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Assessment Limitations and the Disparate Impact of
Tax Policy on Minoritized Communities

A Dissertation

Presented to the Faculty of the
College of Business & Public Management

West Chester University

West Chester, Pennsylvania

In Partial Fulfillment of the Requirements for the Degree of
Doctor of Public Administration

By

Michael J Fouassier

May 2022

Dedication

This dissertation is dedicated to my wife Joy Cavallaro-Stramaglia, without whom none of my doctoral pursuits would have been possible. Her love and support throughout years of coursework and the dissertation writing process have been the driving force behind my success. Thank you for believing in me and standing by my side.

I also dedicate this work to my son, Mathew C-S Fouassier, who motivates me every day to be better than I am. During the final year of dissertation seminars, when you were just in your first few months with us, you reminded me why I was working so hard to achieve my goals. I cannot wait to see you realize yours.

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Abstract

Public policies that limit assessment increases have created a system where more valuable homes are taxed at lower rates than less valuable homes. This tax regressivity is found not only between neighborhoods but also within neighborhoods such that lower-value homes in wealthier areas are also taxed at higher rates. The research presented in this dissertation, just one line of inquiry that adds to the ongoing discussion of tax equity, provides evidence that minoritized communities will not experience the greatest benefits of assessment caps. The legislative intent of New York State Senate Bill S7000A was to protect homeowners. What has occurred, quite to the contrary, is a long-term effect that shields wealthier homeowners from paying their fair share at the expense of lower-income communities of color. This is yet another reinforcing and systemic system of bias that limits the opportunities of minoritized groups. The research below presents existing literature on the pervasiveness of assessment bias, as well as an analysis of variance that identifies a statistically significant difference in the effective tax rates between wealthier communities and those that are predominantly minoritized.

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CHAPTER I: INTRODUCTION

Once the domain of the federal government, the shift towards local property taxation has a long and transformative history in the United States. As the most stable form of local government revenue (Carlson, 2004), the property tax provides a measurable, tangible, asset-based paradigm of tax liability that cannot be easily hidden or sheltered. In keeping with the founders' beliefs that state and local governments ought to be empowered to raise revenue (Fisher, 1996), and as governments became more complex and specialized throughout the 19th and 20th centuries (Goodnow, 2017), local assessment became the standard in property tax administration.

Property assessors understand their local markets and apply mass appraisal and other valuation techniques to equitably apportion the tax burden to property owners (International Association of Assessing Officers, 2013). A tax based on value, *ad valorem* presupposes that one's property is an indication of wealth and the ability to pay for local government services. Assessment is done at village, town, city, and county levels depending on the state. In New York State there are many hundreds of assessment authorities with legal and professional guidelines assessors must adhere to when performing their duties. The result of the assessor's work is an assessment roll, a comprehensive listing of all real property, its classification, value, and exemptions granted. The assessment roll serves not as a tax levy, something that is developed by elected officials and offices of management and budget, but rather as a way to allocate the levy to those who own taxable real property in the assessment jurisdiction. Owners with assets of higher value pay more, while owners with smaller and less valuable property pay less, proportionally. However, despite the best efforts of the property tax administrator, law and policy have greatly impacted the ability of the assessment office to apportion tax liability in a fair

and equitable manner. Contrary to the aspirational Wilsonian perspective, whereby politics is separate from administration (Kettl, 2015), the history of New York City's property tax system has been primarily driven by politics over the past 40 years.

Although the politicization of the property tax is not a new phenomenon, it has been ubiquitous since the tax revolts of the 1970s (Fisher, 1996; Haveman & Sexton, 2008). The fear of rapidly-escalating property taxes, coupled with movements in property tax law from other parts of the country, New York City sought policy solutions in the late 1970s and early 1980s that would satisfy concerns and restore what had been perceived to be an inequitable system. In an effort to fix the old assessment system and prevent large increases, however, a new statutory framework would serve as the foundation for an even less equitable system than the one it replaced (Independent Budget Office, 2006; New York City Advisory Commission on Property Tax Reform, 2020).

According to the latest U.S. Decennial Census (U.S. Census Bureau, 2022), New York City is home to 8.8 million people. Although the majority of residents are renters, approximately 32% own their own homes (NYU Furman Center et al., 2016). As will be detailed in Chapter III, there are more than 630,000 1, 2, and 3-family homes in Tax Class 1 (New York City Department of Finance, 2022) that pay, along with various other property types, a real property tax on a quarterly or semi-annual basis. Property taxes are an essential source of revenue for New York City and can be levied even during the worst of economic crises. In fact, despite the COVID-19 pandemic's unprecedented impact on New York City's economy, taxable assessed value declined just 5.21% according to the New York City Department of Finance (2022).

In terms of transparency, taxpayers in Tax Class 1 have access to information about their values and the general methodology used by the New York City Department of Finance to

establish them. While the Department of Finance may employ the income approach to value that captures the investment value of real estate for income-producing properties, market value for residential property with fewer than four units is derived by applying market comparable sales to subject properties. In a large assessing jurisdiction such as New York City, there are many thousands of arm's length sales, or market transactions, that are useable for the purposes of valuation each year. The Department of Finance publishes a file of sales on the public-facing website and provides an interactive GIS web-based tool so owners can find their own home and comparable sales in the surrounding neighborhood.

In addition to sales lists and other online tools, homeowners can enter their address or unique Borough, Block, and Lot ID into the Department of Finance Notice of Property Value site and retrieve information about the descriptive and locational characteristics of their property. These attributes include square foot of living area, number of stories, style of home, acreage, and number of residential units. If a homeowner alters the physical condition of a home, the Department of Finance will provide an indication that value increased as a result of an alteration. With all this information available online, the Department of Finance provides a level of transparency that is consistent with the move in recent years to open data and sharing agency information. However, despite the wealth of information about the sales market, descriptive details for every property, and web-based GIS tools and story maps, the market value is not the value being used to tax these 630,000 parcels. The assessed value, a figure calculated behind the scenes using complex logic mandated by law, is the value on which New York City issues a tax bill.

In many annual reassessment jurisdictions, the market and assessed values are the same. The New York State Department of Taxation and Finance (2022) refers to this as being at full

value. A single number, where an assessment equals what a homeowner could sell their property for, provides a simplicity that taxpayers can understand. Moreover, when taxpayers review their values on the tentative assessment roll, they have a basis of comparison and can feel confident that they are being taxed commensurate with their home's value. In New York City, however, assessments may be as much as 6% of market value or as low as a fraction of 1%. While the market value published on the Notice of Property Value demonstrates that the Department of Finance understands the sales value of a single-family home, homes of equal market value may be assessed at vastly different rates. Real Property Tax Law (RPTL) in New York State, while on the one hand provides a legal requirement for properties to be assessed at a uniform percent of value, has also allowed for a rather damaging system of assessment limitations. In other words, while assessment professionals work hard to maintain fair market values at 100% of sales price, the legal restrictions on how much assessed value can increase from year to year creates a great inequity within the tax assessment system.

In the research presented below there is an examination of the extent to which tax policy has created a crisis of social and racial equity within the property tax system. However well-intentioned, policy that interferes with the fundamental tenets of *ad valorem* taxation has conferred a greater financial benefit to some at the expense of others. While intended to be a progressive system that levies a greater tax from those who own higher-valued assets, the opposite has become true in many neighborhoods across the city as will be demonstrated in Chapter IV. It is common in New York City for a homeowner of a \$2 million brownstone in Brooklyn to be paying half the property tax of an owner of a \$600,000 raised ranch in Queens. Although the study in this dissertation is quantitative, for the purposes of triangulation there are parcel-specific examples in Chapter IV to illustrate the effect. Regressivity, where higher-valued

homes pay taxes at lower effective tax rates than more modest homes, is pervasive in a system that limits assessed values. This is explored in greater depth in Chapter II.

The research presents an analysis of variance to determine if there is a statistically significant difference in the effective tax rates between communities that are either predominantly whiter and wealthier, and those that are predominantly minoritized. Effective tax rate is a reliable metric to measure equity as it operationalizes fairness. Essentially, tax liability divided by home value to demonstrate the percent of value on which homeowners are paying. Although scholars such as Hayashi (2021) analyze tax equity at a NYC Council or Community District level, an advantage of this research design is the use of Neighborhood Tabulation Areas (NTAs) as the geographic unit of measurement. Council and Community Districts are useful in political engagement and service delivery, however, at these geographic levels there are often too many dissimilar neighborhoods combined into a single district to make meaningful comparisons when coding neighborhoods by predominant racial group. There are just 51 Council Districts, 59 Community Districts, and 55 Public Use Microdata Areas (PUMAs). NTAs, by contrast, aggregate census tracts into 195 groups that offer more geographic granularity.

While critics argue that regressive taxation is more a function of socioeconomic phenomena, movements in markets and valuation techniques, some researchers argue that socioeconomic and race are inextricably linked. It is not the objective of this dissertation to examine all aspects of racial and social equity, however, a study of tax equity cannot ignore that much like other government operations, property taxation has provided an upper hand to the wealthy at the expense of low-income and middle-class groups. Tax systems that limit assessments without income circuit breakers or resetting the assessment upon sale, offer benefits to a group of taxpayers for whom tax relief was never intended. This is the reason scholars

suggest that even systems that are not explicitly bias can still harm less affluent communities and those of color. These harms are cumulative and reinforcing (Gooden, 2015) and require legislation to reverse. Unfortunately, when assessment limitations schemes have been in place for decades, homeowners who benefit most are largely unwilling to see those benefits removed.

In Chapter II, a comprehensive review of the relevant literature will be presented to provide context to the research question. The property tax has a long history and impacts health and safety, levels of crime and poverty, education, and local service delivery. The property tax represents, in most jurisdictions, the single largest source of revenue and is highly visible (Fisher, 1996). While much of the scholarship mentioned below focuses on economic modeling and the accuracy of estimating value for taxation purposes, there are other branches of research that bring a social and racial equity argument to bear. This scholarship provides the foundation for further research on how well-intentioned tax policy may lead to quantifiable, disparate impacts on vulnerable groups.

CHAPTER II: LITERATURE REVIEW

Property Tax Assessments and Assessment Limitations

A research question that focuses on property tax equity must consider the growing body of literature that examines what tax fairness is and how assessment limitations work to undermine it (Baar, 1981; Bradley, 2017; Connolly and Bell, 2014; Dye et al., 2006; Fleissig, 2018; Harris, 2004; Haveman & Sexton, 2008; Hayashi, 2021; Ihlanfeldt, 2011). This literature review describes the nature of assessment limitations, scholarly research that defines property tax inequity, issues of historical and current housing discrimination, and which homeowners are paying a disproportionate amount of tax as a result of public policy. This review also sheds light on the evolving research around racial and social equity in the administration of the local property tax, as scholarship in this area is emergent (Brown, 2021; Connolly and Bell, 2014; Dye et al., 2006; Fleissig, 2018; Hayashi, 2021; Howard, 2020). Although the inequities in New York City property tax assessments propagate from New York State Senate Bill S7000A in 1981 (NYU Furman Center et al., 2016; NYU Furman Center et al., 2016), the unintended consequences of public policy continue to shift the tax burden to lower-income individuals and minoritized communities (Brown, 2021; Fleissig, 2018; Harris, 2004; Hayashi, 2021). While initially intended to create a more comprehensible tax system and prevent rapid property tax increases (Haveman & Sexton, 2008; McCluskey et al., 2013; NYU Furman Center et al., 2016), the restructuring of New York City's assessment procedures has created even greater challenges. Moreover, assessment limitations erode equity the longer they are in effect and are difficult to remove once in place (Connolly and Bell, 2014; Dye et al., 2005). This is evidenced by the growing number of complaints from the public and that recommendations from the NYC Advisory Commission on Property Tax Reform have yet to be implemented.

As those who study tax policy understand, the real property tax in most parts of the United States is *ad valorem* and based on the value of real estate (International Association of Assessing Officers, 2013). Historically, taxing land and physical improvements was based on the productive capacity of property that, in today's assessment roll, is measured as appraised or market value (Carlson, 2004; International Association of Assessing Officers, 2013; McCluskey et al., 2013). In an *ad valorem* tax system, as the value of your property increases the tax burden increases commensurate with its utility or market value. The principle behind *ad valorem* property taxation, distinct from the income tax, is that those with real property assets of greater value have the responsibility to pay more irrespective of their cash position or liquidity (Davis, 2018). Conversely, taxpayers who own less valuable real estate are obliged to pay a comparatively smaller share of the tax burden (International Association of Assessing Officers, 2013).

Property taxes in the United States have been levied since the colonial period, serving as a form of revenue that accompanied the poll and sales taxes (Carlson, 2004; Fisher, 1997). The property tax was based on either the quantity or quality of land (Carlson, 2004) and provided a stable revenue stream to fund government projects and administration. Real estate cannot be hidden easily and, at least historically, was a corresponding parallel to an owner's wealth (McCluskey et al., 2013). While federal property taxation was authorized in the late 18th century just after the American Revolution, early tax systems ultimately transitioned to state and local authority by the 19th century, with the fundamental principles of *ad valorem* written into many state constitutions (Haveman & Sexton, 2008). Those principles included valuing real property at a uniform percent of value (Carlson, 2004).

