

Are King County Metro's Fare Policies Just? An Examination of Racial Bias in Fare Enforcement

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Abstract

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In 2019, King County Metro auditors found that fare enforcement disproportionately impacts people experiencing houselessness and housing insatiable riders. These findings resulted in a policy change in an attempt to make fare enforcement for equitable. King County Metro lowered the cost of a citation to provide more affordability, and provided alternatives to a monetary infraction. When looking at this policy, one finds themselves asking "is this enough?". In order to answer the questions, *On King County Metro RapidRide busses, is the frequency and severity of fare enforcement infractions higher for Black riders than White riders, and did a recent policy change implemented by King County Metro make the fare enforcement policy more equitable?*, this thesis uses a chi-squared analysis on data before and after the policy implementation to explore the relationship-- if any-- between race and face enforcement infractions. The results show that there is a relationship between race and the frequency and severity of fare enforcement, leaving Black riders more likely to receive a monetary fine. Drawing on Michele Foucault, David Harvey, and public goods theory, the proposed solution of free fare as an alternative to fare enforcement is explored. Issues of race, equity, and accessibility through affordability are examined within this thesis to argue for the importance of a free fare model.

## **Chapter 1: Introduction**

This thesis is intended to explore the relationship between race and fare enforcement. In order to investigate this relationship, this research aims to answer the following questions; *On King County Metro RapidRide busses, is the frequency and severity of fare enforcement infractions higher for Black riders than White riders, and did a recent policy change implemented by King County Metro make the fare enforcement policy more equitable?* Beyond answering the primary questions and exploring the relationship between race and fare enforcement, this thesis aims to explore the theoretical framework that justifies the argument for a fare-free public transportation system in Seattle, Washington.

I argue that the ways in which public transportation is currently structured create an unjust distribution of a public good, which can contribute to the unequal treatment of people of color, and that there are opportunities for not only King County Metro, but also its sister agency Sound Transit, to work towards a more equitable fare system. By using data that shows how fare enforcement has disproportionately impacted people of color paired with arguments from political economy theory regarding public goods, this research sets out to explore how Seattle's public transportation systems can work to become more equitable

Equity refers to the proportional representation of fair treatment. Unlike equality, which views everybody as a blank slate who ought to be awarded the exact same treatment, equity encompasses a wider view on people and their socioeconomic and racialized histories, which root their identities and the ways in which they experience the world. Equity is the "Active commitment" to justice, equality, and fairness (Wooldridge, n.d.) Because of this definition of equity, an equitable system refers to a transportation fare system that ensures the access and

affordability of all riders, while mindfully approaching their intersectional identities (such as race, class, different abilities, and housing status).

I will argue that King County Metro and Sound Transit should move to a “fare-free” system in order to become more equitable. To support this argument, I supplement my primary data analysis exploring the relationship between race and fare enforcement centered around a recent policy change by Metro with a theoretical discussion centered on the nature of a “public good” and how public transportation can serve as a more equitable resource for all Seattleites.

#### Public Transportation in King County - Background

In Seattle, which is within King County, there are two public transportation agencies. King County Metro Transit Department (henceforth referred to as Metro) covers bus, rail, water taxi, and rideshare options in all of King County, including the City of Seattle. While this research uses only Metro data to answer the primary question, I will also be making recommendations to the Central Puget Sound Regional Transit Authority (henceforth referred to as Sound Transit), which has transit services for the Seattle metro area. Both agencies work in conjunction with each other to provide public transportation.

Metro and Sound Transit work closely together to create a cohesive network of public transit options in Seattle and surrounding communities in King County. The ORCA is a card that residents of King County can purchase for \$5 and add value, tap, and ride on King County Metro Transit, Sound Transit, and other regional systems, including Community Transit, Everett Transit, Kitsap Transit, Pierce Transit and the Washington State Ferries. The low-income

option, the ORCA LIFT card, is for qualifying residents and the price is only \$1.50 for a ride compared to the full price of \$2.75.

In 2019, both Sound Transit and King County Metro constructed working groups to analyze fare enforcement policies. Fare enforcement has been used by both Sound Transit and King County Metro since 2009, when the Sound Transit board voted on a proof-of-payment system for Seattle's transit system. Because Sound Transit and King County Metro services operate a “barrier-free” model, riders entering Sound Transit’s Link Light Rail, which is a light rail rapid transit line serving the broader Seattle area, or Metro’s rapid bus line service the RapidRide, do not pass through any turnstiles or have to present tickets before boarding. In order to reduce fare evasion, Fare Enforcement Officers enter the Link and RapidRide busses to check proof of payment. To ensure that public transit services in King County are operating in a “fair” way that avoids potential profiling, enforcement officers are expected to make random checks of transit riders. However, in a 2019 assessment, King County Metro auditors found that the deployment of fare enforcement officers is not random, and that instead they are typically deployed to areas where more fare evasion has been recorded in the past.

The same Auditor’s report on Metro’s RapidRide found disparities among people who received warnings, citations, or criminal charges for evading fare. Between 2015 and 2017, approximately 25% of citations and 30% of misdemeanors were imposed on those who were likely houseless or housing instable (Auditors Report, 2019). On the Link Light Rail, ridership data shows that while only 9% of riders identify as Black, these riders received 43% of tickets and 57% of misdemeanor charges between 2015 and 2019 (Sound Transit, 2019). In addition to these unequal citation distributions, the Auditor’s report found that over 70% of all fines go unpaid and sent to collections, which indicates an inequity in the ability to pay and further

points to possible lasting impacts due to the accrual of general and criminal debt. These unequal burdens of citations and criminal charges applied to fare enforcement among different demographic populations has incited Seattle residents to speak up and demand change to this system.

While both Metro and Sound Transit have been working since early 2019 to analyze and revise their policies, Metro took action first and altered their fare enforcement policy in an attempt to become more equitable after the initial findings of the auditor's report were published. Metro and Sound Transit had both been following the same system for fare enforcement before Metro's change: fare enforcement officers enter a barrier-free mode of transit and check every rider for proof-of-payment (POP). If a rider is caught by officers evading the fare, they receive either a warning and education, a citation of \$124, or a misdemeanor charge. It is up to the discretion of fare enforcement officers to issue the different levels of punishments, and it was revealed in the auditor's report that people who had similar numbers of penalties had different types of punishments issued to them. Since this discovery, Metro has altered their policies in an attempt to become more equitable, although their solution has only made fare enforcement more affordable and less burdensome. They reduced the citation fee from \$124 to \$50, and if paid within 30 days, the ticket is further reduced to \$25. There are additional options in lieu of paying the penalty fine including immediately adding money to an ORCA or ORCA LIFT card in front of officers, enrolling in a new ORCA LIFT card, performing two hours of community service, or appealing a violation. Issuing these various levels of penalty are still dependent on the discretion of enforcement officers based on the "officer's training and expertise" (King Country Metro's website). By lowering the cost of the ticket from \$124 to \$50, and even down to as little as \$25, penalties are more affordable for those who receive a ticket, but they do not

address any issues of equity. While this might be more just, the underlying problem still exists, namely, people are receiving a monetary citation for evading paying a fare for a public good.

While Metro has implemented a policy change, Sound Transit, at the time of this writing, had yet to take action on their fare enforcement policies and had instead used the working group model to issue their own community survey and hold public listening sessions. In February 2020—a whole calendar year after the creation of the working group—Sound Transit issued a draft report on the preliminary findings of fare enforcement practices through their community engagement strategies but took no further steps towards policy change, thus leaving Metro and Sound Transit with different fare enforcement policies and practices. Riders who navigate Seattle by multiple forms of public transportation may be unaware of the fare enforcement discrepancies between these partnering agencies.

## **Chapter 2: Literature Review**

This literature review addresses three topics: 1) fare evasion and fare enforcement policy; 2) fare affordability; 3) transit advocacy and; 4) the social cost of criminalization. By analyzing the content of the existing literature in each of these four areas, I aim to investigate the ways in which fare enforcement differentially impacts historically disadvantaged individuals and what tangible and proactive policy steps both King County Metro and Sound Transit can take in order to work towards a more equitable future.

### **I. Fare evasion and fare enforcement policy**

I have combined fare evasion and fare enforcement policy into one subject area. Not only do these connect directly (fare enforcement policy is a direct response to people evading fares), but most of the existing academic research is centered on how to increase fare enforcement, the importance of curbing fare evasion (Guarda, 2015), and how fare enforcement relates to safety (Barabino et al., 2013). What my analysis shows is that the general public believes that fare enforcement is needed and important. However, there is also an implicit assumption in much of the transportation literature that people who do not pay their transit fare are a risk – or potential risk – to public safety. When this bias is contextualized with who is impacted the most by fare enforcement, it becomes clear that these articles are contributing to and perpetuating the narrative that houseless people and people of color are dangerous.

In *Four Types of Fare Evasion: A Qualitative Study from Melbourne, Australia*, the authors argue that the act of fare evasion can undermine the financial viability of a transit agency by reducing annual revenue. In their interviews of 67 survey participants who are fare evaders, the researchers found that the overwhelming majority of fare evaders fit into one of four categories. They called these people either the “accidental evader”, who held strong opinions against fare evasion, the “it’s not my fault” evader who cited barriers to payment; the “calculated risk taker”, who deliberately evaded fare due to a cost/benefit analysis; and the “career evaders”, who are riders who deliberately evade fare consistently (Delbosc & Currie, 2016). Although their research still supported the perceived moral injustice of evading a fare, the authors reiterated the fact that while there is a wealth of knowledge on new design strategies and policies to decrease the risk of fare evasion, there is little research on the motivations for consumers choosing to evade fare. Delbosc and Currie further discuss the financial implications of fare evasion, stating that fare revenue is an integral part of a cost-effective transportation system, and that high fare evasion rates not only cost a transit agency lost revenue directly, but also

can “increase perceptions that the public transit system is an unsafe environment” (Delbosc & Currie, 2016; Reddy et al., 2011). Their analysis was devoid of any true critique on socioeconomic conditions that influenced someone’s ability to pay.

The researcher’s arguments connecting fare evasion to criminality and the creation of an unsafe environment draws on the “broken windows” theory developed by James Q. Wilson and George L. Kelling. In their article *Broken Windows; The police and neighborhood safety*, published in *The Atlantic* in March of 1982, Wilson and Kelling discuss the ways in which evidence of small crimes, such as trash or graffiti, leads to larger crimes through social unrest. The perceived “order” of a community lends itself to crime rates—if a building has a broken window, soon all of the windows will be broken (Kelling & Wilson, 1982). This theory has been applied to policing efforts nationally, most notably in New York City. The underlying message of many of the articulations for the importance of fare enforcement draw on this argument and allude to the idea that if people evade fare, people will commit more crimes, thus making public transportation an unsafe environment. This broken windows theory has received criticism by many researchers and challenged on the basis that not only is the broken windows theory not correct, but that it has been weaponized to control communities of color. It is a theory that has been abused to uphold white supremacy using “law and order” as the basis for oppressing communities of color (St. Martin, 2019).

Fare evasion continues to be framed in a way that centers the transit agency and riders who pay as victims, while fare evaders or “free riders” are criminals. In Benedetto Brabino et al’s piece *A Modified Model to Curb Fare Evasion and Enforce Compliance: Empirical Evidence and Implications*, the authors open by declaring that fare evasion is a major issue for transit organizations due to the loss of revenue and the “damage to their corporate images”

(Barabino, 2012). They continue to reiterate the importance of tackling fare evasion to maximize profits, avoid negative publicity, and uphold a safe culture on transit lines.

In another article, the same researchers continue their work on fare enforcement and introduce the idea of public safety in relation to fare evasion, which is a point of view I hope to challenge. In their 2014 article *Fare Evasion in Proof-of-payment Transit Systems: Deriving the Optimum Inspection Level*, Brabino et al state that not only does evasion hurt public image and revenue, but they also draw on broken windows theory again to draw a relationship between crimes and fare evasion. In their introduction, they introduce the idea of social inequity—but in a surprising way. Instead of identifying the possible implications of social inequity in a payment-based fare system, they say that the act of fare evasion itself leads to social inequity because of the differences between those who pay and those who don't. Specifically, they frame evaders as the “oppressors” because they are “benefiting” from behavior that takes from the (public) transit system. (Barabino, 2014). This framework also re-enforces the “free rider” economic argument that rejects the idea of free fare as a true public good. This interesting take on fare evaders is strengthened by a third seminal paper written by the same authors, also in 2014, which frames “free riders” as increasing social inequality through their evasion of fare, leaving other riders responsible for making up the lost fare through an increase in their own ticket prices.

Their articulation of riders and fare evaders as criminals and as intentional “free riders” is an incomplete and wrong argument; by continuing to treat non-paying riders as the problem and not the overall system, this passing of blame upholds anti-poor rhetoric. Their anti-poor sentiment is apparent in their ideas around what fare evasion contributes to socially.

Researchers have historically used these anti-poor arguments to build a justification for

increasing policing on transportation systems. For example, Reddy, Kuhls, and Lu discuss how New York City implemented a comprehensive framework to curb fare evasion by increasing fines. In 2009, police issued 68,000 summonses and made 19,000 arrests on the grounds of evasion, claiming that “arrests are a more effective deterrent than summonses” (Reddy et al, 2011). Reddy, Kuhls, and Lu state that research on and strategies to reduce fare evasion is important for the following reasons:

- “1. Poorly controlled evasion creates perceptions of an unsafe or insecure transit system for some patrons, which leads to ridership declines;
2. Effective fare enforcement has incidental benefits besides reduction of evasion, such as chance arrests of wanted criminals;
3. Understanding of evasion and fraud methods helps to reduce abuse by improving operating procedures, legal framework, and fare collection equipment design;
4. Apprehension of professional swipers significantly reduces fare system vandalism and revenue leakage, which improves farebox recovery; and
5. Treatment of quality of life issues, such as evasion and panhandling, creates an orderly environment and may deter more serious crimes according to some law enforcement personnel.” (Reddy, 2011).

It is impossible to ignore the outward proclamation that fare evaders are criminal by nature with malicious intentions; they state that evaders create an unsafe environment, have a higher likelihood of being a wanted criminal, and reduce the overall quality of life for other riders and the system as a whole. The comment suggesting that panhandling creates a disorderly environment also indicates a blatant disregard for houseless individuals. While this research may seem like an outdated perception of criminality, poverty, and houselessness, it continues to be cited in academic literature. Their research goes on to discuss how improvements to the

transit system made in the 1980s and 1990s leading to a dramatic decrease in evasion were due to a targeted police initiative that not only targeted 305 stations with the highest rate of evaders, but also created a “reinvigorated” Transit Police force, and a 25% expansion of NYPD. Police arrested 41,446 people in 1994, which was a 304% increase from 1990. This was also a time when New York was experiencing unjust policing methods, including the expansion of the “stop-and-frisk” method of targeting and racial profiling, which was born out of the aforementioned broken windows theory (Reddy, 2011). It is no surprise that Barabino cites Reddy’s article in both of their research papers.

