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Our Streets: Increasing Equity in Active Transportation Planning through Community Outreach

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Increasing Equity in Active Transportation Planning through Community Outreach

A Capstone Thesis Submitted to the Faculty of Arts & Sciences
University of San Francisco

in partial fulfillment of the requirements for the degree of

MASTER OF ARTS IN URBAN & PUBLIC AFFAIRS

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Under the guidance and approval of the committee, and approval by all the members, this thesis has been accepted in partial fulfillment of the requirements for the degree.

Approved:

Timothy Redmond _____ Date: _____

William Riggs _____ Date: _____

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ABSTRACT

Significant research has demonstrated that active transportation infrastructure is essential for the growth and livability of San Francisco: it increases access to economic opportunities, promotes overall improved public health, encourages mobility without contributing to roadway congestion, prevents traffic injuries and fatalities, and supports the sustainability goals of the city. Despite the fact that communities of color will benefit the most from active transportation infrastructure development, historical disenfranchisement in tandem with a lack of diverse representation within public participation contributes to an inequitable distribution of walking and biking investments throughout the city of San Francisco. While research shows that Black and Hispanic cyclists are disproportionately represented in pedestrian and bicycle fatalities, public participation within transportation planning lacks diverse representation. To understand how San Francisco's transportation development can better reflect the needs of its diverse and historically marginalized residents, I asked the following research question: *How can San Francisco effectively engage Equity Priority Communities in active transportation development through participatory planning?* In this thesis, I argue that reform of the San Francisco Municipal Transportation Agency (SFMTA)'s outreach and engagement practices is necessary to promote more equitable outcomes. Through a demographic analysis of active transportation community outreach participation, I demonstrate that the SFMTA's current practices fail to engage the city's diverse populations. I utilize the perspectives of sixteen SFMTA transportation officials and Susan Fainstein's model of urban justice to form policy recommendations that will advance equity for the agency's interaction with the public. This project is important because as SFMTA's Office of Racial Equity and Belonging is developing Phase 2 of their Racial Equity Action Plan, my research identifies an area in need of improvement and provides a path forward.

INTRODUCTION

As San Francisco grows and societal priorities shift, the urban landscape should evolve to support the city's sustainability efforts. Inner city congestion, combined with environmental and economical motivations, propel street infrastructure improvements that play an integral role in supporting the citywide goal to encourage urban "mode shift,"[1] the cultural change in travel habits from driving towards active transportation. Active transportation, a significant component of planning a livable city,[2] is defined by the Centers for Disease Control and Prevention as "any self-propelled, human-powered mode of transportation."[3] Safe walking and biking conditions positively influence the safety and health of communities throughout the city. According to the National Association of City Transportation Officials (NACTO), "Streets comprise more than 80% of public space in cities."[4] By reframing our cities' streets as public space, transportation planning is reimagining existing car-oriented streets and re-designing them to encourage more sustainable lifestyles.

The rising significance of sustainability has inspired a shift in planning practices that encourage the evolution of streets to accommodate the needs beyond those of vehicle users. With the recognition that pedestrian projects and cycling improvements are often institutionally and beneficially linked, this research project focuses on the joint unity of bicycle infrastructure projects and pedestrian improvements under the overarching term active transportation. Scholarly research shows that the walkability of a neighborhood is correlated with the

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[1] San Francisco Municipal Transportation Agency. "Climate Goals, Targets and Trends." SFMTA.com, n.d.

[2] Yassin, Hend H. "Livable City: An Approach to Pedestrianization through Tactical Urbanism," Alexandria Engineering Journal; 58, 58, no. 1 (March 2019): 248.

[3] Centers for Disease Control and Prevention. "Transportation Health Impact Assessment Toolkit." National Center for Environmental Health, October 19, 2011.

[4] National Association of Transportation Officials. "Urban Street Design Guide," n.d.

infrastructure that also supports cycling in that neighborhood.[5] [6] [7] [8] Additionally, research in the field of transportation indicates positive correlation between active transportation improvements and overall advances in increased accessibility.[9]

Studies have found that a major determinant of choosing to ride a bicycle is based in fear of injury or fatality.[10] [11] [12] This fear prevents the "interested but concerned"[13] demographic that may be willing to adopt sustainable modes of transportation, but choose not to make this lifestyle shift because of safety concerns. Recognizing this, an effective and cost-efficient[14] approach for

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[5] Dill, Jennifer, and Theresa Carr. "Bicycle Commuting and Facilities in Major U.S. Cities: If You Build Them, Commuters Will Use Them." Transportation Research Record 1828, no. 1 (January 2003): 98.

[6] Krizek, K. J., G. Barnes, and K. Thompson. 2009. "Analyzing the Effect of Bicycle Facilities on Commute Mode Share Over Time." *Journal of Urban Planning and Development* 135 (2): 67.

[7] Nelson, Arthur C., and David Allen. "If You Build Them, Commuters Will Use Them: Association Between Bicycle Facilities and Bicycle Commuting." Transportation Research Record 1578, no. 1 (January 1997): 80.

[8] Reynolds, C. C. O., M. A. Harris, K. Teschke, P. A. Cripton, and M. Winters. 2009. "The Impact of Transportation Infrastructure on Bicycling Injuries and Crashes: A Review of the Literature." *Environmental Health: A Global Access Science Source* 8 (1).

[9] Litman, Todd. "Evaluating Active Transportation Benefits and Costs." Victoria Transport Policy Institute. Transportation Research Record, April 15, 2022. https://vtpi.org/nmt-tdm.pdf.

[10] Dill, J. Bicycling for Transportation and Health: The Role of Infrastructure. *J Public Health Pol* 30, S95–S110 (2009).

[11] Handy, Susan L., Marlon G. Boarnet, Reid Ewing, and Richard E. Killingsworth. "How the Built Environment Affects Physical Activity: Views from Urban Planning," American Journal of Preventive Medicine 23, 23, no. 2, Supplement 1 (2002): 65.

[12] Edmond D. Shenassa, Allison Liebhaber, Amara Ezeamama, Perceived Safety of Area of Residence and Exercise: A Pan-European Study, *American Journal of Epidemiology*, Volume 163, Issue 11, 1 June 2006, Pages 1012.

[13] Geller, Roger. "Four Types of Cyclists." Portland Office of Transportation, 2009.

[14] Sallis, James F., Terry L. Conway, Lianne I. Dillon, Lawrence D. Frank, Marc A. Adams, Kelli L. Cain, and Brian E. Saelens. "Environmental and Demographic Correlates of Bicycling," Preventive medicine 57, 57, no. 5 (2013): 457.

stimulating mode shift towards walking and biking would be prioritizing development in neighborhoods that are most in need of infrastructure improvements.

Effective transportation planning uses a holistic approach that views the city's transportation system as a connected network, serving the multimodal needs of all residents. Active transportation plays a critical role in facilitating "first and last mile"[15] connectivity between public transportation routes, allowing transit riders safe access to, from, and in between routes of service. An example of this is street infrastructure improvements that increase safety for those walking and biking to and from the bus stop.[16] Through active transportation improvements, "minimizing the first-and-last mile shortage can make communities more inclusive by widening the range of accessible opportunities."[17] For the purposes of this research project, I focus on active transportation not as an independent entity within planning, but as a catalyst for advancing access to a wider array of transportation options and promoting sustainable urban growth.

