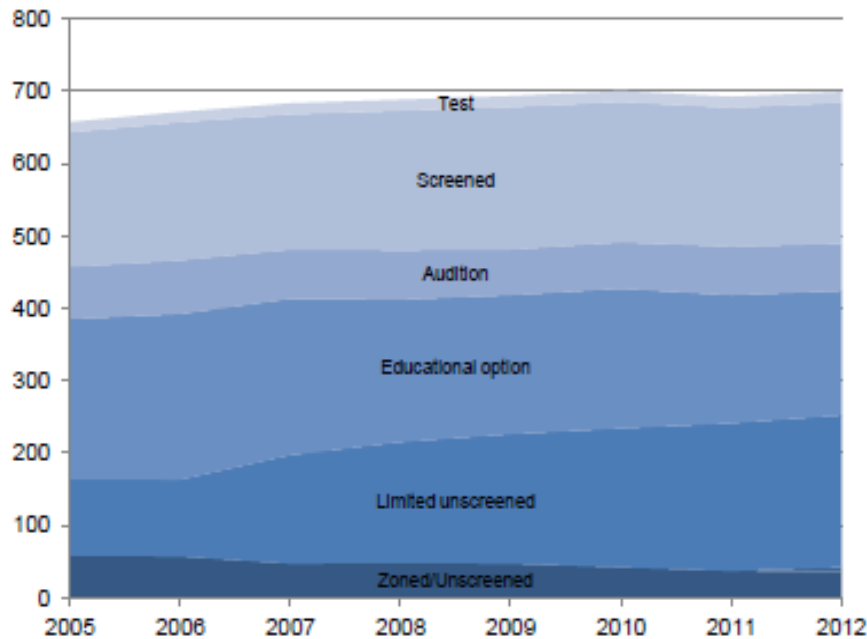
The mix of high schools with different admissions criteria also changed during the Bloomberg administration. Schools can be broken into six categories in terms of the admission criteria listed in Table 6.

Table 6: Types of High School by Admission Criteria
<i>Test and Audition:</i> Admission is based solely on applicants score on the Specialized High School Admissions Test (SHSAT) or portfolios for students applying to schools that focus on the arts. These schools are the most selective in and the smallest in number. They include famously competitive schools like Bronx Science, Brooklyn Tech and LaGuardia School for the Performing Arts.
<i>Screened:</i> Students are ranked based on their final, 8 th grade report card, Regents test scores in math and reading, attendance and other criteria. Schools select the highest ranked students who have applied.
<i>Limited unscreened:</i> These schools have no specific criteria for admission, but give priority to students who have shown interest in the schools by attending information sessions or open hous events, or by visiting the school’s exhibit during the High School Fair.
<i>Unscreened:</i> Students are assigned randomly among applicants
<i>Zoned:</i> Schools prioritize applicants who live in their zoned geographic area.
<i>Educational optional:</i> Schools are mandated to take a specific percentages of students who perform well, average and poorly on their 8 th grade Regents reading scores. The schools are required to take 16% high reading level, 68 percent middle reading level, and 16 percent low reading level students.
Source: Nathanson, et al. 2013, p. 7.

The most selective programs, those that require a test or audition, grew. During the Bloomberg administration the number of these elite schools went from 7 to 9. The number of screened schools stayed relatively stable, the number of limited unscreened schools increased

most dramatically from 106 to 210 (from 2005-2010). Zoned schools declined, as large high schools were closed. Educational option schools declined at an even greater rate (Nathanson et al. 2013, p.6). The graphic below (Fig. 9) represents these changes.

Figure 10: Counts of High School Programs by Admissions Methods 2005-2012



Source: Nathanson et al 2013, p.6

Children First, like the New Visions program that preceded it, encouraged small schools to distinguish themselves through academic and professional themes. The Department of Education encouraged new small schools to use themes as ways of differentiating themselves from other schools and attracting students. School themes were not required as part of the application process for starting a new school, but the majority of new small schools had a theme. In some schools, themes have been deeply integrated into the work that students and teachers do and were a vehicle for creating connections between a school and its community. For example, the Paublo Neruda School in the Bronx promotes architecture and social justice. The school offers specialized classes, a “Saturday Academy” or voluntary school time on Saturdays focused

on themed learning and a ‘mini-mester’ when the regular schedule of the school is interrupted in order to make time for collaborative interdisciplinary projects. During the first mini-mester, students worked in teams to design and make their ‘dream home’ which was presented at an event open to the community. The school maintains ongoing relationship with organizations that reinforce the theme, as with the partnership with the Salvadori Center, a non-profit that assists the school in creating architecture and design curricula and creates opportunities for students and faculty to meet and work with architecture professionals (Ancess and Allen 2006, p. 406). In other cases, school themes are never fully implemented or forgotten over time, creating the false appearance of differentiation (Ancess and Allen 2006, p. 405). Schools with a wide array of themes opened. In the Bronx alone, themes have included Language Arts (English language learning), Contemporary Arts, International Baccalaureate, Peace and Diversity, Teaching Professions, Math and Science, Social Justice.

Communicating Options

Tools for communicating options were crucial to the school choice system. As the options for schooling increased, the Department of Education created the Directory of New York City Public High Schools.⁷⁰ The nearly 600 page document explains how the admissions process works, and champions the idea of choice. The first page proclaims that “As a resident of New York City, you have more high school options than students living in any other city in the country” (DOE 2014, p. 1). When selecting a school, it encourages students to explore their options and consider their needs and goals, to attend citywide school fairs, visit prospective

⁷⁰ The directory is available as a downloadable PDF document, on the New York City Department of Education website at http://schools.nyc.gov/NR/ronlyres/B0C37C45-E280-434D-9DF7-3251B7F895B0/0/2016HighSchoolDirectory_English.pdf.

schools and find more information online. It also serves as a guide for how to successfully fill out the paperwork to apply. This preliminary information is covered in the first 20 pages of the document.

The balance of the document is devoted to descriptions of each school in the city. The Department of Education touts the number of city-wide choices available to students, but students typically look for schooling options in their immediate vicinity. As seen below, in the DeVasco case small schools were created out of successful programs in larger schools, so that, if for example, there was an exemplary math program at a large school, the faculty and some of the students from that program would ‘spin-off’ as an independent school within the same building. Reflecting this reality, the school descriptions are sorted into sections on each of the five boroughs. The first page of each section contains a map of all of the school options in the borough. Next it contains an alphabetical list of all the schools. From here students and parents can identify charter school ‘brands’ (e.g, KIPP, or Success) and they can learn about school themes. A more detailed description of each school is given. Each description is organized in nine sections. It provides practical information, like the location and transit access of each school, the kinds of supportive services for students with disabilities, and information on when

students can visit the school. Each school description also contains chart that contains data including the percentage of students who are on track to graduate on time after 9th grade, who graduate in four years, and who enroll in college or career preparatory programs immediately after graduation, as seen in Table 7. These percentages are reported for the school and presented just above city-wide averages for comparison. The chart also reports survey information on parental satisfaction and the schools score on an evaluative measure called the Quality Review.⁷¹

Table 7: School Performance Data

School Performance

This School's Performance in	What % of Students...			How Satisfied Are Students with the School?
	Are on Track after Ninth Grade?	Graduate in Four Years?	Enroll in College or Career Programs after Graduation?	
2012-2013	81.5%	60.9%	26.9%	7.4
2011-2012	70.5%	61.1%	37.6%	7
Historical Average for Similar Schools	63.3%	53.1%	31.3%	7.2

Quality Review Score (2010-2011): Proficient

Source: Directory of New York City Public High Schools, 2014

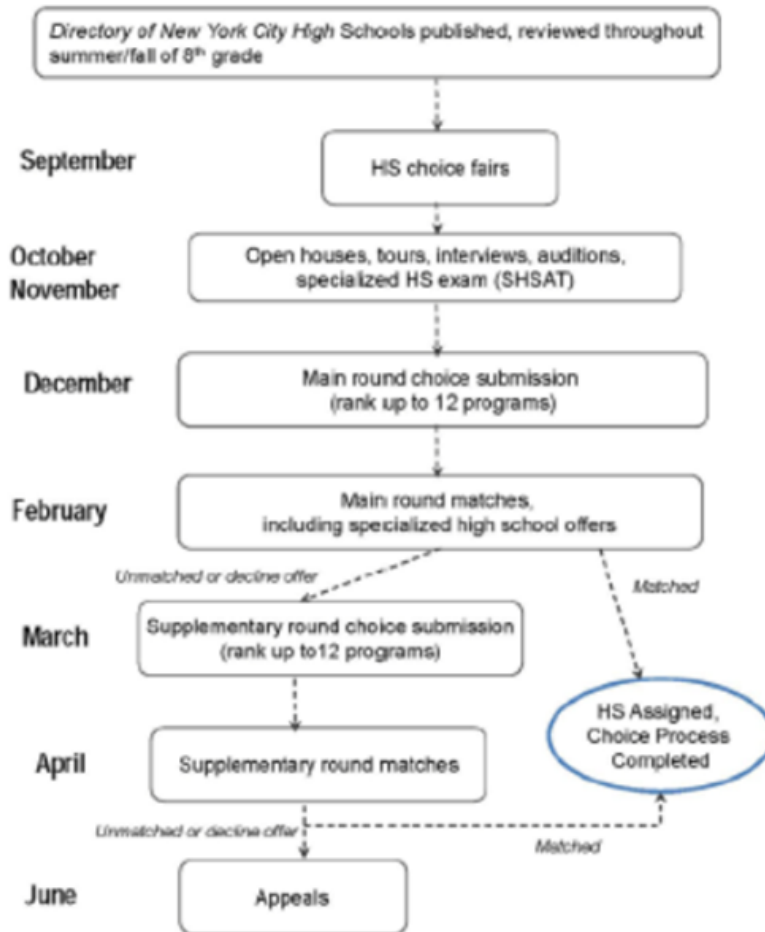
Themes, academic approaches and special programs are described as well.

⁷¹ Described in further detail below.

Matching Students with Options

The directory is a stand-alone document and also part of a process. In the fall of eighth grade, schools introduce students to the choice process. Any student in a public, charter, private or parochial school or who is homeschooled with a primary residence in New York City is eligible to take part. As depicted in in Figure 11 it begins with the publication of the directory in

Figure 11: High School Selection Process



Note: Based on the 2012-2013 high school admissions process. Exact timeline may vary from year to year.

Source: MDRC 2010, p 35

the summer or early fall.⁷² From September to late November, the district holds high school choice fairs (where schools have information booths for students) information sessions and assemblies. Schools offer students tours and conduct interviews.⁷³ At the end of this process students fill out a form listing their 12 top choice schools in rank order. Once students have made their choices, control of the choice process moves from the students to the schools and the Department of Education. In the choice process, schools set priorities for the students who will be admitted. At screened and selective schools, students are partly matched with schools based on their academic performance, portfolios or scores on the Student High School Admissions Test (SHSAT).⁷⁴ The majority of schools are not assigned students based on student's academic performance. Even so, 'non-selective' schools of different types exert less or more control over the students that they receive, as explored below. In Zoned schools the matching process prioritizes students in the area near the school. At Unscreened schools, students are assigned at random.

Limited unscreened schools are particularly important both because they have grown the most during the Bloomberg administration and because the admissions policies have been controversial. Limited unscreened schools provide a list of preferred students for admittance based on students who have shown interest in the school by attending open houses, visiting the school or visiting the school's booth at district-wide school fairs. Schools that offer pre-high school programs can prioritize students who already a part of the school system. For example, in

⁷² The directory is translated into nine different languages.

⁷³ Students who are seeking admission to selective high schools take the SHSAT at this time as well (see page 223 for more information about the SHSAT).

⁷⁴ Screened schools require minimum academic achievement levels for admission. If they fail to attract enough students who meet those criteria, they then accept students with lower scores.

a 6th grade through 12th grade school, students who have attended that school from 6th grade will be prioritized in the high school selection process over students from other schools.

By December, students have listed their preferences for schools and schools have listed their choices for students. The Department of Education then uses a computer algorithm, the High School Applications Processing System (HSAPS), to make matches. The algorithm brings together student's data – their preferences, academic records, places of residents – and the priorities of the DOE and particular schools – place of residence, scores on state tests and prior attendance, for example.

The algorithm was the result of a decades-long research agenda in the subfield of economics known as game theory. The “stable marriage problem,” which is the issue of optimal matching between two parties with specific preferences, had been a concern in game theory since the 1960s. In 1962 David Gale and Llyod Shapley proved that it was theoretically possible for any equal number of men and women, to match them in stable marriages according to their preferences (Tullis 2012). They argued for an iterative process, meaning, improving the matching process with each round of proposals between men and women. At the end, the process guarantees that everyone gets married and that the marriages are stable i.e., there is no possible way for anyone to trade up to a more preferred partner who is available. Using the stable marriages problem as a model, three economists Atila Abulkandiroglu, Prag Pathak and Alvin Roth derived an algorithm that was used to match students with schools. In 2012, Roth won a Nobel Prize in Economics for their work. The matching model was based on a system that Roth had designed to match medical students with residencies (Tullis 2012).

This matching system vastly improved the ability of the Department of Education to pair students with their preferred schools. The number of unpaired students dropped from 31,000 in

2003 to 3,000 in 2004, the first year that the system was used. Students were paired with preferred schools more often as well. In 2011, 52 percent of all students received their top choice, three out of four were matched to one of their top three choices, and 89 percent of students were matched with one of the 12 schools that they had selected (Tullis 2012). Those students who were not matched in the first round or who rejected their matches went into a second round of matching that took place in April. Finally, those students who were unhappy with their final placements could appeal in to the Department of Education in June.

Controversy over Choice

The choice process solved many of the technical problems involved with pairing students with schools. However, there were several sources of concern. A constant source of criticism of the choice system, from when Friedman proposed it through the Bloomberg Administration has been that it allocated students to schools in ways that privileged or savvier students and parents; i.e., those with more time to investigate schooling options and those with the educational background to make good use of what they find. The High School Applications Processing System could assure matching that was optimal in terms of the preferences that students and schools indicated. However, it can do nothing for the students who makes poor choices when filling in their applications. Studies found that the system placed poor students in the worse performing high schools (Nathanson et al. 2013, p. iv).

Educators in some high schools and critics felt as if the better students were leaving their schools and worse students were pooling in schools that were already serving difficult populations (Ravitch 2010). Researchers and critics also complained that the choice process did not stop with student assignments. Some selective schools counseled difficult to manage students to leave. Non-selective schools would then be responsible for this challenging population of

students. In interviews, educators and critics of Mayor Bloomberg's reforms emphasized this point consistently. They believed that choice was a mechanism for the relatively privileged to sort themselves into better schools and for better schools to sort out the most challenging students (West 2011-12). Academic researchers also found that, in their initial years, schools filtered in better students and encouraged students who were not performing well to transfer elsewhere (Jennings 2010).

Finally, there was the issue of what to do with students for whom there was no data and no application. According to one count in 2008, 12.7 percent of first time high school freshmen were assigned to a school after the choice process had concluded (MDRC 2010). These so called over-the-counter students came into the school system with no traceable history of previous educational performance. Such students were assigned to schools rather than participating in the choice process. The Department of Education assigned them to schools, often near their homes, into zoned schools with no entrance requirement. Faculty in zoned schools argued that these new students were often difficult to educate. Assigning these students became a contentious issue because, "a large influx of these over-the-counter students can undercut administrators' efforts to mold and shape the population of students" (MDRC 2010, p. 33). Sorting students created challenges for the system of accountability.

Accountability

As shown above, accountability in education has taken many forms. Just prior to Bloomberg's reorganization, education governance had been premised on the competing (sometimes warring) forms of accountability – local democratic control, and professional standards. With mayoral control, external or political accountability shifted to Mayor Bloomberg. A generation of education scholars, Mayor Bloomberg and supporters of educational

reform argued that the problem with languishing urban school districts was a lack of direct lines of accountability (Hess 2008, Kirst and Edelstein 2006, Henig and Rich 2009). Schools needed a ‘CEO’ who is both responsible for management and accountable to the public when schools fail to perform. In this structure, reimagined under the analogy of corporate governance, the Mayor was responsible for school performance and his Chancellor was his direct agent in securing improved outcomes.

Within the education bureaucracy, accountability shifted down the administrative hierarchy to individual schools. With the Children First reforms, schools were managed as relatively autonomous vendors of education services and held accountable to standards set by the Department of Education. The Department created the Office of Accountability to set standards and make evaluative tools that enabled management at a distance. In the language of one designer of the system, schools traded greater autonomy – which meant giving “schools decision-making authority to customize decisions over budgets, staffing, and instructional programs” – for more accountability (Mark 2012).

In the reorganized Department of Education, the role of superintendents changed in ways that reflect this shifting of control to top managers and accountability to school-based educators. Prior to 2003, superintendents had been managers responsible for oversight of schools within their district. In the DOE they were assigned to Children First Networks. School principals could choose external administrative support from a list of competing Children First Network providers for which the superintendents worked. The network providers are separate bureaucratic entities within the Department of Education. Each lists a mission, organizational structure and areas of expertise. Principals use the Network Directory, another publication of the Department of Education to find and select their Children First Network.

Children First Network providers were responsible *to* schools, which is to say that principals choose which ones to hire for assistance. This contrasts with the system that it replaced in which superintendents were responsible *for* schools, which is to say that, as managers they were partly responsible for the success of the school (Wohlstetter et al. 2013). Through this bureaucratic realignment the DOE emphasized autonomy from mid-level bureaucratic structures and accountability to centrally defined standards.

Accountability took two forms. The first was internal or administrative. The Department of Education created policies and technologies that managers at the center of the bureaucracy used to make decisions. The second form of accountability was external, public or political. Measures of school performance were to be used by the public to judge the quality of schools, the Department of Education, and the decisions of the Mayor. To meet this goal of public accountability, meaningful information about the quality of individual schools and the overall reform strategy had to be communicated to both expert and non-expert members of the public in forms that were legible. The public could only hold schools and the schooling system to account if it could know what was going on within the system.

Mark, an administrator who helped design one of the evaluative tools used to make schools accountable, spoke about the challenge of meeting both of these goals, at length. He said:

Progress reports are meant to serve ... two basic functions, which sometimes come into conflict. One function... that tended to dominate was a performance management function. The idea was to evaluate schools on ... outcomes that the DOE and most educators feel are important. The second goal is informing the public about school quality (Mark 2012).

Public accountability came in part through parents where to send their children to school. Summative evaluations, which mark schools with letter grades, are used to enable parents and students to understand the quality of a particular school so that consumers of public education

can make different and hopefully better choices about which schools to attend and which ones to avoid. Through this process of choice, consumers of education will hold poor performing schools accountable.

The market mechanism and consumer model of education choice were supposed to be part of a larger project of enlisting the public in an idealistic goal of what one administrator called ‘democratic inquiry’ (Liebman 2003). Data and evaluative tools created by the Department of Education were designed to be legible so that parents could make better decisions about which schools to apply to in the choice system. They were also designed to be legible so that the public could meaningfully participate. In this theory of action, concerned publics would form around schools that were shown to be problematic through the evaluative system and demanded improvement. In what follows the two sides of accountability will be explored. First the mechanisms of evaluative accountability will be described and then the mechanisms of external or democratic accountability will be examined.

The Office of Accountability

After the Mayor took over formal control of New York City public schools, it was four years before the Department of Education created the Office of Accountability and 5 years before the key evaluative tools, the Progress Report and the Qualitative Review were used for the first time. The Office of Accountability was officially launched in April 2006. It was created through a bureaucratic reorganization rather than the passage of new legislation.

James Liebman, a prominent law professor and expert in death penalty litigation at Columbia University, was hired to lead the Office of Accountability in 2006. According to popular accounts, Liebman contacted schools chancellor Joel Klein as an advocate for dual-language programs. The two began an email relationship, and in the summer of 2005 Klein asked

Liebman to take the position. Klein recounted “Most law professors would say, ‘It’s all very interesting, but why would I leave teaching to do this... To Jim’s great credit he did it” (Hernandez 2009). These accounts are somewhat undercut by the fact that Liebman had published on data-based education reform prior to 2005 (Liebman 2003).