In *What is Behind Fare Evasion in Urban Bus Systems? An Econometric Approach*, Paublo Guarda et. al go into more details on the nuanced motives behind fare enforcement. While Guarda et al acknowledge that fare evasion is often a choice born out of economic necessity, they still introduce a set of recommendations to strengthen fare enforcement procedures. Guarda makes two compelling arguments regarding the reasons riders may opt to evade fare, regardless of the risk. Guarda states that;

“viewing fare evaders as rational actors who maximize utility by weighting the costs of buying a ticket with the costs of being caught without one (Boyd et al., 1989; Kooreman, 1993), does not consider the different social and contextual aspects in which fare evasion takes place.” (Guarda, 2015)

This brief but important argument points to the further implications of treating all fare evaders the same; by assuming criminality and malicious intentions, we ignore seeing the transit rider as simply that—someone who is using public transportation as a tool to get from one place to another. The reasons that people choose not to pay are nuanced, dependent on specific

situations and contexts, and often centered on systematic racial and class oppression and one's own positionality in a larger community. Guarda et al go on to make their second point by saying;

“We believe that fare evasion levels are a combination of a number of factors including, the level of income, the perceptions of the service, cultural components, level of enforcement and the operation of the public transport system, among others (Torres-Montoya, 2014).” (Guarda et al, 2015).

Surprisingly, however, while these ideas are introduced briefly in their analyses of fare evasion, their final recommendations continue to reiterate the dominant perspective that evasion must be curbed at all costs, a position that further upholds the values and mindset that criminalizes poverty and continues to add to the academic rhetoric supporting the policing of fare evasion.

However, while Guarda suggests a more nuanced approach to fare evasion, other authors make more direct claims, including advocating targeted enforcement. Targeted fare enforcement is an issue for both racial and socioeconomic equity. For example, in their 2014 piece *Fare Evasion in Transit Networks*, José Correa, Tobias Harks, Vincent J. C. Kreuzen, and Jannik Matuschke introduce their research by framing fare evasion as both a process used by people who intentionally avoid fares, and as a justification for targeted police deployment in areas more susceptible to evasion. They also describe transit riders as fully informed consumers with intentional strategies for decision making based on the perceived cost of travel, either in regards to the sum of path lengths and the expected fine to be paid if caught for evasion, or the cost of the distance of travel with the cost of a ticket (Correa et al, 2014). This frames transit “customers” as fully informed consumers who make a fully informed decisions regarding purchasing a fare, thereby justifying the argument that all fare evaders

should be treated the same in regard to policy. The researchers assume that all riders have the budget and money on hand to purchase a ticket if they saw it being to their benefit. The long-lasting implications of targeted policing will be further addressed in the discussion of the impacts of criminal justice and the criminalization of poverty, and the claims of this article will be further discussed then.

To further explain fare evasion and expand on the theories put forth by Guarda et al, and to push against findings and recommendations of these dominant perspectives, I bring in Alexis Perrotta's analysis on fare affordability, the welfare state, and transportation policy. In *Transit Fare Affordability: Findings from a Qualitative Study*, Perrotta discusses the ways in which low-income people navigate the bus fare system. According to her research, while low-income groups use public transportation more than other groups (Maciag, 2014), these riders are often unable to pay for trips to fulfil daily activities and so must manage these costs through alternative means. While there is no national standard for determining if someone is cost burdened by transportation, the United States Housing and Urban Development and Department of Transportation's Location Affordability Index recommends that no more than 45% of a person's income be spent on housing and transportation costs combined. This 45% is considered "affordable". According to recent figures supplied by US Census Data, 34.7% of Seattle households are cost burdened. This number is more extreme for renters-- 42.6% of renters are cost burdened with their housing (Savransky, 2020). Because many individuals, especially low-income individuals in Seattle, are experiencing high housing cost burdens, we can assume that many low-income people exceed their threshold of spending, leaving little to no extra room for transportation.

What Perrotta's research suggests is that, because of their limited income, low-income riders may be riding the bus or light rail because it is their only transportation option. Indeed, according to B.D. Taylor et al., the ridership rates of low-income groups often do not change when fare prices increase, not because low income riders can absorb the higher fare change and adapt easily, but because they have no other transportation choice. In contrast, more affluent individuals with more flexible budgets can easily switch to cars or carpooling if doing so becomes more cost and time effective. Low income people, however, with limited budgets and no access to a car must find alternative means to pay for their transit fare (Taylor et al, 2009). Perrotta discusses the ways in which paying for transportation fares leads to more constrained household budgets (Perrotta, 2017). In order to afford transit fare, people forgo more "elastic goods", borrow money or bus passes from friends and family, use welfare subsidies, or exploit fee transfers. Others who cannot afford it will simply evade the fare. One public transit rider who Perrotta interviewed said, "fare beating is a normal part of surviving poverty".

New York based advocate Josmar Trujillo, who has been involved in transit reform against MTA, explained the relationship between transit justice and the growing presence of fare enforcement when he said;

"For those of us who want true transit justice and accessible transportation, this relentless obsession with fare-beating only suggests that the agency is stuck in the era of 'broken windows' policing instead of pursuing meaningful solutions to our transit crisis," (Martinez, 2019)

In the article *The cost of equity: Assessing transit accessibility and social disparity using total travel cost*, David Verbich and Ahmed Al-Geneidy state that social vulnerability is often factored into transportation planning and policy only on a location-based perspective—planners are typically only concerned with where routes go and who they are serving. While this is one piece of the puzzle to make public transportation more equitable, it should not be the only concern.

Gerard C Wellman also states that transportation policy in the United State is currently operating from a place of social injustice because it “does not reward the costs and benefits of public policy equally”, which leads to the reduction of the efficacy of democracy in the United States (Wellman, 2016). As policy makers and planners, we analyze social equity on the grounds of accessibility, not just price. Instead of looking at the ways in which people afford public transportation fare, planners look at where vulnerable populations live, and their ability to travel to destinations (Verbich, 2015). While it is important that we investigate the distribution of transit lines, projects, and the distribution of benefits, we must also understand how pricing structures and fare affordability factor into the decision to evade fare. If policy makers, urban planners, and public transportation agency staff are dedicated to curbing fare evasion, more actionable steps must be taken to create a more affordable and equitable urban landscape.

## II. Transit Affordability

Although contested by some security and economic scholars (Barnano, 2014), many factors, including one’s socio-economic positionality, contribute to the likelihood of evading fare. In order to further evaluate the socio-economic conditions that influence one’s decision to pay or not pay for public transportation, I analyzed existing literature on the cost of public transportation, and the affordability concerns surrounding it. According to Perrotta, there is little institutional support for low-income riders. Transportation planners can be unfamiliar and unaware of the resources and accommodations low-income people take in order to pay for bus

fare, and there is no cohesive transit affordability policy that is standardized across all cities or states.

There are not only inequities in the locations of higher service public transportation lines, but we now understand that the price of fare—while a non-issue for the daily commutes, budgets, and decisions for more affluent individuals—is a costly expenditure for those living on low-incomes. In an in-depth study conducted by the Mineta Transportation Institute titled *Getting Around When You're Just Getting By: The Travel Behavior and Transportation Expenditures of Low-Income Adults*, researchers interviewed low-income individuals in San Jose, California in an attempt to better understand the daily activities around paying for fare. They found that most low-income households are concerned about transportation cost, and that they “actively and strategically manage their limited resources to survive”, which includes responding on a daily basis to changes in income, overall budget expenditures, and transportation costs. They also found that while low-income individuals deploy a wide range of strategies to cover their transportation costs, these methods of adaption are not isolated, and often come at the expense of another cost, and may cause further hardship in their daily lives. For example, low-income individuals may cover the cost of transportation by using funds for food or discretionary activities. People reported also feeling “spatially trapped” in their homes or neighborhoods if they cannot cover the cost of transit fare. While some transportation policies have been employed with the intent to help manage the stresses of transportation costs, such as low-income discounted passes or free-fare subsidies, low-income individuals still experience stress—either still paying for their discounted fare or keeping their subsidies. The Mineta Transportation report, while robust, is limited in its geographic scope. It is also one of the only comprehensive reports of its kind. As the report points out, the information that planners and politicians have regarding how low-income Americans—both locally and

nationally—navigate affording transportation fare is limited. There is also little scholarship dedicated to this issue, and the few comprehensive reports that exist tend to focus on international policy.

In Julie Babinard's World Bank blog post titled *Is Public Transport Affordable?*, Babinard ties the connections between affordable housing and affordable transit, which is an issue further discussed in a report from Shirish Patel, Jasmine Saluja, and Oormi Kapadia called *Affordable Housing Needs Affordable Transit*. Due to a rise in real estate values and rental prices, people live further away from urban centers, making commuting a necessity and not an active choice. Babinard states that relatively high transit fares creates an ongoing system of inequity for the lowest-income individuals. She declares that "transport should be an enabler rather than an impediment to poverty reduction" (Babinard, 2014). While the price of transportation is accounted for in the U.S. Department of Housing and Urban Development's (HUD) Location Affordability Index (LAI), there is little to no scholarship done on approaching national and local fare to be more affordable at different income levels.

Brian D. Taylor and Eric A. Morris discuss how low-income ridership and fare affordability is often prioritized after policies are created for affluent riders (Taylor, 2014). Wealthier individuals are often placed in higher regard than low-income riders, for the assumption that more affluent individuals are most likely to be voters. Taylor states that while these policies may be politically beneficial, they may be poor public policy when serving low-income populations of cities. This becomes a larger issue when we consider the fact that lower-income individuals are still more likely to take public transportation than more affluent individuals (Taylor, 2014). Public transportation is "called on" to address issues such as auto-dependency, traffic congestion, air and water quality, overall energy efficiency, suburban sprawl, and larger issues like climate

change and global warming. These issues are often prioritized over racial equity and socio-economic implications, which becomes an inequitable way to approach policy when we take into consideration the fact that the majority of transit customers are low-income or of racial/ethnic minorities (Taylor, 2014).

Alexa Delbosc discuss the ways in which wellbeing and quality of life should be considered in public transportation policy. As introduced earlier, accessibility to community amenities, while very important to a resident's ability to live a vibrant life full of options, is usually the only element considered in wellbeing in regard to transportation policy. The affordability of accessing these systems is not often prioritized, which creates wider barriers to wellbeing. Continuing to explore these ideas of affordability, other scholars summarize ongoing conversations about transit policy and discuss the ways in which the social impacts of transportation policy are unevenly distributed, thus contributing to existing socioeconomic inequalities. Literature also elaborates on how socially vulnerable populations can be further excluded through transportation projects and policy if there is not special attention paid to their needs—including affordability. Ethnic/racial minority populations are those who receive the least amount of benefits from transit investments (Beiler & Mohammed, 2016; Legrain et al., 2015; and Bullard, 2001).

### III. Transit Advocacy

The need for affordable transit has been in the social zeitgeist for decades. Advocacy and movements centered on transit equity, justice, and affordability have been popularized in many major American cities. For example, the protests against the policing of MTA in New York brought into focus the important issue of affordability. Many riders' unions and nonprofits—such as Urban Habitat in the San Francisco Bay Area, OPAL in Portland, Oregon, and the

Transportation Choices Coalition in Washington State—have been dedicating countless hours to fighting for more affordable fare. Public transportation has historically been, and will continue to be, connected to conversations regarding social mobility, civil rights, and social equity.

In *Transportation Equity a Key to Willing Full Civil Rights*, Lexer Quamie discusses the lasting impacts of what he calls “transportation apartheid” and civil rights movements of the 1950s and 60s. While Rosa Park’s arrest in 1955 in response to Plessy vs. Ferguson’s “separate but equal” doctrine set the stage for the first bus strike in the Civil Rights movement, we are still grappling with similar issues decades later. Transportation policy is often made with little to no consideration for low-income individuals or people of color who rely on public transportation (Bullard, 2003). Additionally, Quamie states that new programs and transit investments “do not benefit all populations equally and the negative impact of some transportation decisions—historic neighborhoods dissected by freeways, stable communities disrupted, and the transit-dependent isolated from essential services through cutbacks—are broadly felt and have long-lasting effects” (Quamie, page number 2019). Policies that have actively ignored the needs of low-income individuals and communities of color have lasting impacts on health and wellbeing. Not only does poor planning and policy leave marginalized communities without direct access to healthy food or at a higher risk of living in a more polluted area, but a lack of consultation in affordability can further exasperate economic disparities.

Transportation has the ability to act as tool to facilitate economic and community growth—it serves as a central force to approaching and solving issues of poverty, job access and unemployment, and access to important amenities such as health care, education, and other public services (Bullard, 2003, Public transportation can also act as a tool to address larger

issues of civil rights and environmental justice, and while many believe that is not being actively accomplished by public sector employees, residents are taking it into their own hands.

Scholars have long been exploring the relationship between civil rights and transit advocacy, as transit advocacy has developed primarily as a response to failures and perceived injustices..

While Quamie and Bullard show how transit advocacy emerged from the civil rights movements of the 1950s and 60s, others have focused on the modern context of this movement. For example, in his 2003 piece *Addressing Urban Transportation Equity in the United States*, Bullard discusses the ways in which unequal benefits are distributed among city-dwellers. He states that while the blatant race-based segregation of the Jim Crow era is not apparent in our social policies, there are still barriers to access to both poor people and people of color. When people are unable to afford fare, and make the decision to evade fare and are punished monetarily for it, the unequal policing is upholding systems of white supremacy and anti-poverty laws. The movement New York transit riders have been mobilizing around is centralized on these principles; they are fighting against high fare prices, the police state, and the racist and classist undertones of policy making and implementation.

While there is limited scholarly research on the anti-MTA movement in New York, social media has a wealth of primary and secondary data and research, spearheaded by activists on the frontlines of the work of social organizing. Many people have uploaded pictures and videos to Instagram and Twitter documenting the growing police force on MTA subways. These posts have included photos of maintenance workers installing cameras above the turnstiles (Donahue, 2019), which sparked outrage among New York residents who expressed concern for failing infrastructure with little to no investment, while MTA staff is prioritizing expanding surveillance. In December 2019, the MTA board voted to hire an additional 500 police officers

dedicated to patrolling the subway system, which would divert an estimated \$250 million over the following four years that originally would have gone towards improving service (New York Times Editorial Board, 2019). Before the expansion of 500 new officers, over 2,500 New York Police Department (NYPD) officers patrol the subways, yet Governor Coumo and MTA staff encouraged the expansion of their own police force. While they blame increases in misdemeanors and theft as ground for expansion, many point to the fact that crime is down, and the chances of being victim to a serious crime on the MTA subway is more than one in a million (NY Times Editorial Board, 2019).