In tandem with increasing the independence and sustainability of a community, street infrastructure that encourages active transportation results in overall improved public health.[18] By encouraging active transportation through safety improvements, street infrastructure plays an integral role in influencing the health of San Francisco's residents. Research shows that

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[15] Mohiuddin, Hossain. 2021. "Planning for the First and Last Mile: A Review of Practices at Selected Transit Agencies in the United States" *Sustainability* 13, no. 4: 2222.

[16] Ulak, Mehmet Baran, Ayberk Kocatepe, Anil Yazici, Eren Erman Ozguven, and Ashutosh Kumar. "A Stop Safety Index to Address Pedestrian Safety around Bus Stops," Safety Science 133, 133 (2021): 105017.

[17] Zuo, Ting, Heng Wei, Na Chen, and Chun Zhang. "First-and-Last Mile Solution via Bicycling to Improving Transit Accessibility and Advancing Transportation Equity," Cities 99.

[18] Banister, David. "The Sustainable Mobility Paradigm," Transport Policy 15, 15, no. 2 (March 2008): 73–80.

incorporating active commuting, such as walking or biking to school or work, is an effective method of improving cardiovascular health.[19] A study in San Francisco conducted by the National Center for Sustainable Transportation[20] found a positive correlation between the construction of active transportation infrastructure, an increased perception of comfort, and an increase in daily bike ridership. People are more likely to integrate physical exercise in their daily lives when urban design supports this lifestyle shift.[21]

In addition to improving the health and safety of communities, active transportation development stimulates economic mobility by increasing access to economic opportunities. Walking and biking connectivity plays an integral role in a neighborhood's ability to accommodate the densification of the urban population. When designing mobility to promote commercial activity in urban areas, "boosting local pedestrian and cycling traffic flows can increase the economic viability of cafes and corner stores and improve access to jobs and services without increasing congestion or vehicle emissions."[22] While simultaneously increasing neighborhood connectivity, active transportation is the most economical means of transportation, requiring little to no upfront investment cost, and therefore increasing accessibility to low-income communities. "Bike/ped projects represent a real opportunity to improve affordability

[19] Shepard, Roy. "Is Active Commuting the Answer to Population Health?" Sports Medicine 38, 38 (October 7, 2012): 751–58.

[20] Fitch, Dillon, Calvin Thigpen, Antonio Cruz, and Susan Handy. "Bicyclist Behavior in San Francisco." National Center for Sustainable Transportation. University of California, Davis: UC Davis Institute of Transportation Studies, August 2016.

[21] Day, Kristen. "Active Living and Social Justice: Planning for Physical Activity in Low-Income, Black, and Latino Communities," Journal of the American Planning Association 72, 72, no. 1 (November 26, 2007): 89.

[22] Giles-Corti, Billie, Sarah Foster, and Trevor Shilton. "The Co-Benefits for Health of Investing in Active Transportation," NSW Public Health Bulletin 21, no. 6 (July 16, 2010).

and quality of life for low-income residents in declining neighborhoods."[23] As San Francisco grows, neighborhoods will increasingly rely on an evolving street network that stimulates foot traffic, encourages mobility within the community, and allows for self-sufficient mobility.

Along with the growth of the urban population, bicycle ridership numbers in San Francisco are surging, a trend commonly referred to by scholars as the "Bicycling Renaissance."[24] The San Francisco Municipal Transportation Authority (SFMTA) collects, monitors, and publishes annual data on bicycle traffic volumes and ridership data gathered through American Community Survey Commute Data, citywide automated bike counters, and manual counts in designated locations throughout the city. The number of people riding bikes in San Francisco has been on an upward trajectory, with an increase of 14% in bicycle ridership from 2018 to 2019.[25] Since the start of the COVID-19 pandemic, bicycle commuting has continued to rise in prevalence.[26]

As San Francisco becomes increasingly bicycle-oriented, streets throughout the city receive infrastructure improvements to create a safer and more comfortable cycling experience. Through my research, I make the argument that the distribution of San Francisco's infrastructure is inequitably distributed and does not support the safety of the city's most vulnerable communities. For the purposes of this research project, I focus on the Equity Priority

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[23] Tighe, J. R., and Joanna P. Ganning. "Do Shrinking Cities Allow Redevelopment Without Displacement? An Analysis of Affordability Based on Housing and Transportation Costs for Redeveloping, Declining, and Stable Neighborhoods," 26, no. 4–5 (2016): 799.

[24] Pucher, John, Charles Komanoff, and Paul Schimek. "Bicycling renaissance in North America?: Recent trends and alternative policies to promote bicycling." *Transportation Research Part A: Policy and Practice* 33, no. 7-8 (1999): 634.

[25] San Francisco Municipal Transportation Agency. "Bicycle Ridership Data." San Francisco Municipal Transportation Agency. SFMTA.com: SFMTA, 2019.

[26] Hong, Jinhyun, David McArthur, and Varun Raturi. 2020. "Did Safe Cycling Infrastructure Still Matter During a COVID-19 Lockdown?" *Sustainability* 12, no. 20: 8672.

Communities designated by the Metropolitan Transportation Commission (MTC) when discussing the communities disproportionately impacted and disenfranchised by transportation development. "Formerly called *Communities of Concern*, Equity Priority Communities are census tracts that have a significant concentration of underserved populations, such as households with low incomes and people of color."[27] Despite Equity Priority Communities having the greatest potential to benefit from incorporating active transportation into their lives,[28] San Francisco's safety improvements are not distributed equitably throughout the city, resulting in disproportionately unsafe conditions for residents of Equity Priority Communities that want to bike or walk in their neighborhoods.

Disparity of infrastructure is a manifestation of the lack of municipal services available for Equity Priority Communities. The higher levels of traffic risk that blight these communities more than others is a form of environmental racism, defined by scholars as "any decision-making processes and distributive patterns that burden minority groups disproportionately."[29] Traffic safety, as a product of the publicly funded SFMTA, should be a public good that is equally distributed. To further establish the equity implications of San Francisco's traffic safety distribution, I performed an analysis of the city's records over the past ten years of all the serious injuries and fatalities involving pedestrians and bicyclists (see Figure 1). Using Geographic Information System (GIS), I explored the relationship between the distribution of traffic incidents and San Francisco's demographics. Through an analysis of the relationship between

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[27] Metropolitan Transportation. "Equity Priority Communities." MTC.CA.Gov, May 14, 2021.
[28] Day, Kristen. "Active Living and Social Justice: Planning for Physical Activity in Low-Income, Black, and Latino Communities," Journal of the American Planning Association 72, 72, no. 1 (November 26, 2007): 91.
[29] Bullard, R. D., 1994, Dumping in Dixie: Race, Class, and Environmental Quality. Boulder, CO: Westview.

San Francisco's collision data of the past decade, the MTC's designated Equity Priority Communities, and Census demographic data, I was able to identify significant patterns of correlation and distribution.