In New York City, where real estate prices are inelastic and demand continues to increase (Sieg & Yoon, 2020), assessments are updated each year to keep up with the market. This type of annual revaluation, that establishes property appraisals on a yearly basis, ensures that market values are maintained using the latest cost, sales, and income and expense data (International Association of Assessing Officers, 2010). The process of revaluing parcels each year is referred to as annual reassessment and, while many municipalities have not conducted a reassessment in 20 or 30 years (Dornfest, 2008), New York City has engaged in individual and mass appraisal techniques to keep property records and values current (New York City Department of Finance, 2022). Annual revaluation and the practice of updating market values notwithstanding, in New York City the tax bill is based on assessed value which, for residential property with fewer than four units, is set at a maximum of 6% of market value. This percent of value is referred to as either the Level of Assessment (LOA) or the assessment ratio. In New York City's tax classification scheme homes with fewer than 4 total units are in this capped, or assessment-limited, tax classification.

In practical terms, for every 100,000 in market value there is a target, maximum assessed value of 6,000. While no assessed value can exceed 6% of market value, many homes have an assessed value far below this maximum allowable level as a result of assessment limitations. This is a direct result of market conditions outpacing the limitation threshold. In any given year an assessed value may not increase by more than 6% and no more than 20% over a five-year period. This is the statutory cap, or limitation, that has been placed on Tax Class 1 homes that was designed to prevent large annual increases in taxes. The cap is a root cause of assessment inequity that will be described further in the literature presented below and in the quantitative analysis provided in Chapter IV.

While the practice of fractional assessment, where assessed values are set at a fixed percent below that of market value, may not have a negative effect on equity if all homes are at the percent of full value, the limitations on assessed value growth do (Baar, 1981; Connolly and Bell, 2014; Dye et al., 2006; Harris, 2004; Haveman & Sexton, 2008; Hayashi, 2021; McCluskey et al., 2013; Skidmore et al., 2010). The reason for this is that assessment ratios fail, over time, to remain uniform. Assessing authorities in many jurisdictions must maintain a uniform percent of fractional value for all properties lest they violate state and local tax laws (Haveman & Sexton, 2008). However, the standard of uniform percent is almost immediately violated under assessment limitations (McCluskey et al., 2013) as homes in different geographic areas within an assessing authority appreciate at different rates and will experience capping benefits unequally (Dare et al., 2013; Hayashi, 2014).

Economics Framework

Scholarly works that address property tax equity are divided into two camps. The first line of inquiry stems from economics and statistical modeling, where the research focus is on vertical and horizontal equity in the valuation of real estate (Berry, 2021; Black, 1977; Cheng et al., 1970; Clapp, 1990; Dare et al., 2013; Gloudemans, 2011; Kakwani, 1977; Quintos, 2020; Samad & Akther, 2012). Economists examine errors in valuation, mass appraisal techniques, and price estimation that drive dispersion and inaccuracies in assessment rolls. Common in this line of research are issues of vertical equity, or fairness across price levels, as well as horizontal equity that is concerned with fairness between homes of similar physical and location characteristics (Gloudemans, 2011; Haveman & Sexton, 2008; Quintos, 2014). Many assessing jurisdictions fail to update their property records (Berry, 2021) and do not regularly revalue real estate to maintain appropriate market values (Dornfest, 2008). Moreover, economists attribute

inequity within property tax assessment to the issue of regressivity, a condition where higher market values are suppressed and lower market values are overstated (Jensen, 2009; McMillen & Weber, 2008; Quintos, 2014).

As early as the 1970s, economists (Engle, 1975; Kakwani, 1977; Paglin & Fogarty, 1972; Rosen, 1974; Ross, 1971) investigated the extent to which mass appraisal, hedonic regression, and other valuation practices created a benefit for owners of high-end property at the expense of lower-income property taxpayers. These scholars and others who have more recently published on the topic of property taxes (Dye et al., 2005; Ihlanfeldt, 2011; McMillen & Weber, 2008; Oates & Fischel, 2016; Quintos, 2014) suggest that regressive valuations are common as statistical models tend to focus on errors centered around the mean and are sensitive to the number of available sales. This line of economics-based research into assessment equity is largely concerned with developing improved techniques to model market values, reform the assessment review process, and improve equity metrics (Berry, 2021; Gloudemans, 2011; Jensen, 2009; Quintos, 2020). These metrics include the price-related differential, price-related bias, and more recently the Gini coefficient that is found in socioeconomic scholarship (Quintos, 2020).

As it pertains to regressive valuation mentioned earlier, where high-end real estate assets are undervalued relative to lower-end property, scholars have argued that outdated property records, the lack of important neighborhood attributes (Berry, 2021; Howard, 2020), and inadequate modeling techniques (Gloudemans, 2011; Quintos, 2020) drive the inequity in value. While economists have acknowledged the distributional impact of valuation inaccuracies, Howard (2020) merge economics with social and racial equity concerns as will be discussed further in this literature review. They conclude, after conducting a nationwide study of 118

million homes, that local governments place a disproportionately higher tax burden on racial minorities (Howard, 2020). This important finding, supported by statistical methods, frames the property tax as a system where minoritized homeowners face a 10-13% greater tax burden than white homeowners (Howard, 2020). While the results of their work add to the discussion on racial and social justice in taxation, they attribute inequities to mass appraisal oversight and the lack of geographic variations in neighborhood data (Howard, 2020). Sub-neighborhood indices that account for local geography are proposed as a solution to reduce the valuation bias in assessment rolls.

The valuable insights made in economic research notwithstanding, the collective recommendations to improve assessment roll equity are generally statistical. In assessing authorities without assessment limitations, where changes in market value lead to commensurate changes in assessed value, the economists are correct in focusing on modeling errors as they are ubiquitous in mass appraisal methods (Cheng et al., 1970; Gloudemans, 2011; International Association of Assessing Officers, 2013; Quintos, 2014). Simple regression techniques tend, by their very nature, to drive higher values down and lower prices up towards a measure of central tendency (Gloudemans, 2011; Quintos, 2020; Stock et al., 2002). While assessment offices struggle to accurately estimate the value of real estate for taxation purposes (Berry, 2021; McCluskey et al., 2013; Quintos, 2020), in municipalities with assessment limitations there are institutional and policy issues that work to undermine equity in ways model calibration cannot control.

Public Policy and Administration Framework

The second line of inquiry on property assessment equity stems from schools of law, public affairs, public finance and management, housing policy, and practitioner experience. In

contrast to the economics framework, researchers from a legal and policy perspective suggest that legislative actions and the way in which tax systems are administered create inequities that market valuation techniques cannot overcome (Baar, 1981; Brown, 2021; Connolly and Bell, 2014; Dye et al., 2006; Farley et al., 1996; Harris, 2004; Haveman & Sexton, 2008; Hayashi, 2021; Hill et al., 2021; Howard, 2020; Kahrl, 2016; McCluskey et al., 2013; Skidmore et al., 2010). These researchers examine the intersection of tax policy and social equity, focusing on the unintended consequences of assessment limitations. This line of inquiry, the public policy and administration aspect of property tax equity, is a focus of the research that revealed in this dissertation.

Policy researchers and assessment practitioners that examine the racial and social equity aspects of tax policy (Hayashi, 2021; Haveman & Sexton, 2008) recognize how assessment limitations shift the tax burden onto low-income and minoritized groups in more modest neighborhoods. This form of tax bias is part of a larger pattern of historical, social, and racial discrimination that is ubiquitous throughout the United States (Brown, 2021; Fang et al., 2019; Harris, 2004; The Editorial Board, 2021; Zevallos, 2019). Haveman and Sexton (2008), for example, argue that the policy of limiting assessed values is a driving force behind property tax inequities in places like California, Michigan, Florida, and New York City. Moreover, it is argued that because of regressive tax policy that many lower-income and minoritized groups are paying a greater property tax than owners of more valuable real estate (Hayashi, 2021; Howard, 2020; Skidmore et al., 2010). The premise of this line of research is not to dismiss the need for more sophisticated valuation techniques or to deny that poor estimation and bad data have contributed to the inequities found in assessments, but that inequities would persist despite emergent and innovative statistical modeling practices. What is being discussed in this research

is that public policy, and the administration of the property tax, are designed to either promote or undermine equity.

McCluskey et al. (2013) published *A Primer on Property Tax Administration and Policy*, offering a comprehensive view into the complexities of property tax administration across the United States. In addition to exploring various tax systems, as the United States does not have a uniform standard across assessing authorities, the authors provide a warning about the perils of assessment limitations. McCluskey et al. (2013) state that in order to ensure that a property assessment system is fair and effective, assessing jurisdictions should avoid capping or freezing assessments. Although not specifically framed in social and racial equity, a topic explored by other scholars (Brown, 2021; Harris, 2004; Hayashi, 2021; Kahrl, 2016; Zevallos, 2019), the authors describe how assessment limitations hurt homeowners with properties that appreciate more slowly as compared to homeowners with properties experiencing rapid appreciation.

This type of inequity is also the focus of a *Lincoln Institute of Land Policy* report (Haveman & Sexton, 2008) that addresses the foundational elements of *ad valorem* taxation and how property tax assessment limits erode public confidence. As it is understood, the property tax is highly unpopular and significantly more visible than other forms of taxation (Fisher, 1996; Haveman & Sexton, 2008). As such, in addition to reducing the property tax base, homeowners are increasingly aware that assessment limitations confer a greater benefit on high-value homes at the expense of more modestly priced homes (Haveman & Sexton, 2008). This was not always the case as the legislative intent of assessment limitations, in 1970s California for example, was to minimize risk in areas that experience rapid inflation in home values (Haveman & Sexton, 2008). During this time homes that had appreciated 5% annually were appreciating at a rate many times greater (Haveman & Sexton, 2008) and with significant tax increases, owners were

concerned about being priced out of their homes. Keeping in mind that it is the combination of assessed value and property tax rate that generates a tax bill, California tax rates stayed the same at a time where assessments were experiencing unprecedented increases. As a result, homeowners often faced a 30% increase in taxes each year, resulting in a statewide revolt that begot Proposition 13 (Haveman & Sexton, 2008). This bill, much like New York State Senate Bill S7000A, severely limited increases on assessments and reset property assessments back to 1975-1976 levels. Proposition 13 also contained a feature, one not found in New York City's assessment limitation scheme, that provided for resetting property assessments upon transferring ownership.

Although a popular policy tool to control the annual increase in property assessments (Haveman & Sexton, 2008), Proposition 13 was the beginning of severing the connection between home values and what homeowners pay in California. As the most restrictive assessment limitation program in the country (Haveman & Sexton, 2008) that sets assessed value increases at a maximum of 2% annually, irrespective of market forces, those who remain in their homes for decades experience a benefit at the expense of newcomers who purchase their properties and are subjected to a re-baselining of property taxes (Ihlanfeldt, 2011). In this way, Proposition 13 presented an assessment limitation mechanism to ensure a crisis in both vertical and horizontal equity. Homes across price strata and those that share the same physical and locational characteristics were taxed at dramatically different rates over time (Haveman & Sexton, 2008). This created a condition, contrary to the uniform percent standard of *ad valorem* taxation mentioned earlier, that homes of greater value may be taxed at lower rates than less valuable homes. The reason for this is that assessment limitations will reduce property taxes for homes experiencing value increases above the limitation threshold (Haveman & Sexton, 2008)

but in areas where price appreciation falls below the established limitation percent, or where values are declining, those homeowners will not enjoy as a great a benefit.

Issues of vertical and horizontal equity notwithstanding, there are other implications of enacting property assessment limitations. Erosion of the property tax base begins in the first year that assessment limitations prevent market-driven increases in value to occur. In fact, in California there is little to no incentive to maintain a fair and equitable market value for all residential properties annually (Haveman & Sexton, 2008) as valuation changes are generally limited to homes that sell. This practice of resetting values to a sale price, referred to as sales chasing (International Association of Assessing Officers, 2013), violates the uniform percentage requirements set forth in many state constitutions. With regards to policy and administration, the Haveman and Sexton (2008) focus report also states that assessment limitations impede local governments in how they spend and reduces autonomy as it applies to budgeting. As local property tax revenues are controlled by statute, and as assessing authorities require additional state aid, they forfeit the ability to control discretionary spending.

In a similar work published in the journal *Public Finance and Management*, authors Connolly and Bell (2014) provide a comprehensive critique of assessment limitations, or caps, and how few municipalities appropriately estimate the true costs and redistribution effects of such programs. Their research, based in two counties in California administering the property tax under Proposition 13, demonstrate the loss of revenue and how shifting the tax burden has brought questions of legitimacy to the fore (Connolly and Bell, 2014). At the time of the paper's publication nineteen states and Washington DC had some form of assessment limitations in place (Connolly and Bell, 2014), often embedded into state law. Connolly and Bell (2014) acknowledge the intent of such tax policy is to provide a stable and predictable tax increase for

homeowners, however, assessment limitations do not confer equal benefits to all homeowners. A study in Florida found that senior and minoritized groups viewed the policy as one that benefits wealthy homeowners at their expense (Connolly and Bell, 2014).