The #BlackLivesMatter movement has rallied behind the #fuckmta and the #swipeitforward actions are collective advocacy and organization campaigns that are taking place on the streets, underground in subway tunnels, and online. In 2020, a video posted to Twitter about a police officer harassing a young black teenager for not paying her fare when coming from school (@amanimonet\_\_, 2020), sparking outrage among New Yorkers and Twitter users nationally. This is not unlike a situation that happened in Seattle on the first day of school in September 2019, before all students had access to their free unlimited ORCA cards through the ORCA Opportunity Program. Seattle Department of Transportation (SDOT) gives free, unlimited use passes to High School students in Seattle Public Schools.. However, before all of the students had their ORCA cards, Sound Transit fare enforcement officers boarded and requested proof-of-payment from young riders who were wearing backpacks. While Sound Transit stated that these officers were conducting “standard” enforcement, onlookers observed that they targeted the students only. A teacher who was on board uploaded pictures of the interaction to Twitter, igniting the conversation through the online platform (Groover, 2019).

Transit advocates in New York have created an informal network via Twitter and Instagram to notify riders on the whereabouts of police officers on subways and at ticket stations.

@CopwatchBrooklyn is a twitter user who regularly posts updates on police officers—both uniformed and undercover posing as riders—and their locations, so that those who are unable to afford fare can avoid boarding in that area. A viral Tweet by @QueenShaShaa\_ includes a collection of photos of defacement and vandalism on the subway. These pictures include a security door that was chained open with bike locks, graffiti that reads “fuck your \$2.75”, gorilla glue poured on the machines so that riders cannot “swipe on”, stickers that read “being poor is not a crime” and “we’d rather not have guns pointed at us for being poor”. The vandalism is said to come from advocates and organizers at SwipeltForward, @decolonize\_this, and @NYC\_ShutItDown. These organizations, along with supporters in the comment thread, are demanding the abolishment of the police force and the instatement of free fare. Another video posted originally by @AshAgony in January 2020 shows 20+ officers harassing #SwipeltForward protesters and using intimidation tactics.

Social media has created a space where the everyday rider can become a transit advocate in 30 seconds or less. People are now mobilizing to document the misconduct of police officers and MTA staff, and highlight the work being done by protesters. Not all New Yorkers agree with these actions or movements. Many believe that the protesters are raising community tensions and increasing the risk of crime on public transportation. The rhetoric from these critics match the tone of the articles discussed previously that center on risk and crime associated with fare evasion, further perpetuating the broken windows theory. However, by blaming the poor for the overall failing conditions of a larger system, this focus on individuals misses the larger systemic problems facing the MTA and instead criminalizes the very people

who rely on this system the most. This blame of the disenfranchised is an ominous callback to a quote from Malcom X, in which he states;

“If you’re not careful, the newspapers will have you hating the people who are being oppressed, and loving the people who are doing the oppressing” (Malcom X).

Powerful information is being shared online, and is primarily coming from Black, Brown, Indigenous, and queer riders in New York. #SwipeltForward, the movements we see emerging right now, as well as the #FTP movements, are spearheaded by people of color, which mirrors the social mobilization born from the civil rights movement of the 1950s and 60s. These communities are still living in conditions impacted by the history of white supremacy and colonization. This is apparent not only in fare enforcement policies, but also in the ignorance towards affordability and access, and the lack of publication and documentation of information from these contentious conversation and movements.

#### IV. The Social Cost of Criminalization

While the everyday middle-class rider or city-dweller may not think \$2.75 is a steep price for a bus or train ride, it is for many on low incomes, and the cost of a ticket or misdemeanor charge is even steeper. According to the Metro Auditor’s Report, for example, of the 3,515 citations that were processed in 2016, less than 3% were paid (Metro, 2019). Unpaid tickets can follow individuals and impact their credit and their ability to renew their driver’s license. Additionally, multiple unpaid tickets can result in more severe criminal charges.

In *Drawing Blood from Stoned: Legal Debt and Social Inequality in the Contemporary United States*, (2010) by Alexes Harris, Heather Evans and Katherine Beckett, the authors discuss the

consequences of an ever-expanding criminal justice system in the United States, and how it has contributed to social inequality and the expansion of poverty. Not only does the United States have the highest incarceration rates of all countries in the Global North (Western, 2000), but there are unequal incarceration rates for different populations. Harris, Evans, and Beckett discuss the ways in which “a large and growing number of U.S. residents are profoundly shaped by the criminal justice institutions” (Harris et al., 2010). There are connections between the expansion of criminal justice systems and the concentration of the welfare state and other social inequality indicators. They argue that urban poverty and criminalization are inherently linked. Harris, Evans, and Beckett conclude by stating;

Although the criminally punished are no longer leased to corporations if they cannot pay their fees and fines, they are nonetheless saddled with a substantial financial debt, one that enhances their poverty and impairs their ability to extract themselves from the reach of the criminal justice system. By reducing income; limiting access to housing, credit, transportation, and employment; and increasing the chances of ongoing criminal justice involvement, monetary sanctions significantly expand the duration and intensity of penalties associated with a criminal conviction (Harris et al., 2010).

*Small Crimes, Big Injustices*, A Michigan Law Review by Stephanos Bibas also discusses how the “massive misdemeanor” system in the United States leads to further social inequalities. Bibas argues that while serious crimes, such as felonies including violent crimes and murders create “fixation”, misdemeanor crimes become less scrutinized. While there are approximately three million felony filings annually, there are four times as many misdemeanor filings. Deemed “unimportant” due to shorter sentences or the absence of a sentence all together, the lasting impacts are still very serious. Based on Alexandra Natapoff’s book *Punishment without crime: How our massive misdemeanor system traps the innocent and makes America more unequal*, Bibas weaves together the narrative of the poor’s experience navigating the criminal justice system. Both authors demonstrate that even minor charges and cases matter and can cause enormous harm to the “poor and powerless” (Bibas, 2019). Navigating the misdemeanor and

court systems can be confusing, which contributes to the inequitable principle of these charges (Natapoff, 2018). Because these systems are more opaque than more severe charges, many people—especially those without access to high quality legal support and lawyers—have trouble navigating their way out.

Consequently, even a minor misdemeanor charge can have lasting impacts on both the individual and their family. Minor arrests and convictions can be traumatic to the individual experiencing it. Modest cash bails are often inaccessible to the poor, and as a result many low-income individuals—overwhelmingly Black and Brown—sit in jail awaiting their day in court. Sandra Bland and Kalief Browder were both victims of death by suicide after being held on misdemeanor charges with low bail posted that was inaccessible to their family members, which is a fate too many poor people of color experience as reality in this country (Wing, 2016). Even if a misdemeanor charge does not result in arrest, fees and fines related to the “crime” often put individuals who cannot pay behind bars (Bibas, 2019 and Harris, 2010). While the direct impacts of incarceration, time spent behind bars, and the lasting impacts of legal fees are easier to see, the indirect impacts of misdemeanor charges are just as damaging. Such impacts include employee discrimination, deportation, loss of student loans and scholarships, tenancy of a halfway home, and the mental weight of fear, shame, and indignity related to being arrested and defaulting on payments. These can in turn contribute to an overall poor sense of self and wellbeing, loss of employment, reduction in educational outcomes and opportunity, breakdown of family structure, and even homelessness (Natapoff, 2018).

While there is a wealth of knowledge on the criminal justice system’s impacts on Black and Brown men in regard to felony charges, there is a large gap in traditional, scholarly, and published knowledge and information on misdemeanor charges and legal debt. The City of

Seattle as a whole has acknowledged their “passion” and “commitment” to being more socially just and equitable. With confusing fare enforcement systems (Metro and Sound Transit operating on different systems of enforcement), and a heightened police force on public transportation, is debatable whether Seattle is upholding its mission to become a more equitable city. Do these lasting impacts of poverty, lack of access to transportation, and being trapped in a criminal justice system apply to Seattle riders? More specifically, are Black and Brown riders being disproportionately impacted by fare enforcement,? Should the city be investing resources in changing the systems in place, and do they have opportunity to grow? Can a free-fare model eliminate some of these injustices? These questions are what this research aims to answer.

### **Chapter 3: Methods: Assessing fare enforcement equity on Metro**

To answer my research questions, I used a Chi-Square Test of Independence to test whether there is a significant relationship between race and fare enforcement infractions. The Chi-Square method for statistical analysis is commonly used to test the disproportionate representation of people of color in certain socioeconomic outcomes. For example, researchers have long used the Chi-Squared test to investigate “racial disproportionality”, which refers to the overrepresentation of certain racial groups (Martin, 2012).

To determine if fare enforcement is equitable, I tested to see if frequency of and the level of severity of enforcement infraction is associated with race. I chose to investigate this to see if fare enforcement is currently criminalizing and punishing people of color more than white people. To analyze the relationship between race and level of infraction (if any), I obtained raw

data on fare enforcement infractions from Metro. I chose to focus on Metro due to the fare enforcement policy change in April 2019. The data I received included information on 37,013 warnings, citations, and misdemeanors that were given to fare evaders between January 2015 and July 2018. Sound Transit was unable to provide data due to the COVID-19 pandemic and lack of access to the information needed. This information via Metro is data representing the numbers of each level of enforcement infraction imposed on riders *before* the 2019 policy changes. While the official fare enforcement policy change with the different prices for citations went into action in April 2019, Metro brought misdemeanor charges in-house instead of forwarding them to the district court in October of 2018—meaning that Metro now deals with these types of charges internally instead of using the court. Additionally, misdemeanors were only issued to people with more than three citations, or “repeat offenders”. In addition to this data, I also examined information on 21,150 infractions *after* these policy changes were implemented. The post-policy change data starts on October 1<sup>st</sup>, 2018, and includes data on infractions through February 3<sup>rd</sup>, 2020. I will be conducting two sets of analysis: The first analysis will use the data from before the policy change, and the second analysis will duplicate the first using the data from post-policy change.

I am answering two questions. The first is whether fares are differentially enforced based on race. I measure this in two ways: first, by the proportion of people being cited, and second by the severity of the citations they received. My hypothesis is that people of color are cited proportionately more than white people, and that the severity of these citations is higher for people of color than it is for white people. The third question I am answering is whether the 2019 change to the fare enforcement policy resulted in significant changes to actual fare enforcement practices regarding race. To answer this second question, I compare the results of the first analysis across time, comparing the same variables prior to the policy change to

those following the policy change. If the policy change was effective, then I would expect to see a reduction in differential fare enforcement practice based on race. I am testing to see if there is significance in how many people of color are cited compared to the overall ridership of these systems. I first did the entire analysis for the pre-policy change data.

To answer these questions, I obtained two sets of raw data from Metro that included information on Warnings, Citations, and Misdemeanor or Theft Three charges on all RapidRide lines. I organized the data by RapidRide line, and then sorted the data by level of infraction, and then by race. I also “cleaned” the data by removing points of data that were incomplete—some infractions did not include the RapidRide line, or even what the charge was issued. After I took away those incomplete data points, I was left with 33,749 total infractions, including 22,996 warnings, 10,016 citations, 621 misdemeanor charges, and 112 “ENFP”, which is Excused, No Fare Paid. ENFPs are excused under “mitigating circumstances”, and fare enforcement officers do not collect their information for an official warning.

After I organized the data by line, I broke down each level of infraction by the demographics that Metro fare enforcement officers use, which are “(B) Black”, “(W) White”, “(A) Asian/Pacific Islander”, and “(I) Native American/Alaskan Native”. I then created tables which show the count totals of each subcategory, as well as the percentages to make testing for significance easier.

Ridership Averages 2015-18	
White	69%
Black	4%
Asian	14%
Native American	1%

Ridership Averages 2018	
White	68%
Black	3%
Asian	12%
Native American	1%

Figures 1 and 2: Averages on ridership for 2015-2018 and 2018 alone

Overall	Total	Black		White		Asian		Native American	
<b>Total</b>	33,749	13,415	39.7%	21,184	62.8%	1,665	4.9%	472	1.4%
<b>Warnings</b>	23,002	7,684	33.4%	13,614	59.2%	1,249	5.4%	292	1.3%
<b>Citations</b>	10,018	4,041	40.3%	5,531	55.2%	289	2.9%	134	1.3%
<b>Misdemeanor</b>									
<b>r</b>	621	277	44.6%	311	50.1%	15	2.4%	15	2.4%
<b>ENFP</b>	108	33	30.6%	64	59.3%	15	13.9%	0	0.0%

Figure 3: Counts for each level of fare enforcement on all RapidRide Lines

I then moved onto conducting my Chi-Square analysis. I established my “observed values” (*O*), which refers to the fare enforcement data, and my “expected values” (*E*), which refers to the ridership data. If fare enforcement processes and existing conditions are equitable, then the fare enforcement data should be similar to the ridership data. In other words, we would expect that if 69% of riders are White, then about 69% of warnings, tickets, and misdemeanors issues should be to White riders. I used these assumptions to build my Chi-Square model in excel.

The equation for the Chi-Square test for independence is;

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

My null and alternative hypothesis are;

$H_0$ : There is no relationship between race and fare enforcement

$H_a$ : There is a relationship between race and fare enforcement

I began by setting up my equation in excel. I built a table that was organized by columns labeled "Hypothesized Proportion", which refers to the ridership averages, "Observed", which was the actual count numbers of the fare enforcement issued, "Expected", which is the counts of what we could expect based on the ridership averages, and then "Chi-Square", which is where the equation was carried out. I also organized my data into four rows based on the races I am analyzing, which again are "Black", "White", "Asian", and "Native American". I ran these statistics for each level of fare enforcement (Warnings, Citations, Misdemeanors, ENFP, and total) on each line (A Line, B Line, C Line, D Line, E Line, and F Line) including overall ridership analysis. Using three degrees of freedom, and a 5%, confidence interval, I compared the Chi-Square results to the critical Chi-Square value of 7.815, which is the value that one uses to test for significance against per the Distribution of Chi-Square table.