Critics were wary of hiring a law professor to design a system for evaluating and sanctioning schools and unhappy with the design of the system. ‘Alex’, a full professor at a local university, widely known as an expert in student research was invited to provide input on the creation of the Progress Report. He said that he was “surprised by the narrowness of the scope of the questions that [Liebman] was willing to entertain” (Alex 2012). Alex said that his input was not well received because he disagreed strenuously with the idea that the data generated through the tools they wanted to use were designed to produce meaningful information for assessing school quality. “I said I think that’s a bad idea” he said, but there wasn’t “any kind of ... real exchange” because administrators were “already committed” to the evaluative tools (Alex 2012).

Liebman hired contractors who were not deeply experienced in school evaluation.

According to Alex:

The contractor was KPMG [a business consulting firm] and they didn’t have a whole lot of technical expertise ... on survey analysis... They didn’t seem to know very much about psychometric stuff. I mean how do you develop a scale that’s supposed to represent [student] engagement or whatever (2012)?

The fulltime DOE staff who were hired to design and manage the systems were young, students with professional graduate degrees from elite universities, including Harvard, Columbia and New York University. Administrators typically had degrees in fields other than education. In this way, the creation of evaluative tools mirrored the staffing choice of Mayor Bloomberg, who chose a lawyer to head the DOE, and Klein who hired a constitutional lawyer to develop the accountability system.

An administrator who worked in the Office of Accountability when it was created indicated that they were in a rush to launch the evaluation program in part because of fears that Mayor Bloomberg would not be elected to a second term (Alexandra 2012). By the time that the Department of Education had reached out to Liebman, the Mayor was just months away from the November vote. Those who had worked on evaluative measures before Liebman arrived sought to produce tools that became part of education system. After Bloomberg’s reelection and Liebman’s hiring, the Office of Accountability consolidated the push for new methods of evaluation and expanded its role. Budgetary allocations from 2007 to 2009, summarized in Table 8, show its growth.

Table 8: Expenditures on the Office of Accountability			
	2007	2008	2009
Total DOE Budget	\$18,373,575	\$20,078,756	\$20,436,744
Office of Accountability Expenditures	\$64,800	\$129,600	\$105,000
Percentage of Total	0.35%	0.65%	0.51%
<i>Sources: Independent Budget Office, 2009. Author's Calculations</i>			

The Office of Accountability was organized around three major tasks: evaluation, enabling and enforcing consequence, (see Figure 11). The first job, evaluation, included all tasks related to gathering data on student, teacher and school performance.⁷⁵ The second job, enabling, included all tasks related to sharing knowledge from the evaluation system with practitioners in

Figure 12: Accountability Training Graphic 1

SCHOOL ACCOUNTABILITY IN NEW YORK CITY			
WHAT	EVALUATE	ENFORCE CONSEQUENCES	ENABLE
HOW	<p>Progress Reports Grades based on student outcomes</p> <p>Quality Reviews Scores based on performance management criteria</p> <p>School Survey Parent, teacher, and student surveys about school environment</p> <p>Federal and State Evaluation Measures of schools' Adequate Yearly Progress and accountability standing</p>	<p>Rewards Monetary bonuses</p> <p>Consequences Restructuring or phaseout of chronically failing schools</p> <p>Aligned Mechanisms City and Cluster performance targets, Principals' Performance Review and bonuses, school-wide teacher performance bonuses</p>	<p>Periodic Assessments Diagnose and track progress</p> <p>Office of Achievement Resources Hands-on data training through collaborative teacher teams</p> <p>Achievement Reporting and Innovation System (ARIS) Fully integrated knowledge and data management</p> <p>Knowledge Sharing Support structures and tools for collaboration and knowledge sharing</p>

NYC
Department of Education
Kathleen P. Beck, Chancellor

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Source: Office of Accountability Training Presentation 2012

order to help them assess and improve their teaching and administrative performance. The Office created a database designed to be used by school faculty. Enabling also had a goal of providing

⁷⁵Staff at the Office of Accountability gathered data by surveying teachers, students, parents and guardians, by visiting schools and by collecting data on test scores, graduation rates and credit accumulation at each school. These data were quantified, given statistical weights and used to assign a letter grade to each school. Test scores, graduation rates and credit accumulation were given the greatest statistical weight in determining student scores. The most visible product of evaluation was the school Progress Report which had a letter grade and other information about school performance.

accessible information to community members who could use it to make more informed personal and political choices about schools (Shore 2010).

Finally, the third task, enforcing consequences consisted of providing monetary rewards for school staff who scored well on performance measures or closing schools that score poorly on the Progress Report (Shore 2010).⁷⁶ These three elements of the Office of Accountability have the effect of centralizing control and creating new forms of quantitative evaluation and knowledge. In this system, quantitative evaluation supplanted the situated professional knowledge of teachers and administrators.

The Office of Accountability designed and managed two important evaluative tools, the Progress Report and the Quality Review. Launched in 2006, both tools were subject to frequent revision because of problems with consistency.

The Progress Report used several measures of student and school success and assigned each school a letter grade. The letter grade element was designed to be straightforwardly legible to parents. The calculations for arriving at the grade were supposed to use only basic math so that the public could reproduce the results. The designers of the progress report endeavored to make it accurate, clear, fair and responsive to input from parents, teachers and students (Shore 2010).

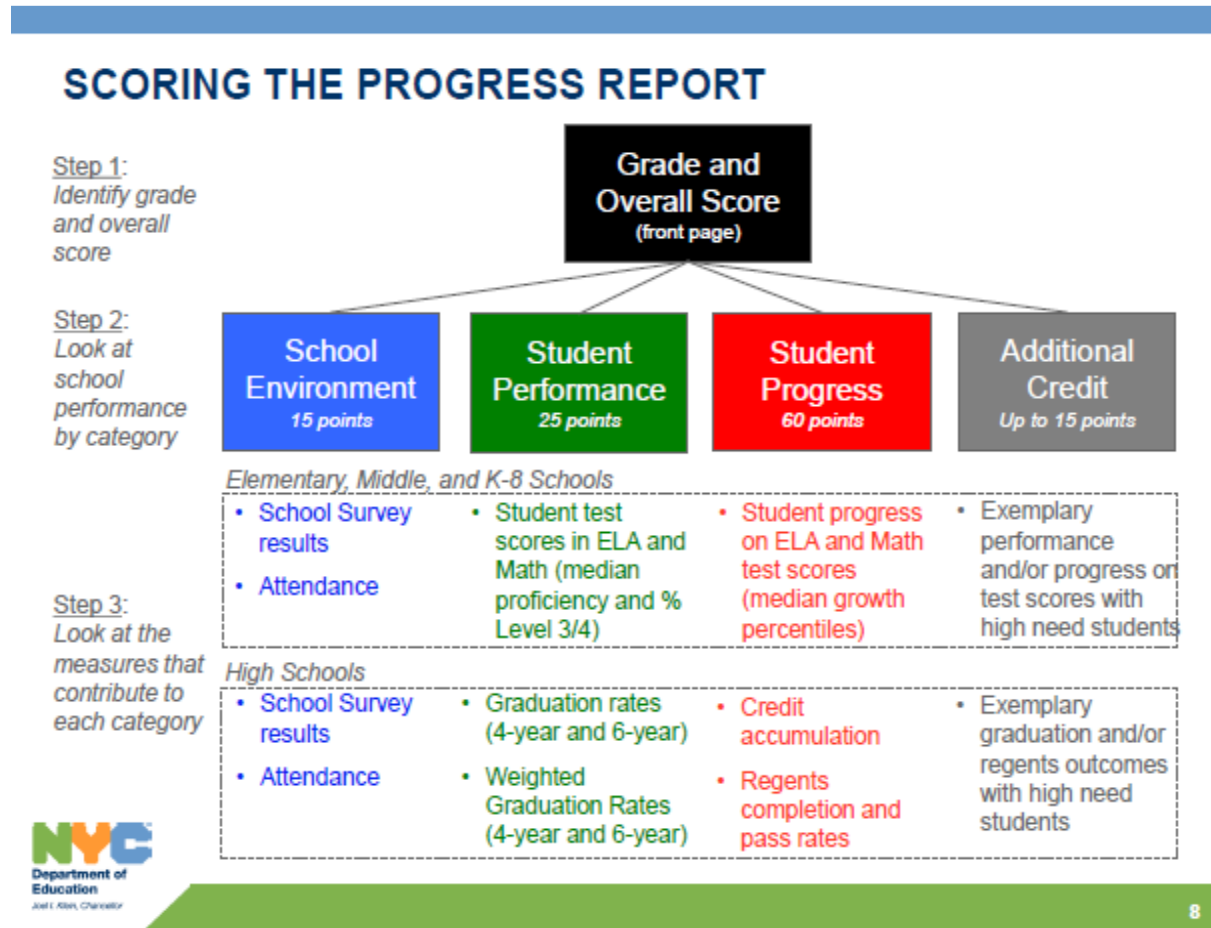
The Progress Report relied on data from school surveys, attendance records, student scores on state tests, graduation rates, credit accumulation.⁷⁷ As shown in Figure 12 below, student test scores alone accounted for 85% of school scores for elementary and middle school students in 2011, from which this example is drawn. For high school students graduation rates,

⁷⁶ When assessments led to recommendations for school closure, the Chancellor and Panel for Education Policy were formally responsible for making the decision.

⁷⁷ Which represents the number of classes that the student has passed from one grade to the next.

credit accumulation and test scores together accounted for 85% of the grade. In elementary and middle school, tests accounted for much more of the Progress Report grade.

Figure 13: Accountability Training Graphic 2



Source: Office of Accountability Training Presentation 2012

In order to encourage poor performing schools to improve, the system measured yearly progress rather than simply the raw scores of schools. So, for example, a school that improved the performance of low-achieving students on state tests scored more highly than a school in which high-performing students consistently scored high on tests. Progress reports were weighted heavily to reward improvement among poor performing students. The Office of

Accountability attempted to inscribe values of improving the worst schools and focusing attention on the worst students (Division of Performance and Accountability 2010; Shore 2011).

The Progress Report proved to be volatile, the measures of school performance varied widely from year to year. To take a widely discussed example, across all schools, 23 percent of schools received an A grade on the Progress Reports released in 2007, 38 percent received an A in 2008, and, in 2009 the percentage jumped to 84 percent. Much of this volatility was the result of changes in the State tests. Scores plummeted in 2010 as a result of a readjustment of the cut-off scores for passing on State tests and then again when the State adopted the Common Core test in 2012. At the individual school level, teachers and administrators complained of receiving an A one year and a C the next, while little changed in the classroom, according to a senior administrator in the Department of Accountability (Leanne 2012, Randell 2012).

The Progress Report was also subject to constant revision. After 2006, the metrics used to measure school performance were changed each year. In interviews, Liebman and two of the designers of the Progress Report argued that steps had repeatedly been taken to address the problem which arose out of efforts to compare the performance of students and schools relative to others that had performed similarly in the past. This effort was born out of the goal of measuring progress rather than the absolute scores of schools. Measuring progress was important for the goal of evaluating schools for administrative purposes, but it tended to confuse teachers and principals, especially those in struggling schools (Wright 2009, Leanne 2012, Crystal 2012, Randal 2012).

Qualitative Review

The other measure of school performance, the Quality Review, was designed as ‘a leading indicator’ to give administrators an idea of the work that school staff were doing to

improve student performance (Pat 2012). These evaluations were based on three-day visits to individual schools by evaluators, who used an evaluation rubric and qualitative methods to judge each school. Quality Reviews were reported in terms designed to be simplified and legible to the public; schools were given a summative mark of ‘underdeveloped’, ‘developing’, ‘proficient’, and ‘well developed’.

Cambridge Education, a British consulting firm that specializes in evaluating and improving schools, conducted Quality Reviews From 2006 to 2009. Top Office of Accountability administrators saw Cambridge Education as deficient because the consultancy consistently rated approximately 85 percent of schools as either proficient or better (David 2012). This led to a situation in which many schools that received poor scores on the Progress Report were graded as proficient on the Quality Review. Schools that were targeted for closure used the Quality Review score as an argument to stay open. The tenor of the Quality Review – that most schools were performing well given the challenges on the ground – did not fit in with the overall objectives or perception of leaders within the Department of Education.

The Office of Accountability put an internal administrator in charge of the Quality Review because of their dissatisfaction with Cambridge Education. David was promoted in 2010. Prior to taking over the Quality Review at the Office of Accountability, David had worked as a Department of Education employee coaching schools on how to improve their Quality Review scores. His reviewer staff consisted of approximately 70 long-time administrators, superintendents, consultants and others who had worked in leadership positions in the Department of Education. He was tasked with changing the evaluation process to bring the Quality Review scores “closer to a normal distribution” (David 2012). He was also, “challenged to show data on improving” alignment between the Quality Review and the Progress Report.

These two objectives required significantly lowering the number of schools rated proficient. In his first year heading the Quality Review, he re-weighted its components in order to bring it closer to the desired distribution. This method did not work. Approximately 90 percent of schools were judged as proficient, an increase over past figures. The following year his office undertook a comprehensive effort to build a common understanding among reviewers of what ‘good’ and ‘bad’ looked like, what was known as ‘norming’ (David 2012).

The process of norming involved training reviewers to hew closer to the criteria of the Office of Accountability. This goal was achieved through new, intensive training sessions in which reviewers conducted mock reviews with senior staff from the Office of Accountability present. Participants and senior staff watched teaching scenarios, evaluated how teachers performed separately then presented and defended their choices to the rest of the group (West 2013). David’s group also produced a simplified evaluation rubric and trained staff to pay closer attention to it. In the 2011/ 2012 school year, two years after David had taken over, quality review scores dropped dramatically, with only about 60% of scores rated proficient or above. Additionally the scores on the Quality Reviews more closely matched those on the Progress Reports (David 2012).

The promise of simple, consistent internal accountability proved to be difficult to achieve with the Progress Report and Quality Review. Part of the challenge of using the tools for evaluation was that they were being continuously revised based on the objectives of the Department of Education (like bringing Quality Review scores into line with Progress Report scores). They sought to improve them based on their own definitions of accuracy and fairness and also in response to the comments of educators. The Office of Accountability held annual trainings and feedback sessions with principals and other administrators. They incorporated their

feedback into changes in the evaluative tools. Mark, the designer and first manager of the Progress Report and others within the Office of Accountability described this as a process of experimentation or learning by doing. For those within the Office of Accountability, this spirit of constant improvement was exciting and motivating (Pat 2012, Cathy 2012, David 2012). For those subject to accountability measures, seeking to understand why their school was closing or why they failed to receive a merit-based bonus, the constant change was vexing and seemingly arbitrary (Wright 2009, Leanne 2012, Crystal 2012, Randal 2012).

City-Wide Controversy Transparency v. Layers of Knowing

Internal accountability using the Progress Report and Quality Review was challenging because the goals of continual improvement of evaluative metrics conflicted with the goals of providing stable measures of school performance. This same challenge undercut theories of external or political accountability. An important argument in favor of turning control of schools over to the Mayor was that his success or failure was more visible to the public. In theory, the public would hold the Department of Education and ultimately the Mayor to account for school performance through the election process. Assessing the performance of the Department of Education was not simple, however. The impediments to judging the overall success of the Mayor's agenda are explored next.

Volatility in Testing

Mayor Bloomberg justified the creation of the Office of Accountability in 2006 and broader changes in education policy in New York City by promising improved educational outcomes as measured by standardized tests administered by The State of New York. In his first mayoral campaign in 2001, Mr. Bloomberg linked his suitability as a candidate to improved test scores when he said: "If four years from now reading and math scores aren't significantly better

then I will look in the mirror and say that I have been a failure. I've never failed at anything yet, and I don't plan to fail at that" (Medina 2010).

As Table 9 reveals, from 2002 until 2009 it looked as if Bloomberg's strategy was working; fourth and eighth grades scores on State tests improved in reading and math. Even before test scores dropped in 2010, the Progress Report System proved to be volatile, with school grades varying widely from year to year.⁷⁸ As a spokesperson for the Department of Education, Matthew Mittenhal said, "Everything is being rejiggered to take into account this fluctuation" (Otterman and Gebeloff 2010). Rather than providing a stable benchmark for improvement, the school grading system has been continuously changed, creating shifting criteria for school success.

Year	Reading		Math	
Grade	4th	8th	4th	8th
2002	52	30	46	30
2009	85	71	69	57
2010	58	46	46	38

Source: IBO 2010

In his 2009 campaign bid for a third term as mayor, Bloomberg heralded improved school test scores as a justification for his reelection. In 2010, much of the progress simply disappeared, with student scores dropping an average of 24%. This drop in test scores resulted

⁷⁸ As State test scores soared, more schools received passing grades and more teachers received bonuses. When test scores dropped in 2010, the Office used a strong curve to adjust for the wildly different scores of students. One reason for this volatility, according to Alexa Shore, a former employee at the Office of Accountability is that New York State student tests, which are heavily weighted in the Progress Report, are not a stable measure of student performance. In the aftermath of the drop in test scores, Shale Polanski-Surnasky the head of the Office of Accountability has been working with the state to improve the 4th and 8th grade tests that are so important to the New York City system of accountability.

from a recalibration of state test scores.⁷⁹ The precipitous drop in test scores may or may not indicate that students are learning less. For activists and, especially, critics, it reinforced their belief that the measurement system was flawed or arbitrary.

As was the case at all levels of the accountability system, when test scores dipped as a result of the recalibration of State tests, the problem of volatility was described as a technocratic problem that fit within the overall strategy of school accountability. As Marryl Tische, the chancellor of the State Board of Regents, said at the time, “Now we are facing the hard truth that not all of the gains were as advertised, we have to take a look at what we can do differently. These results will finally provide real, unimpeachable evidence to be used for accountability” (Medina 2010).

The administration argued that the political decisions that had been made based on inflated data were justified because testing data, even if it is flawed, is the only means for making rational decisions about school policy. The Deputy Director of Mayor Bloomberg's reelection said the administration had no regrets about focusing on exams for making school policy decisions. During Bloomberg's reelection campaign he said “What's the converse...that we don't test and we have no way of judging success or failure?” (Medina 2010).

Ultimately, the administration sought to fix the problem of test score fluctuation by implementing a nation-wide exam called the Common Core which, it was argued would provide a stable and rigorous basis for evaluating schools and a more rigorous exam in terms of content and subject matter. In 2013, the first year that the Common Core exam was administered, student performance once again plummeted, the number of students who scored ‘proficient’ or better fell

⁷⁹ State officials recalibrated the test because they believed it had become easier over the same period in which New York City students improved their scores.

by almost 30% and more than 70% scored below that cut off level in math and English (Kirp 2014). Once again, supporters explained away this drop as a necessary step for achieving true and reliable accountability measure (New York Times Editorial Board 2013).⁸⁰

After twelve years of school governance the base-line measure for student performance has been remarkably unreliable with a ‘bubble’ in student test performance occurring after each recalibration of the testing tools. External accountability, voters holding the Mayor to account for school performance, was complicated by the volatility of the information that the public was given to make judgments about schools.⁸¹ The promise that the Mayor made at the beginning of his term, to judge his failure or success based on the numbers, has proved to be more challenging than it seemed.

An obvious challenge to this form of political accountability in education is that voters are only given an opportunity to express their satisfaction or dissatisfaction with the Mayor once every four years and had no direct recourse over education policy at all. After the implementation of the Common Core standards, after Mayor Bloomberg’s final term was complete, parents started an ‘opt-out’ protest against testing. In 2015 New York City 20 percent of New York State students did not take the Common Core aligned test (Harris 2015).

Information Sharing

Understanding the success or failure of the school reforms have also been obscured because of the Department of Education’s unwillingness to share information. When control of

⁸⁰ The Common Core is described by supporters, like the New York Times Editorial Board, as less prone to revision and therefore more stable. It also tests students on more challenging materials, thereby, in theory addressing one of the criticisms with State tests, that they were too narrow, and that they used the same testing materials for multiple years, making it easier for educators to teach narrowly to the test.

⁸¹Other, national tests, (NAEP) have shown some improvement in New York City schools. Graduation rates have also improved during Bloomberg’s tenure.

schools was shifted to the Mayor in 2003, a broad array of education scholars based in New York City sought to create a repository or clearinghouse for the data that the Department of Education produced. Instead, a governing board that included Klein among many other important figures in New York City public education, rejected that proposal.⁸² As a result The Department of Education controls the production and dissemination of the data used by outside scholars to review its work (Alex 2012).