Whether analyzing California's Proposition 13 or Florida's Save Our Homes program, Connolly and Bell (2014) agree that annual assessment limitations of 2-3% are not only inequitable but that limitations erode the tax base. Connolly and Bell (2014) state that the impact on budgeting is so severe that local governments have been forced to raise tax rates. What this suggests, counterintuitively, is that homeowners receiving assessment limitations may still be paying higher tax bills, paying more than they would have without the assessment cap (Connolly and Bell, 2014). In practical terms, if the assessed value in the first year is 100,000 and is increased by 2% to 102,000 the following year, tax rates may have to increase by 5% or more to make up for the shortfall of all the capped assessed value. The budget determines how much property tax needs to be collected and if budgets increase and assessed values remain flat, the tax rates must increase as a result. Using an equal yield analysis, the research revealed that millions of tax dollars are foregone each year and that large numbers of homes are being subsidized by those properties not enjoying a benefit under the assessment limitation scheme (Connolly and Bell, 2014).

Despite the rise in skepticism towards assessment limitations in the academic community, Moore (2008) explains in a *Journal of Property Tax Assessment & Administration* article that property assessment limitations have remained politically popular. *Ad valorem* taxation is severely undermined by assessment caps, however politicians in many states are reluctant to move on the issue according to his work. After 40 years of S7000A, New York City has created a group of homeowners who profit under the law and those who do not (New York

City Advisory Commission on Property Tax Reform, 2020). Wealthy homeowners, occupying multimillion-dollar Manhattan townhouses and Brooklyn brownstones, often pay far lower tax rates than do many homeowners of modestly priced row or split-level houses in the outer boroughs (Hayashi, 2014). One of the key strengths of Moore's work is his discussion of vertical equity and reliance on analyses of variance to establish dispersion. Although his focus is on the inequity between tax rates in coastal and inland properties (Moore, 2008), his approach serves as an appropriate methodology to uncover the social and racial inequities embedded within New York City's assessment capping system. Essentially, an analysis of variance that seeks to determine whether there is a statistically significant difference in the mean effective tax rates of neighborhoods that are predominantly white or minoritized.

Adding to the discussion on tax shifts and who pays more under assessment limitation schemes, Dye et al. (2006) published a work in the *National Tax Journal* that has been cited by some seeking to understand the impact assessment limitations have on tax equity. In their research on Illinois' Cook County assessment program, authors posit that even when assessment limitation programs are revenue neutral, the result is relief for some at the expense of levying a higher tax on others (Dye et al., 2006). Citing significant political pressure in the late 1990s and early 2000s (Dye et al., 2006), the researchers question whether the initial policy goals have been met at any level. In their work, Illinois was cited as a prime example of a state seeking to protect elderly and lower income households from large increases in property tax bills. To gradually transition increases in tax liability, however, homes that had greater levels of value appreciation saved significantly more than those properties with the lower rates of appreciation (Dye et al., 2006). As neighborhoods with more valuable homes often have higher median household incomes, the policy to protect the elderly and lower-income households has been largely

ineffective (Dye et al., 2006). While many enjoyed some tax relief, in wealthy and fast-appreciating neighborhoods, benefits were greatest. In relatively poor neighborhoods the benefits of assessment limitations were significantly smaller, and those residents paid more than their fair share (Dye et al., 2006). This concept of tax redistribution where the wealthy profit at the expense of low-income communities, is ubiquitous in the literature (Brown, 2021; Dye et al., 2006; Farley et al., 1996; Harris, 2004; Hayashi, 2021). While Cook County's assessment limitations include an acquisition component not found in New York City, the same issues of gentrification and disparate impact on low-income and minoritized communities are ubiquitous. Finally, unlike previous studies the Dye et al. analysis (2006) specifically addresses public administration concerns in that assessment limitations breed public mistrust in the tax system by increasing the administrative complexity of a system with which taxpayers are already uncomfortable (Dye et al., 2006). Acknowledging the erosion of uniformity, a fundamental tenet of the *ad valorem* property tax system, authors conclude that tax policy that distorts the relationship between value and tax burden will continue to create issues that require even further government intervention to mitigate (Dye et al., 2006).

The Importance of Housing and How Discrimination has Created Social/Racial Disparities

Housing is an essential good, an important component in providing more than just security and shelter. Housing is correlated with generational wealth and educational opportunities (Brown, 2021; Farley et al., 1996; Green et al., 1995; Hill et al., 2021; Kim, 2019) and has been linked to health outcomes (Alexander-Eitzman et al., 2013), as well as access to employment (Gooden, 2015). The Federal Housing Administration and its selectivity in providing low-interest mortgages during the years leading up to the Civil Rights Act (Alkadry & Tower, 2014; Kahrl, 2016), is often cited as one of the primary reasons for segregation in New

York City and the many disparate impacts created by housing policy (Gooden, 2015; Logan & Parman, 2017). Based on data from the American Community Survey (ACS), white households are far more likely today to own their own homes than black and Latino households (NYU Furman Center et al., 2016), a direct result of redlining geographic areas based on race and the stigmatization of neighborhoods for the purposes of approving or denying loan applications (Brown, 2021; Kim, 2019). This practice was so common in the first few decades after the FHA's creation (Krieger et al., 2020) that appraisal manuals as late as the 1970s included race and ethnicity as lending risk factors (Kwate et al., 2013). As a result, minoritized neighborhoods were deemed less desirable and due to homebuyer bias (Hayashi, 2021), failed to appreciate as quickly as predominantly white neighborhoods (Brown, 2021). According to recent data from the Pew Research Center (Kochhar & Cilluffo, 2017), some have cited redlining as a significant contributing factor to the wealth gap between racial groups. White households have a median wealth of approximately \$171,000 while black and Latinx households remain at \$17,100 and \$20,600, respectively (Brown, 2021).

Although these trends are present across the country, for black and Latino communities the disparity is even more pronounced in New York City (Kwate et al., 2013). Neighborhoods with a greater density of affordable housing projects and less homeownership are predominantly black and Latino (New York City Housing Authority, 2022). Health services, transportation, and patterns of crime tend to follow these spatial trends that speak to why enduring segregation and housing discrimination can be so damaging to minoritized groups and their ability to create generational wealth (Brown, 2021; Gooden, 2015). When stratifying median household income by New York City zip code, majority white communities are making more than twice the income of majority Latino communities and 66% more than majority black communities (Inagami et al.,

2006). Concurrently, controls and regulations that restrict annual rent increases have experienced an effective decline (Elmedni, 2018) as the city has lost 400,000 dwelling units from 2008 to 2018 with an average monthly rent of less than \$1,000. The Fiscal Policy Institute published similar findings that from 2010 to 2018, affordable rental units have been on the decline, impacting communities of color in ways not felt by predominantly white New Yorkers.

Systemic racism, historic redlining (Brown, 2021; Hill et al., 2021; Lawton, 2015), and the disparate impact housing policies have had on minoritized communities are all elements that contribute to how New York City is experienced by many of its residents. There are, however, persistent issues of *de facto* segregation and housing discrimination that have taken on more subtle forms found within institutions (Brown, 2021; Kahrl, 2016). New York City's poorest neighborhoods are as segregated today as they have ever been (Krieger et al., 2020; Stempel, 2020), relying on public housing and other subsidy programs to stem homelessness and displacement (Halasz, 2011). To make matters worse, homeowners in these communities of color are subsidizing wealthier neighborhoods by way of higher effective property tax rates (Hayashi, 2021; Hill et al., 2021). Instead of sustaining a progressive tax system, whereby wealthier homeowners are paying greater property taxes on high-value real estate, the opposite is now true and minoritized communities are paying the price (Brown, 2021; Hill et al., 2021).

Although the analysis presented in this dissertation is not one that focuses exclusively on the topic of gentrification, the reality of neighborhood change must be discussed when examining tax policy and equity. As it is understood, gentrification is a phenomenon where neighborhoods that are historically low-income and minoritized experience a rapid inflow of racial and ethnic groups of higher socioeconomic status (NYU Furman Center et al., 2016). As low-income residents have been priced out of their historical neighborhoods, other ethnic and

racial groups have been purchasing homes in gentrified areas which continue to increase in value. As assessment caps protect high-end and fast-appreciating real estate, as mentioned earlier in this literature review, the capping policy has had a two-fold effect of discrimination in that it encourages residents to leave their neighborhoods and denies them the opportunity to enjoy generous tax breaks (Hayashi, 2021; Hill et al., 2021).

The use of tax policy to protect some at the expense of others is not without historical precedent. As professor and historian Andrew W. Kahrl (2016) explains, the property tax has been at the forefront of racial discrimination since the early 20th century. While some scholars argue that regressive property taxes are common and perhaps a result of misguided and unintentional policy (Dye et al., 2006; Haveman & Sexton, 2008), Kahrl's study of discriminatory assessment practices raises objections to 100 years of intentional housing discrimination. In Kahrl's essay, *The Power to Destroy: Discriminatory Property Assessments and the Struggle for Tax Justice in Mississippi*, the author posits that unlike the unrestrained racism of Jim Crow, there are contemporary forms of discrimination inflicted on minorities by way of tax policy (Kahrl, 2016). In his work published in the *Journal of Southern History*, Kahrl draws attention to policies and administrative practices that he suggests have promoted white privilege and supremacy (Kahrl, 2016). Others such as Hill et al. (2021) agree that that racist tax policies dating back to the 1870s, designed to protect former slavers, are still in place today and work to erode the faith taxpayers have in the tax system overall. When certain owners are paying taxes based on an assessment that is set at a rate lower than others, this perpetuates the inequality between groups, contributing to persistent generational wealth gaps that speak to the issues of racial and social equity (Brown, 2021; Farley et al., 1996; Hill et al., 2021; Kahrl, 2016).

Several years before the tax revolts of the 1970s, a group of homeowners in Mississippi filed a lawsuit against their local assessment jurisdiction for what they believed was a violation of their civil rights and equal protection under the U.S. Constitution. Federal courts were struggling with the question of disparate impact and whether the results of a policy were sufficient evidence to indicate impermissible public action (Kahrl, 2016). The tax authority had made a case that there was no clear intent to discriminate and as such, the assessment administration was legal. The courts ruled in favor of the town and emboldened other municipalities to continue practices that were either explicitly or implicitly bias. Although Kahrl's essay cites decades-old court cases filed in Mississippi, these legal arguments persist today and are as relevant as ever. This is true to the extent that a similar lawsuit, filed by Tax Equity Now in 2018, was dismissed by a New York appeals court in 2020 despite the court's acknowledgement that New York City is deeply segregated and has an unfair tax system.

With regards to disparate impact and racial and social equity, it is understood that discriminatory intent is not always required to establish the disparate impact it causes. Well-meaning legislation that distributes benefits can do so disproportionately. Susan Gooden's 2015 *Race and Social Equity: A Nervous Area of Government*, speaks to the importance of equity in housing. Much in the same way Hayashi (2014) and Brown (2021) acknowledge the unfair burden placed on black homeowners, and Hill et al. (2021) suggest that policymaking is to blame for tax inequity, in Gooden's work it is understood that public policy has been helpful in promoting and sustaining white homeownership without regard to minoritized groups. Gooden suggests that inequities of this type are cumulative and reinforcing (Gooden, 2015). This concept of reinforced, systemic bias extends to other housing problems for black and brown communities such as higher eviction rates (Desmond, 2012) and tax liens (Dilakian, 2021). New York State

Senate bill S7000A, the topic of this dissertation, can be viewed through this lens of reinforcing benefits to a target group despite its stated, legislative intent to prevent large increases in property taxes for all (NYC Independent Budget Office, 2006).

A recent academic work, published in the *Stanford Law & Policy Review*, sheds light on the specific inequities inherent in New York City's assessment limitation scheme and who is most harmed by them. Author Andrew Hayashi presents an argument that assessment limitations create disparate impacts and acknowledges the intersection of tax policy, race, and socioeconomics. Hayashi (2014) calls attention to the disparate impact assessment policies have on low-income and minoritized groups as assessment caps, by design, confer greater tax benefits to owners in wealthier, white neighborhoods. It is this understanding, a result of his research, where Hayashi addresses the primary reason assessment limitations harm low-income, minoritized communities.

Hayashi (2014) also examines fairness and public perception. Unlike income tax increases, an expected result when taxpayers experience an increase in wages for example, property tax increases are difficult to explain. As income climbs, there is a perception that fairness requires an increase in the amount of income taxes paid. However, and quite to the contrary, as property values increase that does not always imply a commensurate increase in a homeowner's cash position. Referred to as phantom income, many taxpayers are concerned that despite their home's increase in value, in order to pay the property taxes they may be forced to liquidate their assets or borrow money to pay the tax bill (Hayashi, 2014). The public's perception is that they must continue to pay taxes on an asset they already purchased, with annual increases that may not be justified by their household income. Much in the same way Haveman and Sexton (2008) attribute the proliferation of assessment limitation to California's

1978 Proposition 13, Hayashi acknowledges that the fear of rapid increases in property taxes took hold and caused dozens of other states to enact capping laws. In contrast, however, to the Haveman and Sexton report (2008), Hayashi offers examples of jurisdictions with lock-in effects, where homeowners are financially compelled to not sell their homes, as well as municipalities without lock-in such as New York City. For example, unlike Florida and California with tax schemes that reset assessments when properties sell, Arizona, Minnesota, New York City, and Oregon do not re-baseline assessments when properties transfer. Assessment limitations are tied to the property, not the owner and their individual ability to pay. While the issue of lock-in is mitigated in these municipalities, assessment limitations still generate a discrepancy between fair market value and tax liability that is the foundation of *ad valorem* taxation (Hayashi, 2014). Moreover, Hayashi states there are other costs to assessment limitations including significant losses in tax revenue. Assessment limitations are equivalent to calculating a full tax bill based on market value, then making a payment to the property owner for the difference they would have otherwise paid. Effectively, the assessment limitation on a given property is an abatement that is not justified by a homeowner's need (Hayashi, 2014).