Following the exact same methodology, I duplicated this analysis for the post-policy change information. The data I received included slightly different information than the pre-policy change data because of the integrated changes. Metro stopped issuing misdemeanors with the new policy change, so I only analyzed the numbers of warnings, citations, and ENFP

charges. There were a few “Civil Infractions”, which is similar to a Theft III charge, and is only issued to those who refuse to provide payment and refuse to exit the bus. While the post data also included “Latinx/Hispanic” as a demographic group, I did not test the significance due to the pre-policy change data omitting that. For easier data comparison, I only used the comparable data from pre and post-policy change. I did not include the “3<sup>rd</sup> Ave” Line, and cleaned the data by omitting any incomplete citations, thus leaving a total of 19,505 infractions. To find my expected values, I took demographic information from the 2018 Rider/Non-Rider Survey, and the Native American ridership data from 2016 because of the lack of inclusion in the 2018 survey. There has been no 2019 Rider/Non-Rider Survey published at time of analysis.

## Results

### Pre-Policy Change

For all infractions on all lines, I reject the null hypothesis. The calculated Chi-Square is 110,054.3, which is higher than the critical value of 7.815 I am testing against. For all levels of infractions on all RapidRide lines, there is a relationship between race and infractions. Because of the limitation of Chi-Square, I am unable to test *how* statistically significant the relationship is, but I will be discussing further potential implications in the “discussion” section.

Total Infractions, All Lines	Hypothesized Proportion	Observed	Expected	Chi-Square Function
Black	0.04	13,415	1350	
White	0.69	21,184	23287	
Asian	0.14	1,665	4725	
Native American	0.01	472	337	
Total				110,054.3

Figure 4: Chi-Square Test for all infractions on all lines

This table shows how I conducted the Chi-Square test; by showing the hypothesized proportion, the observed, and the expected counts, I was able to do the Chi-Square test for each level of infraction for all lines to analyze the system as a whole, and broken down by line in order to see the differences (if any) on specific lines. I ran the Chi-Square test a total of 24 times for the different level of infractions on each line. For the A Line, C Line, D Line, E Line and F Line, I ran the test for total infractions, warnings, citations, and misdemeanors. For the B Line, I ran the test for total infractions, warnings, and citations. I did not have enough information to run the test for ENPF's on any of the specific lines, or for misdemeanors on the B Line.

I rejected the null hypothesis for all tests, meaning that there is a relationship between race and fare enforcement for all levels of infraction on each RapidRide line. All of the data is displayed in tables in appendix B.

For warnings on all lines for pre-policy change, the calculated Chi-Square is 51,269. The calculated Chi-Square for citations on all lines is 34,241.1, and is 2,664.0 for misdemeanors.

ENFP, which I was only able to calculate for all lines, has a calculated value of 192.0. All of these reject the null hypothesis.

Line	Level of Infraction	Calculated Chi-Square	Significant?
A	All	53,262.6	Yes
A	Warnings	30,594.0	Yes
A	Citations	21,597.8	Yes
A	Misdemeanors	1,326.2	Yes
B	All	1,865.1	Yes
B	Warnings	1,063.2	Yes
B	Citations	806.4	Yes
C	All	6,789.5	Yes
C	Warnings	2,527.2	Yes
C	Citations	4,324.6	Yes
C	Misdemeanors	627.4	Yes
D	All	10,092.5	Yes
D	Warnings	4,324.4	Yes
D	Citations	5,701.6	Yes
D	Misdemeanors	382.8	Yes
E	All	19,270.2	Yes
E	Warnings	9,115.8	Yes
E	Citations	10,226.9	Yes
E	Misdemeanors	305.4	Yes
F	All	18,528.4	Yes
F	Warnings	11,030.8	Yes
F	Citations	7,120.1	Yes
F	Misdemeanors	404.0	Yes

Figure 5: Chi-Square analysis for all lines and all levels of infraction, pre-policy change

As figure 3 displays, all infraction levels on all lines had a calculated Chi-Square value well above the critical value of 7.815, thus answering the question that race is indeed related to fare enforcement before Metro changed their fare enforcement policies.

## Post-Policy Change

For the totals of all the infractions for all lines, I reject the null hypothesis. Because I duplicated my methods, I was testing against the same critical value of 7.815 because there are the same number of tests I am conducting. Because the calculated Chi-Square value 66,823.6 is higher than the critical value, it shows that there is a relationship between race and fare enforcement, even after Metro integrated policy changes. Warnings on all lines combined has a calculated Chi-Square of 50,580.5 and 15,918.4 for citations.

<b>Total Infractions, All Lines</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	6,762	585	
<b>White</b>	0.68	9,417	13263	
<b>Asian</b>	0.12	1376	2341	
<b>NA</b>	0.01	340	195	
<b>Total</b>				<b>66823.6</b>

Figure 6: Chi-Square Test for all infractions on all lines

Similar to ENFP infractions in the pre-policy change data, I was unable to test ENFP's and civil infractions with the Chi-Square test due to issues with validity. For each individual line, I ran the test for warnings, citations, and total infractions. For all lines combined, I was still unable to test for ENFP and civil infractions.

Line	Level of Infraction	Calculated Chi-Square	Significant?
A	All	29,219.0	Yes
A	Warnings	23,834.1	Yes
A	Citations	5,191.8	Yes
B	All	1,917.9	Yes
B	Warnings	1,393.3	Yes
B	Citations	546.2	Yes
C	All	6,243.4	Yes
C	Warnings	3,597.3	Yes
C	Citations	2,860.6	Yes
D	All	7,545.2	Yes
D	Warnings	5,248.4	Yes
D	Citations	2,298.9	Yes
E	All	12,068.0	Yes
E	Warnings	9,609.9	Yes
E	Citations	2,424.3	Yes
F	All	17,699.0	Yes
F	Warnings	13,395.4	Yes
F	Citations	3,964.0	Yes

Figure 7: Chi-Square analysis for all lines and all levels of infraction, post-policy change

I reject the null hypothesis for all levels of infraction on all lines combined, and on each individual line. There are no distinct changes between the relationship between race and fare enforcement infractions after the policy changes. Although Metro has made changes to the way they charge for fines for evading fare, and have brought their theft three charges in house (resulting also in a considerable amount less than before the policy change), there are still existing inequities in who is issued fare enforcement and at what level. Using the count data from both pre and post, I have analyzed the differences in the overall percentages that each race has been issued at the various levels of fare enforcement. There is a relationship between race and fare enforcements at all levels of infractions for all RapidRide lines.

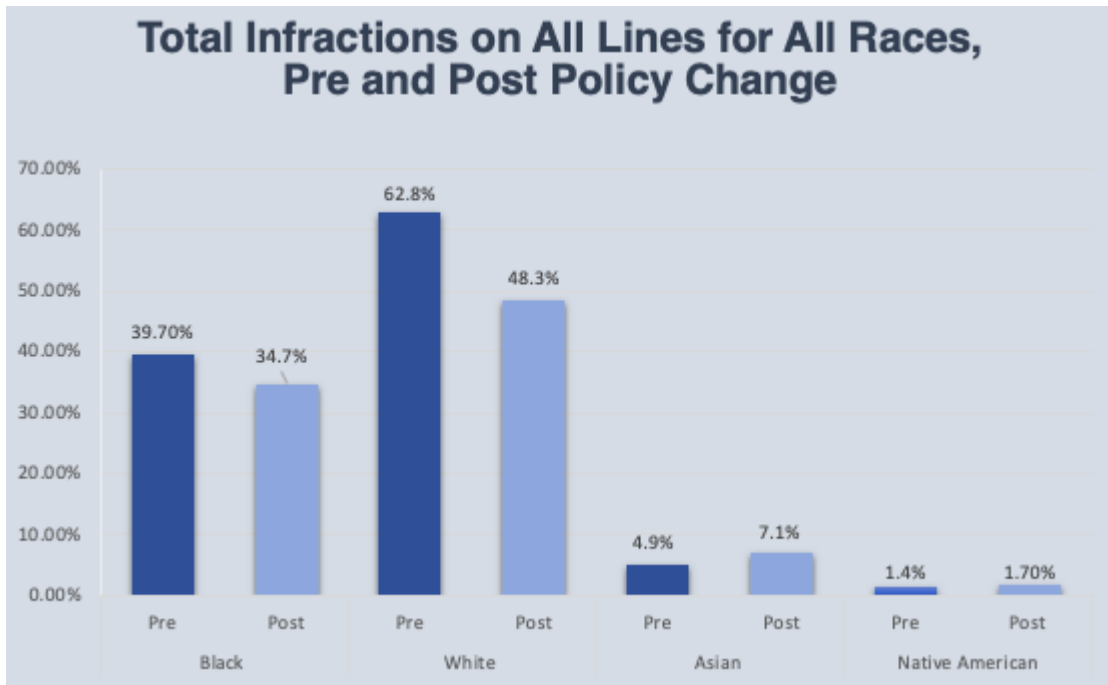


Figure 8: Bar graph showing pre and post-policy change percentages of total infractions

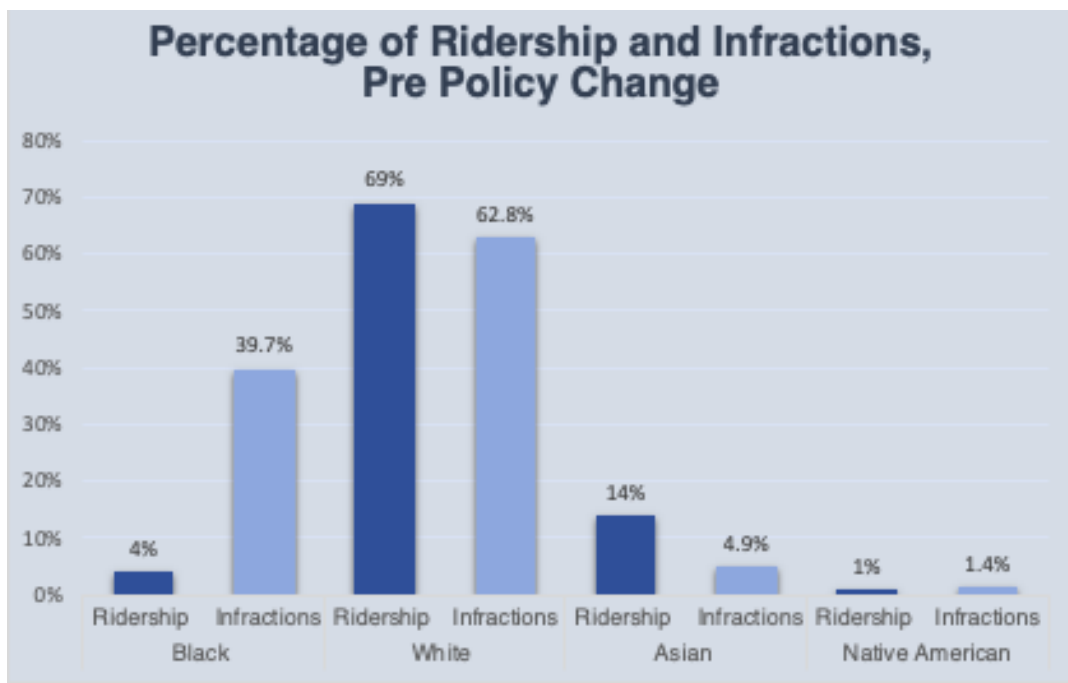


Figure 9: Bar graph showing the percentage of riders compared to the percentage of total infractions pre policy change

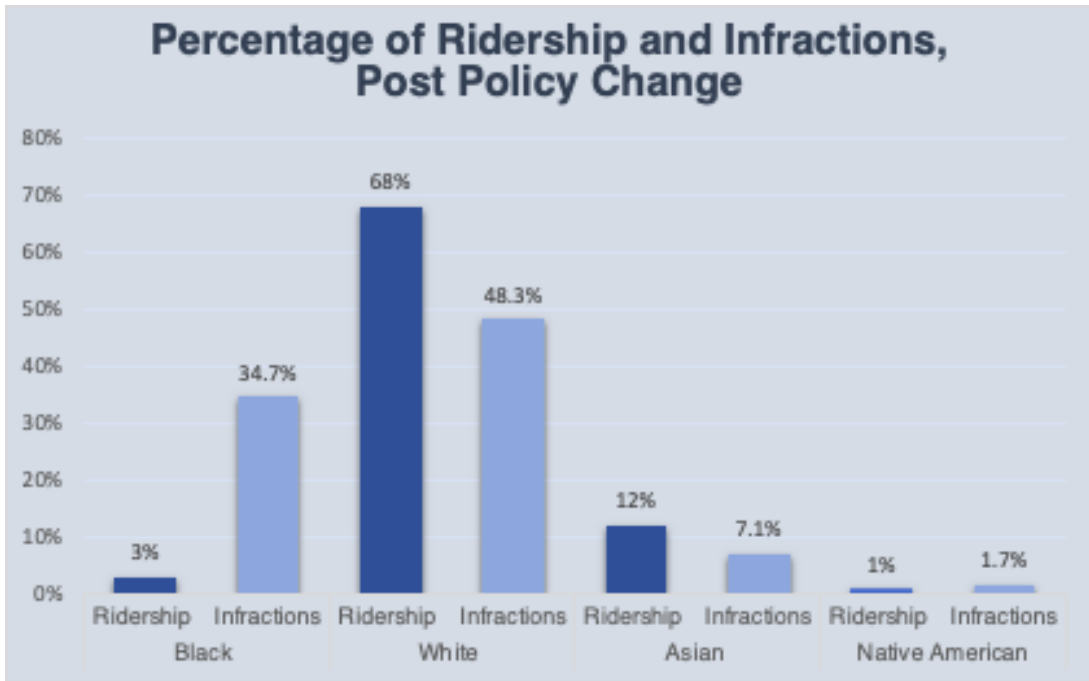


Figure 10: Bar graph showing the percentage of riders compared to the percentage of total infractions post policy change

While Black riders have a -5% change before and after the policy change, 34.7% of all total infractions are still being issued to them. With overall ridership being only 3%, this is a considerable amount of infractions being issued to a group of people who have a low level of overall ridership. After the policy change, the number of total infractions Asians have been issued increased from 4.9% to 7.1%. With ridership being 13%, this is less than the expected proportion. With ridership for Native Americans being only 1%, and the percentage of all infractions being issued to them being 1.7%, this is close to the expected percentage. Overall ridership for White riders is 68%, so the proportion of infractions issued to White riders is much lower than their expected share. Between October 1, 2018 and February 3, 2020, only 48.3% of all infractions were issued to White riders. Black riders are given only 13.6% fewer infractions than White people, although whites make up 68% of overall ridership. Although Asian riders are seeing an increase in their share of overall infractions, the largest

discrepancies between ridership and infractions continues to be for Black riders, followed by White riders, with opposite implications. Simply stated—Black riders are receiving 30.7% more infractions than expected based on their ridership, while White riders are receiving 19.7% fewer infractions than expected. Black riders are receiving far more infractions than any other racial group compared to their overall ridership, while White riders are receiving far fewer.