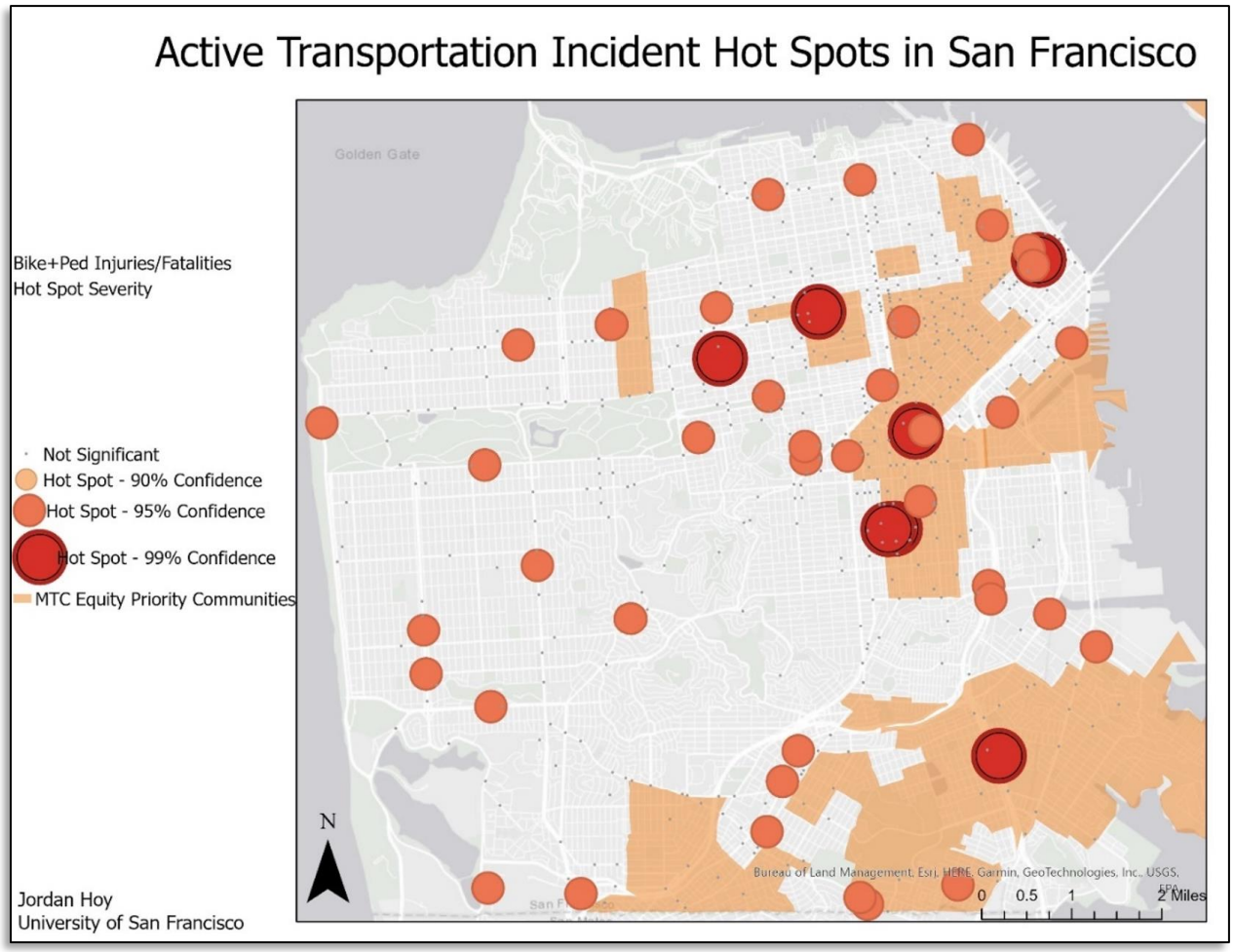

Figure 1 (above): San Francisco Active Transportation Incident Hot Spot Analysis[30]

Figure 1 shows the results of the hot spot analysis performed on San Francisco's publicly available collision data.[31] This map displays the distribution of serious injuries and fatalities involving pedestrians and cyclists throughout the city between 2009 and 2019. The orange

[30] Hoy, Jordan. San Francisco Active Transportation Incident Hot Spot Analysis. 2021.
[31] San Francisco Department of Health, San Francisco Municipal Transportation Agency, and San Francisco Police Department. "TransBASE Dashboard." transbase.sfgov.org, 2019.

polygon layer represents MTC's Equity Priority Communities. The hotspot analysis[32] interprets the distribution of incidents for clustering to identify hot spots, which are, in this case, dangerous areas throughout the city with a high concentration of incidents. "This tool works by looking at each feature within the context of neighboring features. A feature with a high value is interesting but may not be a statistically significant hot spot. To be a statistically significant hot spot, a feature will have a high value and be surrounded by other features with high values as well."[33] The results from the hotspot analysis depict a concentration of hotspots near the city center and in the Southeast portion of the city, with a disproportionate frequency of incidents occurring inside neighborhoods of Equity Priority Communities. This shows a disproportionate level of traffic danger that impacts Equity Priority Communities.

[32] Mitchell, Andy. *The ESRI Guide to GIS Analysis,* Volume 2. ESRI Press, 2005.
[33] Getis, A. and J.K. Ord. 1992. "The Analysis of Spatial Association by Use of Distance Statistics" in *Geographical Analysis* 24(3).

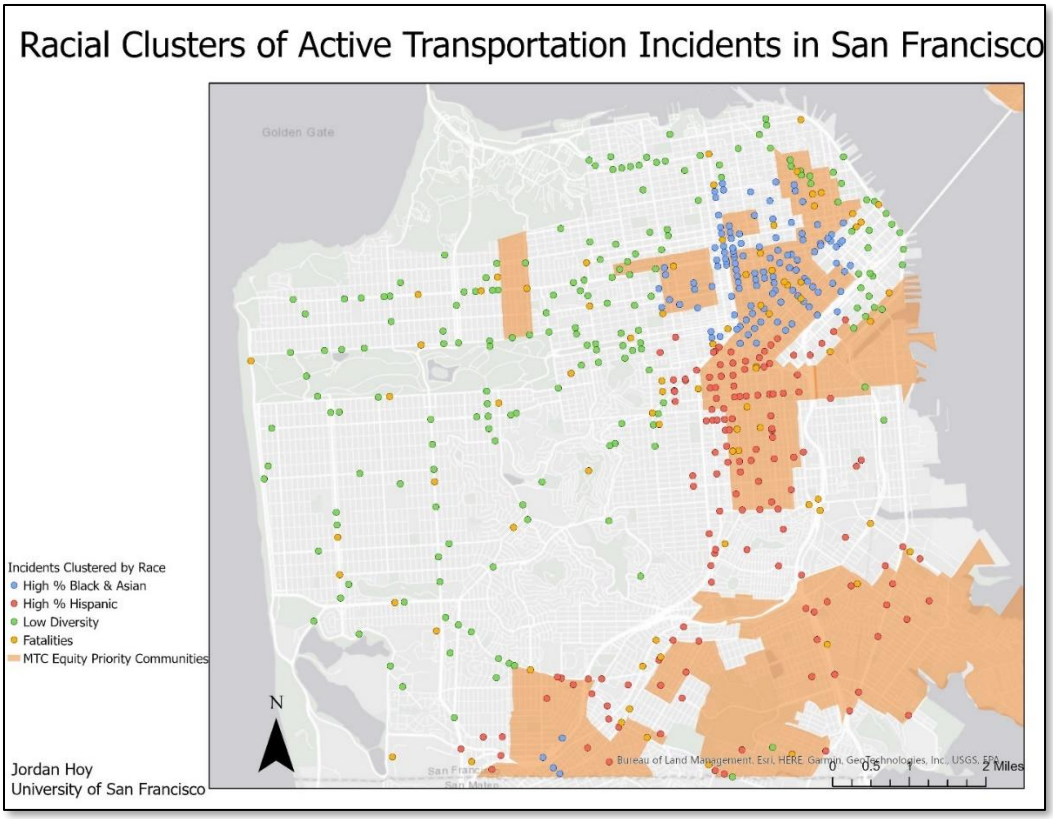

Figure 2 (above): Race & Traffic Safety in San Francisco's Active Transportation[34]