The challenge of the Department of Education controlling access to data became clear when the State mandated that it share information. In 2009, as part of a deal to renew Mayor Bloomberg's control over schools, the State Legislature sought to create an external source of information on school performance. The Independent Budget Office (IBO) served this role. The IBO was created in 1989 through a revision to the New York City Charter as a non-partisan authority that operates outside of the budgetary control and management of the Mayor, reporting to the City Comptroller and the Public Advocate, both of which are independently elected offices. At its inception, the IBO was guaranteed 10 percent of the funds allocated for the Mayor's Office of Budget and Management (OBM). In 2009, when the IBO was given the additional mandate of conducting research on city schools, this allocation was increased to 12.5 percent of the annual budget for the OBM. Importantly, these percentages are mandated by the State, which means that the IBO has autonomy from the Mayor both in terms of its budget and in terms of its lines of reporting (Richard 2012; [www. ibo.nyc.ny.us](http://www.ibo.nyc.ny.us)).

⁸² From all accounts the motivation for rejecting the proposal had to do with the complex reporting structure that would have been required with the broader consortium. Instead, the Research Alliance for New York City Public Schools was created within New York University's Steinhardt School of Education. It must apply to the Department of Education for access to school data.

The creation of an independent education policy analysis shop in the IBO arose out of uncertainty about the validity of claims of success by the Mayor and the Department of Education. When the State set out to decide whether to extend mayoral control:

The main point of advocacy on the part of the DOE for continuing mayoral control in the form in which it existed and continues to exist was essentially that they had been successful. That test scores were rising and that the high school graduation rate had been rising under their watch over the previous eight years (Richard 2012).

As described above, these concerns about judging success based on rising test scores were well-founded, as subsequent recalibrations in the tests resulted in a large dip in students graded as proficient. Even before the dip in State tests, other layers of testing provided ambiguous results that called into question the claims of success by the Department of Education. While State test scores for city students showed double-digit improvements on tests, a national test, the National Assessment of Education Progress (NAEP), showed much smaller improvements in student performance in the same subject matter.

An administrator at the Independent Budget Office, whom I will call Richard, described the context in which the IBO was given the additional task of evaluating school policies as follows:

It was felt that there was not enough public light being shed on what was behind the numbers. So, a small part of the bill to reengage mayoral control was that IBO would be given this mandate (Richard 2012).

This effort of ‘shedding public light’ on system-wide school performance resonates with the overall objectives of governing with data set out by the Department of Education, but the process of doing so came to be another source of contention and politics.

Contention revolved around what sort of data the Department of Education was supposed to share with the IBO. In order to make independent assessments of school performance, the IBO requested a consistent and defined stream of information on city schools. In this way the IBO

was supposed to be able to conduct its own research on school performance across a variety of different measures based on the same data that the DOE used. Such a transfer of information never occurred. As Richard stated:

We're now three years into this... Data remains an ongoing issue... [The IBO] had to spend just about a year negotiating with the Department of Education around the data sharing agreement... The DOE threw up a lot of road blocks around FERPA, the Federal Privacy Act, claiming it was privileged information (Richard 2012).

Eventually, the IBO signed a memorandum of understanding with the Department of Education with regards to protecting the confidentiality of student identifying information. The Department of Education was supposed to scramble student identifying numbers before sharing information.

Resolving the issue of protecting identity proved to be only one hurdle towards the goal of sharing data for analyzing school performance. In the Fall of 2010, the DOE gave the IBO a 'dump' of data dating back to the 2000 - 2001 school year. While the data set was relatively complete, there were certain kinds of requests that the DOE could not fill because they did not collect data on it, as with, for example, school-level budgets and summaries of central office budgets. The DOE's data system did not collect that information using the same computer program format. Before Mayoral control there were separate accounting systems.

These technical issues notwithstanding, the data system, which collected information on each individual student in more than 1,500 city schools, contained ambiguities and irregularities.

As the administrator within the IBO said:

The New York City [Department of Education data] system is huge as you know... Data entry happens at the School level. And it goes into different systems and what not. And so there are things that go in in error. The kids are miscoded. A lot of what happens is there are conflicts between two different systems at the DOE (Richard 2012).

Individual teachers entering data led to data entry problems and multiple systems of data collection led to ambiguities.

The mobility of the student population also created problems with data collection, resulting in duplicate records as students enrolled in the *same* school in different ways (e.g., with different names) or enrolled in *multiple* schools at the same time. As a result, when the IBO asked for all data, the technology staff said, “well, you know, for some these kids I have 80 records in one day because there were misspellings” miscodings, and multiple enrollments at different schools (Roger 2012).

These problems with counting have proved to be surmountable. The DOE and the IBO cleaned the data, combined duplicate files and got closer to an agreed upon data set. Technical ambiguities, however, have led to conflict especially when the IBO came closer to publishing finished research papers. As part of the memorandum of understanding for data-sharing between the two agencies, the IBO had to give the DOE any research products five days in advance of publication. The agreement made clear that the DOE did not have the right to censor or change findings. Moreover, the IBO maintained this arrangement with all city agencies that it evaluated. “We don’t want to put things out in error, so we’d like to get feedback” said Richard. He goes on to argue that “the DOE has been in this regard difficult... We read the data and then we produce the report and then they say ‘no it’s wrong’ and sometimes with a high degree of emotion. ‘You guys don’t know what you’re doing. You’re incompetent’” (Richard 2012). In most cases, the disputes came down to the meaning of data. For one report this debate became especially contentious.

So we read the file and one of the data indicators is whether or not – a simple yes or no – the child is a special needs student – and we count that up. I’m not doing complex analysis here, right? ... The question was: Have the closing schools been getting a greater percentage of special needs kids. So we use their data. We count them up simply. [The DOE responds], ‘oh that’s not the file you should look at to count’ (Richard 2012).

This back and forth takes up considerable time.

Problems of interpretation are magnified by turnover of staff. Incoming technical staff at the Department of Education has claimed that the data files that the IBO received in the past are not the most accurate ones. “The people who I’ve been dealing with in the last six months have essentially taken the position that the files – that initial data dump of ten years of files [they say] ‘we don’t know how that was done’. So they started sending us different files to replace the ones that we had” (Richard 2012). Administrative staffing affects the consistency of knowledge sharing between the Department of Education and the Internal Budget Office.

These ambiguities and problems are, to some extent, to be expected when monitoring and evaluating such a large and complicated organization. However, the combative stance of the Department of Education was a prominent theme not only in interviewing staff at the IBO but in speaking with researchers throughout New York City. A final quote from Richard exposes this issue:

Here’s the question I keep coming back to. If the data is messy, how can they be so sure that we’re wrong? ... It is not uncommon in research or data analysis for two separate, well intentioned, fair minded bodies to look at data, realize that there are complexities in it and each make very fair but different assumptions or decisions... Quite honestly, the DOE’s public position seems to be ‘If you don’t look at the data exactly the way that we do and get the same answer then you’re wrong’. And that’s the parameters of the ongoing argument (Richard 2012)

The substantive differences between the IBO and the DOE on some research topics were not all that great, but the Department of Education approached these questions as an interested combatant in the production of new knowledge about schools, rather than as professional analysts with a commitment to strong, stable facts that can be used for governing.

This combative tone was even more pronounced with public critics who took a negative attitude to the DOE policies. For example, Diane Ravitch, a one-time supporter of testing and accountability who came to denounce these tactics for governing schools when she saw them put into place in New York City, was regularly confronted with a group of DOE researchers who

became known as the ‘truth squad’ at public appearances. The DOE assigned a group of researchers who discredited her on the grounds that in an earlier era she’d said things counter to her current critical stance (Alex 2012, Ravitch 2011). The Department of Education did not sit back and let the data speak for themselves. Rather it undertook a concerted effort to manage research (Green 2008).

Even for those who had been supporters of the restructuring of the Board of Education that brought about the creation of the Department of Education and the Office of Accountability, there is a sense that the new systems of accountability are one-way mirrors (Cathy 2012). Central city administrators use data to judge the work of schools and teachers, but they are uncomfortable having this relationship of knowledge (and power) reversed, with researchers or school-based practitioners using data to question the decisions of the Department of Education. More fundamentally, aside from the IBO, which continues to struggle with data access, there is little public discussion of the quality of the data and the assumptions built into the evaluative tools (Alex 2012). The DOE places itself in the position of producing knowledge about schools - which has serious consequences for schools – while itself avoiding scrutiny.

The IBO encountered challenges accessing data and delays in drawing final conclusions from that information. It is important to think of the experience of the IBO relative to the overall premise of governing put forth by the Department of Education. According to this model, individual parents become consumers of information and make new and better decisions based on it. This is the consumer model of citizenship. Data in the form of simplified assessments of school performance reveals the value of schools. Moving from consumer citizenship to political citizenship means having the means to call into question the decisions of the Department of Education based on differing interpretations of data or even the usefulness of governing with

data. As we have seen, a legally-empowered entity staffed by professionals was strongly challenged when they deviated from the Department of Education's findings based on its own data. Below we explore a case in which educational professionals at a school that was identified for closure sought to question the decisions of the City using data-based arguments.

DeVasco Data, Deliberation and Democracy

The case of DeVasco High School, shows that the accountability system created perverse incentives and that the accountability system itself is embedded in an administrative structure that is unable to learn from evidence-based inquiry⁸³. DeVasco's was a large, public high school in the Bronx, at one time enrolling about 4,500 students. After years of poor performance it was slated for phase out in the Spring of 2010. Phase out means that the school stops taking incoming classes of students. In 2014, the final class of DeVasco students graduated.

At DeVasco the history of the school and broader power dynamics within the Department of Education are both consequential and unaccounted for in the evaluative system. The school's troubles began before the accountability system was put into place. As a result of the closures and co-location policies discussed above, DeVasco was broken into several small schools. In the Fall of 2002 DeVasco shared space with one other small school and by the Fall of 2003 there were five small schools in the building. Co-location led to overcrowding. In the 2003, 2004 school year, DeVasco had so many students that it held double shifts, with one group of students coming for classes held in the morning and a second group arriving after they left in the early afternoon.

⁸³ DeVasco High School is a pseudonym.

Classes were held in the library, gym and auditorium, often with separate classes being taught in different corners of the same room. There were a total of 124 students per class room that year. This overcrowding created an unsafe learning and working environment and set DeVasco students and faculty apart from the other schools that were located in the building. In an interview, the principal of the school at the time, who I will call Leanne, said:

It was crazy, [we had juniors and seniors come at] so let's say seven o'clock till, I think it was 12 o'clock. Then the freshmen and sophomores came in a little after to 12 and they didn't leave till 6. Only [DeVasco], all the other schools had a normal schedule. That was atrocious. It was just so horrible for the kids, for the parents. We were treated differently. I mean just the whole fact the we were treated differently was such a mental attack, emotional attack on my kids. It's horrendous. It's unforgivable what they did to the kids. (Leanne 2012).

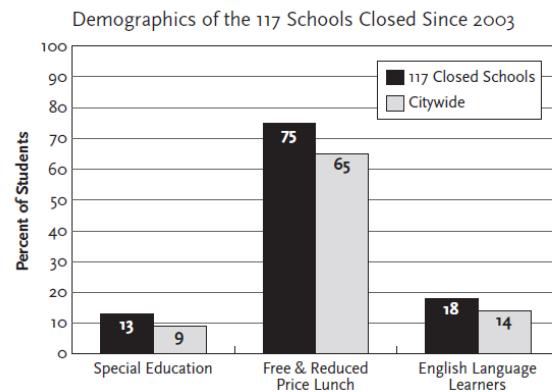
While double sessions were being held a teacher was assaulted by a student and the school became subject to an intensive security regime.

Students in the building during these disruptions struggled to perform on tests, pass courses and graduate. This was true not only during the initial year of the disruption, but in subsequent years as well. Faculty and administration within the school traced the poor performance of those students through years. Students who had been at the school during co-locations, they argued, did not perform well.

This historical context is not represented in the data used by the accountability system. The system accounts for students who fit into certain demographic and administrative categories, but it fails to account for historical events, like the disruption caused by restructuring.

One of the ethical goals of the system was to avoid punishing schools that took on challenging students. At the city-wide scale there is evidence that this did not succeed. Schools that closed worked with more difficult populations as shown in Figure 14 to the of the 117 schools closed

Figure 14: Demographics of Closed Schools



Source: Annenberg 2013

from 2003 to 2011 those that were closed enrolled higher percentages of special need students, relative to the system as a whole (Annenberg 2012, p. 4).

This has given principals an incentive to avoid enrolling students with what one activist called a ‘bad data history’. Leanne described the process as follows:

[Other new schools in the building] take all the kids with undesirable attendance and grade point averages ... and they bring them into the principal’s office and the principal goes, ‘so which transfer schools do you want to go to’ (2012)?

It also creates incentives to enroll or keep students with a high likelihood of improvement. These accounts of Leanne, who was a partisan observer of school choice and accountability, were corroborated by more systematic studies (Jennings 2013).

DeVasco was an open-enrollment school, meaning that it had to accept all students. Moreover, the principal had a strong ethic of taking students that other schools had asked to leave. The Assistant Principal at DeVasco said: “The transfer schools turn away kids that they don’t want. We’ve taken in so many kids that were turned away from transfer schools These kids want to come back to school. [Leanne lets them come back to school]” (Deb 2012). From 2002 to 2010, DeVasco took on more under-performing students. This was because more successful students were recruited to better performing small schools in the building. Often times, the creation of a new small school involved taking students and faculty from high performing

programs in DeVasco and having them start independent schools within the building. It was also because students who did not show progress in small schools were counseled to return to DeVasco. In essence, the data, evaluation and choice systems were used to sort populations based on their data histories, rather than serving students with the most pressing need. Over the same period, the Department of Education sent a higher percentage of special needs students as well. Because of these factors, from 2003 to its closure in 2010 DeVasco enrolled a greater and greater percentage of high-need students.

The city-wide data showed that schools with higher percentages of challenging students closed, but why is this the case? The evaluation systems had been set up to reward schools that could help the most demographically challenging students. Why is it that DeVasco continued to struggle and was ultimately closed? One plausible explanation is that it failed to serve its students well and that the accountability system worked as it was designed.

However, activists at the school, led by a long time educator and union representative whom I will call Chrystal used the data from the accountability system to come up with other plausible explanations. Activists engaged in exactly the kind of data-based inquiry that the Department of Education sought to encourage with its new accountability system. Their research showed that the accountability system was producing perverse effects.

First, Chrystal working with parents from the community and other teachers found that the evaluation system could not account for a school that served such a needy population. Because DeVasco was at the very bottom of all schools in New York City in terms of performance the peer schools that they were being compared with schools that were significantly better.

Second, activists found that they were being penalized for taking on students that had no data history, referred to as over-the-counter students above. Students with no data history may be coming into the New York City Education system for the first time, often from abroad: they may be returning from juvenile detention or another hiatus in their education. By the 2007-2008 school year, DeVasco had a high percentage of these students. The Department of Education uses an approximation of what the performance of such students should be on future tests and other metrics. So, for example, if a student entered the school without having an 8th grade test score he or she was assumed to be able to perform at a certain level of proficiency over the course of her career. Chrystal used city-wide data to argue that the estimates of the Department of Education were inaccurate (Chrystal 2012). If a more accurate estimate of the performance of students with no data history was used in their Progress Report, the school would have performed well enough to avoid closure.

On the strength of their analysis, activists at DeVasco were able to garner the support of prominent officials in the State Board of Education and officials within New Visions for New Schools. These individuals, however had no actual power in deciding if the school stays open or closes. Activists conveyed their arguments to city officials through email and at public closure hearings. City officials with power over the school acknowledged the issues identified by activists, but said that their process for reviewing the accountability system was to take place *after* a final decision about school closure was made (email documentation provided by Chrystal confirms this). At public hearings, city officials were not required to – and did not – reply to the claims of activists.

In effect, inquiry was a one-way affair. Educators at DeVasco were expected to use the data within the parameters defined by the Department of Education. The department had public no mechanism for assessing inquiry directed at its system. As Alex, an interview subject said:

Coupled with their belief in the ability to transform institutions through things like market-based performance incentives was a disinclination to try to bring along stakeholders who could actually make it happen... Bloomberg as CEO might well have been able to do that in the world where he has worked where anything that a CEO says is immediately translated into the action without questions. My guess is that no organization really works like that but it may well be that the kinds of organization that he's headed had more of those features than a public education system that is shot full of contradictions and contradictory goals and multiple stakeholders in ways that they get much more complex enterprise to deal with than a privately run firm.

The case of DeVasco High School highlights several shortcomings with the system. In the hopeful vision of data-driven accountability, new, simplified knowledge made internal social and political processes visible to a wider public, thus enabling new systems of checks and balances, in the form of independent assessments of the phenomena under study. In education in New York City, the public accountability component of using data to govern was stymied by an ineffective system for sharing information. When data sharing was mandated by the State Legislature, this process was complicated by the sheer complexity of the information shared and a combative attitude by the Department of Education. When the data were challenged as part of a political debate over the closure of a school, there was no formal arena to air those grievances. Data that were supposed to serve as a common referent for speaking on behalf of the interests of students and the functioning of schools became instead a multi-layered and ambiguous field of knowledge.

Chapter Eight: Findings Enactment, Contesting and Translation

The preceding two case studies examined policies that sought to make infrastructures governed under the principle of universal access into infrastructures governed under the principle of choice. In what follows, they will be used to provide insights into the transforming nature of liberal governance, reopen debates about rationality in planning, and examine contemporary, technologically mediated citizenship. This chapter starts with an overview of the cases, then draws on the case material to provide answers to the five questions posed at the beginning of the dissertation: First, what was the planning and policy perspective supporting and supported by the rule of choice? Second, what were the political, ideological or technical origins of this movement? Third, how and why did choice-based policies become important and consequential for users providers and users of city services? Fourth who decided what counts? Fifth what can be done?

Summary of Cases

The cases explored the long-term process through which congestion pricing and school choice were imagined by economists, activists and policy designers, became mainstream and were used by the Bloomberg Administration as viable policies. These policies drew on basic principles from micro-economics and simplified data to make claims about the interests of urban residents, the kinds of problems faced by the city and the sorts of solutions that were possible. Data was abstract and decontextualized. My aim in the two case studies was to re-contextualize the construction of the policy perspectives by tracing the routes through which ideas were formulated and spread, following the processes through which data was gathered, calculated and rendered useful as a means for structuring the decisions of urban citizens, and examining the role that interested parties played in shaping the content and impacts of the two policies.

Part of the context provided by the cases involved returning to the texts of William Vickrey and Milton Friedman and examining the academic, intellectual and political circumstances that shaped their ideas. Another aspect traced how their ideas spread. In both cases these specific intellectuals propagated their ideas through advocacy. In the process they created networks of academic, political and professional influence that drew on philanthropic resources and the support of local and national politicians. Their ideas spread through the work of others who believed that they could meet their own aims by adopting the ideas of Vickrey and Friedman. For example, transportation planners saw the idea of congestion pricing as a means to address the energy crisis. Liberal proponents (e.g. Jencks) saw school choice as a method for community empowerment. The ideas also spread and became durable through the process of making or repurposing data and technologies. Vickrey's idea built on and repurposed data gathering and methodological approaches adopted by the first generation of national highway planners. Test scores, translated into school evaluations by the City's Office of Accountability, were the main source of data for making school choice an operable concept.

When these ideas and technologies were taken up by the Bloomberg administration, they were renegotiated through infrastructural, electoral, geographic and distributional politics. When the administration sought to apply abstract ideas and simplified data, it was met with the obduracy of the built infrastructure of the city. Bridges, tunnels and the administrative authorities that generated revenues to support them had been born of generations of construction projects and political promises that were focused on funding individual pieces of infrastructures. That drivers crossed the Brooklyn Bridge into the heart of the downtown for free, while paying \$12 to cross the Verrazano Narrows Bridge to enter Staten Island (on the periphery of the city) was an artifact of these politics. In proposing congestion pricing, the Regional Plan Association, the

Bloomberg Administration and Move New York sought to apply an overall logic to city and regional infrastructure. This logic was based on the idea of creating incentive structures for individual drivers that would reduce and redirect traffic while generating revenue to fund roadways and public transportation. The RPA plan in 2003, PlaNYC in 2007, and the Balancing Free Transit and Congestion Pricing plan in 2008 linked congestion pricing to environmental goals and an overall vision of city-wide mobility that connected driver decisions to funding for public transit.