One of the limitations of the analysis, a study that includes sales of homes from 2004 to 2008, is that the peak of the real estate market fell just short of the study parameter. By 2008 home values had already been impacted by the recession. A study of sales from 2002 to 2006, on the other hand, might have offered an even clearer picture of the vertical and horizontal equity issues posited by the author. Furthermore, Hayashi (2014) relies on just fifty-five sub-borough geographic areas and Zip codes, when tabulation areas or census blocks might have offered a more granular look at inequity. The geographic unit of measurement aside, the analysis was clearly defined and included assessment, income, and demographic data from the New York City

Department of Finance, New York City's Housing and Vacancy Survey (HVS), and the Internal Revenue Service.

The results of the analysis provide that geographic areas with greater household income, and sub-borough areas with fewer minorities, tend to benefit the most from assessment limitations. Hayashi (2014) also uncovered that areas of New York City where the tenure of residency was shortest, also benefit more than areas with a greater number of long-term residents. In describing the inequities, the research adds to the policy discussion as Hayashi offered a recommendation to improve the assessment limitation system. By implementing a means-tested circuit breaker, assessment limitations would be eliminated for homeowners that do not need the benefit (Hayashi, 2014). An eliminatory circuit breaker provides protections for older and less affluent residents of high-value property to remain in their homes while taxing those in the same neighborhood at a higher rate if their income was greater. Hayashi does not, however, explain how this would be done administratively or fully consider the political feasibility of such a policy change. Moreover, the concept of innocent purchaser, one not addressed in this research, must be part of the tax policy analysis should reform occur. The median sale price of a home in Brooklyn, NY is just over \$800,000 according to Douglas Elliman (2021). Innocent purchasers may include families that have been able to secure a down payment and purchase a home, accounting for property taxes that have been suppressed by assessment limitations. Should reform represent an immediate elimination of the protections innocent purchasers have counted on and factored into their monthly household expenses, an increase in foreclosures and price deflation may become widespread (Haveman & Sexton, 2008). A further discussion on transitioning the change in tax policy may be prudent.

In a subsequent work, published in the *Notre Dame Law Review*, Hayashi expands on his preliminary discussion on the inequities created by assessment limitations. His 2021 article, *Dynamic Property Taxes and Racial Gentrification*, restates that in a dynamic taxation system homes in faster appreciating markets benefit at the expense of homes in other areas (Hayashi, 2021). Unlike his 2014 work, however, this article devotes time to the underlying reasons neighborhoods appreciate faster than others and how changing neighborhood demographics play a role in this phenomenon. Moreover, his consideration of disparate impact and the harm caused to minoritized homeowners is explored further.

One of the fundamental doctrines of the *ad valorem* tax is for assessment jurisdictions to maintain a uniform percent of value that is consistent among neighborhoods and types of property (International Association of Assessing Officers, 2013). As the very nature of assessment limitations seek to prevent a uniform increase in value among homes that appreciate at a rate greater than the assessment cap, the relationship between value and tax liability suffers. An industry standard used to measure uniformity is the assessment ratio that takes the assessed value and divides it by the fair market value. Hayashi contends that as assessment limitations continue to prevent assessments from increasing commensurate with the fair market value, assessment ratios decline for those benefiting most (Hayashi, 2021). Unlike the economic research that addresses price estimation and valuation regression models, Hayashi focuses on the racial and gentrification components of implementing assessment caps. Effective Tax Rates may remain stable when the market is flat, however, as home values are changing, that is where non-uniformity becomes a challenge to tax equity. As a result of gentrification and the bias among homeowners, dynamic property taxes create racially disparate impacts (Hayashi, 2021).

While Haveman and Sexton (2008) and Ihlanfeldt (2011) have criticized tax limitations schemes that contain an acquisition value component, despite its lock-in effect this provision does have the added feature of limiting wealthy homebuyers from inheriting lower tax rates on fast-appreciating properties (Hayashi, 2021). In New York City, however, as investors and homebuyers begin to move into historically minoritized neighborhoods that have become increasingly gentrified, they are able to purchase homes with a promise of limited tax increases, despite their wealth.

Housing choice, something that wealthier and whiter home buyers exercise, is based on the perception of neighborhood quality (Hayashi, 2021). Neighborhoods and their racial diversity, where there are higher proportions of minoritized residents, have been perceived by wealthier buyers as less safe and less desirable (Hayashi, 2021). However troubling, racial preference and discrimination do play a role in housing choice and very likely, property tax inequities. The root of racial disparity is not simply, however, that white homebuyers wish to live among wealthier, whiter neighbors but rather that as neighborhoods gentrify, market values begin to increase at higher rates, conferring an even greater tax benefit to the new racial group that has populated the neighborhood (Hayashi, 2021). One of the areas Hayashi explores is the rate of gentrification and suggests that neighborhood demographics do not change in a single assessment roll cycle. There are scenarios where, despite the movement of white homeowners into historically black neighborhoods, there may be a period where black homeowners are also enjoying lower effective tax rates. Individuals who choose not to sell, those who are financially positioned to remain in the neighborhood, also enjoy the benefits of assessment limitations that lowers both their individual assessment ratios and tax liabilities (Hayashi, 2021). This

phenomenon notwithstanding, as gentrification continues to displace minorities from their historical communities, the benefit is increasingly conferred on white homeowners.

Another important piece of tax policy literature that offers insights into the problem of assessment equity and the impacts on low-income and minoritized communities, is the 2010 article published in the *National Tax Journal* by authors Mark Skidmore, Charles Ballard, and Timothy Hodge. In their work, a comparative analysis is presented from the perspective of Michigan's assessment growth limitations. While somewhat different from New York City's assessment caps, in that limits are forfeit once a property sells as seen in California's Proposition 13, the legislation that authorized the Michigan limits was also found to benefit homeowners with higher incomes (Skidmore et al., 2010). A strength of their analysis, one in which the mean effective tax rates are stratified by household income, is that they employ a regression model to specify the magnitude and directional impact an independent variable of income has on the tax rate dependent variable. Although the research cannot directly attribute assessment limitations as the only cause of the negative coefficient on income, the research does suggest that limitations on assessment may cause property tax regressivity (Skidmore et al., 2010).

Recommendations from the Literature

Although research has revealed the extent to which assessment limitations create inequities and erode public confidence in the property tax system (Baar, 1981; Brown, 2021; Connolly and Bell, 2014; Dye et al., 2006; Farley et al., 1996; Harris, 2004; Haveman & Sexton, 2008; Hayashi, 2021; Hill et al., 2021; Howard, 2020; Kahrl, 2016; McCluskey et al., 2013; Skidmore et al., 2010), there are alternative policy solutions that may be more effective in protecting homeowners and maintaining equitable assessments. Surveys continue to show that homeowners fear sudden increases in property taxes and support legislative programs that reduce

the likelihood of such increases (Bowman et al., 2009, Fisher, 1996; Haveman & Sexton, 2008). These policy alternatives include capping the budget or tax levy, imposing circuit breakers and offering credits that are reimbursed by the state, providing income-based exemptions, offering tax deferral programs, as well as tools such as the mansion tax that shifts more of the tax burden to those with the most valuable real estate.

Haveman and Sexton's (2008) work includes several of the abovementioned mechanisms to keep cash-limited homeowners from having to sell their properties. As the assessed value is just one of three components to a tax bill, the budget and tax rates themselves may present an opportunity to control spending and keep taxes from increasing dramatically from year to year (Haveman & Sexton, 2008). While an assessment determines how much of the levy one pays and not the size of the levy itself, this recommendation approaches the problem of government spending rather directly. Assessing authorities maintain autonomy, preserve market and assessed values by conducting annual revaluations, and work towards the equitable apportionment of the tax burden. Limits on the budget assist not only homeowners but also other property types as well that may have otherwise been unfairly burdened in an assessment limitation scheme (Haveman & Sexton, 2008).

Another recommendation offered in the Haveman and Sexton report (2008) and in a 2009 Lincoln Institute of Land Policy report relates to circuit breakers that do not reduce tax collections but rather, provide relief to those homeowners with property taxes exceeding a fixed percent of their income. Whether by sliding scale based on brackets as income increases, or threshold circuit breakers that are based on a percent of household income (Haveman & Sexton, 2008; Hayashi, 2014), state governments reimburse the local municipality for the rebate or credit offered to eligible taxpayers. While the tax levy is not harmed, at least not at the local level, state

funding is required and may present an equity issue as one part of the state may inevitably end up subsidizing another annually (Haveman & Sexton, 2008).

Tax deferral programs have also gained traction in certain areas to assist homeowners in limiting property tax increases, as opposed to limiting assessed value (Haveman & Sexton, 2008). By delaying payments, elderly and disabled homeowners may remain in their homes and the local government recoups these charges upon the sale of the property. Although at the time of the report there were 25 states with these types of deferral programs, they tend to be less popular and have the added impact of reducing the inherited wealth that would otherwise go to surviving spouses and their children. As homeownership has been an effective way to building generational wealth (Brown, 2021; Farley et al., 1996; Kim, 2019), deferral programs present challenges in both racial and social equity.

Others such as Hill et al. (2021) offer that some municipalities have adopted policies to address property tax inequities, including mansion taxes that attempt to shift an additional amount of tax burden onto wealthier homeowners of high-end real estate. The way most mansion tax proposals work is that upon the sale of a mansion, defined by sale price, a 1-4% fee is added to the closing costs (New York State Department of Taxation and Finance, 2021). In New York City, mansion taxes are based on a sliding scale that increases as values increase. For buyers of the most expensive real estate, purchases greater than \$25 million, a nearly 4% charge is imposed. While politically popular, scholars such as Kopczuk and Munroe (2015) argue that this form of tax creates a distortion in the market and incentivizes sellers to offer homes just below the mansion tax thresholds.

In the following chapter the research question is revisited, with a statistical framework, hypothesis and data methods outlined. While the importance of this research has been explored

in Chapters I and II, with an emphasis on fairness in tax policy, the epistemological basis to uncover evidence of tax inequity will be further examined in Chapter III.

CHAPTER III: DATA AND METHODS

In this chapter an outline of the specific research methods, data collection processes, and their limitations, are defined. Although the literature review provides ample evidence that tax equity suffers under assessment limitation schemes, there are methodological gaps that can be filled to advance this line of inquiry.

Research Question and Hypothesis Overview

As presented in both the introduction and literature review, the research question in this study is one of increasing importance for New York City's residents since the passage of New York State Senate Bill S7000A in 1981 (New York City Advisory Commission on Property Tax Reform, 2020). Has well-meaning legislation that limits the increases in property tax assessments done so at the expense of lower-income and minoritized populations? Researchers have suggested that assessment limitations harm these groups, not only in New York City but across the country (Dare et al., 2013; Haveman & Sexton, 2008; Hayashi, 2021).

Homes in more modest areas, neighborhoods largely occupied by lower-income and minoritized groups, appreciate at rates far lower than whiter, wealthier neighborhoods that obtain greater benefits under assessment limitation laws (Dare et al., 2013; Dye et al., 2006; Haveman & Sexton, 2008; Hayashi, 2021). As such, this policy of assessment limitations creates a disparate impact on lower-income communities of color, New Yorkers who pay a greater amount of property tax relative to their homes' values. Analysts and policymakers may be inclined to better understand, after forty years of assessment limitations, the extent to which certain groups receive a disproportionate tax benefit relative to others.

The research design and methodology are empirical, founded on positivism and the view that the data will provide answers to the research question (Yang, 2015). Although racial and

social equity are subjective, the research design described in Chapter III provides a statistical framework that measures equity in a more objective manner. The hypothesis that pairs with the research question stated earlier is as follows: assessment limitations confer a greater tax benefit to wealthier, whiter communities as their homes are located in markets that appreciate quickly. This difference in benefits can be established using statistical tests that demonstrate how assessment limitations create a disparate impact on lower income minoritized groups who reside in communities of more modest value growth. Homeowners in these areas of lower appreciation pay a greater amount of tax, relative to their homes' values, that defies measures of equity in assessment administration set forth by real property tax law and industry standards.

The research design recognizes that it is impossible to account for all factors that may contribute to one group paying higher effective tax rates than another. In the case of local property taxation, data are limited and the research relies on multiple levels of government aggregating information that can be merged and manipulated in a reliable manner. As such, a quasi-experimental design affords a positivistic verification (Van de Ven, 2013) prior to subsequent values-based discussions of equity and what ought to be done to restore it.