Figure 2 provides an analysis of neighborhood racial demographics together with pedestrian and bicycle fatalities and serious injuries in San Francisco recorded throughout 2009 to 2019. I enriched the incident layer dataset with US Census data and through a multivariate-clustering analysis, four distinct demographic groupings were found. Injury and fatality severity and race were used to symbolized each incident with a color determined by the dominate racial identity of the census tract in which the incident occurred. Race is not identified in the city of San Francisco's records of traffic incidents, but through the inclusion of neighborhood racial compositions, this map displays a possible connection between traffic safety and the demographics of each neighborhood. Furthermore, moving beyond the relationship between race

[34] Hoy, Jordan. Race and Traffic Safety in San Francisco's Active Transportation. 2021.

and the disproportionate representation of people of color in San Francisco's traffic incidents, this map calls out the equity implications of higher prevalence of traffic incidents occurring in neighborhoods of color.

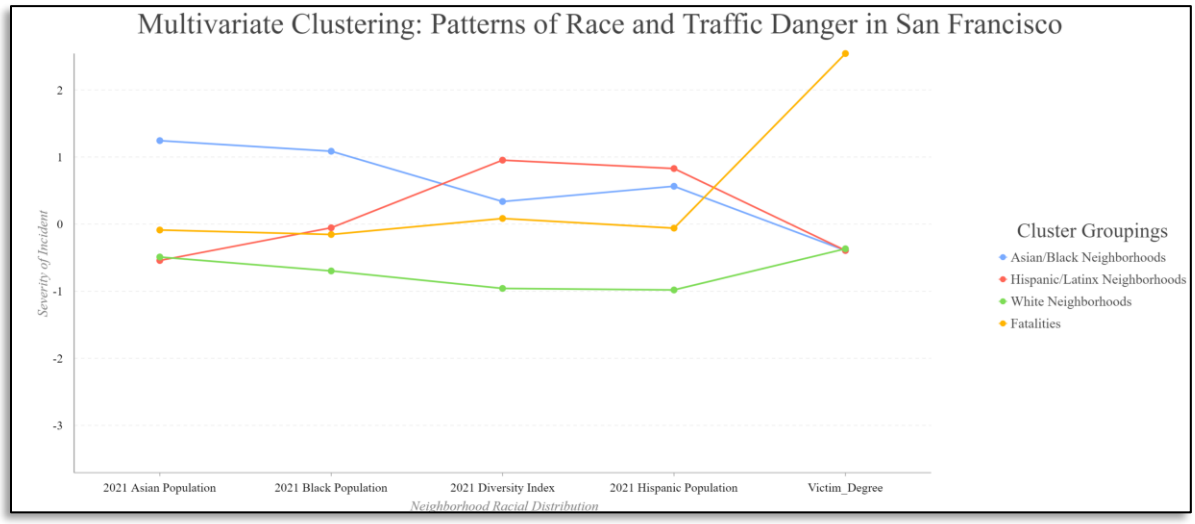

Figure 3 (above): Multivariate Clustering: Patterns of Race and Traffic Danger in San Francisco[35]

To further explore the relationship between race and the distribution of traffic incidents throughout San Francisco, I performed a multivariate clustering analysis[36] to identify patterns between the distribution of pedestrian and cyclist serious injuries and fatalities and the demographics of the neighborhoods where they occurred:

> "The Multivariate Clustering tool utilizes unsupervised machine learning methods to determine natural clusters in your data. These classification methods are considered unsupervised as they do not require a set of preclassified features to guide or train the method to find the clusters in your data… The K Means algorithm works by first identifying seeds used to grow each cluster. Consequently, the number of seeds will always match the Number of Clusters. The first seed is selected randomly. Selection of remaining seeds, however, while still employing a random component, applies a weighting that favors selection of

[35] Hoy, Jordan. Multivariate Clustering: Patterns of Race and Traffic Danger in San Francisco. 2021.

[36] Mitchell, Andy. *The ESRI Guide to GIS Analysis,* Volume 2. ESRI Press, 2005.

> subsequent seeds farthest in data space from the existing set of seed features (this part of the algorithm is called K Means ++).”[37]

Census block group demographic data and all serious injuries/fatalities involving pedestrians or cyclists recorded from 2009-2019 were used as inputs for the analysis. Serious injuries were assigned a value of 1 and fatalities were assigned a value of 2 to differentiate between levels of severity. This methodology was implored to contribute to the establishment of the problem that my capstone addresses: distributions of traffic incidents and San Francisco’s people of color are not unrelated.

The multivariate clustering analysis found neighborhood demographic patterns between four significant clusters of fatalities and injuries throughout the data (see Figure 2.) Concentrated in the city center, a high concentration of injuries occurred in areas that represent a large portion of the city's Black and Asian populations, symbolized with blue. Further south, clustered in the Mission District, there is a grouping of injury frequency that take place in areas of the city with a high concentration of San Francisco's Hispanic population, symbolized with red. Symbolized in green, there is a sparse distribution of injuries dispersed throughout the less-dense outskirts of San Francisco in predominately white neighborhoods. Although fatalities, symbolized in yellow, are recorded throughout the city, a high concentration of the fatalities are distributed in the city

[37] Jain, A. K. 2009. "Data Clustering: 50 years beyond K-Means." *Pattern Recognition Letters*.

center, the mission, and in the MTC Equity Priority Community polygons.