To put this vision in place, the Mayor needed the approval of the state legislature, with which he had a contentious relationship that was complicated by his desire to replace a Democratic majority with a Republican one so that he could move his agenda for the city with less resistance. State and local politicians opposed to the mayor tapped into long-standing grievances among constituencies on the periphery of the city, while the Mayor gathered the support of central-city interests and national political constituencies. The first round of legislative wrangling did not result in the passage of the Mayor's proposal. The Mayor and his supporters in the legislature sought to arrive at a compromise by renegotiating the terms of the congestion pricing plan, relying on transportation modeling tools to propose different structures. At the same time, advocates unaffiliated with the Mayor, organized as Move New York, created the Balanced Transit Analyzer which used modeling as a tool for gathering support for congestion pricing. Congestion pricing fell victim to acrimony, the electoral strategies of the Mayor and the state legislature. In the wake of this failure, Move New York took up the cause of congestion pricing.

The Mayor was granted total control of schools early in his tenure as a result of trends put into motion as a result of the federal 2002 No Child Left Behind Act. He built on national trends

in education policy that argued that improvement would take place if administrators rigorously evaluated schools and closed the poorest performing ones. At the same time, parents were able to choose among schools, giving them the opportunity to find educational opportunities that more closely matched the needs of their children. Once again for the strategy of restructuring individual choices confronted an institutional and physical infrastructure created under an earlier vision. To create a wider variety of options, the city intensified a policy of subdividing large school buildings into several smaller, administratively and thematically distinct schools. Building on the national and local rhetoric of accountability, the idea of school failure and closure was the lynchpin for creating a wider variety of schools.

The Department of Education put into place a system that used a matching algorithm, derived from the game theory puzzle known as the ‘stable marriage problem,’ that enabled students to select their preferred schools. Large, underperforming schools were closed and subdivided. For example, DeVasco High School, which had approximately 2,000 students, was broken up into four schools with 500 students or fewer. Such breakups led to conflict over infrastructural resources within the building – the cafeteria, the gymnasium, the library, classrooms and hallways. The new schools operated under different rules of accountability (e.g., they were not required to enroll categories of students who were deemed difficult to educate), received philanthropic support, hired administrators from the professional world with little educational experience and poached teachers and students from one another. These factors enhanced conflict over the distribution of resources and talent among schools within the same building.

The Mayor promised to manage schools with data that would be used to guide educational practice, evaluations of school quality, decisions about school closure, and

judgments of the overall success of his school reform program, known as Children First. The test results of students were the primary source of these data. The Mayor created the Office of Accountability within the Department of Education which was tasked with creating evaluative tools to judge the quality of schools based on testing data, student graduation rates and qualitative evaluations of school performance.

This effort at transparency and data-driven decision-making became both elusive and contested. Shifts in the scoring of tests, changing evaluative techniques, and various strategies of gaming performance results (e.g., teaching to the test, counseling-out weak students, and screening incoming ones) created indeterminate layers of politics rather than the clear lines of sight implied in the metaphor of transparency.

A revised testing standard in 2007 called into question the progress that the administration had claimed in previous years and efforts by the Independent Budget Office to check school data were met with yet further complications and opacity. When judging each individual school, the constantly changing methodologies of the Office of Accountability undermined the usefulness of evaluations as a tool for parents selecting among schools. It was also a source of contention when these data and tools were used to make school closure decisions.

The process of making decisions with data was closed off from meaningful debate. Educators, parents and community members contested both the data and the decision making process at DeVasco high school. In doing so they brought forth a historically contextualized account of the school's troubles that brought into view the faults of the Department of Education. As detailed in the case, activists like Crystal and Principal Leanne pointed out inaccuracies in the evaluations of their school and offered alternative interpretations of the data. In doing so they

opened data up to multiple interpretations and, more fundamentally, questioned the value of those data as indicators of school performance.

Both cases show historical processes through which individual choice became a tactic of urban liberal governance. They revealed the intellectual, material and political factors that shaped how these policies were perceived and enacted. They also revealed the role that non-elites or urban citizens played in the structure, meaning and consequences of choice. With both congestion pricing and school choice, choice-based policy arose out of serendipitous and idiosyncratic circumstances. The cases were shaped by interpersonal relationships, unrelated electoral strategy, and vast changes in the ideological underpinnings of policy-making.

The similarities, differences and idiosyncratic path of each policy provide empirical material for answering the five interrelated questions posed in the introduction of this dissertation:

- 1) What was the planning and policy perspective supporting and supported by the rule of choice?
- 2) What were the political, ideological or technical origins of this movement
- 3) How and why did choice-based policies grow in importance and change over time?
- 4) Who decides what counts?
- 5) What can be done?

1) What was the policy and planning perspective supporting and supported by the rule of choice?

The rule of choice was a continuation of the modernist project of making planning and social policy responsive to human agents that are understood as both objects of social scientific knowledge and the subjects of social change. Foucault described this understanding as an “empirico-transcendental doublet called man” who was “both an object of knowledge and a subject who knows” (1973, p. 312). Within this broad framework, human agents, their behavior and their relations were an object of study; the planners and policy makers in these cases gathered data on traffic patterns and school test scores, identifying patterns and trends that informed their action. At the same time, the designers of these policy systems created a specific grid of understanding for imagining how human agents know and act in the world; they drew on the figure of the rational, individual proposed in economic theory. These ideas and the practices that they engendered marked a waypoint in the transition from earlier forms of liberalism.

The rule of choice was both familiar and novel as a tactic of urban governance. For generations urban planning theorists have argued that planning is legitimated by including the public in making choices. Literature on planning participation is, in essence, literature on collective choice making. The imperative to include the public in choice making begins with one of the early theoretical writings on planning.

In 1962 Paul Davidoff and Thomas Reiner wrote A Choice Theory of Planning which argued that “choice permeates the whole planning” process and that “planning stresses choice as its characteristic intellectual act” (103, 106). They advocated for public processes for making choices about planning initiatives.

“The pure democratic ethic posits that no one has the wisdom or ability to make decisions for the society or for another individual; choice-making is left to the individual or to a majority of the individual voters. In today’s world, the inadequacy of this position is self-evident. Individuals increasingly delegate decision-making

powers to legislative bodies; legislatures delegate to administrative and executive hands” (Davidoff and Reiner 1962, p.105).

He continues:

“Delegation often decreases individual opportunity to choose, but this decrease has limits; the decision-maker can both question and inform the individual client about the issues at hand. The planning process can be specifically employed to widen and to publicize the range of choice of future conditions or goals” (Davidoff 1962, p.106).

Modern society, they argued, requires planning, which ‘delegates decision-making’ to authorities who make decisions on behalf of groups. This delegation was an impingement on ‘the pure democratic ethos’ of individual, democratic decision-making. Planners offered the public choices during the planning process to ‘widen and publicize’ discussions about how to achieve future goals. Davidoff and Reiner argued that including the public in choice-making is a fundamental component of the process of planning.

Norman Krumholz, the Director of the Cleveland City Planning Commission from 1969 to 1979, argued that choice is an important outcome for planning, as well. In his 1982 A Retrospective View of Equity Planning he wrote that the ‘overriding goal’ of his agency was “to provide a wider range of choices for those Cleveland residents who have few, if any choices” (163). He described efforts to create more public transportation options for citizens who had been systematically marginalized as an example of this effort to expand choice. These early planning theorists put choice at the center planning. According to Davidoff and Reiner, offering choices legitimates and improves the planning process. According to Krumholz the outcome of his planning effort was to options for urban citizens.

The rule of choice is a novel tactic of urban governance because creating options for citizens is an instrumental strategy for achieving efficient outcomes, as well as a means for legitimating urban governance and creating new options for citizens. For Vickrey, Friedman and

the choice advocates described in the cases above, offering urban citizens structured choices was a technique for improving the ongoing functioning of city services. When drivers made new decisions about their route to work based on tolls, mobility would improve. When parents selected schools that matched their preferences, system-wide educational outcomes would improve. Constructing individuals as the focus of policy intervention was in and of itself a political act. Highway planners and school officials set out to optimize ‘choice architecture’, or the incentives and sanctions that guided individual behavior (e.g. report cards, and traffic modeling tools).

This instrumental use of choice is tied to a shift in emphasis on the conditions under which urban citizens would be choosing. It was an amalgam of rational planning ideas and methods, and practices and technologies drawn from microeconomics. Planners relied on micro-economic conceptions of distributed, rational individual choice to achieve their goals efficiently. For Davidoff and Reiner choice was exercised by collectivities of people who were included in a process of planning that would end with some final plan being enacted. For example citizens would participate in choosing whether a park or a new development would be placed on an empty lot. For Krumholz a group of people – those who were systematically marginalized from urban development – would have greater ability to move about the city of Cleveland as a result of the planning department’s emphasis on their needs.

School choice and congestion pricing theorized choice as an individual and ongoing action that would influence the successful use of urban infrastructure. These policies enlist individuals as rational agents. The divergence of earlier planning theories on choice and contemporary choice-based planning is based on this distinction, between choice as a collective

normative good – whether in the planning process or in final outcomes – and choice as an individual, instrumental means for achieving policy ends.

The cleavage between earlier theories of choice and contemporary ones arose out of the ascendancy of a body of theory known as micro-economics. The rule of choice was a strategy of liberal governance that drew on micro-economic analysis and emphasized individual instrumental rationality as a tool for solving particular urban problems. The rule of choice repositioned experts as rational planners who tried to achieve their desired outcomes by influencing the (instrumental) rationality of individual urban service users. The planner acts like the designer of a game, creating incentives to influence the ongoing, real-time choices of individuals. The authors of PlaNYC, for example, sought to achieve goals of reduced carbon emissions and traffic by changing the price structure of commuting. Pricing congestion and pollution would induce behavior change in drivers by confronting them with higher costs for driving and better service on public transit. Congestion pricing engaged urban citizens as a specific kind of knowing subject, a rational calculating individual. Planners sought to control outcomes in terms of vehicle miles traveled the city and improvements on test scores. The mechanism for achieving these goals was market-like systems that engaged urban residents and city workers as individual, utility maximizing and rational agents.

As with modes of liberal governance, these policies created new kinds of autonomy, or freedom from local government; i.e., the freedom to choose as a consumer of public services. At the same time the policies foreclosed on or undermined forms of professional and democratic autonomy. Teachers and school-based administrators, who had struggled for professional autonomy were no longer trusted to decide what counted as student progress and improvement.

In each case, this rule through choice signified a new kind of relationship between local government and the users of city services; it reshaped expertise, accountability and participation. Central city system designers sought to set up systems of incentives that would directly guide the actions of individuals. Whereas transportation planners had relied on building and maintaining public infrastructure, they could now add behavior change to the list of tools available to them. With School Choice, administrators sought to manage the day-to-day affairs at a distance by monitoring data. Teachers and administrators also changed their practice, focusing more attention on student test scores and the data that represented student, teacher and school performance. When taken together, these changes were reminiscent of what an earlier of planning and policy theorists called rational or synoptic methods of planning.

The theory of action behind congestion pricing and school choice imposed an overall, totalizing vision of rationality. Governmental authority, expertise, and individual action were understood in *instrumental* terms. This idea about the motivations behind action was solely concerned with efficiently attaining predefined ends. These policies were unique in that this form of rationality was theorized and mobilized as *distributed* between elite policy makers and city workers and the users of city services who are encouraged to act on incentives. Planners and policy makers set up systems designed to reach predefined ends by engaging with individuals who were encouraged to be maximizing, self-interested and goal-oriented consumers of public services.

This observation sheds light on theories of rationality, including how the efforts of the administration compare with other conceptions of rationality in urban planning literature, especially with regards to distinctions between individual and administrative, substantive and formal rationality. Vickrey and Friedman imagined policy systems in which individual action

conformed to the theoretical propositions of micro-economics. Planners and administrators like Charles Komanoff and James Liebman created intricate systems designed to shape the choices of urban citizens and workers. With this theory in mind, these progenitors of choice-based policies had a totalizing vision of individual, state and expert action. Each actor should be oriented towards what Max Weber called instrumental rational action or action oriented towards specific predefined goals. Additionally, there were limited or no processes for incorporating value-based, affective or traditional rationality.

Forms of public participation that incorporate the situated position of actors affected by policy choices, including participatory planning (Arnstein 1969), planning for equity (Krumholz 1982) and collective deliberation (Forester 1989) were important to planners who fought synoptic planning. Planners of the last 50 years have been concerned with making planners and planning processes open to deliberation that fosters debate over value propositions. The rule of choice narrowed the terms of participation so that planners and policy makers engaged urban citizens who use educational services and roads bridges and tunnels as instrumentally rational agents. In the education case, these same mechanisms were designed to discipline educators, by enforcing a system that judged school quality based on the data rather than professional judgment. For these city workers the importance of data was reinforced through disciplinary measures such as school closures.

Choice-based policy viewed policy problems from the perspective that individual rational action should be the target of intervention and in doing so shaped the kinds of autonomy that urban citizens were afforded. The individual rational actor was the most elemental building block of the rule of choice. The desirability of promoting individual choice guided by rational action has become a pervasive orthodoxy in planning and policy-making that was reliant on economic

analysis. Thaler and Sunstein argue in *Nudge* (2008) that through the right combination of information and incentives, individuals can not only make better decisions, but also become more true to what they consider to be an ideal of human comportment. The rational individual actor, which they call ‘homo-economicus,’ was not merely ideal in the sense of an ideal type or heuristically useful abstraction (Weber 1949). Homo-economicus was ideal in the sense of having unquestionably desirable qualities and capabilities. They write: “If you look at economics textbooks, you will learn that homo economicus can think like Albert Einstein, store as much memory as IBM’s Big Blue, and exercise the willpower of Mahatma Ghandi” (Thaler and Sunstein 2008 p. 6). When the individual rational actor was given these superlative qualities, it was no wonder that the Bloomberg administration sought policies that would bring out the homo-economicus in his city’s residents.

The rational actor is a simplified character whose wants, needs and successes are transparent enough that they can be quantified, entered into ledgers as data, aggregated together in spreadsheets and calculated. In the congestion pricing case, Bloomberg, Komanoff and other advocates constantly evoked the quantifiable benefits of reducing traffic not only in terms of the amount of revenues generated by tolls, but also in terms of the value of savings in time to each driver. The Office of Accountability sought to precisely quantify the increments by which students were better off, based on test scores. Saving time driving and avoiding traffic was undeniably great and assigning a value to it was useful for comparison. Improved student test scores may represent some real educational gains; they are useful as a guide for decision-making.

However, planners, advocates and the Bloomberg Administration used these data to represent the preferences and values of masses of people, often times speaking over opponents who explained the data in different and plausible ways. Michael Bloomberg, Joel Klein and

James Liebman acted in lock-step to punish schools that failed to improve on test scores while teachers argued that improved student test scores were the result of a relentless focus on test taking, to the detriment of broader educational goals. Bruce Schaller and Charles Komanoff clung to the claim that pricing was a progressive means of generating city income because drivers, as a group, were wealthier on average than commuters who take transit.

The Bloomberg administration used data in a manner that was not open to question or exploration. This ridgedness was intrinsically harmful to the participatory and democratic values of planning. It also led to painfully slow learning and adjustment to make policies better. Their intransigence also created apathy and a rejection of any of the aims of these policies, as was clearly evident among staff at DeVasco High School, who were demoralized by the process of engaging with city data representing their school.

In sum, the rule of choice proposed roles for experts and urban citizens. Experts were tasked with creating complex systems of informational and price incentives that would direct human behavior toward precise ends that the experts had defined. Experts have always given advice on how others should act. With choice-based policies, the role of the expert was to advise at a distance through sanctions and rewards. This task was more akin to that of a game designer than to other proposed roles for planners, such as reflexive practitioner, or the communicative actor (Schon and Rein 1989, Forester 1989). Planners used data to imagine or insist upon what was best for citizens, rather than relying on discussion, debate local democratic processes. Citizens, on the other hand, were shunted into the role of consumers responding to the cues that experts put into place, without having an opportunity to design the game.

2) What were the political, ideological or technical origins of this movement?

The method of governing through choice represents both a continuation and an innovation in addressing the modernist conundrum of organizing social relationships around a human agent who is both an object of knowledge and a subject who knows; it is a new arrangement of freedom and control and also an innovation in ideas about the liberal subject. Ideas from microeconomic analysis which propose rational, self-interested consumers and sellers operating in hypothetical market situations, informed both Friedman and Vickrey. For Friedman, choice was part of an ideological stance against what he and his colleagues understood to be a dangerously enlarged government in the wake of the New Deal. Friedman targeted a public audience and gained the support of a network of private donors to spread the idea of school choice. For Vickrey, choice was already deeply embedded in transportation policy methodologies and his spheres of influence were the academic and professional.

The cases examined above reveal the rejection of older forms of expertise, accountability and participation. Vickrey and Friedman launched their critique of welfare liberalism at its apogee in the United States during the 1940s and 1950s when both mainstream conservative and left-leaning politicians were putting into place the universal infrastructure of welfare liberalism – federal support for education with the National Defense Education Act of 1958 and the largest domestic spending program in the history of the United States, and the National Interstate and Defense Highways Act of 1956 (Graham and Marvin 2001).

For both Vickrey and Friedman, these critiques arose out of an ascendant body of theory which would become a nearly ubiquitous frame of reference for thinking about the roles of government and citizens, that of micro-economics. Both men trained as economists during and

after World War Two. Both men studied and taught at Columbia University⁸⁴. Friedman and Vickrey translated this theory and its embedded norms into forms of governmental action in the spheres of education and transportation. Both men took the theoretical proposition that the distributed expertise of rational, individual choosing agents could be substituted for the centralized expertise and coordination of planning. Though they shared a discipline and a doctorate from the same institution, Friedman and Vickrey launched these critiques from different intellectual contexts.

Friedman's complaint was, at its core, ideological, which was to say dominated by an explicit political ideal. He argued from the principle that, to the greatest extent possible, social coordination should be achieved with as little governmental involvement as possible. Friedman's critique grew out of a concern with the growing role of government in economy and society. He came to prominence out of a milieu of scholars who were fearful of the rise of the welfare state, and argued for choice from an ideological standpoint. He complained of the Common School movement in the U.S. that had produced standardized public schools, designed and run by an expert, professionalized workforce of teachers, and held accountable through a combination of boards of education, which were at a remove from the control of politicians, and the voting public and elections for local school boards.

Milton Friedman was an economist, political advisor, activist and analyst-for-hire. He rearticulated the complaints of the Mont Pèlerin Society in language that would appeal to a wider audience drawing on cultural cues of individualism and liberty. He was, at the same time, a technician of theory: he translated the high ideals of replacing state intervention by market

⁸⁴ Friedman received his doctorate there, though he is more commonly remembered for his association with the University of Chicago Department of Economics, both as a student and as a professor.

choice into the school voucher policy idea. He translated the ardor for markets and detest of governmental action among his libertarian compatriots in the Monte Pèlerin Society into technically feasible policies. He also popularized their critiques as an important post-war public intellectual. In the end, it was his work in framing the debate as one about choice and schools that endured even after his voucher proposal fell out of favor.

School choice, in the form of his voucher proposal, was a governmental mechanism for providing education to students that eliminated the role for state provision of and control over schools. It was an anti-planning agenda, in the sense that it sought to remove the need for the expertise of professional educational bureaucrats, replacing their judgment of parents who would select which school to attend. The question of quality would be elided and replaced with market determinants of success. Friedman sought to eliminate the need for political participation, arguing that embedded bureaucrats dominated the formal democratic process of mobilizing constituencies and voting. Market choices, from this perspective, more faithfully transmit the desires of parents and students.

Choice, for Vickrey, was less of an ideological weapon and more of a technical means for enhancing efficiency. The origins of congestion pricing were in part encoded in the methodology of transportation planning. Within transportation planning, the metrics and methods for analyzing highway projects already contained the idea of assessing roadway projects through the lens of individualized costs and aggregate benefits. Vickrey's move of ascribing the costs that an individual driver imposed on other drivers was a challenge to the widespread understanding at the time that roadways were public goods that should be freely accessible by all drivers. Vickrey adopted the logic contained in methods of producing collective goods. He took economic methodologies and pushed them to a new conclusion that focused on the idea that the means for

producing collective betterment was by engaging the calculative judgment of individual drivers by pricing trips. Vickrey, unlike Friedman, continued to see a strong role for the expertise of planners, who would set prices. Yet as with Friedman, he envisioned participation in the system in terms of consumer choices, rather than public, deliberative engagement.