### Discussion

There is a clear relationship between race and fare enforcement on Metro, which points to current inequities in the transit system. Some people may argue that Black riders are more likely to evade fare and therefore be caught, but ignore the existing sociopolitical conditions that make Black people more susceptible to this survival coping mechanism. As the review of the literature in Chapter 2 demonstrated, low-income people have a harder time affording public transportation, and therefore must take calculated economic risks in order to survive. Paying fare comes at the cost of other goods and services, and when paying fare is no longer an option, evasion is the only tactic possible for commuting to work, medical appointments, school, or social events. While low-income residents and people of color may be evading fare at higher rates than more affluent white residents, the relationship between race and economics are so tightly interconnected that their behavior for evasion is a means of survival.

In Seattle, people of color have lower average median incomes than White people, making the connection between race and poverty strong. Approximately 7% of the population is Black, and 18% of the total number of people in poverty are Black. 29.5% of all Black people in Seattle are living at or below the federal poverty status, which is the highest proportion of people living in poverty. A lack of access to affordable housing exacerbates this hardship. For comparison, only 7.6% of White people are living in poverty per the 2019 American Community

Survey projections. Being in poverty should not limit one's ability to navigate the city, and having a fare and fare enforcement creates that unequal system that prioritizes paying customers over those who cannot afford to pay. When we apply a critical race theory lens, and look at the history of redlining and race-based discrimination, and how those policies have had lasting impacts on communities of color and their ability to obtain wealth, we can see how people of color would be less likely to be able to afford the fare and therefore less likely to pay it. Being Black does not make one inherently more likely to avoid paying a fare, but it does make one more likely to be poor with fewer transportation resources and options. Being poor and having to make the calculated risk of fare evasion for survival does make one more likely to avoid fare, and the connection between race and poverty is impossible to ignore.

It is also the case that Metro's deployment of Fare Enforcement Officer's is not random (Auditors Report, 2019). Fare Enforcement Officers are deployed on all routes that have off boarding fare payment, which includes all RapidRide routes. Officers are assigned to a specific route for their shifts—they ride that line and check it all day. The random element of their deployment is how they can potentially board any coach on the route, at any given stop, at any given time. Payroll hours are supposed to be evenly distributed between all routes to reduce the over-enforcement of one route. This is not always the case—in certain situations, officers may focus on a specific route. Specific routes are targeted when there are a high number of customer complaints, an increase in security incidents, or if coach operators identify any issues. The entire fare enforcement team is split in half for areas of deployment; half of the team is deployed to the 3<sup>rd</sup> Ave corridor, because there are higher security-related incidents on the 15+ routes that cross that corridor. The rest of the officers are deployed to the different RapidRide routes. While this deployment is intended to be random, there is an

acknowledgment that targeted deployment does happen through the higher frequency of deployment taking place on RapidRide routes that have a history of higher evasion rates.

With targeted deployment and an unequal dispersion of officers, a relationship between race and fare enforcement, and an ongoing struggle for affording fare— there seems to be an existing discrepancy between the stated goals of accessibility and equity by transit agencies in Seattle, and how these policies are playing out. Metro and Sound Transit have an opportunity to become more equitable through rethinking the system of fare and enforcement entirely.

#### **Chapter 4: Current System and Future Growth**

Metro's policy change reduced the financial impact of citations, which is an equitable improvement to the system as a whole. Additionally, misdemeanor charges were completely removed from Metro's fare enforcement policy. The only civil infractions that are issued are to people who refuse to depart the bus when requested to by Fare Enforcement Officers. The legal impact of a civil infraction is similar to a parking ticket—it is issued through the district court - while all other legal operations have been moved "in house". Metro cites the findings in the 2019 Auditor's Report regarding the negative impact of court on populations with limited to no income. The last Theft III or misdemeanor charge related to fare evasion was issued was on January 28<sup>th</sup>, 2018.

Metro is planning to expand the off-board fare payment system to other routes to expand efficient and reliable service through downtown Seattle. This expansion of the barrier free off-board system will result in the need for more Fare Enforcement Officers to ensure that people are not evading fare. Metro is also planning to add seven more RapidRide routes by 2027, and

has a long-term goal of ensuring that 70 percent of all King County residents have access to frequent transportation by investing in a total of 26 lines. Fare enforcement will expand along with the expansion of the off-board systems on all routes and services, not just RapidRide. In order to ensure that all transit services and routes are serving riders equitably, fare enforcement as a whole must be changed to better reflect the population of riders. Metro should be actively working towards ensuring that there is less of a disproportionate impact on Black riders, with the ultimate goal of having a truly equitable system in place. While routes expand, so should social justice.

Metro and the workgroup created in 2018 worked to create goals and objectives to balance social justice and equity and fare enforcement. The workgroup created a list of objectives that would ensure that Metro has a “fair and just system”. This fair and just system should “significantly reduce disproportionate negative impacts and experiences for people of color, immigrant and refugees, and those with low to no income” and should “ensure that low-income residents can use public transit without fear of being criminally penalized because of their level of resources” (Metro Auditors Report, 2019). However, as my analysis shows, while Metro’s fare enforcement policy change in 2019 is an excellent and progressive first step, there is still much work to be done.

While there have been policy improvements centered on increasing equity and decreasing negative impacts for marginalized communities, there is still much room for improvement both in policy and in practice. The data is explicitly showing that there is a relationship between race and fare enforcement infractions, and that there was little improvement in the proportion of infractions issued to different racial categories compared to their overall ridership. Metro has displayed a commitment to social justice and ensuring that their policies are as progressive as

they can be under the political status quo. While these changes have lessened the financial burden of citations for evasion, these infractions are still being issued to Black riders disproportionately. Black riders who receive a citation, even though the financial burden is less than it was before the policy change, still have the same end result—a citation for evading fare that they are now financially responsible for. With compounding elements—affordability, lack of access to frequent transit, and a sense of targeting policing—we can articulate the ways in which riding public transportation for people of color and poor people may be an arduous experience.

### ORCA Opportunity Program

This research is inspired by work that was done by a joint project by Seattle Housing Authority (SHA) and Seattle Department of Transportation (SDOT) managed by Mayor Durkin's office in 2019. The pilot project gave SHA residents between the ages of 19-65 who make less than 30% of the average median income free unlimited ORCA cards through May 31, 2020. The ORCA card, which stands for One Regional Card for All, is the regional transit pass for King County. It is a contactless, reloadable card which is accepted by both agencies. This project was funded through the Seattle Transit Benefit District, which was supported by a levy passed by voters and city council that increased car tab fees and invested them in public transportation projects in Seattle. Working on this project, seeing the stages of planning and implementation, and actually hearing firsthand how free public transportation has affected the lives of people, inspired me to see how this concept could be expanded for all people in Seattle. By talking with pilot project participants in the Summer of 2019, it became clear to me that the subsidized low-income OCRA LIFT card prices are not affordable enough. This is an indicator that the current fare system for public transportation is not functioning in an equitable way.

The ORCA Opportunity for SHA Tenants pilot program offered a 12-month no-cost ORCA card to Seattle Housing Authority (SHA) tenants between the ages of 19-64 with a household income that is at or below 30% of the average median income (AMI). SHA and Seattle Department of Transportation (SDOT) worked together to pass out 1,500 of these cards. All of the tenants that qualified for the pilot program were also eligible for ORCA LIFT cards due to their low-income status, and many eligible participants also qualified for an ORCA Regional Reduced Fare Permit (RRFP), which is a lower-cost ORCA card for people who are disabled. The ORCA LIFT card charges \$1.50 a ride, and the OCRA RRFP charges \$1.00. While these are cheaper than the full-price adult fare of \$2.75, it is still inaccessible to many. SHA issued an optional pre survey to participants at their time of enrollment. 48% of respondents said that the cost of fare has prevented them from riding the bus, and 58% of those respondents said that they experience cost-related barriers at least once a week. 90% of respondents said that having a no-cost ORCA card would encourage them to ride public transportation more.

Participants of this pilot project expressed a passionate gratitude for being included in this opportunity. Many said the cards would be a life-changing tool to assist them in navigating work, medical appointments, and seeing family. One respondent said that this will “free up more money for food”, and another said this will “help me save money”. The majority of respondents wrote in comments regarding financial security and removing “stress”, “anxiety”, and “worry”. As previously discussed in the literature review, many low-income people have to sacrifice other expenditures to afford the bus, and that was apparent in this population. One respondent simply said that this card will give them “more money in my pocket”, which speaks to the underlying issue of fare—it’s a burden for many people, and the weight of \$2.75 is much heavier for some than others. Some people were brought to tears while receiving their card and expressed how

this will enable them to travel freely without stress. Free fare for these individuals and families was a much-needed lifeline.

This pilot project also exposed the great need for free-fare to people who did not qualify for the program. Because of the strict parameters, there were many SHA tenants left out of receiving the free ORCA card. Many people were just barely above the income line, or a couple months too young or too old to participate. People had emotional responses to not qualifying. Tenants expressed time and time again their financial need, and how paying for public transportation creates a plethora of issues for them and their families. It became obvious over the course of working on this project that 1,500 ORCA cards are not nearly enough to fill this need in Seattle.

## **Chapter 5: Re-evaluating “Public” Transportation**

As it is functioning currently, public transportation in Seattle is not “public” in the way it is articulated in economic theory. While Metro changed their fare enforcement policy in an attempt to become more just, and the ORCA Opportunity Project was implemented to serve a need of low-income residents, these are minimal-impact solutions that do not address the overall implications of fare affordability and the intersections of the criminal justice system and poverty. Using Michel Foucault’s articulation of power and the criminal justice system, David Harvey’s “the right to the city” theoretical approach to critically examine neoliberal policies in city spaces and urban planning, and public goods” theory I argue for a new way to see public transportation and the need for fare. Specifically, I believe that the only way to create a truly just and equitable transit system is to remove the financial barrier and make a free-fare system.

## **Power, Discipline, and the Criminalization of Poverty**

To theoretically address the criminalization of poverty on the public transportation systems in Seattle and the disproportionate impact that fare enforcement has on people of color, I expand upon ideas introduced in chapter 2 by drawing on Michel Foucault's theories of power dynamics, discipline, punishment, and the relationship between the authority and the citizens.

In Foucault's 1975 book *Discipline and Punish*, he introduces the reader to a genealogy of criminology and walks through how crime and punishment has changed since the early 18<sup>th</sup> century. He denounces the use of the word "history" when reviewing the evolution of punishment overtime, because he explicitly states that he rejects the idea of progress- he believes that we have not become more moral or ethical in the way our authorities incite "justice" in responses to criminal acts—they have just used more clandestine methods that encourage a more sinister response. While we can assume our own modern moral superiority and "look back on history" to the days of public execution, we can say that we have evolved as a society in regard to criminal justice. Foucault argues that while we do not witness executions publicly, we operate under a system of social contracts written by people in power to uphold behaviors in which our authorities have determined to be desirable. He believes that the true function of the criminal justice system is to maintain social control and order—not to uphold what is right, just, or fair. This is why we see an unequal system where historically marginalized populations experience more severe punishments.

Foucault focuses on how modern society operates under more covert forms of social control- through the criminal justice system and the set of norms produced by those in power, and how we are constantly manipulated to behave in a socially acceptable and legally adhering way through "surveillance, normalization, and examination". While I am analyzing criminal justice on a smaller scale, it is important to connect smaller citations and interactions with officers to a

larger system. Modern prisons are based on a design concept called the panopticon, which is a disciplinary concept in which a central tower has a full view of all prison cells, leading inmates to always operate believing they are being watched at any moment. This surveillance and normalization of behaviors is a mind-control tool used to create a “standard” to what a good prisoner is. This can be applied in a variety of different environments including the workplace, the army, and the university. Through an underlying sense of surveillance and the risk of punishment, power and authority can be yielded in any environment to ensure that prisoners, workers, or the everyday citizen behave according to social norms. With fare enforcement and the constant risk of being caught by a fare enforcement officer for fare evasion, I believe that we can view the bus as the panopticon. Building off of the aforementioned idea of the broken windows theory, power structures want citizens to uphold the notion that smaller crimes contribute to the overall poor conditions of a society or city. If riders are worried that they will not only be caught and punished for the crime of not paying \$2.50 for a bus fare, but are aware of potential public humiliation one could face from being caught on a packed bus, can contribute to one’s likelihood to not take the bus if they cannot pay, which I argue is a social failure. If the system that exists encourages the decision to risk a punishment or not use transportation at all if one cannot pay, I believe the bus is functioning as a panopticon and punishing those—both criminally and socially—that cannot afford to pay.

This idea of social control and the “standard” citizen connects to the systematic infliction of more severe punishments for people of the working class, poor people, and people of color. Foucault further discusses how although we still consider ourselves to be living in an enlightened state of justice and fairness, the surveillance, normalization, and examination that takes place inside and outside of the prison panopticon promotes the “harmless, non-rebellious, working, tax-paying, productive citizens who follow the rules and are satisfied with a

life of conforming to the normalized standard of what it is to be person, handed down from them from above” (West, 2018). This is why there is a tangible and real difference between those who are punished and those who are not. The penal system molds citizens to fit a pre-existing mold of “what a normal person is”, and serves to uphold those values instead of direct retribution for a crime. The “good citizen” receives less punishment for a crime. The establishment of “white collar” and “blue collar” crimes is a direct example of this. The fact that a sentence is reduced dramatically for “good behavior” also points to the dedication to uphold “normalcy”. Foucault takes these ideas deeper-- not only does implicit bias impact the relationship between fare enforcement officer and the rider being punished, but the psychological interpretation of a culturally produced set of power norms dictate those relationships. The idea that one has to pay for the bus to be a “good citizen” is constructed and upheld through social norms, which are produced by the ruling authority and perpetuated through action by the everyday person. Those who pay for fare due to these constructed norms and policies are by default “entrenched in the system”-- those who do not pay fare, whether or not that decision is based out of economic survival and risk, are “free” from the system of surveillance and authoritative power, but are punished and forced back into the system through monetary or criminal infractions. If there is an inherent power imbalance in being a Black rider who is fearful of unequal treatment by a fare enforcement officer on public transportation, why is this system of punishment being upheld—even when there is a public/community outcry for the system to be more *truly* just?

### “The Right to the City”

David Harvey, a Marxist economic geographer and author of *Rebel Cities* (2012) and *Social Justice and the City* (1973) theorizes the ways in which urban spaces are created. Using Henri Lefebvre’s seminal essay, “The Right to the City” (1967) as his basis for exploration, Harvey

brings in post-modernist ethics and theory to discuss the importance of the production of the city being in the hands of residents, not a ruling class.