Although taxation is a multivariate concern, one that may be influenced by data quality and naturally-occurring regressivity as a result of modeling techniques (Berry, 2021; Dye et al., 2005; Ihlanfeldt, 2011; McMillen & Weber, 2008; Oates & Fischel, 2016; Quintos, 2014; Quintos, 2020), it is the hypothesis of this study that when there are assessment limitations in place no amount of statistical modeling correction can ease the inequity created over time (Baar, 1981; Brown, 2021; Connolly and Bell, 2014; Dye et al., 2006; Farley et al., 1996; Harris, 2004; Haveman & Sexton, 2008; Hayashi, 2021; Hill et al., 2021; Howard, 2020; Kahrl, 2016; McCluskey et al., 2013; Skidmore et al., 2010).

Data Collection and Mining a Primary Source of Parcel-Level Information

The variables necessary to conduct a tax equity analysis are located across various datasets that must be merged and managed in order to perform the research. Datasets are retrieved from the U.S. Census American Community Survey (ACS), the NYC Open Data portal, and other government and not-for-profit websites.

According to the New York City Department of Finance there are more than 1 million taxable parcels, or tax lots, in New York City. A tax lot is a two-dimensional polygon that represents land with or without physical improvements. The Department of Finance is required to value all parcels, or tax lots, for tax purposes each year as mandated by both New York State and local laws. Many city agencies such as the Department of Finance, the Department of Buildings, City Planning, Housing Preservation and Development, and the New York City Housing Authority provide parcel-level data on their websites and on the New York City Open Data portal. There are, however, limitations to their data and partial information that must be complemented by merging in additional files.

The research design of this dissertation requires a comprehensive listing of all Tax Class 1 parcels that includes residential property of fewer than four units. In order to establish if there is a statistically significant difference in Effective Tax Rates between residential homeowners in wealthier, whiter areas and those residential owners in predominantly minoritized areas of lower income, a full accounting of tax assessment data is preferable as explained in the population and sample section of this chapter.

Market and Assessed Values, as well as Tax and Building Classification characteristics are published by the Department of Finance. The Assessment Roll, a listing of all parcels with associated Market and Assessed Values, is produced electronically each year as mandated by

New York State Real Property Tax Law (RPTL). However, the data published on the assessment roll lacks the geographic indicators for Community District, Council District, Neighborhood Tabulation Area, and the various physical characteristics that are important in conducting an Effective Tax Rate analysis of variance stratified by geographic area and property type.

The New York City Planning office presents a partial solution to this challenge as the agency aggregates data from various New York City departments to make analysis and mapping more user friendly. The Planning and Land Use file (PLUTO) merges tax lot data with tax lot characteristics from the Department of Finance's Digital Tax Map and contains both land use and geographic data at the tax lot level. The dataset is available as a comma separated file or a shapefile for creating maps. Once merged with some of the Market and Assessed Value data from the Department of Finance Assessment Roll, there are enough data points to produce the necessary transformations as described below.

Population and Sample: Neighborhood Tabulation Area as a Level of Analysis

Publicly available datasets offer an opportunity to analyze the full population, avoiding issues of sampling bias and representativeness. Moreover, quasi-experimental social science research benefits from large samples as the larger the sample, the greater the validity (Yang, 2015). The hypothesis is that New York City's property taxes are regressive, where assessments and taxes are greater on lower-value properties, and by sampling only a few neighborhoods in a single borough the results may be undermined. An argument could be made that regressive taxes are limited to those geographic areas in-sample and that those areas are not representative of all New York City neighborhoods. As such, including the full population of all 1, 2, and 3 family homes in New York City provides research reliability and bolsters external validity. The frequency distribution in Table 2 provides a view into the number of 1, 2, and 3 family homes

across the five boroughs of New York City. Counts for Manhattan, the Bronx, Brooklyn, Queens, and Staten Island come from the Planning and Land Use (PLUTO) file provided by the New York City Department of City Planning.

As shown in Table 1, New York City is home to 635,290 taxable Tax Class 1 parcels of one to three residential units. For the purposes of this research, other miscellaneous Tax Class 1 parcels such as separately-assessable small residential parking, for example, have been removed. Moreover, any parcel with a missing or null Market Value was likewise removed. The population does, however, represent the near full universe of properties that are subject to assessment limitations of 6% a year and 20% over five years. As one of the largest assessing authorities in the United States, the amount of Tax Class 1 value in New York City is significant, at more than \$618 billion.

Table 1

FY22 Market Value by Borough

Borough	N	Pct of Total	Median	Mean	Sum
Manhattan	5,462	1%	5,165,500	6,646,562	36,303,524,000
Bronx	62,313	10%	637,000	678,145	42,257,261,493
Brooklyn	190,241	30%	1,028,000	1,225,968	233,229,410,173
Queens	269,686	42%	829,000	880,919	237,571,524,010
Staten Is	107,588	17%	604,000	642,552	69,130,852,130
Total	635,290	100%	786,000	973,559	618,492,571,806

While examining the universe of all Tax Class 1 parcels provides a degree of research validity, one of the challenges of a citywide study is that no single New York City agency provides a comprehensive dataset with geographic areas, tagged to each parcel, at a sufficiently granular level. Council Districts, and other sub neighborhood groupings have been used by researchers such as Hayashi (2021) in examining disparate impacts of assessment caps on low-income and minoritized groups in New York City. These analyses, however important in

advancing the research on tax equity, are set at rather large geographic areas with a much more diverse population.

Council and Community Districts, created for political engagement and service delivery purposes, are too large to make meaningful comparisons in an analysis of variance that seeks to code neighborhoods by predominant racial group. There are just 51 Council Districts, 59 Community Districts, and 55 Public Use Microdata Areas (PUMAs). Researchers have access to these geographic areas on a lot level which makes them popular among academics. Many of these defined areas, however, are home to hundreds of thousands of New York City residents. Community District 3 in Manhattan, for example, combines the East Village, Lower East Side, and Chinatown into a single area with a population of nearly 170,000. There are rather large racial and income differences within this geographic boundary and other layers, such as the Neighborhood Tabulation Area, disaggregate many of these distinct neighborhoods as explained below.

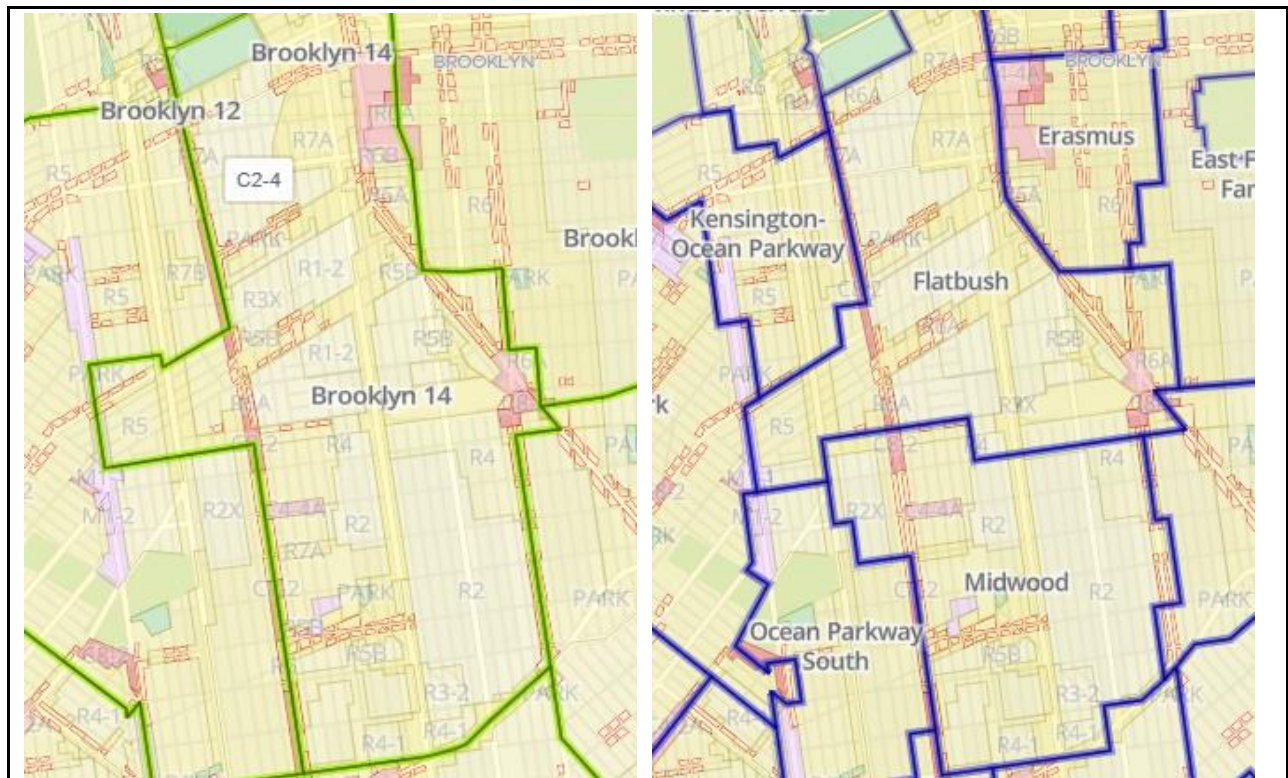
Neighborhood Tabulation Areas (NTAs) are aggregations of census tracts that are subsets of New York City's 55 Public Use Microdata Areas (PUMAs). As stated by the New York City Planning department, NTAs provide a valuable summary level for use with the American Community Survey (ACS). This is critical in the research design of this dissertation as local, city-level data must be merged with demographic information from the U.S. Census. Moreover, NTAs offer a reasonable compromise between overly detailed data for census tracts and the overly broad data provided at the Community District level.

According to the New York City Department of City Planning, Community Districts provide a forum for active participation and a mechanism for communities to express their needs and concerns. As shown in the example below, the neighborhoods of Flatbush and Midwood in

Brooklyn have been placed together in Community District 14. While Midwood's population is 76% White Alone while Flatbush's population being just 22% White Alone. By separating these two neighborhoods from each other at the NTA level, the coding of geographic areas by predominant race becomes more meaningful.

Figure 1

Community District 14 in Brooklyn, NY



Note. New York City Zoning and Land Use (ZoLa) 2021

Independent Variable

The independent variable in the analysis, that which impacts the dependent variable, is Predominant Racial Group. As this research design includes an analysis that identifies statistically significant differences in Effective Tax Rates between whiter neighborhoods and minoritized communities, Predominant Racial Group will be based on the percent White Alone,

Hispanic or Latino, Black or African American Alone, and a combination of Black and Hispanic, for each NTA.

In order to assign an NTA to each tax lot on the PLUTO file provided by New York City Planning, spatial joins in ArcGIS and individual lookups are required. Once each home has been tagged with an NTA, American Community Survey data can be merged into the master dataset as New York City Planning publishes these data at the NTA level. Each NTA is flagged as either predominantly Black, Hispanic, Black/Hispanic combined, White, or No Predominant Race. ACS data provide the breakdown between the following groups and the percent, by NTA, of each demographic category has been paired by analysts at the New York City Department of City Planning.

Dependent Variable

Publicly available datasets do not include the dependent variables being measured in the analysis, the first being Effective Tax Rate. In order to establish whether there is a statistically significant difference in the mean Effective Tax Rates of multiple groups, the variable can be calculated using the following formula:

$$\text{Effective Tax Rate} = (\text{Taxable Assessed Value} * \text{Tax Rate}) / \text{Market Value}$$

For example, if a home with a Taxable Assessed Value of 35,000 pays property taxes at the Fiscal Year 20/21 tax rate of 21.045%, the annual tax liability is \$7,366 (35,000 x .21045). The annual tax liability is then divided by the Market Value, or likely selling price, as established by the New York City Department of Finance. For the purposes of this example the Market Value is 800,000. The Effective Tax Rate is therefore .92% (7,366 / 800,000).

Limitations of Coding NTAs by Predominant Racial Group

According to New York University's Furman Center, homeownership can vary greatly by race (NYU Furman Center, 2018). Leveraging American Community Survey data, NYU released a report in 2018 that stated just 27% of Black households and 17% of Hispanic households own their own homes, respectively. This is compared to the 47% of White household that own their own homes. Predominantly Black and Hispanic communities would represent a greater density of these homeowners, however, neither New York City government agencies nor U.S. Census datasets provide the race of each household at the parcel-level. As such, this limitation may present a conflation of the results when the analysis of variance is conducted. Homes in predominantly Hispanic communities are likely not owned exclusively by Hispanic households, for example. In fact, it is rather likely that these one to three family homes may be owned by White landlords.

To account for this phenomenon, a reality that social and racial equity scholars imbue (Brown, 2021; Hill et al., 2021; Lawton, 2015), in addition to establishing racial predominance using a simple majority of 50% or greater, a metric must be established for owner occupancy. If an NTA is 70% Hispanic but the rate of owner occupancy is 10% for that NTA, there is no reliable way to ensure that the property tax liability attributed to Hispanic, Black, or White owners. As such, the Neighborhood Tabulation Area must meet two tests, the first being racial predominance of 50% and the second being that the Neighborhood Tabulation Area is one where the majority of homes are owner-occupied.

Analysis of Variance (ANOVA)

Considering the stated objectives of this research and advantages and limitations of available data, a parametric one-way analysis of variance (ANOVA) is the most appropriate test

to determine if there are statistically significant differences in Effective Tax Rate between predominant-white, predominant-minoritized, and more diverse communities in New York City.