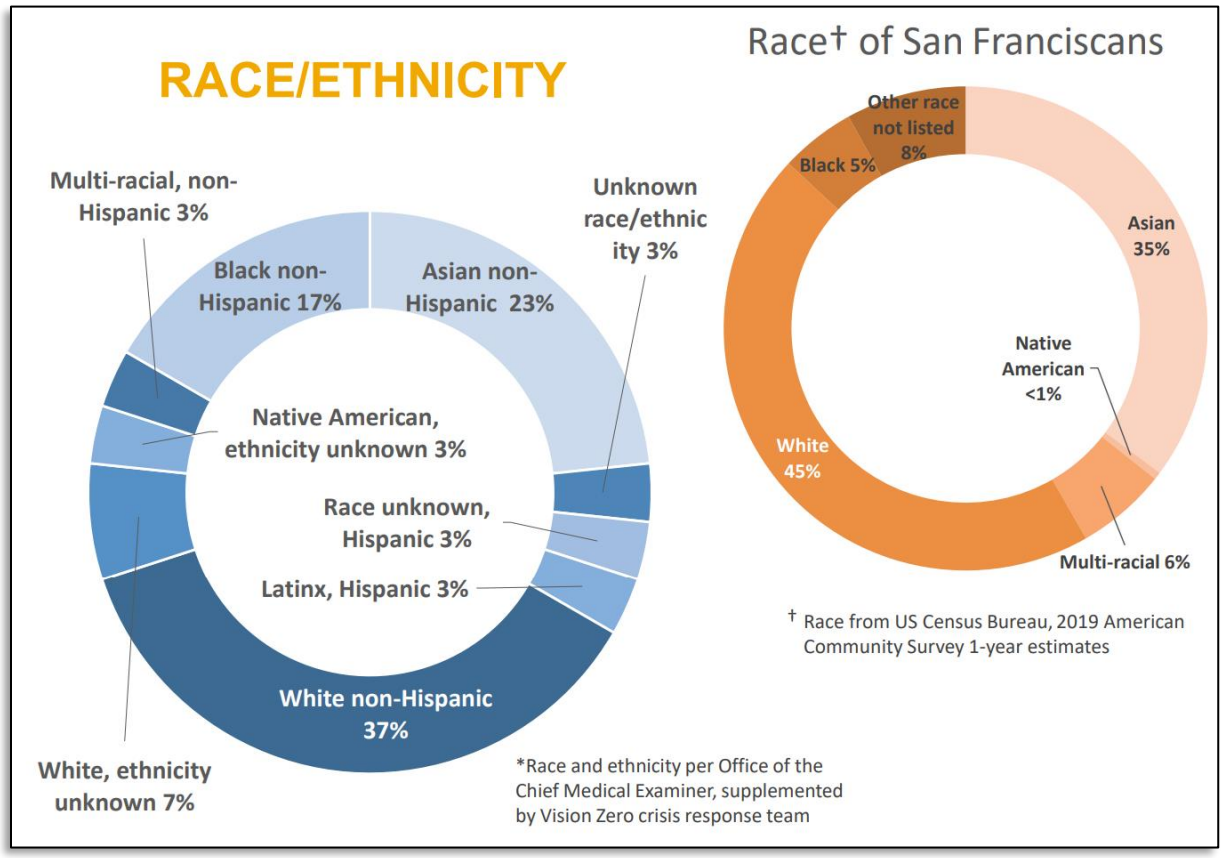

Figure 4 (above): Race of San Francisco Traffic Fatalities in Comparison to Population[38]

Through this analysis, I make the argument that traffic safety and San Francisco's racial distributions are not unrelated. My findings in this analysis support the data published by the San Francisco Department of Health in the *Vision Zero SF: 2020 Fatality* report that found Native American and Black residents were overrepresented in fatality data relative to their population in the San Francisco (see figure 4 above.)

[38] San Francisco Department of Public Health. "Vision Zero SF: 2020 Traffic Fatality." Population Health Division. San Francisco County Transportation Authority: Population Health Division, San Francisco Department of Public Health, April 27, 2021.

I acknowledge that a complexity of factors contribute to traffic safety and the frequency of traffic incidents that occur at a given census block group, as well as the limitations of my analysis due to the unavailability of demographic information specific to each incident. Additionally, when analyzing the high concentration of serious injuries and fatalities that are concentrated in San Francisco's urban core, it is important to recognize that the proximities of ethnic enclaves to the city center, as well as commute travel patterns, play important roles in the racial character of neighborhoods near downtown and the volume of cyclists and pedestrians.[39] Traffic safety can be attributed to a multitude of factors, but for the purposes of this research project, I focus on transportation infrastructure because of its transformative abilities. The consensus among transportation professionals is that with adequate street design, many traffic accidents are preventable.[40] [41]

The disparity in investment in transportation infrastructure throughout San Francisco contributes to an inequity of traffic safety and public health for San Francisco's Equity Priority Communities. All people should have a right to move about their communities safely. This statement unfortunately does not reflect the reality for the communities of color throughout San Francisco whose neighborhoods are determined by systemic racism and inadequate street infrastructure. Regardless if the infrastructure improvements occur in neighborhoods within or outside of Equity Priority Communities, the racial traffic fatality data published by San Francisco

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[39] Alongside the issue of disproportionate traffic dangers that impact Equity Priority Communities, we can't ignore the separate yet interconnected equity implication of the high concentration of traffic incidents occurring in their neighborhoods.

[40] National Association of Transportation Officials. "Global Street Design Guide." Global Design Cities Initiative. GlobalDesigningCities.org: Island Press, 2016.

[41] National Complete Streets Coalition. "Dangerous By Design." Centers for Disease Control and Prevention. Smart Growth America: Nelson/Nygaard Consulting Associates, 2021.

and my spatial analysis support the urgency for safety improvements that consider the needs of the city's communities of color.

The need for increased racial considerations in traffic safety extends beyond San Francisco. At a national level, transportation researchers have studied and confirmed the disproportionate burden of traffic danger for lower-income minority populations:

> Although people of all ages, races, ethnicities, and income levels suffer the consequences of dangerous street design, some neighborhoods and groups of people bear a larger share of the burden than others, which may contribute to the indifference of many policymakers to this astonishing increase. From 2010-2019, Black people were struck and killed by drivers at an 82% higher rate than White, non-Hispanic Americans. For American Indian and Alaska Native people, that disparity climbs to 221%.[42]

The barrier to adopting sustainable transportation methods is especially prominent for people of color with research showing that Black cyclists are 30% more likely, and Hispanic cyclists 23% more likely to be involved in a fatal collision than white cyclists.[43]

As much as it is difficult to state causation between the traffic dangers that communities of color in San Francisco are exposed to and the lacking street infrastructure that characterize their neighborhoods, I find it just as crucial to include an acknowledgement of the importance that enforcement plays in the discussion of race and safety. With data depicting a society where cars are less likely to stop for Black pedestrians at crosswalks[44] and a system where helmet[45]

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[42] Smart Growth America. "Dangerous by Design 2021." Centers for Disease Control and Prevention, 2021.

[43] Sciortino, Stanley PhD, and Elyse Chiapello. "Pedestrian Injuries in San Francisco and the Bay Area 2001 through 2003: Rate Ratios by Ethnic Group." San Francisco Department of Public Health. City of San Francisco: Community Health Education Section, n.d.

[44] "Walking While Black: Racial Bias at the Crosswalk." Portland State University. Portland, OR: U.S. Department of Transportation National University Transportation Center, October 2017.

[45] Baruchman, Michelle. "Racial Disparities Prompt Calls to Repeal County's Bicycle Helmet Law." Seattle Times. February 24, 2021.

and jaywalking[46] laws are disproportionately enforced on people of color, safety is inarguably more than street design. Although this project's primary focus is on enabling change in street infrastructure within Equity Priority Communities, it is representative of the general theme of transportation disenfranchisement for people of color and its effect on the health and safety of Black and brown bodies.

When applying this relationship between the built environment and public health to communities of color in San Francisco, the disparities of infrastructure act as part of an explanation for the disproportionate levels of obesity that persist in Black and Hispanic communities.[47] [48] The prevalence of health effects recorded in Equity Priority Communities[49] also act as compelling reasoning for allocation of more public investment within the built environments. Now that I have established the foundation for how San Francisco's transportation network has and continues to exclude and disproportionately burden Equity Priority Communities, I look to the role of the transportation planner as a leverage point for advancing active transportation towards equity.

The evolution of the city streetscape is guided by transportation planners. Through informational outreach and public engagement, transportation planners act as a bridge between the community and city planning efforts, ensuring that projects reflect the needs of the residents

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[46] Mahdawi, Arwa. "The US's Jaywalking Laws Target People of Colour. They Should Be Abolished." June 17, 2020.

[47] Lovasi, Gina S., Malo A. Hutson, Monica Guerra, and Kathryn M. Neckerman. "Built Environments and Obesity in Disadvantages Populations," Epidemiologic Reviews 31, 31, no. 1 (July 9, 2009): 10.