Harvey, along with other critical political economists, argues that a fundamental issue with modern city production is that private property rights and profits “trump all other notions of the rights one can think of” (Harvey, 2008). Lefebvre states that the right to the city is a “cry from the streets” (Lefebvre 1967), where residents are reclaiming collective power to create, reshape, and reimagine what urban space can look like and function as. The right to the city should be seen as a collective right, as we have viewed gender and race equity in the feminist and civil rights movements of the 1960s. Because cities have been born out of the capitalist logic of accumulation of surplus, the ability of the “everyday” urban dweller to reclaim the city has been, and will continue to be, nearly impossible without fundamental changes to the economic order. Harvey states;

“From their very inception, cities have arisen through the geographical and social concentrations of a surplus product. Urbanization has always been, therefore, a class phenomenon of some sort, since surpluses have been extracted from somewhere and from somebody (usually an oppressed peasantry) while the control over the disbursement of the surplus typically lies in a few hands.” (Harvey, 2008).

When we frame fare enforcement policy in this way, we can view “public transportation” as a mechanism for the state to obtain capital through fare revenue, fare enforcement citations, and criminal charges. The “oppressed peasantry” Harvey alludes to would be the urban poor—those who cannot pay their fare, leaving them powerless in conversations around enforcement policy, affordability, and larger equity concerns. Those who control state and city resources would be the “few hands” in which this surplus (fare revenue) lies, and Metro and Sound

Transit policies are facilitators to the state obtaining revenue via enforcement. While we often hear “public transportation” framed as a collective common good, that people of all backgrounds and socioeconomic positionalities can access, the mere fact that price and punishment are attached to this good renders it obsolete as something truly common. If we want to work towards a more equitable system entirely, fare enforcement will either have to be reworked completely to make sure there is no inherent bias to work towards dismantling the relationships between wealth, race, and fare enforcement, or the fare system must be replaced.

In his 1973 book *Social Justice and the City*, Harvey breaks down the perceived differences in the “geographical” and the “sociological imagination”. He says that while these two categories of lived experience are often separated, thinking about the city makes any differences artificial and obsolete. In city spaces, one’s geography dictates their sociology, and vice versa. Geography and sociology—spatially, physically, and emotionally—impact the everyday lives, motivations, and choices of the urban dweller. The relationship between social processes and spatial truths create the true form of the city, and at this intersection between geography and sociology we see “deep insights into the way in which regional consciousness, regional identity, and natural and man-made environment merge into one another over time to create a distinctive spatial structure in human organization” (Harvey, 1973). At this interface, we can ask the question; how are regional and local identities produced and shaped by police presence on their “public” transportation services? While this research does not touch on that, there is room for future research. Due to the findings in this study that Black riders are disproportionately impacted by fare enforcement and the racially segregated neighborhoods in Seattle paired with the targeting of South Seattle bus lines by fare enforcement, I hypothesize that the identities of Black and lower income communities in South Seattle are shaped by the police presence on

busses. These bus systems are still inaccessible for the urban poor-- by geographic inaccessibility and fare price. At this intersection we see a need to travel around the city to partake in the production of wealth and income, to circulate that money back into the local economy, and to access amenities—both private and public. This navigation of space takes place on the RapidRide bus and the Light Rail, where one can receive a criminal charge or a steep fine for not paying the fare, or for not “playing fair” in this perceived urban common. During this decision-making process, where transit riders are framed as rational and fully informed consumers, decide not to pay, are punished. This punishment in practice and even as a perceived criminal risk contributes to the production of social organization and processes. Fare enforcement serves as a top-down influence on the way city dwellers act and behave.

I bring in Harvey’s theory to continuously ask myself: does this system lend itself to facilitating the reclamation of the right to the city? Do residents have access to the production and reproduction of city spaces—including policy? How can the City of Seattle, Metro, and Sound Transit work together to reevaluate fare enforcement policy, and the public transportation system as a whole to make it more accessible and serve as a true public good?

### Public Transportation as a Public Good

Metro and Sound Transit have both expressed an ongoing commitment to race and social justice goals and there are obvious needs in the communities of riders that must be addressed. How Metro and Sound Transit currently operate and charge fees creates monetary barriers that deter ridership for low-income populations and creates a system of criminalization through requiring a fare. We can see this through the responses to the pilot program, and the surveys issued by both agencies over the last two years in conjunction with the workgroups. The current system is not working for everyone in Seattle, and is negatively impacting houseless people, low-income

people, and people of color disproportionately (Metro Auditors Report, 2019 & Sound Transit Community Findings Report, 2020). In order to address these inequities, Metro and Sound transit should approach race and social justice goals in an intersectional manner, so their policies can be anti-poverty as well as anti-racist.

A “public good” is a non-rivalrous and nonexclusive commodity, meaning that one’s use of the good does not reduce its availability to others, and one cannot be excluded from using it (Ingham, n.d.). Public parks, air, streetlights, and the fire department are all considered public goods—everyone can access them without the exclusion of others, and accessing these goods does not require a fee. Parks, sidewalks, and streetlights are all things that are provided by government agencies. Fire and police protection services are also considered public goods, but can be rivalrous if the demand increases with population growth, which is similar to public transportation. With an increase in population growth, there will be an increase in demand, which both Sound Transit and Metro have already planned to accommodate for in their future plans for expansion of service lines. Typically, these public goods are provided by the government, but the general public is responsible for contributing financially through taxes and levies. One does not pay to enter a public park, but an impact fee for a single-family house, or local levy which all property owners would pay for contributes to its maintenance. Services provided by the government typically ask for no upfront cost at time of use, but taxes shared by all are the revenue for said service. If public parks, streets, highways, sidewalks, and streetlights are financed by all to be utilized by all, why is “public” transportation a pay-to-play service? While the majority of revenue for public transportation is generated from taxes, there is still a fee issued to riders. To restructure “public transportation” into a true full public good, instead of a “mostly” public good, the free fare model would have to be adopted.

If there is an identified opportunity for improving the system to become more equitable, what is the answer? How can Metro and Sound Transit, as well as other city and state agencies, work together to address issues of unequal policing and issues of affordability? I believe that the solution is to work towards a “fare-free” model, which would render fares obsolete on all transit services. Fare-free is distinctly different from zero-fare, which is what Olympia, Washington has recently moved to under their Zero-Fare Demonstration Project. Under zero-fare, there is absolutely no revenue through a fare that is gathered for public transit service, while fare-free still obtains revenue through tax revenue. Intercity Transit- the transit authority in Olympia, Washington, was able to adopt this model because of the negligible difference within their capital costs. Fares were only contributing to approximately 2% of the net revenue of the agency. This 2% “lost revenue” is being absorbed into the city budget. Intercity Transit was motivated to move to a zero-fare model after their two-year community engagement process to identify ways in which to make the system more efficient. After exploring a variety of options to collect fares in an “easier and faster” method, zero-fare was deemed to be the most effective solution. Aside from the efficiency improvements to the overall system, Intercity Transit states that an increase in ridership which will contribute to less congestion and more livable neighborhoods, paired with the enhancements to equity and accessibility, creates a system that promotes justice, affordability, and simply runs more efficiently. Intercity also stated that “eliminating fare reduces barriers for those that can afford to pay as well as those that cannot”, alluding to the fact that there are benefits for all riders, not just lower-income riders who may suffer from the struggle of affording fare. This new policy adoption shows how a fare-free model can classify public transportation as a true public good, which all residents pay into through supporting a city budget, and can benefit from.

## **Chapter 6: Final Recommendations**

As we can see through the existing literature, the results of the ORCA Opportunity Project, and applicable theory, countless people, families, and communities struggle every day to pay for “public” transportation. If “public” transportation is not truly meeting the needs of the public, then there needs to be a systematic change to better address individual and communal needs. As it is functioning currently, public transportation in Seattle is not “public” in the way it is articulated in economic theory. While Seattleites may have the perceived equal access to the RapidRide bus system provided by Metro, we can see from the data analysis that Black riders are more likely to receive a warning or citation than White riders post policy change, and that there has been little to no improvement in the disproportionate impact on Black riders post policy change. Because of the deeply entrenched history of race and poverty being interconnected, issues regarding racial justice must include solutions that are also anti-poverty, and vice versa. Issues of affordability and the likelihood to evade fare are inter-connected, and unfortunately because of the racist realities under the current system we live in, race is also a factor in affording and evading bus fare. This is not a problem that should be a burden on those who need solutions - transit agencies should be seeking alternative forms to encourage a more equitable system that benefits all riders equally.

The existence of a fare to ride any public transit system automatically sets riders up for criminal charges and perpetuates existing inequities. Although there is a low-income option for poor riders, existing literature from other cities and Seattle’s own ORCA Opportunity for SHA residents prove that this is not enough. As long as there is a fee to ride the bus, there will be residents who cannot afford it, and who thus have to evade fare to access mobility across the city. As previously stated, Black people in Seattle experience higher rates of poverty. The fact that many Black riders cannot afford fare is not surprising once the intersections between race and poverty are

well established. I believe that there is only one true solution to ending the criminalization of poverty on public transit systems in Seattle.

My highest recommendation for Metro and partnering agency Sound Transit is to move towards a fare free model. I believe that Metro and Sound Transit have the unique position to alter policies to restructure the future of fare and move towards abolishing public transit fares for all public transit options in King County. With a commitment to social justice work and equity, this is the only solution to provide a fully equitable system free of policies that uphold anti-poverty and anti-racist ideals.

Not only does moving to a fare-free model effectively remove the financial barriers to riding public transportation, but it also abates the need for fare enforcement. Additionally, not collecting fares proves to create a more efficient system as Intercity Transit stated through fare collection, but also as a whole because of the reduction in stop time and policing interactions. It not only expands equity and makes the system more usable to all regardless of income level, but could also result in less congestion and fewer traffic-related fatalities if more Seattleites are incentivized to ride the bus through reduced financial barriers. Moving to a fare-free model would not only reduce the financial barriers to access ridership, but could also potentially contribute to the overall social and environmental wellbeing through the reduction of congestion. By removing the need to pay, Metro and Sound Transit would no longer need to budget for the maintenance of ORCA card tap-on machines and ticket machines, or Fare Enforcement Officers.

One potential argument against a free-fare public transportation system would be the issues of potential “free riders”. A free rider is a consumer or user of a good or service who cannot be

excluded from use, even if they refuse to pay for their portion of the overall cost. If they are unwilling to “buy in”, why should they use a service? I argue that public transportation is no different from a public park or a response from the police or fire department. Making public transportation as accessible as possible should be the priority of transportation planners and transit agencies such as Metro or Sound Transit, and working towards a free-fare system should be the ultimate goal of policies moving forward. I am advocating for the revenue to come from a local levy-supported tax or even a corporate tax. In order to determine the best way this tax would be structured, future research will need to be done. This tax could be based on income, property values, or be a flat tax. Another common way to fund zero-fare projects is through sales tax. Another alternative would be for corporate taxes to increase to subsidize lost revenue due to no fare. The City of Seattle has already created the Transit Benefit District which is a levy to support transportation investments in the city. Seattle is well known for passing levies that support the wellbeing of the broader community. Many corporations already subsidize their employee’s ORCA cards, which is a great service utilized by some, but not by all. I believe that the resources are already readily accessible and exist to create a funding stream that would enable people to ride public transportation without paying the price of a ticket upfront, but the two agencies would have to work together to re-organize their revenue stream, and a city-wide vote would be in order to ensure that this is a collective decision and investment to make it a true “public good”.

Although moving to a fare free mode is the recommendation I believe would provide the most effective solutions to better serving all Seattleites, after reviewing existing literature and the policy changes, my other recommendations include,

- Sound Transit should alter their fare enforcement policy to match Metro's, bringing the price of a citation down as well as moving their system for citations "in house" and removing misdemeanor charges for evasion;
- Metro and Sound Transit should collect demographic data in a more structured way, and conduct ridership surveys on each specific transit ride; and
- ORCA Opportunity Project should be expanded for all Seattle Housing Authority residents and those who are housing instable immediately.

While these recommendations are a radical shift from the practices and policies that Metro and Sound Transit are engaging in, moving towards a fare free model with these immediate steps are the only true way to abate any racist or anti-poor fare system and fare enforcement policies. Immediately protecting the most vulnerable in Seattle by providing immediate free transit fare for those who are houseless, experiencing housing instability, or a SHA resident is one step towards a fully free fare system. Additionally, before moving fully fare free, both agencies must have concurrent policies so there is no discrepancy in fare enforcement policies for the everyday rider who typically uses their ORCA card on both agency's services. In order to thoughtfully and effectively work towards free fare and constantly re-work policy to become more equitable, better data must be collected. My analysis was based off of overall ridership, not route specific. In order to identify the ways in which different neighborhoods and people who reside in specific areas experiencing public transit and interact with fare enforcement, we need to have more specific data on the demographics of who is using public transit services.

I strongly encourage Metro to review my analysis and recommendation and further identify the ways in which policies can become more equitable, and establish a tangible goal of

reaching a free fare model. Metro and Sound Transit must work together and have policy consistency between the two agencies. Both agencies must collect more specific data regarding their overall system and specific routes. This is the only way to achieve the lofty goals of Seattle's Race and Social Justice Initiative.

## **Chapter 7: Conclusion**

While the connection between race and poverty is continuously reinforced through the existing public transportation fare system and fare enforcement system in Seattle, there are systematic changes that can encourage further equity. While moving to a fare free model would not amend the economic and political harm that has been done to Black riders due to years of fare enforcement upholding the criminalization of poverty, it would make the future of both Metro and Sound Transit's fare system and system expansions more equitable for all riders, especially Black riders and riders experiencing poverty.

As previously stated, the financing solutions of a fare free system in Seattle must be researched further. Basing the recommendation off of Olympia's Zero-Fare model, I recommend that the cost of public transportation be shared by residents through either property tax or an impact fee, or by corporations through increasing their taxes. There are many ways to finance a free fare system, including a sales tax increase or an income tax. This thesis does not explore in-depth these possible solutions, and future research is required to ensure that the financing of public transportation remains prioritized in a city budget without requiring a fare at time of use for riders.

This thesis has highlighted the ways in which a fare system, no matter how “affordable” or “accessible” that fare is to riders, prioritizes capital over people. As long as capital takes precedence over a city’s residents, and there is criminal punishment for evading monetary expenditures, there will be a deeply embedded economically and politically exploitative interaction between the state powers, capitalism, and a socio-racial underclass. As previous research and literature suggests, the harm goes far beyond the immediate implications of monetary fines from fare enforcement. Not only does the criminalization of fare evasion create monetary debt for those experiencing poverty, but the entire system-- which remains unaffordable for many riders-- reinforces ideas of criminality and lack of access due to income. Until our cities have a more just and participatory planning style, and residents truly are able to live, work, and thrive in an environment that was built by them and their unique needs following Harvey’s right to the city theory, institutions with power such as Metro and Sound Transit must work towards dismantling as many barriers as possible to encourage mobility, accessibility, and true equity for residents.