Table 2

NYC Neighborhood Tabulation Areas by Predominant Racial Group

Borough	Black	Hispanic	Blck/Hsp	White	No Predom	Total
Manhattan	3	5	2	16	3	29
Bronx	5	26	2	2	3	38
Brooklyn	14	4	5	22	6	51
Queens	10	6	4	12	26	58
Staten Is	0	0	4	13	2	19
Total	32	41	17	65	40	195

As shown in Table 2, census data provide that of the 195 Neighborhood Tabulation Areas, there are 65 communities that are predominantly White, 32 that are predominantly Black, 41 that are predominantly Hispanic, and 17 that are Black/Hispanic predominant when combined. 40 NTAs have heterogeneity that cannot be coded as predominantly one race or another. The ANOVA, using this framework of predominant race at 50% or more of the NTA, provides a mechanism to determine if there are significant differences between more than two independent groups, with regard to one continuous dependent variable (Abu-Bader, 2016) such as the Effective Tax Rate. The dependent variable will be explained further in this chapter.

While an independent t-test offers much of the same statistical power to uncover mean differences between groups, it is limited as only two groups within the independent variable can be examined (Abu-Bader, 2016). White and Other, where Other represented all non-White communities, was initially considered. However, the median household income for Hispanic and Black groups vary greatly from Asian communities. When Other is isolated to neighborhoods that are combined Black and Hispanic-predominant, these census categories can be explored independent of White and a third heterogenous Other which can serve as a control. Moreover, as

Type I errors occur each time an independent t-test is run, performing multiple t-tests is less efficient and encourages greater statistical error (Black, 1977). In fact, 5% error is doubled when a second t-test is run on the same population, undermining the confidence of a test that seeks to determine if a group belongs to the sample.

Finally, the one-way ANOVA provides additional tools, such as ad hoc tests, that are not available in simple independent t-tests. While ANOVA offers information on means differences between groups, the results do not state what specific groups are different (Abu-Bader, 2016). As a result, post hoc tests such as the *Bonferroni* correction test, must be run. *Bonferroni* is an important advantage of ANOVA as this post hoc test is essential in comparing each racial group separately on the dependent variable (Abu-Bader, 2016). A matrix is provided that will test means not only between White-predominant and minoritized neighborhoods, but also between heavily minoritized areas and those with a greater amount of diversity.

Ancillary Analysis: Correlation of Market Value to Effective Tax Rate

One of the hypotheses in the research design, explored in the literature review of this dissertation, suggests that predominantly white neighborhoods are at a higher median value and appreciate faster than homes in more diverse areas. As such, a greater tax benefit is conferred on homeowners in those white-predominant communities. While other scholars devote time in explaining this phenomenon, exploring the social phenomena that contribute to systemic racism and discrimination (Brown, 2021; Connolly and Bell, 2014; Dye et al., 2006; Fleissig, 2018; Hayashi, 2021; Howard, 2020), the quantitative analysis in this dissertation, by contrast, seeks to confirm whether the difference in price appreciation can be confirmed across racial lines.

Correlation statistics may be useful in demonstrating that home values and Effective Tax Rates have a genitive relationship. The analysis presented in Chapter IV includes Chi-Square and

Pearson Correlation Coefficients. The analysis also includes a statistical distribution of the NYC Department of Finance Market Values and published Sale Prices to demonstrate that home values are lower in minoritized neighborhoods.

Ancillary Analysis: Total Savings by Demographic

As explained in the dependent variables section of this chapter, to derive those variables a calculated tax bill was created for all parcels. Property tax bill calculations are straightforward and require multiplying the taxable assessed value (assessed value after exemptions are removed) by the current Tax Class 1 Tax Rate of .21045. In the research design it is important, as a matter of emphasis to policymakers, to demonstrate not only if there are differences in the dependent variable with regards to two groups, as will be explored in an ANOVA test, but also to quantify the amount of tax savings each group enjoys, on average, overall, and per capita.

Additionally, once taxes are calculated for each parcel the analysis will include total tax with and without the assessment caps. This transformation may demonstrate, at an individual property and community level, how much less regressive MVs are than AVs and how much more certain New Yorkers are paying/saving. This can be accomplished by showing, at the NTA level, the total taxes saved. A median tax savings will also be calculated.

Ancillary Analysis: Use Case

A use case will be presented as individual 1, 2, and 3 family homes demonstrate equity on a parcel level, separate and distinct from the statistical tests being conducted. Equity is a subjective term and use cases present real-world examples of how assessment limitations have impacted individual homeowners on a micro level.

CHAPTER IV: QUANTITATIVE ANALYSIS

As discussed in Chapter II, assessment limitations that cap annual increases in assessed value confer a greater benefit to homeowners in areas with fast-appreciating real estate. The truth of this is evident when analyzing the individual effective tax rates of properties in wealthier market areas. An effective tax rate is the relationship between a property's tax bill as compared to fair market value. In this chapter, a comprehensive analysis of effective tax rate will uncover the extent to which there is regressivity in the New York City assessment roll. The uniform standard that requires all properties of the same type to be valued at the same percent of fair market value, has clearly been violated as will be illustrated in the tables below. Moreover, while there is a certain amount of acceptable dispersion in any assessment roll, this analysis will uncover the neighborhoods and racial groups that benefit most from the assessment limitations.

In order to code each of the Neighborhood Tabulation Areas, a predominant race variable was calculated using the latest available U.S. Census data. If a racial group represented a majority of more than 50% of the NTA, the area was coded as predominantly of that race. As this analysis includes a research question that examines the benefits of assessment limitations to whiter, wealthier neighborhoods as compared to neighborhoods that are predominantly minoritized, the coding accounts for Black, Hispanic, Black/Hispanic combined, White, and None for neighborhoods of greater heterogeneity. NTAs that are coded None have a more even distribution of racial groups and can be viewed as a control. As shown in Table 3, of the 195 NTAs with Tax Class 1 homes, there were 40 NTAs that had too even a split of various racial groups to be considered either predominantly White or Minoritized in the analysis. 90 of the 195 NTAs were predominantly Black and Hispanic combined, while 65 NTAs were predominantly White.

Table 3

Neighborhood Tabulation Areas by Predominant Racial Group

Borough	Black	Hispanic	Blck/Hsp	White	None	Total
Manhattan	3	5	2	16	3	29
Bronx	5	26	2	2	3	38
Brooklyn	14	4	5	22	6	51
Queens	10	6	4	12	26	58
Staten Is			4	13	2	19
Total	32	41	17	65	40	195

Borough Selection

Each of New York City’s five boroughs is unique, with various demographic, social, and economic characteristics. The research question stated earlier in Chapter II examines whether or not assessment limitations have harmed lower-income communities of color over time, creating a statistically significant difference in effective tax rates that favor wealthier, white neighborhoods. A citywide analysis of variance that includes outlier geographic areas that do not represent the diversity of the city overall, threatens to obscure the study and conflate the results. As such, the sampling described in Chapter III requires the removal of certain boroughs.

At 72.4% of the total population of Tax Class 1 homes, the boroughs of Brooklyn and Queens have the greatest number of 1, 2, and 3-family properties as shown in Table 4. These two boroughs are in-sample for the analysis of variance as there are statistically significant numbers of Black, Hispanic, Black/Hispanic combined, and White-predominant neighborhoods for the ANOVA to have reliability. Staten Island, however, represents just 17% of the parcel count and only 5% of New York City’s population. With a homogeneity that skews heavily towards a White demographic, Staten Island is neither a representation of the diversity of New York City, nor the diversity required for the analysis. The Bronx was also removed from the study for similar reasons as it represents just 9.8% of all Tax Class 1 parcels, with insufficient racial

diversity. Just 1 of the Bronx NTAs had a majority of 50% or greater White residents. Finally, Manhattan was also removed from the analysis as this borough represents less than 1% of all Tax Class 1 parcels, with outlier residential market values that are several times greater at the median than other boroughs (Table 5). Manhattan homeowners, both white and non-white, are outliers as their median household income and median wealth are not representative of those groups citywide.

Table 4

Tax Class 1 Parcels by NYC Borough

Borough	N	Percent	Cumulative Percent
Manhattan	5,462	0.9	0.9
Bronx	62,313	9.8	10.7
Brooklyn	190,241	29.9	40.6
Queens	269,686	42.5	83.1
Staten Is	107,588	16.9	100
Total	635,290	100.0	

The total sum of Tax Class 1 Market Value citywide is \$618.5M as shown in Table 5. Brooklyn and Queens account for a combined 76% of the total Market Value for this population due in large part to the number of observations, as well as median values of \$1,028,000 and \$829,000, respectively. When disaggregated by Borough and predominant, majority racial group as operationalized in Chapter III, in each borough White-predominant NTAs have an average Market Value greater than that of Black and Hispanic predominant NTAs. While there is a citywide difference between minoritized and white neighborhoods of approximately 50%, this contrast is most pronounced in the wealthiest borough, Manhattan, where White NTAs carry an average Market Value more than four times greater than NTAs that are minoritized-predominant.

Table 5

FY22 Market Value by Borough

Borough	N	Pct of Total	Median	Mean	Sum
Manhattan	5,462	1%	5,165,500	6,646,562	36,303,524,000
Bronx	62,313	10%	637,000	678,145	42,257,261,493
Brooklyn	190,241	30%	1,028,000	1,225,968	233,229,410,173
Queens	269,686	42%	829,000	880,919	237,571,524,010
Staten Is	107,588	17%	604,000	642,552	69,130,852,130
Total	635,290	100%	786,000	973,559	618,492,571,806

Descriptive Statistics – Brooklyn and Queens

As referenced earlier in the Data and Methods chapter, the research question of this dissertation focuses on the disproportionate benefits assessment limitations confer to whiter, wealthier neighborhoods. During exploratory data analysis it was determined that 184,915 parcels within Brooklyn and Queens, or approximately 40% of the parcel count, met the selection criteria. Neighborhood Tabulation Areas had to include a racial group that represented more than 50% of the population, and the area had to be majority owner-occupied.

Table 6

FY22 Market Value

50pctrace	N	Median	Mean	Sum
Black	52,489	579,000	612,760	32,163,174,998
Blck/Hisp	10,939	599,000	611,894	6,693,505,200
Hispanic	7,862	701,000	732,775	5,761,076,000
None	54,003	871,000	908,003	49,034,880,584
White	59,622	858,000	921,949	54,968,463,993
Total	184,915	741,000	803,727	148,621,100,775

As shown in Table 6, the median FY22 Market Value for homes in White-predominant NTAs is 858,000, significantly greater than the median value for minoritized neighborhoods. This tracks with the citywide data and in itself, is expected as black and brown communities

have not been afforded the same favorable lending opportunities as white communities (Brown, 2021).

Analysis of Variance

A parametric one-way analysis of variance (ANOVA), was selected as the most appropriate test to determine if there are statistically significant differences in Effective Tax Rate between predominant-white, predominant-minoritized, and more diverse communities in New York City. As shown in Table 7, the mean effective tax rates in Black, Hispanic, and Black/Hispanic combined neighborhoods are .00903, .00812, and .00888 respectively. White-predominant neighborhoods in the sample have a mean effective tax rate of .00865. In neighborhoods that are highly heterogeneous, coded as None in the table below, the mean effective tax rate for that group is .00888.

Table 7

Analysis of Variance - Effective Tax Rate by Predominant Racial Group

Descriptives

EffTaxRate		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
Black		52489	.009025772	.001756865	.000007668	.009010742	.009040802	.000396633	.012627092	
Blck/Hisp		10939	.008881697	.001485802	.000014206	.008853850	.008909543	.002064217	.012627000	
Hispanic		7862	.008116911	.001356610	.000015300	.008086919	.008146903	.000443313	.012627000	
None		54003	.008884757	.001801751	.000007753	.008869561	.008899954	.000116530	.012627087	
White		59622	.008651168	.002037638	.000008345	.008634812	.008667524	.000069784	.094702500	
Total		184915	.008816642	.001848070	.000004298	.008808218	.008825065	.000069784	.094702500	
Model	Fixed Effects			.001836238	.000004270	.008808272	.008825011			
	Random Effects				.000128702	.008459307	.009173976			.000000060

The tests of homogeneity, Levene statistic shown in Table 8, indicate that there are statistically significant differences and equal variances are not assumed. With significance less than .05, the assumption of homogeneity has been violated and equal variances are not assumed.

Table 8

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
EffTaxRate	Based on Mean	705.160	4	184910	.000
	Based on Median	698.141	4	184910	.000
	Based on Median and with adjusted df	698.141	4	180031.005	.000
	Based on trimmed mean	701.539	4	184910	.000

As was the case for the Levene statistic, $p < .005$ is significant. There is evidence that not all mean effective tax rates are the same between groups. Details of the multiple comparisons Bonferroni test expounds on these differences in Table 9 below.

Table 9

ANOVA

EffTaxRate					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.008	4	.002	598.681	.000
Within Groups	.623	184910	.000		
Total	.632	184914			

The Bonferroni multiple comparisons test, an advantage of one-way ANOVA, provides that differences at the mean are significant ($p < .05$) between all but one combination of neighborhoods. The comparison between Black and Hispanic combined with None appears to not be significant at $p < .05$. This is not surprising as the None group is defined as neighborhoods without a single demographic representing more than 50% of the population. In the None group there are many neighborhoods that fail the predominance test but still have a fair representation of Black and Hispanic residents.