[48] McDonald NC. Critical factors for active transportation to school among low-income and minority students. Evidence from the 2001 National Household Travel Survey, Am J Prev Med, 2008, vol. 34 4(pg. 341-344)

[49]Metropolitan Transportation Commission, and Association of Bay Area Governments. "Plan Bay Area 2050: Equity Analysis Report."

and the goals of the city. Community outreach and opportunities for public participation within the planning process provide residents with the ability to share their input, guiding projects to reflect their values and priorities. This interaction between the public and San Francisco's transportation planners highlights opportunities to promote equity in the city's transportation network and address the needs of Equity Priority Communities.

The many benefits of active transportation improvements are often only distributed to the communities that advocate for them. In the years 2001 to 2009, the fastest growth[50] of bicycle ridership in the United States was seen within Black, Asian American, and Hispanic population groups. Despite this statistic, active transportation advocacy is predominately voiced through white communities.[51] The lack of inclusivity in active transportation culture, specifically in cycling advocacy, results in a social landscape that lacks diverse collaboration. With advocacy groups acting as representatives of the community, this creates a system where surface-level community outreach efforts easily skim past the concerns of communities of color. It is the responsibility of transportation planners to adopt community outreach and engagement practices comprehensive enough to incorporate the inputs of Equity Priority Communities.

Community outreach is an area of planning that has the most tangible potential for the public to make a positive impact. Esteemed urban theorist, Jane Jacobs, once said, "Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody."[52] By taking into account the user experience of residents who live in the

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[50] The League of American Bicyclists. "The New Majority: Pedaling Towards Equity." Sierra Club. bikeleague.org: Bike League, n.d.

[51] Hoffmann, Melody L. *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*. University of Nebraska Press, 2016.

[52] Jacobs, Jane. *Life and Death of Great American Cities*. New York, NY: Vintage Books, 1993.

neighborhood, community outreach leverages public participation to design streets for the people that use them.

Despite the intentions of city planning agencies today to advance the field of transportation planning, there is still substantial room for improving planning practices and alleviating historical institutional harm. SFMTA has a long history of inadequately serving communities of color.[53] In addition to lacking infrastructure in their neighborhoods, Equity Priority Communities have a consistent history of transportation development targeting and scarring their neighborhoods. With the growing field of transportation equity rising in prominence within the past decade, acknowledging past harms at an intergenerational scale is essential for institutional change. It is imperative that planning efforts adopt policies that prioritize an equitable distribution of infrastructure and the inclusion of representative input.

Input from the community is facilitated by transportation planning through the agency's outreach and engagement practices. The adoption of community outreach protocols is a relatively recent addition to city planning practices in San Francisco; the city has a long and deep-seated history of transportation projects disproportionately impacting marginalized communities of color.[54] Due to a disparity of resources and exclusionary planning practices, current planning efforts result in a deficiency of diverse participation within active transportation developments. Lack of representation for Equity Priority Communities among outreach respondents renders communities voiceless in decisions that impact their lives and their neighborhoods. Inequitable allocation of street improvements heightens the disparities in street

[53] Hartman, Chester. *City for Sale: The Transformation of San Francisco*. University of California Press, 1984. P. 17.

[54] Mohl, Raymond A. "Stop the Road: Freeway Revolts in American Cities," Journal of Urban History 30, 30, no. 5 (July 1, 2004): 674–706.

infrastructure that already exist in San Francisco, perpetuating systemic inequities that stifle the voices of these communities. As advancements are made in the field of community outreach, it is pertinent that San Francisco's practices adequately recognize the existing relationship that Equity Priority Communities have with city government and transportation development.

For my capstone project, my research set out to weave together the history of transportation development, the impact of this development on Equity Priority Communities, and how this historical context informs community outreach policy for transportation planning. Through the aggregation of perspectives of practicing transportation planners in San Francisco, my project pursued an answer to the research question: *How can San Francisco effectively engage Equity Priority Communities in active transportation development through participatory planning?*

In order to provide a comprehensive assessment of the complexity of this topic, I establish the goals and significance of this research in relation to the history of transportation development in San Francisco in the History section of this capstone. I make connections between integral ideas and theories in the Literature Review section of this project to substantiate my current knowledge on the scholarly conversations within this discussion. By exploring the scholarly conversations surrounding active transportation equity and the evolution of community outreach, I explain how the relationship between these components help guide San Francisco in adopting future policy that enforces equity by encouraging diverse representation in public participation. Following this, I provide the methodology I implored for the data collection component of this research project, a detailed account of the participants involved, and the reasoning behind the selection of methods and participants. The Data section of this project synthesizes the findings from my research and provides an analysis on current policies in place.

Through my selected theoretical framework, I provide the intentionality supporting my approach to this research and analysis. Finally, I make policy recommendations for the city of San Francisco to reveal a path forward for advancing equity within San Francisco's transportation planning.

HISTORY

The history of transportation influences the current practices within transportation planning today, as exemplified in this quote by American civil rights lawyer, Deborah Archer:

> Transportation infrastructure and policy have had a profound role in creating and then normalizing patterns of racial segregation, exclusion, and economic isolation. And really, race frequently explains which communities receive the benefits of our entire transportation system, and which communities were forced to host the burdens leading to racial disparities and discrimination that were reinforced daily by other transportation policies. So, we had an infrastructure that was built in a way that discriminated against communities of color, primarily Black communities. And then we layered on other transportation policies and public transportation that have all just compounded that harm each and every day.[55]

We have established prior that San Francisco's transportation network is adapting and changing. Throughout the history of San Francisco, the rapidly growing population and changing demographics of the city has necessitated this adaption. San Francisco has a history of racially targeted transportation planning that has resulted in disproportionate negative impacts on the walkability and bikeability for the city's communities of color.[56] To understand San Francisco's

[55] Archer, Deborah. Letter to Jonathan Chang and Meghna Chakrabarti. "Addressing the Racial Inequities of the Interstate Highway System," June 22, 2021.

[56] Mohl, Robert A. "The Interstates and the Cities: The U.S. Department of Transportation and the Freeway Revolt, 1966–1973," The Journal of Policy History 20, 20, no. 2 (2008).

unique relationship between transportation planning and communities of color, I investigated the past sixty years of transportation development in the city. By analyzing this specified time frame, I provide a contextualization of San Francisco's progression of transportation equity and community outreach policy through historical case studies of transportation-related social movements.

Through a historical lens, institutional disenfranchisement has contributed to the formation of severe contention between active transportation development and San Francisco's most diverse communities, supporting my claim of connection between disparities in the built environment and lacking diversity in participatory planning. Studies have found a positive correlation between San Francisco's neighborhoods with a high concentration of people of color and lacking walking and biking infrastructure.[57] That being said, a multitude of factors contribute to both the distribution of people throughout the city and the built environment of their neighborhoods. As I leverage my research to pave a path forward for more equitable transportation planning through the mechanisms of participatory planning and community outreach, it is necessary that I acknowledge the complexities of San Francisco's past.