Vickrey's proposal and the planning that followed happened in the context of existing transportation methods; a meaningful and material knowledge infrastructure that endures and becomes so ubiquitous as to fade into the background of planning thought. Among transportation planning, economic analysis of roadway strategies has been established for nearly a century. In the case of congestion pricing, highway governance was organized within the grammar of economic analysis. That grammar is not ethically neutral. It values revealed preferences, that is, second-order interpretations of observed and recorded behavior. Stated preference in the form of dialogue or communication has no role in these analytical methods. Vickrey's reinterpretation of this grammar was also politically consequential. User fees are less economically redistributive than other methods of deriving public funds, most notably progressive income or property taxes. These ethical and political problems are obdurate, they are built into the methodological, material, bureaucratic and technical aspects of making congestion pricing. The normative aspects of economic analysis and congestion pricing are not mere projections of ideals, efficiency, or class-based politics.

School choice arose out of Friedman's anti-government planning ideology and later turned into data gathering and methodological techniques. The New York City Department of Education sought to impose a methodology of data gathering practices for assessing schools students at a much later date. Standardized tests had been around for a long time. They had been used to sort students, rather than to judge the quality of schools and the impacts of teachers. As

recounted by an education administrator, using test scores and graduation rates to determine the quality of schools and to hold educators accountable for results did not start until the Rudy Giuliani administration in the 1990s. Moreover, the final evaluative tools put into place by Liebman were not launched until 2006, and were subject to constant revision over the subsequent eight years.

Several conclusions about the rise of the rule of choice can be drawn from this analysis of the intellectual and methodological origins of these two policies. First, Vickrey and Friedman shared a faith in micro-economic solutions to public problems. Friedman's embrace had more to do with his political stance against government intervention. Vickrey's use of these tools had more to do with his adherence to ideas of efficiency and utilitarian conceptions of maximizing benefit. Friedman's ideas spread through ideologically committed networks of support, while Vickrey's ideas gathered force through their pragmatic appropriation by planners who were seeking to address the energy crisis. Though the growing importance of their proposals traveled along different pathways they were reinforced by the ascendancy of microeconomic thinking in academia and public policy. This background trend created an internally reinforcing world of professors and policy makers who thought of public problems through the lens of shaping individual choice. For example, the student matching system put into place in city schools arose in response to economists working in other fields. This broader intellectual movement also, at key moments, devised practical mechanisms that enabled policies of choice. Making individuals and choice the focus of policy arose out of technical as well as ideological origins.

3) How and why did choice-based policies grow in importance and change over time?

The rule of choice was the result of long-term intellectual and material processes that offer to the public certain ways of behaving and engaging with public infrastructure. Drawing on

the work of Latour (2006), Gandy (2005), Disch (2008), Bawker and Star (1999) these socio-technical systems can be said to represent, or speak on behalf of, the interests of the public and each individual within it. Representation here was not merely the mobilization of images and discourse but also a material means for presenting and enforcing a particular perspective. Through methodological practices, evaluative tools, and direct sanctions and rewards, these representations take material form that enforce a consumerist engagement with public infrastructure. Representing the interests of people with data was not inherently problematic. However, democratic and participatory processes must accompany governing with data.

Choice-based policies grow over time through negotiating representations and overflows. From conception through proposal, through the process of getting (or attempting to get) choice policies adopted, controversies arise where they were unexpected. These controversies modify the policy and the collectivity of people who support or oppose the idea and its impacts. The evolution of choice-based policy was a result of negotiations and rejections of these representations that can be usefully understood as overflows.

Overflows are issues, concerns and material realities that do not fit, or fit uncomfortably within, the representations of choice-based systems. As Callon writes,

Questions that were thought to have been settled definitively are reopened. Arguments multiply and the project constantly overflows the smooth framework outlined by promoters. In the course of controversy, unexpected connections are established between what should have been a simple technical project and a plurality of states that are anything but technical. Thus we see new actors taking up the problem, imposing unexpected themes for discussion, and redefining the possible consequences of the project (2011, p. 15).

When teachers pushed back against the portrait that data painted of their schools with detailed histories of negligence they were overflowing the representation that city administrators sought to impose. When residents and politicians in Queens rejected aggregate accountings of the

benefits of congestion pricing in favor of accounts that demonstrated the uneven impacts of the policy, they were resisting the representations of pricing advocates and city officials.

Representations and overflows are negotiations over realities as perceived by the policy makers who conceive of choice-based interventions and realities as perceived by the city workers and urban residents who are subject to these policies. In this negotiation, planners, politicians, and users of city services undertook three strategies: enacting, contesting and translating. These three concepts are derived from the work of Actor-Network Theory scholars and the terminology was drawn from the study of scientific and technical systems.

- Enacting was embracing or performing the underlying idea that schools and roads could be managed by structuring individual choice.
- Contesting was just as it sounds. Some urban citizens sought to undermine the paradigm of choice. They did so publically and vocally, by pointing out the ways in which the idea of choice was incompatible with the existent infrastructure and geography of the city, inconsistent with other, publically held goals, like equality or public participation. They also did so by ignoring the paradigm or policy, calling it a political ruse, or prioritizing other incentive systems.
- Translating was a specific kind of enactment that seeks to modify the technical system to incorporate overflows. Translators acted in two ways: They changed choice-based policies to accommodate the problems and criticisms of those who opposed it. Translators also sought to explain their problems in terms that accorded with the logic of congestion pricing and school choice in order to achieve their own ends.

Using data, models and plans, urban policy makers constructed representations of the interests of urban citizens and designed systems of sanction and reward to nudge those subjects toward particular behaviors. These constructions were designed to activate the instrumental rationality of individual users of city services and spaces and in doing so to engage them in the process of achieving policy ends.

Enactment

The Bloomberg administration, the planners and policy makers within it, and the advocates who supported choice-based systems were small in actual number. Through their work, they enlisted others in the program of action that they set forth. Those who enacted these policies embraced and performed this perspective.

These proposals moved from the writings of entrepreneurial academics to the political actions that took place in New York City, through networks of collective action that, in both cases described here, significantly changed the policy ideas. The way that these proposals moved from academic proposal to political action provides lessons in the diffusion of the norms and forms of choice and the role that institutions, intellectuals and networking play in their spread and change. Each of the prominent actors in the cases elaborated the idea of choice in intellectual, technical and political spheres in ways that resonated with or were seen as useful by other actors in the network.

School Choice and Enactment

The voucher idea spread because a wide ideological range of individuals and groups believed that the idea could serve their ends. The relevance of vouchers was seen in the diverse supporters the policy attracted. Initially, bigoted school districts were attracted to the idea of

choice as a means for perpetuating a segregated school system in the face of civil rights rulings by the Supreme Court, as in the case of Virginia's Prince Edward County (Henig 1994). Subsequently, liberal supporters and eventually the federal Office of Economic Opportunity tested the first voucher system in Alum Rock, California (Jencks 1970).

Supporters of mayoral control and charter schools reinterpreted policy experiments that were not envisioned as part of a market-based system, especially the District 4 innovations from the 1970s in New York City. Supporters of school choice reinterpreted these innovations through the lens of Friedman's proposition that variety, competition and accountability to parents were the means for improving public schooling (Fleigel 1996). Friedman's attack on bureaucracy and professional educators predicted the political fault-lines between Mayor Bloomberg and the teachers union after mayoral control was granted in 2003. Throughout the history of school choice teachers and principals have been wary of letting parental choice (what early critics called a popularity contest) determine the success of a school (Herbst 2006). During the Bloomberg years this fault between administrators who favored choice and educators who sought to retain professional autonomy grew into a chasm.

With the widely publicized *A Nation at Risk* congressional report in 1983, the specter of a crisis in education created the context for federal intervention and education reform. Vouchers failed to take hold during the Reagan and Bush administrations because congressional opponents saw them as aligned with Friedman's strident ideological support of markets and rejection of government and professionalism (Henig 1994). Vouchers were supplanted by the corporate models of choice and accountability. However, Friedman's enframing logic of consumer choice for parents and punitive accountability for educators continued to hold sway.

School choice was enacted through the construction of methodological and analytical tools that represented the problem of underperforming schools as one of mismatched choices. Starting in 2001, the Gates Foundation with its small schools initiative began the process of shuttering large schools to create the space for a more diversified portfolio of schooling options within the New York City public school system. These expanded choices created the technical problem of matching a student's list of top choice schools to available seats. The matching model of Atila Abulkandiroglu, Prag Pathak and Alvin Roth was the result of economic researchers working under the assumptions of rational action and allocating scarce resources. These academic economists created a technical means for solving the problems that arose from the premise that individual choice among public goods is a valued freedom.

The maturity of the idea of choice can be seen in this broadened influence of economic thinking which created both problems like that of matching students to open seats and solutions like the matching system from within the theoretical paradigm. These technical solutions could be moved from the somewhat felicitous game of trying to solve the problem of matching couples for marriage, as the problem was originally proposed by David Gale and Llyod Shapley in 1962, to matching medical school applicants to residencies in the mid-1990s, to matching middle school students to schools in New York City starting in 2006. Micro-economic thinking had become the 'normal science' of policy-making, especially in the New York City Department of Education. Unlike domains and problems were linked through the common understanding that the aim of governance was one of facilitating consumer choice.

The education reform movement in New York City and elsewhere moved away from Friedman's market-based choice system. With the passage of No Child Left Behind school choice policies emulated corporate management strategies more than market pressures. The New

York City model treated the Department of Education as a manager of schools. Schools were managed as largely autonomous, but held responsible for improvements on metrics. Mayor Bloomberg, Joel Klien and James Liebman sought administrators trained in business, economics and law rather than education. James Liebman and his staff of young, enthusiastic recent business and law school students drew on a diverse set of ideals in creating their evaluative tools that set the basis for what would be considered a good school. They embedded these ideals in techniques of evaluation and the ways that the results of those evaluations were presented to the public. School choice moved and grew as an enframing logic for thinking about the problems of public schooling, gathering the support of actors, as the mechanism for enacting choice shifted from vouchers to small schools and governmental accountability.

Education policy workers created structures of accountability and structures of choice. Some urban citizens enacted both in aspects of the policy. Parents chose to gather information about schools and send their students to better ones. Most acted as savvy consumers, navigating the variety of options to achieve their goals just as the economic theory had proposed (Roosevelt Institute 2011). The vast majority of students who filled out school choice forms at end of middle school did so with at least some consideration of the educational opportunities available to them. Teachers and guidance counselors facilitated this process using classroom time and counseling sessions to help students arrive at options that met their needs. The student matching algorithm derived from the ‘stable marriage problem’ dramatically increased the percentage of students who would be accepted at one of their top three schools and an adjudication process for those who did not brought these individuals into the choice-based system on its own terms.

Citizens and groups outside of the Department of Education worked to enact accountability, as well. At every controversial closure meeting, charter school proponents

including parents and children who had already enrolled in charter schools and supported their expansion would come and speak their mind. Those who sought expanded space in public school buildings spoke in favor of closures. This network of supporters would converge in the state capital when the legislature was making decisions about whether to expand the number of charters permitted in the city. The effectiveness and prominence of their action was magnified by money spent by charter schools and their supporters for organizing, busses and placards. Their collective and political efforts were aimed at producing a system of education in which individuals would have a greater number of options.

Congestion Pricing and Enactment

In the congestion pricing case, enactment took a discursive and technical form. Komanoff built a traffic pricing model that sought to follow as closely as possible the micro-economic assumptions on which the policy was based. This tool represented and performed various pricing scenarios. The platform was used to convince audiences of listeners and individual politicians that congestion pricing was worth supporting. In the absence of an actual congestion pricing policy, real tolling stations charging prices, and real revenue being generated, he used his model to convince others of its utility. The NYMTC pricing model served the same function but in a different venue. When the Mayor's congestion pricing plan was stalled in the state legislature, Komanoff used his model to arbitrate the alternative proposals put forth by opponents of congestion pricing. Through these model-based enactments, Schaller could say with enhanced authority that congestion pricing represented the interests of New Yorkers. Through technical representations, public speeches and the media, these advocates enacted congestion pricing to specific and important audiences.

The norms of consumer choice and responsibility in transportation expanded beyond the academic and policy writings of William Vickrey. Nationally and globally, his ideas caught on because the premise of his argument was largely congruent with existent transportation planning methodology, because his ideas were relevant for addressing other problems that came up long after he had proposed congestion pricing, especially the scarcity and cost of fuel oil, and because microprocessors enabled his ideas to be modeled as dynamic solutions to evolving problems.

Enactment in Bloomberg's New York

These academic and policy intellectuals provided general policy methods and solutions that relied on choice. Another set of local, engaged intellectuals translated these ideas and found use for these tools within the political context of New York City. In his strategies of governance, his personal background and his managerial style, Mayor Michael Bloomberg personified the rhetorical and strategic elements of the rule of choice. Bloomberg provided the broad political context in which the contours of ruling through managed choice took place. Congestion pricing and school choice were further taken up by actors who took a more direct role in translating these ideas into political and technical movements. Charles Komanoff, Sam Schwartz, and individuals within the RPA made congestion pricing into a set of specific proposals for integrating the ideas of Vickrey into the technological and political geography of New York City. Joel Klein, James Liebman and a raft of young, technically minded administrators recruited into the Department of Education right after its creation transformed choice and accountability into school buildings reconfigured to accommodate multiple small schools, and pedagogy reoriented around measurable results.

Making choice a governing concept was a long-term exercise in building an internally consistent set of ideas, practices and devices. Devices, like models, evaluative tools and

incentive systems, frame problems in ways that are congruent with the logic of microeconomic theory. The rank order list of schools that students submit to the Department of Education clearly delineates a set of choices. This list of preferred schools, in turn, was congruent with the matching system, which starts with the same assumptions. Congestion pricing advocates drew on the methods of transportation planning, relied on technologies to make the idea of managing demand politically relevant, and integrated this logic into the political geography of New York City.

The net result of the rise of the rule of choice was a system of city governance that reorganized the intellectual framework for and practices of freedom and control. One way of thinking of this change was to analyze the ways in which planning and the local state were present in school choice and congestion pricing and the ways in which they were absent. The role of the local state was defined by a new kind of presence – planners were tasked with setting up the rules of the system of choice, enforcing these rules and determining the metrics for defining success. This new presence could be quite invasive, with teachers subject to constant auditing and drivers monitored as they circulate in and out of newly created boundaries. The local state was also defined by new kinds of absences. As responsibility was shifted down to teachers and students, individual schools rather than the city or school bureaucracy became responsible for failure. The Department of Education judged those schools a failure and took punitive action without implicating itself in the lack of success. Likewise, with congestion pricing, the state shifted responsibility for funding new transit services, improving the environment and reducing traffic accidents to drivers and their decisions to drive based on new pricing schedules. The political issues of how the burdens of these public objectives were to be achieved were replaced by issues of structuring prices to induce new choices.

In sum, enactment involved all those actions that performed the kinds of relationships required by the rule of choice, and that brought in constituencies without changing or challenging the premise of regulating public services through individual decisions (Callon 2006).

Contesting

Faced with congestion pricing and school choice policies, many people and groups pushed back. The most effective form of push-back, as shown in the congestion pricing case, took the form of those with elected or administrative political power simply ignoring the arguments for and against congestion pricing and basing their judgments on electoral calculations. These powerful opponents prevented the policy from being adopted by the legislature. This outright rejection followed many months in which urban citizens opposed the policy for specific reasons. In the school choice case, opponents consistently failed to stop or even influence the policy of the Department of Education. In both cases opponents brought forth similar issues to contest them.

Opponents of these policies pointed out and rallied around problems and issues that were unaccounted for when the city sought to portray problems as a result of misaligned choices. Matters that had been considered uncontroversial erupted into controversy. Using Latour's (2004) formulation, what had been settled – matters of fact – were turned into problems and sites of contestation, matters of concern. The process of building choice-based systems required making many complex things and people into simplified representations. People in cars become data entered into a ledger; striving parents become rational consumers of school options. When matters of concern arose, what had been settled was opened up to further debate. Those who contested the rule of choice rejected the technocratic representation of their priorities and goals.

In both cases, those who contested argued that the effects of these individualistic policies had divergent impacts for residents living in different parts of the city. The uneven geographic impact of congestion pricing was the most prominent issue that opponents brought forth. William Brodsky, in his report from 2007, argued that commuters on the periphery would be unfairly burdened by tolls for entering the city, especially because they had worse access to public transportation. In the education case, school closures were concentrated in the South Bronx and Northern Brooklyn. At DeVasco, teachers argued that the geographic concentration of closures had shifted a greater percentage of hard-to-teach students into their school. In both cases, those who contested choice argued that the kind of free choice theorized in the policy proposals for traffic reduction and school reform failed to take into account the geographic factors that led to an uneven distribution of burdens and benefits. For these reasons they argued against the imposition or continuation of these policies.

Those who contested the choice-based system evoked the language of social solidarity and equality. In the congestion pricing case, no actor was clearer or more effective in mobilizing this discourse than State Senator Brodsky. His office wrote that pricing mechanisms “are explicitly designed to change individual behavior based on ability to pay. Much of the struggle for social progress in the United States has sought to create government policy which mitigates the consequences of pricing mechanisms” (Brodsky 2007 p. 8). He opposed congestion pricing by arguing that social solidarity was a better basis for formulating policy than individual responsibility.

Opponents of school choice, from the prominent scholar Diane Ravitch (1974, 2011) to organizers who opposed the closure of DeVasco, argued that holding teachers responsible and combining choice with accountability undermined the vision of equitable public schooling. They

were concerned about sorting. As described above, James Liebman, the first head of the Office of Accountability, had sought to create incentives that would encourage schools to give attention and resources to students who had struggled in the past. He created a system of weighting in which improvements by those students would count more heavily towards better evaluations for schools. School administrators proved adept at sorting students anyway. Using an enrollment process that included parent interviews and meetings with students, schools were able to select promising students who had similar data histories to their peers (West 2012, Jennings 2011). Principal Leanne at DeVasco argued that her school had become a catch-all for students who had not been able to transfer once it was targeted for closure and for students who had been pushed out of other schools in the building. Opponents pointed out the negative impacts of individualized policy-making – sorting and the pooling of the students who were worse off. They contrasted choice with an ethic of social responsibility.

In the congestion pricing case, data collection was essential to make policy arguments. Opponents of choice-based policy contested the manner in which data was collected and the ways that it could be used and who had access to it under what circumstances. In the congestion pricing case, the ACLU opposed the use of license plate recognition technology that was crucial to making the policy work. They were concerned about how that data would be used, especially because some versions of the policy sought to link data on individuals to other government datasets on income and place of residence.

In the school choice case, data sources and methods of collection and analysis were the central issues of contestation among opponents. For many at DeVasco and in the UFT, estimating student performance based on test scores was ineffective. For Ravitch, testing was not only inaccurate but it directed scarce resources and class time away from more important

educational tasks. For the lead organizer of the effort to keep DeVasco open, there were clear and consequential errors in the way that data on students were used to evaluate the school; some poor performing students had been double counted, and other students who had not even shown up for the first day of school were counted against schools in their evaluations. These questions about data led many to reject Bloomberg's educational policies wholesale, including critics from the UFT, like Jamie, a lead organizer for the union, nearly every teacher interviewed at DeVasco, and Alex the academic researcher from Teachers College.

The matters of concern that opponents of choice-based system brought forth – issues of geographic and economic equity and problems with gathering and using the information needed to make choices effective – either were not considered or were addressed in superficial ways in the policies that Friedman and Vickrey proposed. Focused on individual decisions, neither theorist fully considered the geographic impacts of their proposals, which are not mentioned at all. Both, however, addressed equity. Vickrey wrote: “Actually, the number of really poor individuals who are under any strong compulsion to drive cars with any regularity on the congested highways at peak hours appears to be quite negligible” (Vickrey 1969 [1994] p. 330). For critics like Brodsky, the question was whether pricing was an equitable means of generating revenue for transportation infrastructure, and whether pricing trips for less affluent people on the periphery of the city who lacked public transit access to the city was equitable. Friedman argued that government had little place in education, but that issues of equal access and social cohesion could be addressed by simply giving vouchers. Educators like Principal Leanne argued that even the system of choice put into place by the city, which was designed to focus attention on poor performing students, led to inequitable outcomes. Parents and educators worked to sort students

and classrooms, pooling better performing students in some schools and the worst performing students disproportionately in open enrollment schools, she argued.

With regards to the data required to make these systems work, both men addressed the issue. Vickrey proposed a slew of tolling devices, from special coins to the precursors of EZ-Pass, but the issue of privacy never arose in his writings. Friedman envisioned a system of educational choice in which governmental data and evaluations were not necessary; consumers of educational services would gather their own information. Those who contested choice brought in matters of concern that fell outside the initial parameters of the policy proposal. They used these issues to try to reject these.