Black-predominant neighborhoods, however, have a mean effective tax rate that exceeds the other three groups according to the post hoc test. Lower and Upper bounds indicate that

Black neighborhoods pay, on average, at a higher effective tax rate than do other groups in different demographics. Black/Hispanic combined neighborhoods pay taxes, on average, at a lower rate than Black neighborhoods, and higher rates than Hispanic alone and White neighborhoods. As stated earlier there is no significant difference in mean effective tax rates between Black/Hispanic combined and neighborhoods in group None.

Hispanic neighborhoods, interestingly, have a mean effective tax rate that fall below those of all other groups. This may have something to do with the percent of homes that are owner occupied. As mentioned earlier, Hispanics in New York City are primarily renters and have a homeownership rate that is just 17% (NYU Furman Center, 2018). When identifying the residential predominance factors using U.S. Census data, there were many more Hispanic neighborhoods that fell out of sample as a result of the owner occupancy condition. For those that remained in-sample, the rates of owner occupancy were far lower than Black and White-predominant neighborhoods.

Finally, White-predominant neighborhoods have a mean effective tax rate that falls below Black, Black/Hispanic combined, and neighborhoods. This result confirms the hypothesis that areas with more valuable real estate, neighborhoods that are predominantly white, have effective tax rates that are lower on average than areas of lower-value homes.

Table 10

Multiple Comparisons

Dependent Variable: EffTaxRate

Bonferroni

(I) 50pctrace	(J) 50pctrace	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Black	Blck/Hisp	.00014408*	.000019300	.000	.000089900	.000198251
	Hispanic	.00090886*	.000022206	.000	.000846528	.000971195
	None	.00014101*	.000011255	.000	.000109421	.000172608
	White	.00037460*	.000010990	.000	.000343753	.000405455
Blck/Hisp	Black	-.0001441*	.000019300	.000	-.00019825	-.00008990
	Hispanic	.00076479*	.000027150	.000	.000688575	.000840997
	None	-.00000306	.000019253	1.000	-.00005710	.000050983
	White	.00023053*	.000019099	.000	.000176915	.000284142
Hispanic	Black	-.0009089*	.000022206	.000	-.00097120	-.00084653
	Blck/Hisp	-.0007648*	.000027150	.000	-.00084100	-.00068857
	None	-.0007678*	.000022165	.000	-.00083007	-.00070563
	White	-.0005343*	.000022032	.000	-.00059610	-.00047241
None	Black	-.0001410*	.000011255	.000	-.00017261	-.00010942
	Blck/Hisp	.000003061	.000019253	1.000	-.00005098	.000057105
	Hispanic	.00076785*	.000022165	.000	.000705627	.000830067
	White	.00023359*	.000010908	.000	.000202970	.000264210
White	Black	-.0003746*	.000010990	.000	-.00040546	-.00034375
	Blck/Hisp	-.0002305*	.000019099	.000	-.00028414	-.00017692
	Hispanic	.00053426*	.000022032	.000	.000472411	.000596103
	None	-.0002336*	.000010908	.000	-.00026421	-.00020297

*. The mean difference is significant at the 0.05 level.

Analysis of Variance - Exemptions Removed

Assessment limitations are, in many ways, akin to property tax exemptions in that they lower taxable assessed value prior to applying a tax rate. However, unlike property tax exemptions that seek to provide a tax benefit to a target group such as veterans, clergy members, and senior citizens on fixed incomes, assessment limitations are reducing taxable assessed value to groups that do not have to provide eligibility for the tax break. The legislative intent of S7000A, as explained by a NYC Independent Budget Office (2006) report, was to stabilize property taxes for middle class residents. The long-term impact of the assessment limitations has

been to confer an even greater benefit on homeowners of multimillion-dollar properties that have appreciated rapidly since the 1980s.

Although the one-way analysis of variance above was performed using an effective tax rate inclusive of both assessment limitations and other exemptions such as school tax relief (STAR), clergy, senior citizens, and veterans, a secondary analysis adds the exemption value back to the taxable assessed value. Adding back the exemption assessed value eliminates exemptions as a contributor to the statistically significant difference between the effective tax rates between communities. As shown in the secondary ANOVA and post hoc tests, Tables 11, 12, and 13 below, the mean effective tax rates shift up but retain their differences between the demographic groups.

As shown in Table 11, Black-predominant neighborhoods have a mean effective tax rate of .0095 while White-predominant neighborhoods are, on average, at .0091. For every \$1M in Market Value, Black homeowners are paying, on average, \$400 more a year than homeowners in predominantly White neighborhoods.

Table 11

Descriptives

ETRNoEx		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
Black		52489	.0095	.00142	.00001	.0095	.0096	.00	.01	
Blck/Hisp		10939	.0094	.00103	.00001	.0094	.0094	.00	.01	
Hispanic		7862	.0085	.00100	.00001	.0085	.0085	.00	.01	
None		54003	.0094	.00145	.00001	.0093	.0094	.00	.01	
White		59622	.0091	.00174	.00001	.0091	.0092	.00	.09	
Total		184915	.0093	.00152	.00000	.0093	.0093	.00	.09	
Model	Fixed Effects			.00150	.00000	.0093	.0093			
	Random Effects				.00014	.0089	.0097			.00000

The tests of homogeneity, Levene statistic shown in Table 12, indicate that there are statistically significant differences and equal variances are not assumed. With significance less than .05, the assumption of homogeneity has been violated and equal variances are not assumed.

Table 12

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
ETRNoEx	Based on Mean	1195.284	4	184910	.000
	Based on Median	1198.741	4	184910	.000
	Based on Median and with adjusted df	1198.741	4	169029.484	.000
	Based on trimmed mean	1200.439	4	184910	.000

The Bonferroni multiple comparisons test, provides that differences at the mean are significant ($p < .05$) between all but one combination of neighborhoods. The comparison between Black and Hispanic combined with None appears to not be significant at $p < .05$. This is not surprising as the None group is defined as neighborhoods without a single demographic representing more than 50% of the population. In the None group there are many neighborhoods that fail the predominance test but still have a fair representation of Black and Hispanic residents.

Table 13

Dependent Variable: ETRNoEx
Bonferroni

(I) 50pctrace	(J) 50pctrace	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Black	Blck/Hisp	.00015*	.00002	.000	.0001	.0002
	Hispanic	.00104*	.00002	.000	.0010	.0011
	None	.00019*	.00001	.000	.0002	.0002
	White	.00040*	.00001	.000	.0004	.0004
Blck/Hisp	Black	-.00015*	.00002	.000	-.0002	-.0001
	Hispanic	.00089*	.00002	.000	.0008	.0010
	None	.00005*	.00002	.034	.0000	.0001
	White	.00025*	.00002	.000	.0002	.0003
Hispanic	Black	-.00104*	.00002	.000	-.0011	-.0010
	Blck/Hisp	-.00089*	.00002	.000	-.0010	-.0008
	None	-.00084*	.00002	.000	-.0009	-.0008
	White	-.00064*	.00002	.000	-.0007	-.0006
None	Black	-.00019*	.00001	.000	-.0002	-.0002
	Blck/Hisp	-.00005*	.00002	.034	-.0001	.0000
	Hispanic	.00084*	.00002	.000	.0008	.0009
	White	.00021*	.00001	.000	.0002	.0002
White	Black	-.00040*	.00001	.000	-.0004	-.0004
	Blck/Hisp	-.00025*	.00002	.000	-.0003	-.0002
	Hispanic	.00064*	.00002	.000	.0006	.0007
	None	-.00021*	.00001	.000	-.0002	-.0002

*. The mean difference is significant at the 0.05 level.

Ancillary Analysis - Correlation of Market Value to Effective Tax Rate

The table below that illustrates the relationship between Market Values and Effective Tax Rates, presents a Pearson correlation coefficient of -0.008 that it is statistically significant (p = 0.000). The negative relationship between value and tax rate provides yet another example of the inequities found with New York City’s assessments overall.

Table 16

Correlations

		FY22 Market Value	EffTaxRate
FY22 Market Value	Pearson Correlation	1	-.008**
	Sig. (2-tailed)		.000
	N	184915	184915
EffTaxRate	Pearson Correlation	-.008**	1
	Sig. (2-tailed)	.000	
	N	184915	184915

** . Correlation is significant at the 0.01 level (2-tailed).

Illustrated further in a set of scatterplot diagrams below, it is not only neighborhoods with lower market values that experience this negative relationship. While it is stated in the research hypothesis that lower-valued neighborhoods of predominantly minoritized residents pay taxes based on higher rates, this is also true for lower-value homes within wealthier, whiter communities as well. Sheepshead Bay, a predominantly white neighborhood presented in the use case above, illustrates a clear negative correlation between Market Value and Effective Tax Rate. This type of assessment regressivity defies the ad valorem system that requires higher-valued homes pay higher taxes at a uniform level.

Figure 4

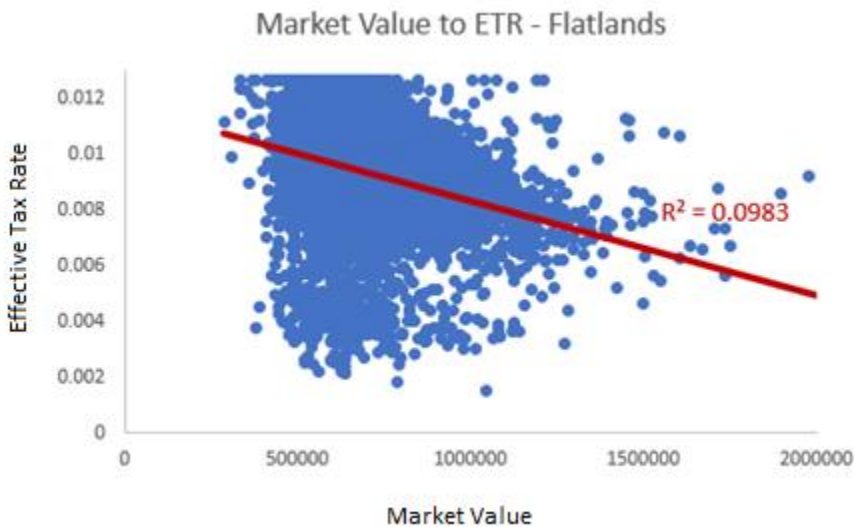
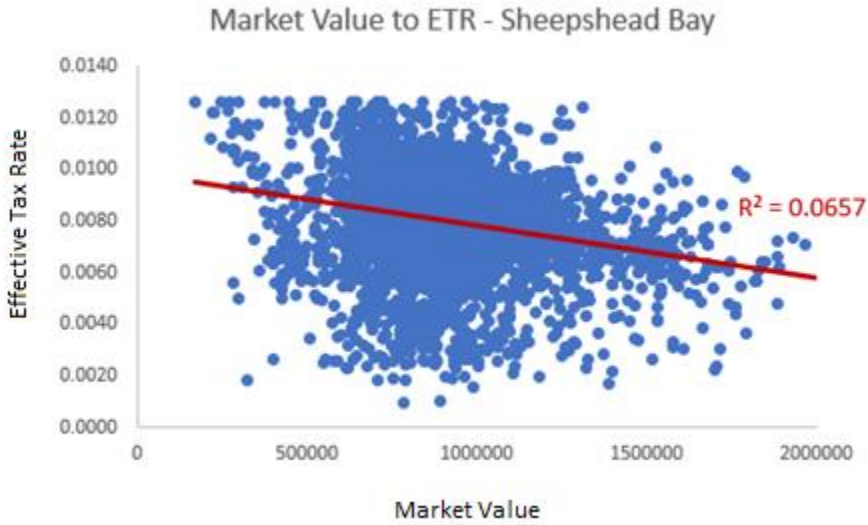


Figure 5



Ancillary Analysis – Total Savings by Demographic

As the one-way analysis of variance demonstrates the statistically significant differences between groups with regard to a single dependent variable, the weighted mean Effective Tax Rates for each racial group also support this evident difference in tax rates between racial groups. As shown in the table below, the weighted mean Effective Tax Rate demonstrates that in aggregate, White-predominant communities are paying taxes based on a rate lower than Black and Black/Hispanic combined neighborhoods.

Table 14

Weighted Mean ETR by Predominant Racial Group

PredomRace	N	FY22 Market Value	Taxes	WM ETR
Black	52,489	32,163,174,998	288,947,914	0.008984
Blck/Hisp	10,939	6,693,505,200	59,269,017	0.008855
Hispanic	7,862	5,761,076,000	46,687,502	0.008104
None	54,003	49,034,880,584	435,906,001	0.008890
White	59,622	54,968,463,993	477,264,492	0.008683
Total	184,915	148,621,100,775	1,308,074,926	0.008801

Moreover, as shown in Table 15, White-predominant communities have benefited most from assessment limitations as demonstrated by aggregate tax dollars saved. The Taxes No Caps column in the table reflects what aggregated tax bills would be if assessment limitations were removed and other personal exemptions remain. Although the calculation of Taxes No Caps comes with the caveat that exemptions for some properties may change with the removal of limitations, the results of this type of analysis align with those from the ANOVA. Tax savings, on average, are greatest for White-predominant neighborhoods and stands in contrast with both the Black and Black/Hispanic combined-predominant groups. When reviewing the results, homeowners in White-predominant neighborhoods save, on average, 66% more in taxes as a result of assessment limitations. As mentioned earlier in Chapter II, limitations favor high-value homes in markets that have appreciated more rapidly over the years since limitations were imposed on New York City’s assessment system.