To better understand the relationship between residential settlement in San Francisco and active transportation development, this history section makes connections between housing market dynamics and social-cultural evolutions throughout the city. In his 2016 study, "Inclusively Walkable," Professor William Riggs finds a negative correlation between walkability and the concentration of San Francisco's Black population. Riggs writes, "Blacks tend to live in less walkable neighbourhoods… The models clearly indicate that, likely based on

[57] Sahu, Disha. "Biking Equity: The Unresolved Puzzle Piece in San Francisco's Biking Renaissance." University of Texas at Austin, 2019.

various moderating factors, when Blacks live in a neighbourhood that is predominantly Black, neighbourhood walkability declines even more."[58] In contrast to centrally located concentrations of minority populations in the city's dense urban core, Riggs' study supports the trend of the pocketed clustering of Black populations through relocation to neighborhoods designed predominately around car usage. "The less walkable and highly concentrated areas appear to have older individuals, with more cars and licensed individuals (perhaps because more driving is required) who live in single family homes and are increasingly Black."[59] Riggs makes the argument that increased costs of walkable urban neighborhoods have resulted in the migration of San Francisco's Black population out of the urban core and into sparser, more affordable, and less walkable neighborhoods.

The distribution of communities of color throughout San Francisco and the correlation between these communities and neighborhoods lacking pedestrian and bicycle infrastructure can be attributed to a multitude of factors. "Housing research suggests that walkability is not equitably allocated; price, sorting, discrimination, and individual preferences create barriers to walkable neighborhoods as a health resource."[60] As market trends influence the cost and livability of inner-city neighborhoods,[61] patterns of rising housing costs and gentrification influence the demography of urban settlement. It is entirely possible for communities of color to exist in walkable neighborhoods, but the market-determined push and pull factors may influence

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[58] Riggs, William. "Inclusively Walkable: Exploring the Equity of Walkable Housing in the San Francisco Bay Area," 21, no. 5 (2016): 534.

[59] Ibid, 535

[60] Riggs, William. "Inclusively Walkable: Exploring the Equity of Walkable Housing in the San Francisco Bay Area," The International Journal of Justice and Sustainability 21, 21, no. 5 (June 23, 2017): 538.

[61] Brahinsky, R., 2014. The death of the city? Reports of San Francisco's demise have been greatly exaggerated. Boom: A Journal of California, 4 (2), 43– 54.

minority populations to move to more suburban and less walkable neighborhoods in pursuit of lower-cost housing.[62] With a full acknowledgement of polylithic ethnic distributions, this project provides an analysis of how city planning and transportation development has played a role in the marginalization and the ultimate dissolution of historically significant and racially landmarked neighborhoods of color in San Francisco. Through the historical case studies of the Freeway Revolts and of San Francisco's Chinatown, I demonstrate the contention between transportation development and the city's communities of color.

Role of the Community: The Freeway Revolts

Following the enactment of the Federal Highway Act of 1956 under the Eisenhower administration, the United States began a nationwide transformation of its transportation system to expand its network of high-speed roadways, further increasing society's reliance on cars. For many cities, including San Francisco, this expansion of car infrastructure resulted in segmented neighborhoods and diminished conditions for walking and biking. At a coinciding time in San Francisco's history, the city's Black community was the focus of urban renewal. [63] [64] "After World War II, President Truman signed the 1949 Housing Act, which authorized the demolition and reconstruction of urban neighborhoods that were considered slums. This policy — "redevelopment" — specifically targeted neighborhoods that were low income and not-white."

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[62] Riggs, William. "Inclusively Walkable: Exploring the Equity of Walkable Housing in the San Francisco Bay Area," The International Journal of Justice and Sustainability 21, 21, no. 5 (June 23, 2017): 528.

[63] Taylor, Bianca. "How 'Urban Renewal' Decimated the Fillmore District, and Took Jazz With It." Bay Curious. June 25, 2020.

[64] Jackson, Christina and Nikki Jones. "Remember the Fillmore: The Lingering History of Urban Renewal in Black San Francisco." Black California Dreamin': The Crises of California's African American Communities (Santa Barbara, CA: UCSB Center for Black Studies Research), 2012, 57-73.

Figure 5 (Left): *Comprehensive Trafficways Plan.* Source: San Francisco Planning Department map circa 1948 depicting ten proposed freeways to crisscross the city[65]

During the second World War, the centrally located neighborhoods of the Western Addition and Hayes Valley were the sites of growing and prosperous Black populations. When ten freeways were proposed for construction throughout San Francisco during the 1950s,[66] it was clear that this development would have catastrophic impacts on the city's Black settlement. The proposed Central Freeway would have run directly through Hayes Valley, and the connection to the Golden Gate Bridge was planned to bisect the Western Addition.

Following the proposed expansions of the federal highway system, we begin to see the prominence of community organizing and its impact on transportation planning in the form of the Freeway Revolts in cities throughout the United States. "The Freeway Revolts formed alliances across lines of race and socioeconomic status. In D.C., wealthy white residents of Takoma Park and Georgetown allied with middle-class black and brown residents in Brookland. In Seattle, the Black Panthers aligned with the Sierra Club in opposition to highway widening

[65] "Comprehensive Trafficways Plan." San Francisco Department of City Planning, San Francisco, California. 1948

[66] Schwartz, Katrina. "What Would San Francisco Have Looked Like Without the 'Freeway Revolt'?" KQED, August 2, 2013.

proposals. In San Francisco, Latinx communities joined hands with white residents to protest the Central Freeway's devastation to homes and communities."[67]

Even though shared opposition to the construction of freeways was unifying across racial boundaries, different racial communities experienced varying levels of success in impacting transportation development and the construction of the nation's highway system. Despite protesting efforts of local residents in 1959, the construction of the portion of the Central Freeway that runs through the Hayes Valley community persevered. However, the construction of the proposed Panhandle freeway and the northwestern extension of the Central freeway that would have run through the Western Addition and the Haight was put to a halt,[68] presumably due to the presence of protesting white advocates, primarily residing in the Haight. The Central Freeway was detrimental to the Black community in Hayes Valley, segmenting the neighborhood, diminishing walkability, and encouraging blight and crime alongside and underneath the overpass.[69]

The Freeway Revolts were a pivotal moment in San Francisco's history of transportation planning. This was possibly the first time the public substantially influenced the city's plans for transportation development through community organizing. In addition to acting as a steppingstone for continued growth of public involvement in planning, the Freeway Revolts exemplified the disparity of representation and opportunity for San Francisco's communities of color. "Hayes Valley was considered marginal and had little voice in the freeway debates, but the

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[67] Garcia, Teju. "How 'Freeway Revolts' Helped Create the People's Environmental Law." Earthjustice. June 14, 2019.
[68] Estes, Griffin. "The Panhandle Freeway And The Revolt That Saved The Park ." Hoodline.Com, March 29, 2015.
[69] Ibid 58.

neighborhoods to the north, including Pacific Heights and the Marina District, were active in the revolts and objected to the northern extension of the Central Freeway. This meant that freeway traffic was delivered to the surface streets in Hayes Valley." Voices from the community were impacting transportation planning, but not all voices were listened to.

San Francisco revisited the reassessment of freeways and the role they play in the urban landscape in the 1990s. The Loma Prieta earthquake, which occurred in 1989, and the subsequent damage to freeway overpasses acted as a catalyst for local communities to advocate for the removal of freeways throughout the city. The grassroots efforts and organizing of residents resulted in the successful removal of the Embarcadero Freeway in 1992, with the reconnection of the waterfront neighborhood and improvement of pedestrian connectivity following this momentum. Similarly, through pressure placed on transportation planning agencies by community groups and merchant associations in Hayes Valley, portions of the Central Freeway were demolished. The caveat to this progress is by this point, the demographics of Hayes Valley had changed from a predominately Black neighborhood in the 1960s, to a predominately middle-class white neighborhood in the 1990s due to gentrification.