People who completely rejected the rule of choice (e.g., educators at DeVasco who were waiting for the school to be closed or Sheldon Silver, the Speaker of the State Assembly) fell into two categories. Some, like those at DeVasco, were completely resigned to choice-based policies and saw themselves as victims – martyrs, even – of an unjust system. Others, like Silver, were in positions of power that gave them veto power. They refused to engage either because they had given up the possibility of influencing how these systems worked or because they recognized that they did not need to engage with the logic of choice because they had the ability to completely reject it. Most urban citizens who acted politically were not in either of these positions – they sought to influence the systems of choice by bringing in issues of geographic and economic equity and by challenging the data used to make these systems function.

Translation

Translation describes the efforts of urban citizens and city officials to change choice-based policies to address problems and concerns that fell outside the original vision of these technical systems of governance. The concept of *translation*, borrowed from actor-network

theory emphasizes the complicated process of moving ideas, techniques and data between contexts. It thereby provides a conceptual framework for thinking about the intellectual and practical work that planners, politicians and the users of city services do, and the material embeddedness of knowledge production.

Translating between contexts was a rhetorical act with the rhetoric inscribed on and reproduced by the material world. This takes a specific form: change agents attempt to “transform the interests imputed to an audience” (Law and Callon 1982, p. 618). Meaning and materiality change in the process of convincing. In the connections forged between domains, “communication runs through these passages, but does so only at the risk of potential distortion in the course of which the message becomes transformed” (Brown 2002, p. 2). For sociologists of translation, this deviation was a necessary risk, and more importantly, the source for gathering support for ideas.

Many overflows were outside the scope and control of policy system proposed by the Bloomberg administration. For example, the spatial, infrastructural and electoral make-up of the city were key factors that challenged the a-spatial and anti-political framing of the rule of choice. Translation was a strategy to bring in these overflows; to re-embed them within the system of choice. In doing so, both the overflows and the representations changed.

Congestion pricing and Translation

Transportation planners linked the congestion pricing idea with publically valued aims like reducing pollution, energy consumption and time lost waiting in traffic. They translated congestion pricing into new contexts. This complicated the ethical implications of adopting policies. Does reducing pollution justify using planning methodologies that limit deliberation and dialogue? Does the goal of reducing time lost in traffic justify limiting access to those who

cannot afford it? While planning occurs within structures of knowledge that are relatively fixed, planners, the public and interested parties seek novel human and material arrangements that answer these questions in practice. Further adaptation, political compromise, and linkages with urban problems were forged in London and Stockholm when congestion pricing was enacted in those cities. One aspect of the materiality of congestion pricing that makes these compromises possible was that it provides a revenue stream which, in those cities, was invested in improved public transit to offset the re-distributional effects of governing roadway space with fees.

Vickrey acted as a translator when he drew new conclusions from existent transportation methodologies and devised material means for instantiating them. The data-gathering and methodological practices that made Vickrey's insights possible were already in place. As shown above, by the 1920s in the AASHO report the federal government had created specific guidelines for gathering information on drivers, for quantifying that information, and for calculating the impacts of highway siting decisions. Vickrey's intervention of congestion pricing repurposed this information under the logic of individual choice and responsibility, but the basic methodological foundation was already in place and widely available from state agencies.

In the context of New York City, with regards to geography and infrastructure, turning congestion pricing into plans required adapting the policy to the existent constraints of New York City. These adaptations extended to efforts to make pricing systems more equitable. The Regional Plan Association in 2003 combined the idea of congestion pricing with its long-standing goal of tolling the East River bridges. In doing so the RPA took the abstract idea of pricing trips to downtown areas and proposed adaptations that made it fit within the historical geographic and administrative context of the city.

The Bloomberg administration took up congestion pricing as a political issue in the Mayor's second term, making it the central policy idea of the PlaNYC comprehensive city plan. It linked congestion pricing with the long-time issue of tolling the East River bridges and to new matters of concern, especially funding for transportation. In the congestion pricing case, the support of the Mayor was more important than in the case of school choice.

Congestion pricing came to New York City shortly after it had been enacted in London and as a result, in part, of comparisons between the two cities and competition over their status as 'global cities.' Framing congestion pricing primarily in terms of environmental protection, the Bloomberg administration pushed forward with the plan without enlisting the support of grassroots activists.

With school choice there was a national movement and new federally mandated standards pushing many of the components of school choice that would come to New York City. By contrast, with congestion pricing, there was federal money available, but no mandate to create a pricing system. The example of London and the chauvinism of the New York City policy world to enact something equally as bold created a context for congestion pricing. It was Bloomberg positioning congestion pricing as the centerpiece of PlaNYC that made it a viable policy idea.

Public acceptance of congestion pricing was divided between residents of Manhattan, who tended to support it and residents of the outer boroughs who tended to oppose. Political representatives split along largely the same lines. Residents of the outer boroughs viewed the Mayor's plan skeptically, through the lens of center city benefit and burdens for the periphery. The Mayor, with PlaNYC, proposed the SMART infrastructure financing system and gave assurances that revenues generated from tolls would go to precisely those places that lacked adequate public transportation.

The city council went one step further towards the goal of mitigating the policy's unequal impacts. The New York City Council voted in favor of the modified plan, while adding caveats, creating exceptions for low-income drivers from the outer boroughs. The version of the policy that it passed proposed means-testing drivers by refunding tolls for individuals whose incomes were beneath a certain threshold. As the State Traffic Mitigation Commission became charged with determining best congestion prevention policies, transportation modeling became a tool of adjudication, providing data on which of the plans best met the goals of the city. The legislature significantly modified the congestion pricing proposal itself, moving the boundaries of the city-based cordon, eliminating the need for costly sensors within the charging zone, and making further guarantees that toll receipts would be put towards projects that benefited the outer boroughs.

Activists in New York City – Charles Komanoff, Jeff Zupan and Sam Schwartz – who had advocated for congestion pricing before the Mayor did continued to press for the policy after it had stalled in local politics. These advocates used modeling tools differently than proponents in the city and the state. Rather than using transportation modeling tools to arbitrate among proposals put forth by the city, they used these tools to put citizens and politicians in the same mind-set as planners who supported the idea. With the Balanced Transit Analyzer, they created a platform for any person who chose to do so to adopt Vickrey's perspective, and also to consider the benefits to the city as a whole.

With the Fair Plan, Schwartz proposed a version of congestion pricing that was principally focused on creating trade-offs that would make sure that the relatively affluent in the downtown area would pay the most by reducing tolls on peripheral infrastructure and putting the

northern boundary of the pricing cordon at 59th street (as had been proposed in the revised congestion pricing plan recommended by the State Traffic Mitigation Commission).

The PlaNYC congestion pricing plan, the city council and Move New York translated environmental and political geographic concerns into hybrid proposals that sought to balance congestion mitigation with equity and environmental goals.

School Choice and Translation

Planning for school choice required adapting public infrastructure to make more and different kinds of schools. The Department of Education incorporated the Gates Foundation's idea of creating small schools. From the perspective of the Bloomberg Administration's Department of Education, which was concerned with enhancing the 'supply' of diversified educational options, small schools represented an opportunity to increase the number and kinds of schools available to parents. This required addressing the infrastructural constraints of existing school buildings: they were large and designed to accommodate one school with many students. Subdividing the infrastructure that existed became the vehicle for making choice work. In this way, they remade infrastructure to accord with the idea of choice.

Those who adopted school choice as a means of enhancing equity modified the system that Friedman had proposed. Friedman believed that market allocation of schools was not only most efficient, but also most fair. Much of the history of school choice following his writings consists of attempts by policy makers to graft the idea of distributional equity onto a policy that was unconcerned with it. Early adopters of vouchers in Alum Rock, California insisted that parents could not add money to their vouchers, assuring that students would be able to meet their preferences without getting into a bidding war for the best schools. In this way, the voucher

program was modified to take into account problems of unequal distribution of resources.

Educators in Harlem's District 5 had another vision for choice, which would be led by visionary principals and teachers. In this vision, choice was not a market mechanism nor was it a disciplinary tool used to cull the worst schools through competition. These educators adapted school choice in a way that further legitimized the professional status of educators and put them in charge of determining what kinds of options could serve students.

The Department of Education also aimed to bring equity goals into the school choice system. James Liebman's accountability system was designed with the goal of creating incentives for schools and teachers to focus attention on the most difficult to educate students. When activists at DeVasco like Crystal found that the system was not working as promised and that their school was being unfairly targeted for closure, she pushed back with her own data on the kinds of students that the school was faced with educating, and the ways that the evaluation system penalized them for taking on these students. Moreover, she sought to show that the history of the school involving over-enrollment and running double shifts of classes had had a long-term impact on the performance of faculty and students and she made this argument with the city's data. Crystal acted politically through engagement, by describing the troubles of the school within the framework and rationale of the Department of Education. In this way, she served as a translator, seeking to bridge the distance between the edicts of the Department of Education and the realities of her school environment.

Through these translations, the rule of choice changed from policies strictly based on market reasoning to hybrids that brought in many ways of thinking about efficiency and fairness. Translators sought to modify the parameters of the policy to mitigate the unequal impacts of the rule of choice. In the congestion pricing case, each plan proposed to accommodate more and

more concerns about disparate geographic and socio-economic impact as well as the interests of recalcitrant politicians and political bodies. As school choice became more relevant, the role of governmental officials grew and with Liebman's evaluative system he sought to enforce a logic that countervailed that of market forces.

4) Who decides what counts?

In the theory that supports the rule of choice, who decides what counts was simple: markets naturally provide options, signal information, and establish prices. Individuals select among options using instrumental reason to guide their decisions. In practice over the course of decades, intellectuals, technicians, city officials and urban citizens constructed the data needed to govern through choice, contested its meaning and enacted alternative courses of action.

In the terms of the James C. Scott (1998), the state had new means of 'seeing' and as a result new avenues for acting. Scott provided insights into the ways that high modernist, authoritarian states see. In his words, he describes situations in which the state was powerful and civil society was 'prostrate.' The history of the rule of choice provides insights into how the local state changed its vision of urban control and freedom in a society with multiple factions, a strong civil society and deep institutions of electoral democracy. In one sense, with the rule of choice, education policy makers and transportation planners sought the same kind of view from a distance that the high modernist planners in Scott's cases strove for. They started with a simplified model of human behavior – the rational actor – and created models of interaction. These policies were different in significant ways, too. Their implementation, or lack thereof, took place in the context of a system with many poles of power and authority. Even with a strong mayor and a compliant city council, imposition was not possible.

The process of moving from the minds of Vickrey and Friedman to public action was best captured with the term governance. Governance was an expansive but appropriate term for describing the distribution of authority, responsibility and ideas that led to school choice and congestion pricing (Jessop 2002, Joyce 2003, Dean 2002, Foucault 1983, and Rose 2000). No single governmental, private or citizens group could impose policy; rather, the meaning of choice and choice mechanisms evolved through a network of actors. Governance describes a connection between the state and citizens and also an ideological framework that makes sense of this relationship. Moreover, governance highlights the role that non-state institutions – such as think tanks, philanthropies and advocacy groups – play in producing this relationship. Changes in the role of the state and citizens emerge through an evolving network of actors composed of intellectuals, their publications, and their philanthropic patrons; infrastructures, including the built environment, intellectual tools like tests and analytical methods; and institutions, like environmental philanthropies, teachers unions and education reform advocates. Public intellectuals and material devices interact over time, producing a novel type of liberalism.

Returning to the question at the very beginning of this dissertation – Who decides what counts? – it is now possible to define the question more narrowly. What counts was an enframing logic and the material manifestations of that logic that designers of urban policy and users of urban services must respond to. In the school choice case, accountability and choice are discursive and material constructs. Debate, cooperation and contestation were structured by these materially instantiated concepts. Based on this definition, four observations can be made.

First, what counts was the result of a long-term intellectual and material process. Data gathering practices put into place in the 1920s in transportation policy in many ways created a framework in which Vickrey's ideas made sense. In education policy, which was later to adopt

ideas that were heavily reliant on the individualism of economic thinking, intellectual tools of an earlier generation of economists, as was the case with the stable marriage problem solution, could be used for the student sorting system that the city ultimately adopted. This intellectual infrastructure of methods and data collection techniques intersected with large-scale urban infrastructure. The geographic and infrastructural form of the city shaped what counts. The shape and size of schools were obdurate, as was the pattern of city streets, bridges tunnels, and subway lines.

Second, what counts resulted from powerful patrons who supported the intellectuals that put forth choice-based policies. The University of Chicago, Columbia University, and the funding organizations that helped to instantiate and spread the ideas of Vickrey and Friedman influenced generations of planners. Locally, the RPA, The Partnership for New York, the Gates Foundation and others both enforced and modified the perspective put forth by the rule of choice.

Third, what counts resulted from the decisions of elected officials. In the cases explored here, federal, state and local politicians pushed for or resisted choice-based policies. Bloomberg was a strong ideological supporter of these policies, a politician with private resources to influence state legislators, and a coordinating actor in bringing choice-based policy to fruition. His political attempts to influence the legislature also backfired on him

Finally, the action of urban citizens shapes what counts in enacting choice. By contesting or translating choice-based policies, individuals and institutions reinforced, rejected or modified the terms of representation of urban problems resulting from misaligned individual incentives.

5) What can be done?

Planning is based on the proposition that through processes that combine expert analysis and deliberation, equitable collective solutions to public problems can be found. Further attention

to deliberative processes and equity was required to make choice-based systems of planning both equitable and fair.

The rule of choice was a powerful means for thinking about the collective, social well-being of the city. As a comprehensive mode of planning, it seeks to alleviate collective problems at the scale of the city. As a policy focused on making options for individuals, it creates options that people may embrace. However, the rule of choice insulates experts with second-order representations of people and problems and, because of this, choice-based policies revert to top-down rational and comprehensive modes of planning. Choice-based systems draw on economic representations of citizen preferences that are revealed in data rather than articulated through explicit discussion. By framing problems as the result of misaligned incentives for individual action, planners presume to know what is best based on these representations. Choice-based systems must overcome this propensity towards speaking on behalf of, rather than speaking with, urban citizens.

Recommendations for improving these systems are derived from an analysis of the problems and political action that challenged school choice and congestion pricing – the elements of action that overflowed the intentions of planners who imagined these systems. One mode of making recommendations was to argue that these policies are wholly unappealing; in place of the ideology and practice of individualism, planners ought to argue for a politics of social solidarity and equality. Undoubtedly, this strategy was useful for building a counter narrative to laissez-faire economic discourse.

However, the historical analysis that has been a central component of this dissertation shows that planners work in the context of ideas and things that are not entirely of their own making and take up the tools of choice for goals that were not foreseen by those that came before

them. Vickrey's congestion pricing was particularly resonant because of modes of economic analysis that had been put into place years before he proposed it. Transportation planners in the 1970s grafted an environmentalist and conservationist ethos onto congestion pricing.

Segregationists in the south used vouchers to maintain racial separation in schools. These ideas and the data and tools that construct them will not go away through denunciation.

What follows are a set of guidelines for making choice-based policies more participatory and fair. The method for arriving at these recommendations was to build on the work of actors who expanded the meaning and practice of congestion pricing and school choice. In looking at the situated action of people and institutions in confronting and ameliorating choice-based systems, we can learn about the specific sites where these policies might be improved and the additional public processes and policy mechanisms that are required to make them fairer.

Before beginning with specific recommendations it is important to make the case for intervening in, translating, and tinkering with choice-based policies. Vickrey and Friedman believed in the universality of markets. This belief was tied to a specific understanding of liberalism, which was to say the relationship between autonomy and control: the freedoms of citizens and the collective powers that influence and channel the ways that those freedoms are expressed to achieve social benefit. They imagined freedom as individual, that each person, given the proper latitude and structure, could make decisions that would produce collective benefits. For them, markets had specific, essential qualities that produced ideal results. This dissertation has shown the construction and historical specificity of market-based policies. This anti-essentialist approach was theoretically justified by recent post-structural writing on the constructed nature of markets (Callon 1998). Both cases have shown the ways in which the idea of choice modified and morphed as a result of political, infrastructural and geographic concerns.

Therefore, the recommendation that underlies everything that follows is: *Understand choice-based policies as constructs rather than policies that can fall closer or further away from the purported ideal of a pure market system.* More specifically, based on the analysis above, five policy recommendations can be made, three of which concern enhancing process and two of which concern insuring equity.

First, as early and as often as possible, test representations of the interests of urban citizens against their stated preferences. In the congestion pricing case, planners made reasonable methodological assumptions about the value of trips. In the school choice case, tests stood in for the quality of schools. In both of these instances, the derived interests or preferences of urban citizens should be supplemented with deliberative processes in which urban citizens have the opportunity to comment on whether the assumptions built into these data are truly representative of their needs, interests and development.

Second, enable processes through which alternative representations of the interests of urban citizens can be developed. At DeVasco High School, staff and community members who had been present when it was over-crowded and two shifts of school were offered had a narrative that made sense out of poor performance on state tests. This narrative was ignored or brushed aside as “excuses” by the Department of Education. Opponents of congestion pricing crafted a narrative of middle-class burden and geographically disparate impacts. Move New York City set an example of bringing the concerns of those who contested congestion pricing into the discussion about how the policy should work. They made strong arguments for their point of view and they also spoke with opponents. They supported these arguments with their traffic modeling tools and they also made the modeling tool accessible, so that others could craft and support their own points-of-view with the same tool. Such measures, which instantiate the

perspectives of multiple parties, provide a more solid basis for designing choice-based policy and making decisions once such policies have been adopted.

Third, separate political and methodological authority. One advantage of understanding choice-based policies as technical and political constructs is having a better view of the power that cities derive from defining methodological, evaluative, or modeling standards. The Department of Education had statutory authority over schools and it collected data that would be used in evaluations that it also designed. Gaining access to these data or corroborating their accuracy was difficult as shown with the difficulties that the IBO had in accessing comprehensive information on schools. The Office of Accountability set out to create an evaluative tool that was simple enough for the public to follow all of the calculations for school grades. But using data for management required complex analysis that pushed the Department of Education towards methods that were largely inscrutable to the public. Moreover, each year the Office of Accountability learned of a problem with their grading system, incorporated an exception or sought to offset changes that were not under its control (e.g. state testing standards). As a result, methods were constantly changing, adding another layer of complexity to the evaluation system. On the ground, this led to cynicism. At DeVasco, every methodological decision made within the Office of Accountability was interpreted by teachers and principals solely through the lens of power and politics. The Department of Education should not be in sole control of the only sources of data for judging the success of schools. It has too great a stake in showing success, it creates too great an opportunity to move its preferred policies by gaming evaluations, and it has too much capacity to conduct truly rigorous research. In the congestion pricing case, before Move New York City made the Balanced Transportation Analyzer, all analysis for city congestion pricing proposals took place outside of public scrutiny.

Methodological politics were less of an issue in the congestion pricing case. Even so, the analytical tools used to envision different congestion pricing scenarios should not be under the direct control of any single governmental entity, be it the city, the state, or any of the local port, transit, bridge or tunnel authorities. The cases show that democratic participation should be part of the core process of designing choice-based systems.

The final two recommendations have to do with distributional politics. From the cases above, it is evident that choice-based policies have a disposition towards sorting public services so that people starting with an advantage have better access to public infrastructure and city spaces. Simply put, students with well educated, engaged parents benefit from school choice to a greater extent than those who lack those advocates. Drivers with less money would be more burdened by new tolls on bridges and tunnels. For this reason, I offer two recommendations that have to do with distribution.

First, choice should be encouraged only when there is a strong public infrastructure that guarantees a high level of services to every urban citizen. In the case of congestion pricing, this means that public transportation should be improved prior to or as a guaranteed part of any congestion pricing system. In the school choice case, this means that poor performing schools should not be treated as wounded bodies destined to become donors of space and senders of talented students to small schools or charter schools. Any time a school is deemed failing, it creates a pool of students and teachers who are stuck in a stigmatized institution. Students with the least ability to navigate the choices offered by the DOE end up disproportionately pooled in these schools (Ravitch 2011). Choices should not be made out of desperation.