Moving to a fare free system is the only way that public transportation can be equitable. As long as there are income and class differences, as well as a deeply embedded culture of racism and racist planning practices that are still impacting policing and fare enforcement, fare must be abolished to reach any equitable future of ridership. We see in this analysis that the recent policy change made no positive impact or changes to how Black riders interact with fare enforcement policies. Black riders are still being disproportionately impacted by fare enforcement, and as long as fare and fare enforcement exists, that will continue to be a trend. Under the current conditions of the city, how capital is prioritized, and the history’s in which Black realities are centered within, there will be no true equity as long as riders must pay for transit access.



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Appendix A

Counts and percentages of infractions by line, before the policy change

Total Infractions, All Lines	Total	Black		White		Asian		Native American	
<b>Total</b>	33,749	13,415	39.7%	21,184	62.8%	1,665	4.9%	472	1.4%
<b>Warnings</b>	23,002	7,684	33.4%	13,614	59.2%	1,249	5.4%	292	1.3%
<b>Citations</b>	10,018	4,041	40.3%	5,531	55.2%	289	2.9%	134	1.3%
<b>Misdemeanor</b>	621	277	44.6%	311	50.1%	15	2.4%	15	2.4%
<b>ENFP</b>	108	33	30.6%	64	59.3%	15	13.9%	0	0.0%

A Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	9,878	4,918	49.8%	4,330	43.8%	485	4.9%	94	1.0%
<b>Warnings</b>	6,304	2,991	47.4%	2,852	45.2%	359	5.7%	71	1.1%
<b>Citations</b>	3,399	1,824	53.7%	1,417	41.7%	121	3.6%	18	0.5%
<b>Misdemeanor</b>	143	91	63.6%	43	30.1%	3	2.1%	5	3.5%
<b>ENFP</b>	32	12	37.5%	18	56.3%	2	6.3%	0	0.0%

B Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	1,349	362	26.8%	842	62.4%	85	6.3%	37	2.7%
<b>Warnings</b>	982	241	24.5%	609	62.0%	74	7.5%	35	3.6%
<b>Citations</b>	356	119	33.4%	226	63.5%	9	2.5%	2	0.6%
<b>Misdemeanor</b>	5	2	40.0%	3	60.0%	0	0.0%	0	0.0%
<b>ENFP</b>	6	0	0.0%	4	66.7%	2	33.3%	0	0.0%

C Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	3,933	1,164	29.6%	2,576	65.5%	120	3.1%	52	1.3%
<b>Warnings</b>	2,457	579	23.6%	1,735	70.6%	99	4.0%	28	1.1%
<b>Citations</b>	1,388	535	38.5%	805	58.0%	21	1.5%	22	1.6%
<b>Misdemeanor</b>	79	47	59.5%	30	38.0%	0	0.0%	2	2.5%
<b>ENFP</b>	9	3	33.3%	6	66.7%	0	0.0%	0	0.0%

D Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	6,351	1,814	28.6%	4,168	65.6%	244	3.8%	82	1.3%
<b>Warnings</b>	3,809	941	24.7%	2,628	69.0%	174	4.6%	41	1.1%
<b>Citations</b>	2,385	817	34.3%	1,443	60.5%	69	2.9%	38	1.6%
<b>Misdemeanor</b>	142	51	35.9%	86	60.6%	1	0.7%	3	2.1%
<b>ENFP</b>	15	5	33.3%	10	66.7%	0	0.0%	0	0.0%

E Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	12,122	3,474	28.7%	7,870	64.9%	539	4.4%	175	1.4%
<b>Warnings</b>	7,331	1,895	25.8%	4,876	66.5%	424	5.8%	95	1.3%
<b>Citations</b>	4,555	1,516	33.3%	2,843	62.4%	99	2.2%	75	1.6%
<b>Misdemeanor</b>	201	56	27.9%	131	65.2%	8	4.0%	5	2.5%
<b>ENFP</b>	35	7	20.0%	20	57.1%	8	22.9%	0	0.0%

<b>F Line</b>	<b>Total</b>	<b>Black</b>		<b>White</b>		<b>Asian</b>		<b>Native American</b>	
<b>Total Infractions</b>	3,333	1683	50.5%	1398	41.9%	192	5.8%	32	1.0%
<b>Warnings</b>	2,115	1,037	49.0%	915	43.3%	119	5.6%	22	1.0%
<b>Citations</b>	1,156	612	52.9%	461	39.9%	67	5.8%	10	0.9%
<b>Misdemeanor</b>	50	30	60.0%	17	34.0%	3	6.0%	0	0.0%
<b>ENFP</b>	12	4	33.3%	5	41.7%	3	25.0%	0	0.0%

Appendix B

Chi-Square test for all lines and all levels of infraction, broken down by line, before the policy change

All lines combined:

<b>Total Infractions, All Lines</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Function</b>
<b>Black</b>	0.04	13,415	1350	
<b>White</b>	0.69	21,184	23287	
<b>Asian</b>	0.14	1,665	4725	
<b>Native American</b>	0.01	472	337	
<b>Total</b>				110054.3

<b>Warnings</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Function</b>
<b>Black</b>	0.04	7,684	920	
<b>White</b>	0.69	13,614	15871	
<b>Asian</b>	0.14	1,249	3220	
<b>NA</b>	0.01	292	230	
<b>Total</b>				51269.1

<b>Citations</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Function</b>
<b>Black</b>	0.04	4,041	401	
<b>White</b>	0.69	5,531	6912	
<b>Asian</b>	0.14	289	1403	
<b>NA</b>	0.01	134	100	
<b>Total</b>				34241.1

Misdemeanors	Hypothesized Proportion	Observed	Expected	Chi-Square Function
Black	0.04	277	25	
White	0.69	311	428	
Asian	0.14	15	87	
NA	0.01	15	6	
Total				2664.0

ENFP	Hypothesized Proportion	Observed	Expected	Chi-Square Function
Black	0.04	33	4	
White	0.69	64	75	
All Other	0.15	15	16	
Total				192.0

A Line:

Total Infractions, A Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	4,918	395	
White	0.69	4,330	6816	
Asian	0.14	485	1383	
NA	0.01	94	99	
<b>Total</b>		<b>9,878</b>		<b>53262.6</b>

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	2,991	252	
White	0.69	2,825	4350	
Asian	0.14	359	883	
NA	0.01	71	63	
<b>Total</b>		<b>6,304</b>		<b>30594.0</b>

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,824	136	
White	0.69	1,417	2345	
Asian	0.14	121	476	
NA	0.01	18	34	
<b>Total</b>		<b>3,399</b>		<b>21597.8</b>

Misdemeanor	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	91	6	
White	0.69	43	99	
Asian	0.14	3	20	
NA	0.01	5	1	
<b>Total</b>		<b>143</b>		<b>1326.2</b>

B Line:

Total Infractions, B Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	362	54	
White	0.69	842	931	
Asian	0.14	85	189	
NA	0.01	37	13	
Total		1,349		1865.1

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	241	39	
White	0.69	609	678	
Other	0.15	109	147	
Total		982		1063.2

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	119	14	
White	0.69	226	246	
Asian	0.14	9	50	
NA	0.01	2	4	
Total		356		806.4

C Line

Total Infractions, C Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,164	157	
White	0.69	2,576	2714	
Asian	0.14	120	551	
NA	0.01	52	39	
<b>Total</b>				6789.5

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	579	98	
White	0.69	1,735	1695	
Asian	0.14	99	344	
NA	0.01	28	25	
<b>Total</b>				2527.2

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	535	56	
White	0.69	805	958	
Asian	0.14	21	194	
NA	0.01	22	14	
<b>Total</b>				4324.6

Misdemeanor	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	47	3	
White	0.69	30	55	
Other	0.15	2	12	
<b>Total</b>				627.4

D Line

Total Infractions, D Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,814	254	
White	0.69	4,168	4382	
Asian	0.14	224	889	
NA	0.01	82	64	
<b>Total</b>				<b>10092.5</b>

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	941	152	
White	0.69	2,628	2628	
Asian	0.14	174	533	
NA	0.01	41	38	
<b>Total</b>				<b>4324.4</b>

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	817	95	
White	0.69	1,443	1646	
Asian	0.14	69	334	
NA	0.01	38	24	
<b>Total</b>				<b>5701.6</b>

Misdemeanor	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	51	6	
White	0.69	86	98	
Asian	0.14	1	20	
NA	0.01	3	1	
<b>Total</b>				<b>382.8</b>

E Line:

Total Infractions, E Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	3,474	485	
White	0.69	7,870	8364	
Asian	0.14	539	1697	
NA	0.01	175	121	
<b>Total</b>				19,270.2

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,895	293	
White	0.69	4,876	5058	
Asian	0.14	424	1026	
NA	0.01	95	73	
<b>Total</b>				9,115.8

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,516	182	
White	0.69	2,843	3143	
Asian	0.14	99	638	
NA	0.01	75	46	
<b>Total</b>				10,266.9

Misdemeanor	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	56	8	
White	0.69	131	139	
Asian	0.14	8	28	
NA	0.01	5	2	
<b>Total</b>				305.4

F Line:

Total Infractions, F Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,683	133	
White	0.69	1,398	2300	
Asian	0.14	192	467	
NA	0.01	32	33	
<b>Total</b>				18528.4

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	1,037	85	
White	0.69	915	1459	
Asian	0.14	119	296	
NA	0.01	22	21	
<b>Total</b>				11030.8

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	612	46	
White	0.69	461	798	
Asian	0.14	67	162	
NA	0.01	10	12	
<b>Total</b>				7120.1

Misdemeanor	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.04	30	2	
White	0.69	17	35	
Other	0.15	3	8	
<b>Total</b>				404.0

Appendix C

Counts and percentages of infractions by line, after the policy change

Total Infractions, All Lines	Total	Black		White		Asian		Native American	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
<b>Total Infractions</b>	19,505	6,762	34.7%	9,417	48.3%	1376	7.1%	340	1.7%
<b>Warnings</b>	15,546	5,268	33.9%	7,627	49.1%	1157	7.4%	249	1.6%
<b>Citations</b>	3,874	1,455	37.6%	1,757	45.4%	213	5.5%	90	2.3%
<b>Civil Infraction</b>	28	24	85.7%	2	7.1%	2	7.1%	0	0.0%
<b>ENFP</b>	57	15	26.3%	31	54.4%	4	7.0%	1	1.8%

A Line	Total	Black		White		Asian		Native American	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
<b>Total Infractions</b>	3,628	1,867	51.5%	1,113	30.7%	257	7.1%	45	1.2%
<b>Warnings</b>	3,042	1,545	50.8%	931	30.6%	230	7.6%	36	1.2%
<b>Citations</b>	570	311	54.6%	179	31.4%	26	4.6%	9	1.6%
<b>Civil Infractions</b>	7	7	100.0%	0	0.0%	0	0.0%	0	0.0%
<b>ENFP</b>	9	4	44.4%	3	33.3%	1	11.1%	0	0.0%

B Line	Total	Black		White		Asian		Native American	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
<b>Total Infractions</b>	1,287	304	23.6%	626	48.6%	154	12.0%	30	2.3%
<b>Warnings</b>	1,054	235	22.3%	512	48.6%	149	14.1%	26	2.5%
<b>Citations</b>	227	66	29.1%	114	50.2%	4	1.8%	4	1.8%
<b>Civil Infractions</b>	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%
<b>ENFP</b>	4	1	25.0%	0	0.0%	1	25.0%	0	0.0%



C Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	2,700	785	29.1%	1,528	56.6%	175	6.5%	38	1.4%
<b>Warnings</b>	2,029	524	25.8%	1,205	59.4%	134	6.6%	27	1.3%
<b>Citations</b>	654	254	38.8%	315	48.2%	39	6.0%	11	1.7%
<b>Civil Infractions</b>	7	7	100.0%	0	0.0%	0	0.0%	0	0.0%
<b>ENFP</b>	10	0	0.0%	8	80.0%	2	20.0%	0	0.0%

D Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	4,011	1,060	26.4%	2,393	59.7%	229	5.7%	77	1.9%
<b>Warnings</b>	3,095	782	25.3%	1,912	61.8%	176	5.7%	51	1.6%
<b>Citations</b>	898	271	30.2%	472	52.6%	53	5.9%	25	2.8%
<b>Civil Infractions</b>	5	5	100.0%	0	0.0%	0	0.0%	0	0.0%
<b>ENFP</b>	13	2	15.4%	9	69.2%	0	0.0%	1	7.7%

E Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	5,393	1,540	28.6%	2,990	55.4%	346	6.4%	112	2.1%
<b>Warnings</b>	4,371	1,241	28.4%	2,441	55.8%	306	7.0%	80	1.8%
<b>Citations</b>	1,005	293	29.2%	538	53.5%	40	4.0%	32	3.2%
<b>Civil Infractions</b>	4	2	50.0%	2	50.0%	0	0.0%	0	0.0%
<b>ENFP</b>	13	4	30.8%	9	69.2%	0	0.0%	0	0.0%

F Line	Total	Black		White		Asian		Native American	
<b>Total Infractions</b>	2,486	1,206	48.5%	767	30.9%	215	8.6%	38	1.5%
<b>Warnings</b>	1,995	941	47.2%	626	31.4%	162	8.1%	29	1.5%
<b>Citations</b>	520	260	50.0%	139	26.7%	51	9.8%	9	1.7%
<b>Civil Infractions</b>	3	1	33.3%	0	0.0%	2	66.7%	0	0.0%
<b>ENFP</b>	8	4	50.0%	2	25.0%	0	0.0%	0	0.0%

Appendix D

Chi-Square test for all lines and all levels of infraction, broken down by after the policy change

All Lines:

<b>Total Infractions, All Lines</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	6,762	585	
<b>White</b>	0.68	9,417	13263	
<b>Asian</b>	0.12	1376	2341	
<b>NA</b>	0.01	340	195	
<b>Total</b>				<b>66823.6</b>

<b>Warnings</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	5,268	466	
<b>White</b>	0.68	7,627	10571	
<b>Asian</b>	0.12	1,157	1866	
<b>NA</b>	0.01	249	155	
<b>Total</b>				<b>50580.5</b>

<b>Citations</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	1,455	116	
<b>White</b>	0.68	1,757	2634	
<b>Asian</b>	0.12	213	465	
<b>NA</b>	0.01	90	39	
<b>Total</b>				<b>15918.4</b>

A Line:

<b>Total Infractions, A Line</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	1,867	109	
<b>White</b>	0.68	1,113	2467	
<b>Asian</b>	0.12	257	435	
<b>NA</b>	0.01	45	36	
<b>Total</b>				<b>29219.0</b>

<b>Warnings</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	1,545	91	
<b>White</b>	0.68	931	2069	
<b>Asian</b>	0.12	230	365	
<b>NA</b>	0.01	36	30	
<b>Total</b>				<b>23834.1</b>

<b>Citations</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	311	17	
<b>White</b>	0.68	179	388	
<b>Asian</b>	0.12	26	68	
<b>NA</b>	0.01	9	6	
<b>Total</b>				<b>5191.8</b>

B Line:

Total Infractions, B Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	304	39	
White	0.68	626	875	
Asian	0.12	154	154	
NA	0.01	30	13	
Total				1917.9

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	235	32	
White	0.68	512	717	
Asian	0.12	149	126	
NA	0.01	26	11	
Total				1393.3

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	66	7	
White	0.68	114	154	
Asian	0.12	4	27	
NA	0.01	4	2	
Total				546.2

C Line:

Total Infractions, C Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	785	81	
White	0.68	1,528	1836	
Asian	0.12	175	324	
NA	0.01	38	27	
<b>Total</b>				<b>6243.4</b>

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	524	61	
White	0.68	1,205	1380	
Asian	0.12	134	243	
NA	0.01	27	20	
<b>Total</b>				<b>3597.3</b>

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	254	20	
White	0.68	315	445	
Asian	0.12	39	78	
NA	0.01	11	7	
<b>Total</b>				<b>2860.6</b>

D Line:

<b>Total Infractions, D Line</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	1,060	120	
<b>White</b>	0.68	2,393	2727	
<b>Asian</b>	0.12	229	481	
<b>NA</b>	0.01	77	40	
<b>Total</b>				<b>7545.2</b>

<b>Warnings</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	782	93	
<b>White</b>	0.68	1,912	2105	
<b>Asian</b>	0.12	176	371	
<b>NA</b>	0.01	51	31	
<b>Total</b>				<b>5248.4</b>

<b>Citations</b>	<b>Hypothesized Proportion</b>	<b>Observed</b>	<b>Expected</b>	<b>Chi-Square Test</b>
<b>Black</b>	0.03	271	27	
<b>White</b>	0.68	472	611	
<b>Asian</b>	0.12	53	108	
<b>NA</b>	0.01	25	9	
<b>Total</b>				<b>2298.9</b>

E Line:

Total Infractions, E Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	1,540	162	
White	0.68	2,990	3667	
Asian	0.12	346	647	
NA	0.01	112	54	
<b>Total</b>				<b>12068.0</b>

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	1,241	131	
White	0.68	2,441	2972	
Asian	0.12	306	525	
NA	0.01	80	44	
<b>Total</b>				<b>9609.9</b>

Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	293	30	
White	0.68	538	683	
Asian	0.12	40	121	
NA	0.01	32	10	
<b>Total</b>				<b>2424.3</b>

F Line:

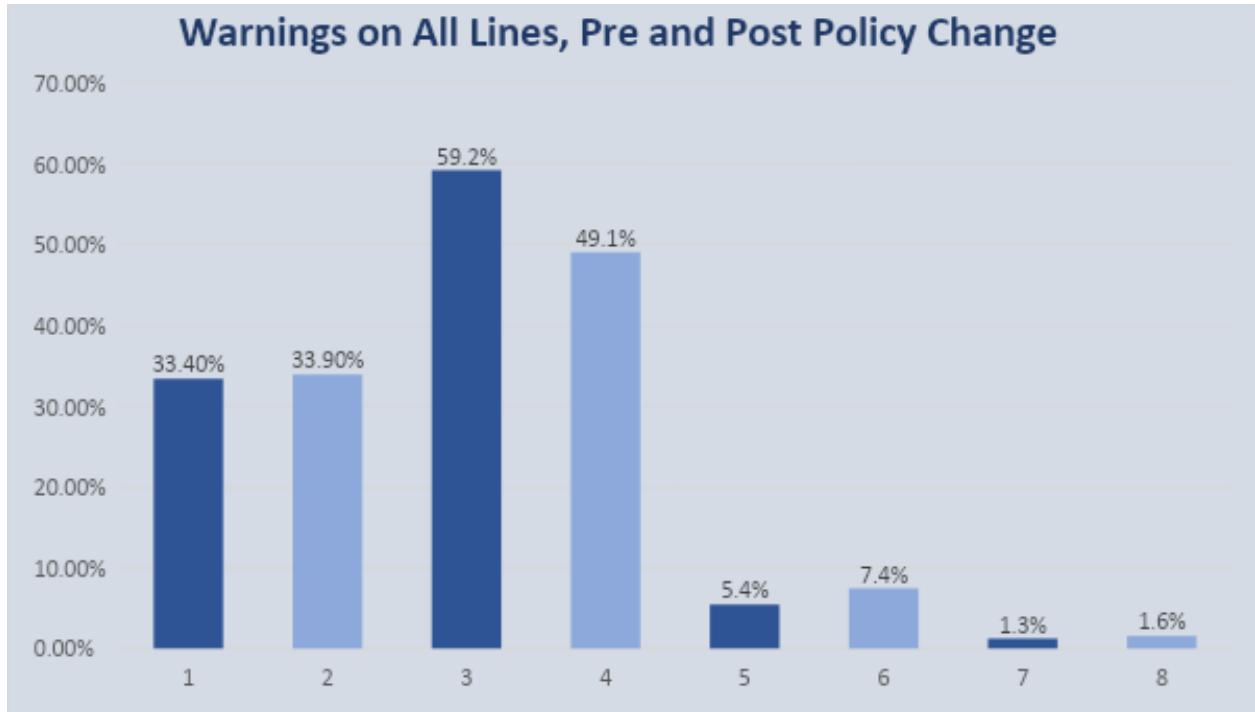
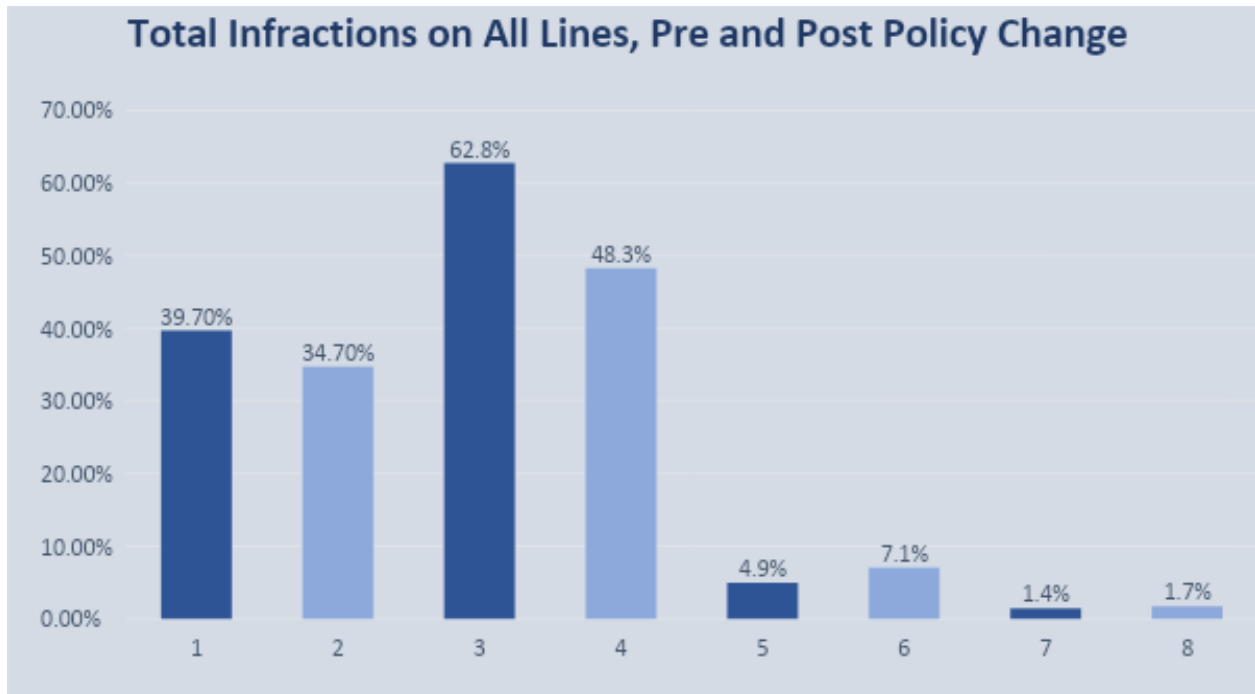
Total Infractions, F Line	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	1,206	75	
White	0.68	767	1690	
Asian	0.12	215	298	
NA	0.01	38	25	
<b>Total</b>				<b>17699.0</b>

Warnings	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	941	60	
White	0.68	626	1357	
Asian	0.12	162	239	
NA	0.01	29	20	
<b>Total</b>				<b>13395.4</b>

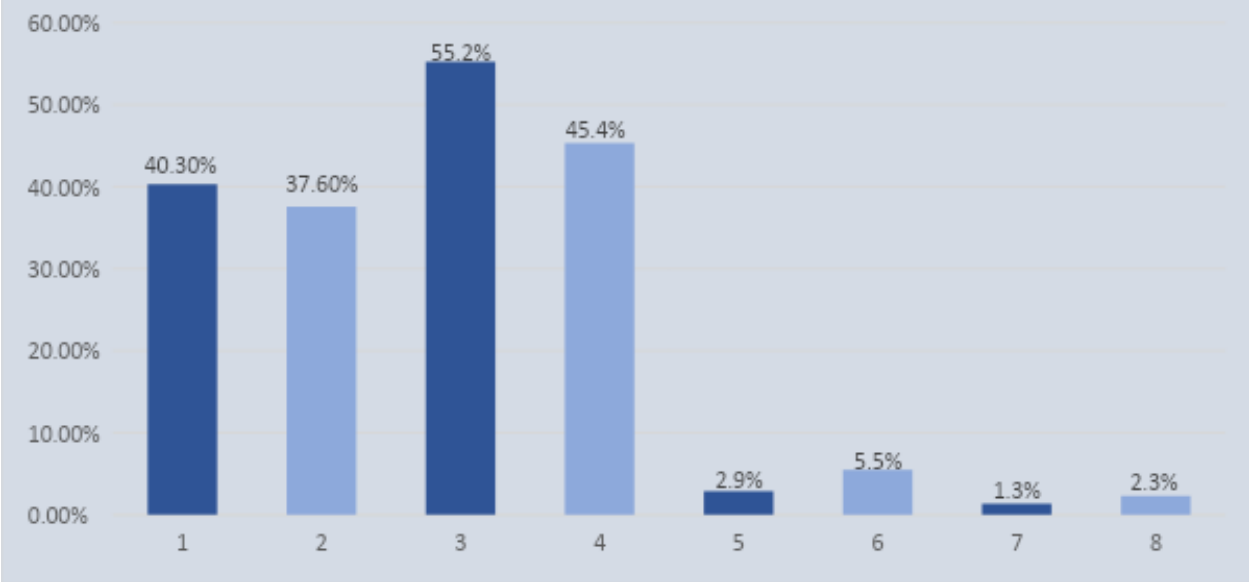
Citations	Hypothesized Proportion	Observed	Expected	Chi-Square Test
Black	0.03	260	16	
White	0.68	139	354	
Asian	0.12	51	62	
NA	0.01	9	5	
<b>Total</b>				<b>3964.0</b>

Appendix E:

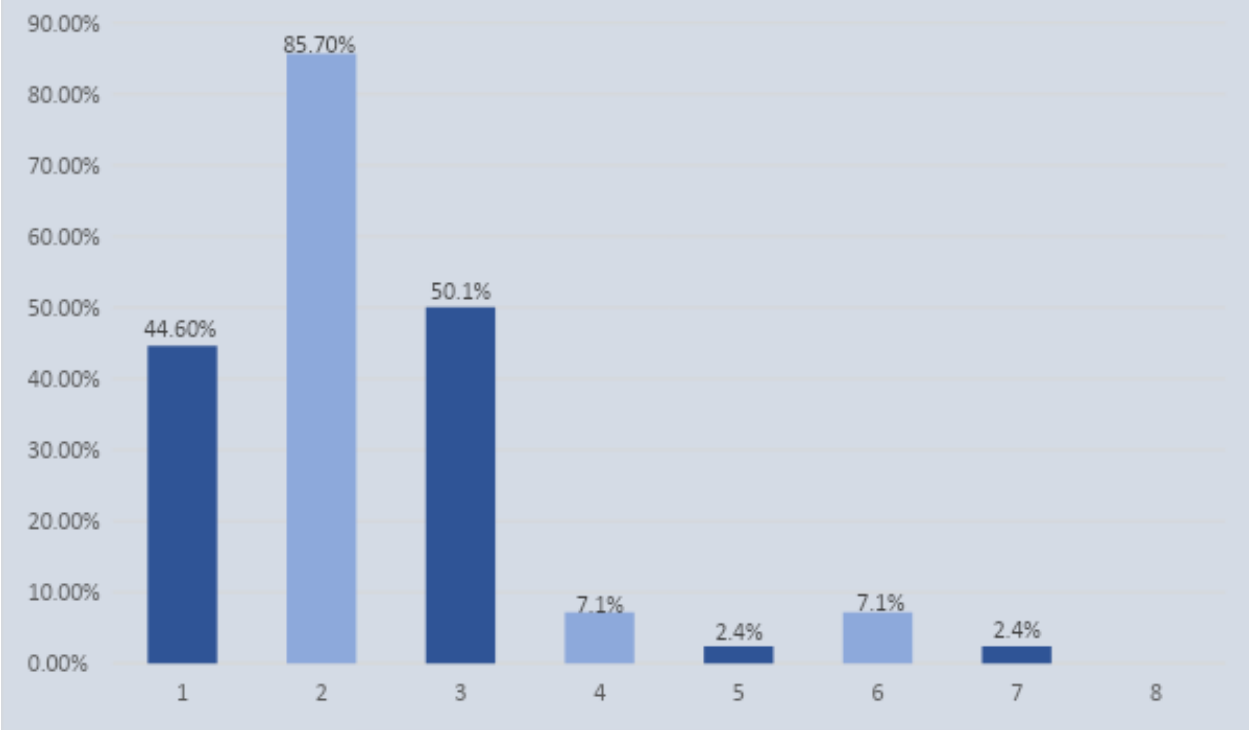
Pre and post data compared



### Citations on All Lines, Pre and Post Policy Change



### Misdemeanors on All Lines, Pre and Post Policy Change



### ENFP on All Lines, Pre and Post Policy Change