Table 15

Tax Scenarios by Predominant Racial Group

PredRace	N	FY22 MV	FY22 Taxes	Taxes No Caps	Tax Saved	Ave Saved
Black	52,489	32,163,174,998	\$288,947,914	\$390,075,249	\$101,127,336	\$1,927
Blck/Hsp	10,939	6,693,505,200	\$59,269,017	\$81,107,667	\$21,838,650	\$1,996
Hsp	7,862	5,761,076,000	\$46,687,502	\$70,526,835	\$23,839,334	\$3,032
None	54,003	49,034,880,584	\$435,906,001	\$597,431,212	\$161,525,211	\$2,991
White	59,622	54,968,463,993	\$477,264,492	\$668,345,635	\$191,081,142	\$3,205
Total	184,915	148,621,100,775	\$1,308,074,926	\$1,807,486,599	\$499,411,673	\$2,701

Ancillary Analysis - Use Case

Although most common in the policy literature related to qualitative analysis, triangulating results by identifying specific examples of inequity and contextualizing the problem is important to the research. While from a statistical standpoint the significance tests have been met, indicating inequities between white communities and those of color, sampling

specific parcel-level data provides a parcel-level view of this housing inequity phenomenon (Bazeley, 2013).

So as to avoid sampling bias, a statistical distribution of Market Values provides the range of values in these various communities. For example, the median Market Value for Black-predominant neighborhoods in the sample is 579,000. Once again, the sample includes selection criteria that require neighborhoods to be greater than 50% of one demographic, with an owner occupancy for that neighborhood of 50% or greater. In the use case analysis, a single-family home at that median Market value is presented in the figure 2.

The Market Value of Brooklyn Block 7768 Lot 33, a 1,500 square foot single family property, falls at the sample median of \$579,000 for Black-predominant neighborhoods. In this case the NTA is Flatlands where more than 70% of residents identify as Black. The Taxable Assessed Value for FY22 was 27,433. The resulting tax bill after applying a tax rate of 21.045% is \$5,773. The homeowner is paying a tax bill at an effective tax rate of .00997. Street-level imagery provided by the New York City Department of City Planning, dated 3/15/2021, shows the use and condition of this subject parcel.

Figure 2

Street-Level Image of 1049 East 42nd Street in Brooklyn, NY



Note: NYC Department of City Planning ZOLA

The Market Value of Brooklyn Block 7441 Lot 322, a 1,300 square foot single family property, falls at the sample median of just under \$860,000 for White-predominant neighborhoods. In this case the NTA is Sheepshead Bay where 68% of residents identify as White. The Taxable Assessed Value for FY22 was 30,415. The resulting tax bill after applying a tax rate of 21.045% is \$6,400. The homeowner is paying a tax bill at an effective tax rate of .00744. Street-level imagery provided by the New York City Department of City Planning, dated 4/6/2021, shows the use and condition of this subject parcel.

Figure 3

Street-Level Image of 2544 East 22nd Street in Brooklyn, NY



Note: NYC Department of City Planning ZOLA

In these cases, the homeowner in Sheepshead Bay is paying more in taxes than the owner in Flatlands. However, as a percent of total Market Value, the owner in Sheepshead bay is paying at a lower rate, just .00744 as opposed to .00997. If the homeowner was paying at that higher rate, their taxes would be \$8,574, not \$6,400. While the ANOVA results indicate what the statistically significant differences in effective tax rates are at the mean, as use cases emerge and homeowners compare their bills relative to their values, an even greater disparity emerges.

Take for example homes at the high-end of both Black-predominant and White-predominant neighborhoods. In Flatlands where greater than 70% of residents identify as Black, homes values are \$798,000 at the 90th percentile. Brooklyn Block 7667 Lot 29 is at this 90th percentile of value with a tax bill of \$7,236. The effective tax rate is .00906. By contrast, when examining homes at the 90th percentile in White-predominant neighborhoods such as Sheepshead Bay, values are \$1,407,000. Brooklyn Block 8795 Lot 126 is at this 90th percentile of value with a tax bill of \$8,497. As was the case in the earlier examples, the tax bill is higher for the home in Sheepshead Bay, however the effective tax rate of .00604 is far lower than the rate being paid by the Flatlands resident at .00906.

Although each use case is just an example of trends observed by researchers, practitioners, and homeowners, this type of unequal assessment is where the public trust in local government taxation begins to deteriorate. The uniform standard required of most assessing authorities is largely absent in taxing jurisdictions with assessment limitations. When assessment ratios become random and not consistently correlated to value, policymakers may wish to question the legitimacy of the statutory framework of the assessment system.

CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

In ad valorem taxation, the ability to pay taxes is not an explicit value. As stated earlier in Chapter II, a tax based on property value presupposes that one's property is an indication of wealth and the ability to pay for local government services. This relationship between the value of real estate and a taxpayer's ability to pay more has become unsustainable in many communities. The tax revolts of the 1970s demonstrated the extent to which residents were concerned about ever-increasing property taxes and the need for legislative action to cap or limit these increases. However well-intentioned, the limits on assessment increases has, as shown in Chapter IV, created a system where more valuable homes are taxed at lower rates than lower-value homes. Moreover, this regressivity is found not only between neighborhoods but also within neighborhoods such that lower-value homes in wealthier areas are also paying greater effective tax rates. The literature published by tax policy scholars, researchers, and assessment practitioners indicate that the inequities described in this paper are inevitable and unavoidable. Once assessment limitations are implemented, the politics of property taxes prevent their removal despite the growing body of research and focus on tax equity.

Key Findings

This research, just one line of inquiry that adds to the ongoing discussion of regressivity in assessment, provides strong evidence that minoritized communities living in areas with homes that appreciate more slowly will not experience the greatest benefits of assessment caps (Dare et al., 2013; Hayashi, 2014). The legislative intent of S7000A, like many other bills of its kind, was to protect middle class homeowners. What has occurred, quite to the contrary, is a long-term effect that shields wealthier homeowners from paying their fair share at the expense of lower-income communities of color. This is yet another reinforcing and systemic system of bias that

limits the opportunities of minoritized groups. While there is no evidence in the literature that bias was intended at the time of the law's passing, the unintended consequences of assessment limitations are profound. Moreover, there is a disparate impact on all homeowners of modest properties, and from existing literature we understand that communities of color are subsidizing wealthier neighborhoods by way of higher effective property tax rates (Hayashi, 2021; Hill et al., 2021). The fundamental tenets of a progressive tax system, whereby homeowners with high-value real estate pay greater property taxes, are clearly violated as the opposite is now true (Brown, 2021; Hill et al., 2021).

Limitations

Although the analysis presented in Chapter IV expanded on earlier research that examines tax equity at a Community District level (Hayashi, 2014; Hayashi, 2021), Neighborhood Tabulation Areas remain broad and have limitations of their own. While perhaps more granular than New York City Council or Community District, some NTAs have a diversity of housing stock and demographic makeup that could conflate the findings. Additional research at the census block level may provide a greater insight into sub-neighborhood groups not studied in this work.

Another limitation relates to rates of homeownership and the issue of tax pass-through that may contribute to reducing the generalizability or reliability of the findings. In Chapter III an intentional decision was made to exclude NTAs with low rates of owner occupancy. The methodological premise was that a study of property taxes ought to include neighborhoods where predominant race is also accompanied by those groups owning the homes in their neighborhoods. However, there is evidence (Hayashi, 2021) that property owners and landlords may increase

rents in areas with higher taxes and that this pass-through effect provides that renters are paying property taxes indirectly.

Finally, property tax schemes are not developed in a vacuum. New York City was not the first assessing authority to adopt assessment limitations and is just one of a larger collection of cities and counties that have also taken the same path. As such, the failures of other assessment limitations schemes require additional attention. Although the scope of this research focuses on New York City, the extent to which other municipalities have mitigated the worst elements of regressive assessment limitation programs ought to be explored further. Haveman and Sexton (2008) offers a warning that it is very difficult to reverse limitations once adopted, however, future research should include a study that specifically projects the impact on homeowners if assessments were to return to full value.

Recommendations

Restoring equity and the confidence taxpayers have in the tax assessment system begins with the abolition of assessment limitations. Haveman and Sexton (2008) among other property tax policy researchers have suggested that an increase in assessed value is not the primary driver of property tax increases. Rather, an increase in local government spending has driven property taxes and that the levy itself requires limitations. Instead of sustaining an assessment limitation system that confers benefits to those who may not be in need of tax relief, jurisdictions may choose to adopt a limit on the levy thereby reducing the likelihood that taxes become too great a burden on all taxpayers (Haveman & Sexton, 2008).

Another recommendation to restore equity and protect vulnerable taxpayers comes from the literature out of the International Association of Assessing Officers (2013), the New York State Department of Taxation and Finance (2021), as well as the New York City Advisory

Commission on Property Tax Reform (2020). Restoring equity and the relationship between property value and taxes may require bringing Tax Class 1 homes up to full market value. Instead of one home paying taxes at 2% of fair market value and another paying at 5% of market, New York State legislators could pass property tax reforms that require all assessing authorities to value and tax their homeowners at 100% of market value. In New York City, taxpayers receive a Notice of Property Value (NOPV) with several valuation figures. Market Value, Effective Market Value, Assessed Value, Taxable Assessed Value, and so on. The average taxpayer, perhaps less familiar with the complexities of the property tax system, is often confused by these numbers and have a difficult time reconciling the information presented to them. In a system where all assessments are at a full 100% of value, there is a single Market Value that is equivalent to the Assessed Value, and the taxable is simply that number less any exemptions.

The re-baselining of assessments to 100% of value does have its flaws, however. Homeowners that are currently paying their mortgage and property taxes based on a rate that they can afford today, may find that next year after going to 100% of value, they can no longer afford their homes. In this way, innocent purchasers who enjoy the benefits of assessment limitations and have budgeted for a tax liability of \$6,000 a year, could very well see their taxes increase to \$24,000 a year depending on the current level of assessment for their home. A tax policy that drives homeowners from their properties creates a crisis of trust in addition to other externalities. Those include the possibility of an increase in foreclosures, abandoned homes, a greater number of lower-income and minoritized owners being forced from their homes. Homelessness and crime are certainly a concern, as is urban blight and what an increase in property taxes would potentially do to the home values of all properties citywide. The 1970s and

1980s were difficult years for the city and few would choose to return to those days. These concerns, all valid and explored in the literature review in Chapter II, are the reasons why adopting assessment limitations should not be the tax relief solution of choice. Once enacted, limitations are extremely difficult to reverse.

If assessment limitations cannot be eliminated due to these political concerns and the fear of harming innocent purchasers and long-term lower-income residents, a circuit breaker (Haveman & Sexton, 2008; Hayashi, 2014) option is also an available policy tool. Circuit breakers provide tax relief to homeowners who own valuable real estate yet remain income constrained. The current assessment system in New York City allows for wealthier homeowners of means to enjoy a benefit that was never intended for them. Threshold circuit breakers (Haveman & Sexton, 2008) provide a refund to homeowners when the property tax exceeds a certain percentage of household income. Progressive taxation requires that those of greater wealth and income pay greater taxes. Under a threshold circuit breaker system, taxpayers with significant assets and lower income can remain in their homes as their property taxes also consider their liquidity and ability to pay.

Much in the same way that a circuit breaker ties the property tax to income, New York City could transform the assessment limitation scheme into a tax exemption. Circuit breakers provide relief for fixed income and lower-income homeowners by offering a cutoff or refund if property taxes exceed a set percent of household income. The exemption process, by contrast, reduces the taxable assessed value of a home before the property tax bill is calculated. If the exemption was implemented to reduce the assessed value of a home based on merit, merit being defined as need-based relief on a sliding scale of income for example, then wealthier homeowners would not qualify for a reduction in taxes.

Several researchers have posited that a suppressed property tax related to limitations has had an inflationary effect, driving home value increases above what would be considered market norms. Property taxes are a cost of homeownership and prospective buyers are willing to pay more for a home if the taxes are low, capped over time by assessment limitations. Recalling that New York City does not have a “welcome stranger” component to its capping scheme like that of California’s Proposition 13, incoming homeowners that purchase their properties today will continue to enjoy assessment limitations. Should property tax increases normalize to 100% full market value in a single year, buyers will be forced to seek homes at lower price points. What impact would this have on New Yorkers carrying mortgages where home values drop suddenly?

Another likely impact a sudden shift to 100% full value would create, is the increase in property liens. Current policy in New York City, when homeowners and businesses do not pay their property taxes or other fees and charges, is to impose a lien on property that is sold to a third-party. The tax lien sale has already been a controversial policy for years and most recently, New York State Attorney General Letitia James published a memo against its disparate impact on minoritized and low-income communities (2021). While some innocent purchasers may have the means to pay a rapidly increasing tax bill, many lower to middle income New Yorkers may experience the worst of this change in tax policy.

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