Second, a portion of all revenues that come into choice-based policy systems should be targeted at guaranteeing a high level of services to every urban citizen. With congestion pricing,

all revenues generated from new tolls should go to improving transit in poorly served areas. This only works if other revenue sources are kept constant. The State Legislature threatened to cut transportation funding once new toll revenues were generated. Before congestion pricing was enacted, there needed to be a guarantee that all new funds would go where they are needed most and no old funds will be taken away. In the school choice case, a multitude of new actors including the Gates Foundation, the Broad Foundation and the Walton Foundation have gotten involved in supporting charter schools, small schools and other choice innovations. Moreover, individual schools collect significant amounts of money through parent teacher associations for school supplies, offer gifts and salary supplements to teachers and administrators, and enhance the academic and extracurricular offerings at schools with highly engaged and affluent parents. These practices augment financial disparities between schools. The Department of Education should create a rule that ‘taxes’ these donations and redirects the funds as it sees appropriate to the weakest schools and schools that philanthropists ignore.

Choice base policies and individualist, market-based practices have become ever more central to planning and policy-making. By focusing on enhancing processes of public deliberation and by creating mechanisms that enhance equity, these policies can be brought closer to the ethical demands of comprehensive, fair and equitable planning.

Directions for future research

Overall, this dissertation suggests new directions for research that are both empirical and theoretical. The first avenue for enhanced empirical understanding would be a deeper understanding of the institutional context in which Vickery and Friedman worked. Examining archival sources that elucidate their scholarly, academic and philanthropic network would help to explain how their conceptions of choice became widely held in urban education and

transportation. Such research would identify the network of support that moved the two urban policies from the periphery of urban governance discourse to become prominent enough that they were seen as plausible strategies for addressing pressing problems. Chronologically, this research would explain build out from the points of origin of these policies.

A related research strategy additional strategy would be to build backwards, starting with the institutions that supported these policies in New York City and investigate how and why school choice and congestion pricing became causes supported by, for example, The Gates Foundation, for education and the Enos foundation for congestion pricing. By studying the recent history of institutional support as well as the original propagators of these ideas a future version of this research project could more thoroughly deduce the path to policy relevance for choice-based planning. The research conducted for this dissertation suggests that choice-based policy arose out a highly ideological climate for Friedman and a more scholarly and technical atmosphere for Vickrey. Yet today, critics understand both policies as examples of free-market neoliberalism (Lipman 2003, Chronopoulos 2012). Further research would explore and explain these dual origins of contemporary urban governance practices.

Third, in order to further demonstrate that choice was a pervasive strategy during the Bloomberg administration, this research would benefit from further exploration of choice-based policies in an area or areas unrelated to education and transportation planning. This exploration could take two different forms. The first would be to add a third case in the same level of detail as congestion pricing and school choice. In housing policy, vouchers were a revolutionary and widely adopted strategy for enabling low-income individuals and families to afford housing. Further investigation into this case may reveal origins for the prominence of choice as urban governance strategy that are not yet understood.

A second avenue for demonstrating the pervasiveness of choice-based policy would be to identify five to ten policies that follow a similar logic, including variable metering for parking in cities, restaurant grading, so-called sin taxes on cigarettes and soda. A short description of each of these strategies, accompanied with an explanation of how they shaped the relationship between city government and urban citizens would provide evidence to support the claim that the rule of choice was both a pervasive ideology in Bloomberg's city government and that it influenced many aspects of daily life for New Yorkers.

In addition to further empirical work, this dissertation suggests future theoretical directions for urban planning research. This dissertation pays particularly close attention to the how theory is produced and enacted by actors who shape contemporary urban governance, which is to say that it is an account of *theory in planning*. This approach is relatively distinct from *theories of planning*. Theories of planning identify the core philosophical principles of planning practice, e.g. that planners act as strategic or rational agents within city government with the aim of achieving some end – be it efficiency, equity, deliberative participation, or justice (Le Corbusier 1929, Krumholz 1982, Forester 1989 and Fainstain 2008).

A focus on theories in planning fixes attention on how certain perspectives on urban problems come to influence professional practice and popular understandings of the role of citizens in producing or reproducing urban life. Planning scholars, especially Beauregard (2003), with his exploration of how discourses of decline influence what kinds of planning actions make sense, and Flyvbjerg (1998) with his exploration of what he calls the 'longue durée' (long term) history of power relationships in one city in Denmark illuminate how the theories in planning structure what are understood as reasonable decisions. As Beauregard writes: "People decide how to respond on the basis of meanings, not facts" (2003, p. 21). These shared meanings are the

theories that both experts and citizens bring into planning debates and in turn shape final outcomes.

Planning scholarship that focuses on theory in planning is necessarily historical in nature, examining longer expanses of time than much of contemporary urban planning research. The persistence of, or shifts in, meaning making is the result of collective action over long periods of time that become enduring through material and institutional arrangements that last beyond a single debate about a single planning issue. The discourse of choice extends back long before Vickrey and Friedman adopted it and put forth choice-based policies that focus on individual rational consumers. Their innovative way of theorizing choice will endure, continuing to shape arguments about the proper role of planners and citizens.

Theory in planning, with its focus on the *longue durée* of collective meaning making would enhance contemporary, pragmatic theory that focuses on the every-day practice of planning (e.g. Forester 1999). This scholarship gives empirical primacy to short-term collective meaning making; as Charles Hoch has written, how planners can ‘be right’ and ‘do good’ in the flow of everyday practice (1984). Theories in planning may help by exploring the historical process through which frames for understanding everyday problems were constructed. Turning critical attention to these frames may, over time, create a more expansive view of the possibilities of everyday planning activity.

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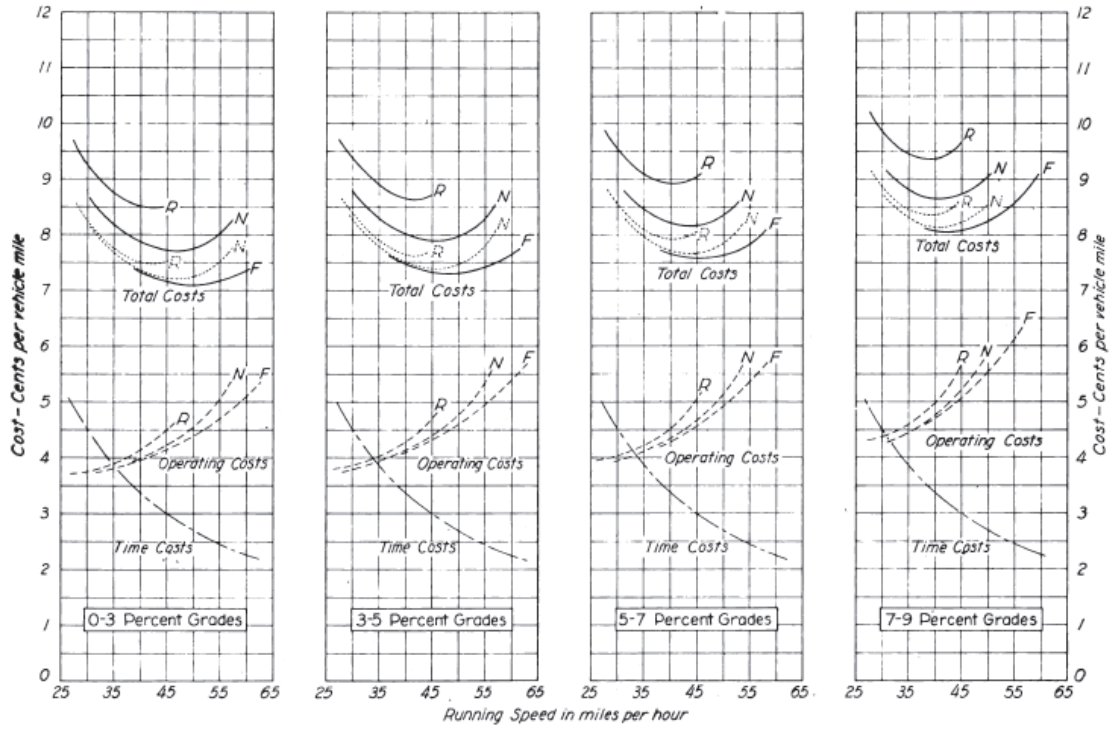
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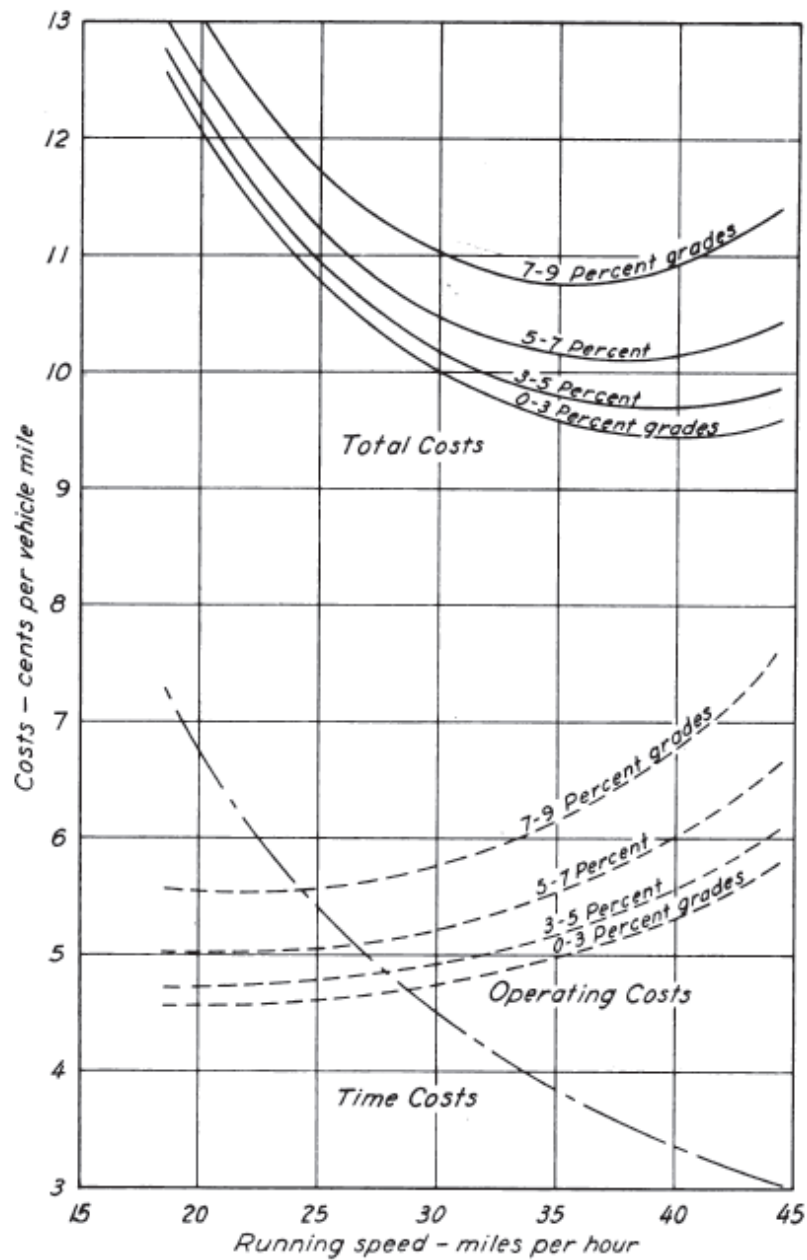
Appendices

Appendix One: Bureau of Public Roads: Time Costs and Operating Costs



UNIT ROAD USER COSTS VS RUNNING SPEED
 PASSENGER CARS IN RURAL AREAS
 TANGENT DIVIDED HIGHWAYS
 PAVEMENTS IN GOOD CONDITION
 Figure 1

American Association of State Highway Officials, 1952: 14



UNIT ROAD USER COSTS VS. RUNNING SPEED
 PASSENGER CARS IN RURAL AREAS
 TANGENT LOOSE SURFACE HIGHWAYS
 IN GOOD CONDITION

Figure 3

American Association of State Highway Officials, 1952: 14

Appendix Two. Growth or Gridlock, Acknowledgements

Jonathan Reiss, *Analytical Synthesis*
Scott Hirsch and Hilary Ring, *Accenture*
Michael Huerta and Parker Williams, *ACS Inc.*
Brad Bodwell, *A.T. Kearney. Inc.*
Anne Morris, *Baruch College*
Nigel Astell, Travis Dunn, Gene Kim and Gary Schulman, *Booz Allen Hamilton Inc.*
Andrew Darrell and Michael Replogle, *Environmental Defense*
Paul Knight and Ken Philmus, *Faber Maunsell*
Bridget Rosewell, Elizabeth Smart, *Greater London Authority*
Irving Yass, *London First*
David Lewis, David Luskin, Ewa Tomaszewska and John Williams, *HDR HLB Decision Economic Inc.*
David Narefsky, John R. Schmidt, Joseph Seliga and Mark S. Wojciechowski, *Mayer, Brown, Rowe and Maw LLP*
James Barry, Peter Cafiero, Lawrence Fleischer and William Wheeler, *The Metropolitan Transportation Authority*
Tom Fox, *New York Water Taxi*
Josh Gilbert and Jason Weinzimer, *Weber Shandwick*
Joshua Chang, Mary Jo Dunnington, Charlene Dusek, Bronson Fox, Brad Hoylman, Annabelle Ladao, Patty Noonan, Merrill Pond and Ernest Tollerson, *Partnership For New York*

New York Community Trust:
Aizaz Ahmed, Juliette Bergman, Gerry Bogacz, Kuo-Ann Chiao, and George Dua-Awereh, *New York Metropolitan Transportation Council:*
Mark Muriello and Louis Venech, *The Port Authority of NY and NJ*
Bob Donnelly, Surabhi Gupta, Ira Hirschman, Janette Sadik-Khan, Ben Perez, Guido Schattaneck, Alice Lovegrove, Tammy Petsios and Peter Vovsha, *Parsons Brinckerhoff's PB Consult*

Surdna Foundation:
Marc Hardwick and Claire Shah, *Think London*

Partnership for New York, 2006 p. Cover Page

Appendix Three: Partnership of New York, List of Members

Co-Chairmen

Victor F. Ganzi *President, Hearst Foundation* E. Stanley O’Neal

Charles Prince *Chairman and Chief Executive of Citigroup, 2003-2007* Richard D. Parsons Michael Patsalos-Fox
Jeffrey M. Peek

President and CEO

Kathryn S. Wyld Peter J. Powers
Vikki L. Pryor

Vice Chairs

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Kenneth I. Chenault Bradford J. Race
Terry J. Lundgren Alan Rappaport

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Kevin Burke Steven Roth
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Robert B. Catell William C. Rudin
Paul R. Charron Linda S. Sanford
Michael G. Cherkasky Alan D. Schwartz
Jill M. Considine Stephen A. Schwarzman
Peter L. Faber Jerry I. Speyer
Alan H. Fishman Sy Sternberg
Timothy P. Flynn Martin J. Sullivan
Richard S. Fuld, Jr. John A. Thain
Martin J.G. Glynn Mary Ann Tighe
Barry M. Gosin James S. Tisch
Jonathan N. Grayer Anthony Watson
Robert Greifeld Seth Waugh
William B. Harrison, Jr. Christopher J. Williams
Jeffrey B. Kindler Fred Wilpon
Henry R. Kravis Robert Wolf
William P. Lauder Deborah C. Wright
Geraldine B. Laybourne Robert C. Wright
Rochelle B. Lazarus Motokazu Yoshida
Edward Lewis Tim Zagat

Founding Chairman

David Rockefeller
Bruce E. Mosler
K. Rupert Murdoch

Donald B. Marron
Harold McGraw, III

Dennis M. Nally
David Neeleman

Appendix Four: PlaNYC Management Task List for Transportation

SUB-INITIATIVE	IMPLEMENTATION LEAD AGENCY	NON-CITY ACTION NEEDED TO PROGRESS	MILESTONES FOR COMPLETION BY END OF		NEW YORK CITY FUNDING, (IN \$ MILLIONS, NOMINAL)		OTHER FUNDING SOURCES
			2009	2015	CAPITAL (FY '08-'17)	OPERATING (FY '08)	
PROMOTE OTHER SUSTAINABLE MODES							
8 Expand ferry service							
Seek to expand service and improve integration with the city's existing mass transit system	EDQ/DOJ/OLTPS		Issue contract and launch service; study crosstown BRT	Continue operating ferry	-	-	
9 Promote cycling							
Complete the 1,600-mile bike master plan	DOT		Complete 200 new directional miles of bike routes	Complete 620 directional miles of bike routes (inclusive of 2009 commitment)	6.2	8.1	SMART Fund
Facilitate cycling	DOT		Install 400 new CITYNACKS per year; improve and update maps annually	Continue installation of 400 new CITYNACKS per year and map improvements	-	-	
IMPROVE TRAFFIC FLOW BY REDUCING CONGESTION							
10 Pilot congestion pricing							
Seek to use pricing to manage traffic in the Central Business District (CBD)	DOT	State law	Install and run congestion pricing system by Spring 2009	Continue operation of the congestion charge	-	-	SMART Fund
11 Manage roads more efficiently							
Expand the use of Muni meters	DOT		Install Muni Meters in most outer borough central business districts	Install Muni meters on all block faces that warrant them (2010)	-	-	
Develop an integrated traffic management system for our regional transportation network	DOT		Consolidate TMC	Implement ITS on all regional highways	57.3	4.0	
12 Strengthen enforcement of traffic violations							
Expand the number of Traffic Enforcement Agents (TEAs)	NYPD		Hire 100 TEAs and deploy		-	5.3	
Enable all TEAs to issue blocking-the-box tickets	NYPD	State law			-	-	
Expand the use of traffic enforcement cameras	Law	State law	Install cameras		-	-	
13 Facilitate freight movements							
Improve access to JFK	EDC		Implement short-term recommendations from JFK Access Task Force		-	-	
Explore High Occupancy Truck Toll (HOTT) Lanes	NYS DOT/DOJ	Study	Complete study		-	-	
ACHIEVE A STATE OF GOOD REPAIR ON OUR ROADS AND TRANSIT SYSTEM							
14 Close the Metropolitan Transportation Authority's state of good repair gap							
Seek a grant from the SMART Authority to cover the MTA's funding gap	MTA/OLTPS	State law			-	-	SMART Fund
15 Reach a state of good repair on the city's roads and bridges							
Seek a grant from the SMART Authority to fund accelerated capital repairs and upgrades	DOT	State law	Resurface 1,925 lane-miles of city streets, exceeding our current pace of resurfacing by 125 lane-miles	Resurface 4,925 lane-miles of city streets, exceeding our current pace of resurfacing by 625 lane-miles v	-	-	SMART Fund
Invest in bridge and tunnel upgrades	DOT	State law	Complete scheduled 10-year bridge capital plan on schedule		-	50.0	SMART Fund
DEVELOP NEW FUNDING SOURCES							
16 Establish a new regional transit financing authority							
Seek to create a SMART Financing Authority to advance new projects and achieve a state of good repair	OLTPS	State law	Establish SMART Fund		-	50.0	SMART Fund

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Appendix Five: Members of the Mayor’s Sustainability Advisory Board

Elected officials:

Christine Quinn, Speaker of the New York City Council

James F. Gennaro, Council Member and Chair of the Committee on Environmental Protection

Business/real estate community/design:

Steven Spinola, President, Real Estate Board of New York

Carlton Brown, COO and Founder, Full Spectrum

Robert Fox, Partner, Cook + Fox Architects

Elizabeth Girardi Schoen, Senior Director of Environmental Affairs, Pfizer, Inc.

Kathryn Wylde, President and CEO, Partnership for New York City

Daniel Tishman, Chairman and CEO, Tishman Construction Corporation, Chair Natural Resources Defense Council

Environmental and Community Advocacy representatives:

Marcia Bystryn, Executive Director, New York League of Conservation Voters

Peggy Sheppard, Executive and Co-Founder, West Harlem Environmental Action Coalition (WE ACT)

Andrew Darrell, Regional Director of NYC Office, Environmental Defense

Ashok Gupta, Program Director of Air and Energy, Natural Resources Defense Council

Robert Yaro, President, Regional Plan Association

Elizabeth Yeampierre, Executive Director, UPROSE

Academic community:

Ester Fuchs, Professor, Columbia University’s School of International and Public Affairs

Philanthropic community:

Michael Northrop, Program Director, Rockefeller Brothers Fund

Labor community:

Ed Ott, Executive Director, NYC Central Labor Council

Appendix Six: Keep NYC Congestion Tax Free Member List

Community Organizations

- 1 Queens Civic Congress
- 2 Queens Coalition for Parks and Green Spaces
- 3 Bayside Civic Database (CB11Q)
- 4 Bay Improvement Group (CB15K)
- 5 Bay Terrace Community Alliance (CB7Q)
- 6 Belle Harbor Property Owners Association (CB14Q)
- 7 Bellerose-Commonwealth Civic Association (CB13Q)
- 8 Briarwood Community Association (CB8Q)
- 9 CAGE (Citizens Against Graffiti Everywhere)
- 10 Creedmoor Civic Association (CB13Q)
- 11 Floral Park Community Council (CB13Q)
- 12 Glen Oaks Village Owners, Inc. (CB13Q)
- 13 Hillcrest Estates Civic Association (CB8Q)
- 14 Hilltop Village Co-Op #4, Inc. (Holliswood) (CB8Q)
- 15 Hollis Park Gardens Association (CB12Q)
- 16 Juniper Park Civic Association (CB5Q)
- 17 Kew Gardens Hills Civic Association (CB8Q)
- 18 Kissena Park Civic Association (CB7Q)
- 19 Little Neck Bay Civic Association (CB11Q)
- 20 Lost Community Civic Association (Floral Park and New Hyde Park) (CB13Q)
- 21 Mitchell Linden Civic Association (CB7Q)
- 22 Neponsit Property Owners Association (CB14Q)
- 23 North Bellerose Civic Association (CB13Q)
- 24 North Hills Estates Civic Association (CB11Q)
- 25 Queens Colony Civic Association (CB13Q)
- 26 Queens Community Civic Corp. (CB8Q)
- 27 Queens Village Civic Association (CB13Q)
- 28 Richmond Hill Historical Association (CB9&10Q)
- 29 Rocky Hill Civic Association (CB13Q)
- 30 Royal Ranch Association (CB13Q)
- 31 The Cornucopia Society
- 32 Utopia Estates Civic Association (CB8Q)
- 33 Waldheim Neighborhood Association (CB7Q)

Civic and Community

- 34 Bellerose Hillside Civic Association (CB13Q)
- 35 Cambria Heights Civic Association (CB13Q)
- 36 Community Board 4Q
- 37 Community Board 6Q
- 38 Community Board 7K
- 39 Community Board 7Q
- 40 Community Board 8Q
- 41 Community Board 8X

- 42 Community Board 10K
- 43 Community Board 11Q
- 44 Community Board 13Q
- 45 Community Board 14K

Business and Labor

- 46 AAA New York
- 47 Algin Management, Inc.
- 48 American Trucking Association
- 49 Association of Municipal Employees (AME)
- 50 Bodega Association
- 51 College Point Board of Trade (CB7Q)
- 52 Communication Workers Union Local 1180
- 53 Food Emporium
- 54 Independent Beer Wholesalers
- 55 Krasdale Foods;
- 56 The Labor-Management Center, Inc.
- 57 Latino Restaurant Association
- 58 Lawrence Teachers Association
- 59 Local 338, RWDSU-UFCW
- 60 Local 891, AFL-CIO, International Union of Operating Engineers
- 61 Metropolitan Parking Association
- 62 Morton Williams Associated Foods
- 63 Neighborhood Retail Alliance
- 64 New York Night Life Association
- 65 New York State Restaurant Association
- 66 NYS Federation of Hispanic Chambers of Commerce
- 67 Queens Chamber of Commerce
- 68 Raymond Irrera Associates, PC
- 69 Roseland
- 70 Resolve It Inc.
- 71 SEIU Local 246
- 72 SKI Beverages
- 73 Small Business Congress of NYC
- 74 TCE Systems, Inc.
- 75 Valente Yeast

<http://keepnycfree.com/>

Appendix Seven: Traffic Mitigation Appointees

Richard Bivone, President, *Nassau Council of Chambers of Commerce*

State Assemblyman Richard L. Brodsky *92nd Assembly District.*

State Assemblywoman Vivian E. Cook *32nd Assembly District*

Andy Darrell, Director, *Living Cities program at Environmental Defense*

Thomas F. Egan, Chairman, *State University of New York Board of Trustees*

State Assemblyman Herman Denny Farrell, Jr. *71st Assembly District*

Gary LaBarbera, President, *New York City Central Labor Council*

Edwin C. Reed, Chief Financial Officer, *Greater Allen Cathedral of New York*

Gerard Romski, real estate attorney

Gene Russianoff, staff attorney, *New York Public Interest Research Group*

Janette Sadik-Khan, Commissioner, *New York City Department of Transportation*

Elliot "Lee" Sander, Executive Director and CEO, *MTA*

Andrea Batista Schlesinger, Executive Director, *Drum Major Institute*

Marc V. Shaw, Executive Vice President, *Extell Development Co.*

Anthony Ernest Shorris, Executive Director, *Port Authority*

Kathryn S. Wylde President and CEO *Partnership for New York City*

Elizabeth C. Yeampierre, Executive Director, *UPROSE*

Traffic Mitigation Commission Report, 2008 p. 1

Appendix Eight: Traffic Mitigation Commission Evaluation of Recommendations

Table 22: Evaluation of the Commission's Plan	
Criteria	Commission Finding
Reduction in Vehicle Miles Traveled (VMT)	The plan will reduce VMT in the area of Manhattan south of 86th Street by 6.8 percent, exceeding the requirement in the legislation establishing the Commission. The plan will also reduce traffic across the City and region.
Net Revenue	The plan will generate \$491 million a year in net revenues for transit investment. The plan's design will result in significantly lower capital and operating costs than the Mayor's plan.
Best Practices	The plan is modeled on successful congestion pricing programs in London, England and Stockholm, Sweden. The London and Stockholm programs have both achieved significant reductions in traffic congestion while also raising new revenues for transportation investment.
Impacts on Air Quality and the Environment	The plan will reduce motor vehicle emissions in the congestion pricing zone, neighborhoods adjacent to the zone, and citywide. Congestion pricing will support the City's ongoing efforts to improve air quality and public health and to reduce emissions of greenhouse gases.
Neighborhood Impacts	The plan will significantly reduce through-traffic in neighborhoods adjacent to the zone, including Upper Manhattan, Long Island City, and Downtown Brooklyn. Like all four alternatives considered, the plan may increase park-and-ride activity in some neighborhoods. These impacts can be mitigated through neighborhood parking strategies and must be addressed in the City's implementation plan.
Impacts on Economic Classes	By raising money for short and long-term transit improvements, the plan will most benefit transit commuters to the CBD. Analysis shows that these commuters earn 31 percent less in income than auto commuters to the CBD. A small proportion of New Yorkers of limited income—those who drive to jobs in the CBD—would be disproportionately impacted by the plan.
Regional Equity	The main purpose of the revenue stream created by congestion pricing is to support the MTA Capital Plan. Commission members raised concern over the regional equity of the congestion pricing plan regarding the contribution of commuters from west of the Hudson River to the MTA Capital Plan.
Privacy	Like all four alternatives considered, the plan raises some privacy concerns. Compared to the Mayor's plan however, the Commission's plan requires significantly fewer license plate camera locations. The privacy impacts of the plan can be mitigated through controls on the storage and sharing of vehicle data, which should be addressed in the City's implementation plan.
Implementability	The plan is feasible and will rely primarily on technologies already in use in the New York area, such as E-ZPass. Neither new technology nor unprecedented levels of interstate coordination would be required.
Economic Impact	The plan will have a positive impact on the economy of the City and region by improving worker productivity, reducing business costs, and securing the future of the transit system.

Traffic Mitigation Commission, 2008 p. 26

Appendix Nine: Polling Analysis and Raw Data

Analysis

Quinipiac University conducted polls congestion pricing. This analysis focuses on polls from January of 2007 through March of 2008. The polls showed that New Yorkers became more aware of congestion pricing after the launch of PlaNYC. In January, 47 percent of New Yorkers said that they had heard about congestion pricing. By late May 77 percent had heard of it (Appendix 9 – 1).

A consistent, high percentage of New Yorkers saw traffic congestion as a problem during the entire period of time that the congestion pricing policy was being debated. In January of 2007, 89 percent of thought it was a serious and the same percentage saw it as a problem in March of 2008. According to one poll, in July of 2007, almost one in ten New Yorkers indicated that congestion was their most serious policy concern (Appendix 9 – 2).

However, New Yorkers did not want congestion pricing. From July of 2007 to March of 2008 a greater percentage of New Yorkers opposed congestion pricing, moving from 52 percent to 56 percent. Congestion pricing did not poll much better than another policy proposed by opponents, raising parking meters. Thirty-seven percent supported congestion pricing and 35 percent supported raising parking meter rates (Appendix 9 – 4). This persistent opposition was accompanied by polling data that showed New Yorkers thought that the policy was unfair. From January of 2007 through March of 2008 almost three fifths of New Yorkers consistently agreed with the statement congestion pricing would unfairly tax people who live outside Manhattan (Appendix 9 – 5).

The only group that supported congestion pricing was people living in Manhattan. Even among transit users, the supposed beneficiaries, 53 percent opposed congestion pricing and only 40 percent supported it (Appendix 9 – 6). New Yorkers from the outer boroughs consistently

opposed congestion pricing at a rate of 60 percent or more. Manhattan consistently supported the policy, but the percentage supporting it fell from January 2007 to March of 2008, by about 10 points. In terms of party politics, Democrats, Independents and Republicans all consistently opposed the policy. Republicans opposed it more strongly than the other two groups, with opposition growing stronger over time. Finally, although the issue of race was not a part of the popular or political framing of the issue, whites supported congestion pricing at a much greater rate than blacks and Hispanics, though in none of the polls did a majority of any group support it (Appendix 9 – 6).

Proponents emphasized that polling data showed support for the PlaNYC proposal if tolls collected from congestion pricing would be used to support public transportation. When asked if they would support congestion pricing if the revenues were guaranteed to be used to either prevent an increase in mass transit fares or to improve mass transit, a consistent majority of New Yorkers, around 60 percent, consistently supported it (Appendix 9 – 7).

However, New Yorkers did not trust the local governments to use funds for transit. A consistent majority of more than two thirds thought it was not likely that congestion pricing would prevent an increase in transit fares. A narrower majority, 54 percent, also did not believe that the funds would be used to improve transit (Appendix 9 – 8).

Polls: Sources.

Polls conducted by Quinnipiac University on the following dates.

January 18, 2007, margin of error: +- 3.1 percentage points

May 24 2007, margin of error: 3.1 percentage points

July 26 2007, margin of error: +/- 2.8 percentage points

August 30 2007, margin of error: +- 2.8 percentage points

November 19 2007 margin of error: +/- 3.1 percentage points

January 10 2008 margin of error: +/- 2.9 percentage points

March 13 2008 margin of error: +/- 2.6 percentage points

1 – Public became more aware of congestion pricing

TREND: How much have you heard or read about congestion pricing, a plan adopted by some major cities to reduce traffic by charging a fee to drive into congested areas? A lot, some, not much, or nothing at all? (May 24 2007)

	May 24 2007	Jan 18 2007
A lot	41	17
Some	36	30
Not much	10	18
Nothing at all	11	33
DK/NA	1	1

2 – Traffic is a Problem

A total of 91 percent of New York City voters say traffic congestion is a “very serious” or “somewhat serious” problem in the city. (January 10, 2008)

TREND: How much of a problem do you think traffic congestion is in New York City?
A very serious problem, somewhat serious, not very serious, or not a problem at all?

Mar 13 Jan 10 Nov 19 Aug 30 May 24 Jan 18
2008 2008 2007 2007 2007 2007

Very serious	52	52	52	55	59	55
Smwht serious	37	39	35	34	31	34
Not very serious	8	6	9	8	7	6
Not at all	1	2	2	1	2	2
DK/NA	1	1	2	2	2	2

9. What do you think is the most important problem facing New York City today? (July, 2007)

Tot

1) Education Total 16%

2) Terrorism Total 12%

3) Economy Total 11%

4) Crime Total 10%

5) Housing Total 9%

6) Transportation Total 9%

-Quality mass transit/

Public trans 3

-Traffic congestion
(roads/highways) 4

-Poor conditions
roads/highways 2

7) Environment/Pollution 3%

[The poll continues with 16 other problems, all of which score 2% or below]

3 – Public Thought Congestion Pricing Was a Bad Idea on Its Own

By a 56 – 38 percent margin, New York City voters oppose the revised congestion pricing plan to charge a fee for vehicles driving below 60th Street in Manhattan. (Quinnipiac, March 13, 2008)

Manhattan voters support congestion pricing in general 52 – 42 percent. Opposition in the other boroughs ranges from 58 – 36 percent in Queens to 74 – 22 percent in Staten Island (January 10, 2008)

TREND: The Bloomberg administration has suggested using congestion pricing to reduce traffic in New York City by charging a fee for vehicles that drive south of 86th Street in Manhattan. Do you support or oppose the Bloomberg administration's congestion pricing plan?

Jan 10 Nov 19 Aug 30 Jul 26
2008 2007 2007 2007

Support	37	33	36	41
Oppose	58	61	57	52
DK/NA	5	6	8	6

Mass transit users oppose it 53 – 40 percent (May 24, 2007).

But voters, including mass transit users, oppose 56 – 37 percent a congestion pricing proposal where drivers would be charged \$8 to drive a car into Manhattan below 86th Street, the independent Quinnipiac (KWIN-uh-pe-ack) University poll finds.

Manhattan voters support congestion pricing 62 – 29 percent. Voters in other boroughs are opposed to the proposal:

- 67 – 26 percent in The Bronx;
- 63 – 29 percent in Brooklyn;
- 61 – 32 percent in Queens;
- 69 – 26 percent in Staten Island.

By a 3 – 1 margin, 68 – 23 percent, New York City voters say they use mass transit, rather than a car, to travel into and out of Manhattan. Car drivers oppose congestion pricing 59 – 34 percent while mass transit users oppose it 53 – 40 percent.

4 – Against other policies

January 2008

15. The Bloomberg administration has suggested using congestion pricing to reduce traffic in New York City by charging a fee for vehicles that drive south of 86th Street in Manhattan. Do you support or oppose the Bloomberg administration's congestion pricing plan?

	Tot
Support	37%
Oppose	58
DK/NA	5

5 – Public thought it was Unfair

By a 58 – 36 percent margin, New York City voters agree that congestion pricing would unfairly tax people who live outside Manhattan. Only Manhattan voters disagree, 52 – 43 percent, with that claim (Quinnipiac, March 13, 2008).

TREND: Do you you agree or disagree with the following statement - Congestion pricing would unfairly tax people who live outside of Manhattan.

Mar 13 Jan 10 Nov 19 May 24 Jan 18
2008 2008 2007 2007 2007

Agree	58	54	54	59	57
Disagree	36	42	42	36	37
DK/NA	6	4	4	5	7

6 – Who Supported, Who Opposed

Transit Users:

January 2008

21. The commission is also considering recommending raising parking meter rates in Manhattan to reduce traffic in New York City. Do you support or oppose raising parking meter rates in Manhattan?

	Tot
Support	35%
Oppose	60

Borough:

May 2007

Manhattan voters support congestion pricing 62 – 29 percent. Voters in other boroughs are opposed to the proposal:

- 67 – 26 percent in The Bronx;
- 63 – 29 percent in Brooklyn;
- 61 – 32 percent in Queens;
- 69 – 26 percent in Staten Island.

July 2007

Manhattan voters support congestion pricing 59 – 37 percent, the independent Quinnipiac University poll finds. Voters in the other boroughs oppose it:

- 53 – 38 percent in Queens;
- 59 – 35 percent in Brooklyn;
- 61 – 34 percent in The Bronx;
- 60 – 32 percent in Staten Island.

August 2007

In this latest survey, Manhattan voters support congestion pricing 54 – 36 percent. Voters in the other boroughs oppose it:

- 61 – 30 percent in Queens;
- 60 – 34 percent in Brooklyn;
- 74 – 21 percent in The Bronx;
- 56 – 39 percent in Staten Island

November 2007

Manhattan voters, who supported congestion pricing 54 –36 percent August 30, now are split, with 46 percent supporting it and 47 percent opposed.

In this latest survey, voters in the other boroughs oppose congestion pricing:

- 65 – 29 percent in Queens;
- 63 – 31 percent in Brooklyn;
- 70 – 24 percent in The Bronx;
- 63 – 34 percent in Staten Island

January 2008

	Brnx	Kngs	Man	Qns	StIsl	Men	Wom
Support	30%	32%	52%	36%	22%	40%	34%
Oppose	67	61	42	58	74	55	61
DK/NA	3	7	6	5	4	5	6

March 2008

	Brnx	Kngs	Man	Qns	StIsl	Men	Wom
Support	27%	37%	53%	32%	33%	43%	33%
Oppose	62	58	42	62	63	52	59
DK/NA	11	5	6	6	4	5	7

Republican / Democrat / Independent

May 2007

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	37%	33%	42%	33%	47%	28%	27%	
Oppose	56	61	50	60	46	65	64	
DK/NA	7	6	8	6	7	7	9	

July 2007

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	41%	33%	42%	45%	46%	31%	41%	
Oppose	52	63	53	48	47	63	55	
DK/NA	6	5	5	6	7	5	5	

August 2007

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	36%	31%	37%	37%	43%	29%	34%	
Oppose	57	63	56	58	50	63	61	
DK/NA	8	6	7	5	8	8	5	

November 2007

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	33%	23%	34%	42%	43%	19%	28%	
Oppose	61	73	60	52	51	74	65	
DK/NA	6	4	5	6	6	6	6	

January 2008

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	37%	38%	36%	39%	44%	28%	29%	
Oppose	58	59	59	53	50	66	69	
DK/NA	5	3	5	8	6	7	3	

March 2008

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp	
Support	38%	32%	38%	42%	42%	25%	36%	
Oppose	56	63	56	53	52	68	61	
DK/NA	6	5	6	5	6	7	4	

7 – Public Would Accept if No Fare Increases or Improved Transit

But by a 59 – 38 percent margin, voters say they would support congestion pricing if the money is used to improve mass transit in and around New York City (Quinnipiac, March 13, 2008).

Support for congestion pricing, if the money is used for mass transit is:

- Manhattan: 73 – 23 percent;
- Bronx: 57 – 39 percent;
- Brooklyn: 51 – 46 percent;
- Queens: 58 – 40 percent;
- Staten Island: 55 – 42 percent.

TREND: Would you support congestion pricing if the money were used to improve mass transit in and around New York City? City (Quinnipiac, March 13, 2008)

Mar 13 Jan 10
2008 2008

Yes	59	60
No	38	37
DK/NA	3	3

Voter support for congestion pricing, if the money is used to improve transit, ranges from 51 – 47 percent in Staten Island to 70 – 27 percent in Manhattan, the independent Quinnipiac (KWIN-uh-pe-ack) University poll finds. (January 10, 2008)

Would you support congestion pricing if the money were used to prevent an increase in mass transit fares and bridge and tunnel tolls? (November 19 2007)

Nov 19 Aug 30 Jul 26
2007 2007 2007

Yes	53	57	58
No	41	38	36
DK/NA	5	5	6

When asked if they would support congestion pricing if the revenues were guaranteed to be used to either prevent an increase in mass transit fares or to improve mass transit, a majority of New Yorkers, around 60 percent, consistently supported it.

8 – Public did not Trust that Money would be Spent on Transit Improvement

Only 43 percent of voters say it is “very likely” or “somewhat likely” that congestion pricing funds will be used to improve mass transit, while 54 percent say this is “not too likely” or “not likely at all” (Quinnipiac, March 13, 2008).

How likely do you think it is that the fees collected from congestion pricing will prevent an increase in transit fares – Very likely, Somewhat likely, not too likely or not likely at all? (November 19 2007)

	Tot	Rep	Dem	Ind	Wht	Blk	Hisp
Very likely	6%	4%	7%	6%	3%	6%	13%
Smwht likely	22	17	24	23	25	20	21
Not too likely	31	38	30	32	35	26	31
Not likely at all	36	36	36	35	34	44	30
DK/NA	4	5	4	4	3	4	5

May 24 2007 +- 3.1%

TREND: How do you usually travel into and out of Manhattan, by car or mass transit? (May 24 2007)

	May 24 2007	Jan 18 2007	Feb 27 2003	Jul 17 2002
Car	23	24	31	25
Mass transit	68	67	63	69
OTHER	6	7	-	-
DK/NA	3	3	6	6

Appendix Ten Fair Plan