As San Francisco's housing and market trends shifted in favor of a wealthier population at the turn of the century, the city advanced its efforts in establishing its walking and biking infrastructure. Just one year after the signing of the Americans with Disabilities Act[70], the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 led to an increase in bike

[70] Cheng, Jonathan, and Annette Williams. "Advocacy Works! Recognizing the 30th Anniversary of the Americans with Disabilities Act." San Francisco Municipal Transportation Agency, July 24, 2020.

infrastructure investments in cities across the United States.[71] Through a cause-and-effect relationship, the development of San Francisco's network of bicycle routes resulted in a rise in bicycle ridership and commuters. "The San Francisco Bicycle Coalition claims that cycling is reaching "critical mass," with the power of example creating new converts, while increased volumes socialize motorists to tolerate cyclists, engendering still more cycling."[72] Through various grassroots advocacy efforts, such as the organized protest-bike rides known as Critical Mass,[73, 74] improvements in bicycle and pedestrian infrastructure now had a focused channel for directing and influencing planning efforts.

At the same time as the influx of walking and biking improvements throughout San Francisco, the city witnessed the rising prevalence of the tech industry and the associated impacts of an encroaching white-collar population. As neighborhoods received safety improvements and infrastructure developments that encourage sustainable modes of transport, the city also experienced rising housing costs, resulting in residents being pushed out of their communities.[75] Association between gentrification and active transportation grew as a result.

The innate "whiteness" of community involvement in active transportation planning and in more-recent community organizing successes mirror patterns of interaction between transportation development and varying community groups throughout the Freeway Revolts of

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[71] Pucher, John, Mark Seinen, and Ralph Buehler. "Bicycling Renaissance in North America? An Update and Re-Appraisal of Cycling Trends and Policies," Transportation Research Part A 33, 33, no. 7/8 (1999): 625–54.
[72] Ibid. 14.
[73] Blickstein, Susan, and Susan Hanson. "Critical Mass: Forging a Politics of Sustainable Mobility in the Information Age," Transportation 28, 28 (2001): 347.
[74] Ibid. 359.
[75] Stehlin, John. "Cycles of Investment: Bicycle Infrastructure, Gentrification, and the Restructuring of the San Francisco Bay Area," Environment and Planning 47, 47, no. A (July 16, 2013): 121–37.

the 1960s. Through these parallel case studies, I make the claim that white input is overrepresented in active transportation planning and as a reaction, communities of color and Equity Priority Communities are plagued with disproportionate burdens in transportation development. The history of transportation planning in San Francisco demonstrates a growth in the incorporation of public input, but this input has not been representative of the public.

San Francisco's Chinatown

I discussed the Freeway Revolts and the subsequent freeway removals in San Francisco's history to make the claim that Equity Priority Communities are often overlooked in transportation planning efforts. However, San Francisco's Chinatown, a significant historical and cultural hub for the Chinese community in the Bay Area, is an exemplary case of an Equity Priority Community successfully organizing and gaining decision-making power within transportation development. Through this case study, I demonstrate how a minority community has influenced transportation planning and why this is the exception to the norm.

The growth of San Francisco's Chinatown as we know it today was formed from an influx of Chinese immigrants who settled in the Northwestern region of the San Francisco Peninsula following the repeal of the 1943 Chinese Exclusion Act and the passage of the 1965 Immigration and Nationality Act. Chinatown's economic sovereignty and community resilience carries over into how the Chinatown community advocates for itself in transportation development. "Chinatown has been on the rise since 1977, when the Chinatown Community Development Center formed and began organizing community members to advocate in their best

property and transportation interests."[76] When analyzing how community interacts with transportation planning, Chinatown is a successful demonstration of how a neighborhood, unified by grassroots organizing, successfully advocates for development that best serves the community.

Following the Loma Prieta Earthquake in 1989, Chinatown residents fought and lost the battle for the rebuilding of the Embarcadero Freeway, which aided in connecting Chinese enclaves throughout the Bay Area. Since then, through self-governance and community organizing, Chinatown became a force within the city of San Francisco by establishing partnerships with city agencies. To combat divisive racist policy and planning efforts, prominent community organizing efforts advocated for transportation planning and transit service that would increase connection between Chinatown's residents to the rest of the city and to opportunities for economic mobility. In addition, to support the fight for a connected community, culturally unified advocacy groups, like the Chinatown Transportation Research Improvement Project (TRIP), advocated for transit lines that would connect Chinese enclaves throughout the city to the cultural hub of Chinatown. "Chinatown TRIP became one of a bevy of San Francisco advocacy groups—like the Asian Law Caucus, Chinese for Affirmative Action, and the Chinese Progressive Association—that sprung from the civil rights era, when the fight for Black equality stirred the hearts and charted the careers of Asian American advocates."[77] The interests of the Chinese people and merchants were voiced by an organized body, coming to fruition through

[76] Barrow, J. "The Central Subway Project: San Francisco's Railway to Nowhere?," UC Berkeley: Berkeley Graduate School of Journalism, July 9, 2012.

[77] Rodriguez, Joe Fitzgerald. "In 'Shang-Chi' a Muni Line Made Possible by Chinatown Community Advocacy." KQED. September 3, 2021.

projects ranging from increased transit routes, pedestrian improvements, the ongoing development of the Central Subway Extension and Chinatown's Rose Pak Station.

San Francisco's Chinatown is as a model of successful community organizing in transportation development. This model reveals a multitude of factors that contribute to the effective collaboration between city planning and an ethnic enclave within MTC's classification of Equity Priority Communities. In combination with impactful ways that residents were able to voice their input and share local insight in a manner that influences the outcome of a transportation project, this example also highlights effective ways that the city transportation officials were able to receive feedback from the community and incorporate the input into the plans of the project.

It is important to acknowledge the inevitable disparities of resources and abilities to organize between varying communities and neighborhoods throughout San Francisco. Also, Chinatown's success can greatly be attributed to the unified and singularity of race and culture within the community. The community organizing strategies that worked in Chinatown and safeguarded its people may not be feasible or as effective in some of San Francisco's more diverse neighborhoods. The strength of Chinatown's influence is supported by a large community with strong economic sovereignty. Other diverse communities in San Francisco, if organized purely by ethnicity or race, do not have as much power in numbers without a large predominate majority, such as Chinatown's Chinese community.

The strategies implored by San Francisco's Chinatown resulted in the incorporation of the community's best interests in transportation development. The successes of Chinatown's advocacy efforts are attributed to the unique qualities of San Francisco's Chinese community and is an exception to the norm. As not all ethnic communities have the resources to interact with

transportation planning efforts as successfully as Chinatown, I make the claim that it is the responsibility of city government to tailor their approach and develop engagement strategies that can best reach the fullest array of diversity as possible.

San Francisco Municipal Transportation Agency

After establishing the entanglement between San Francisco's transportation development and disproportionate impacts on communities of color, I will provide a brief history of the development of the San Francisco Municipal Transportation Agency (SFMTA). By analyzing how the agency has grown and adapted as the city has evolved, I make connections between the growth of San Francisco's active transportation network and the emergence and advancement of equity. Through an analysis of emerging community outreach policies within the agency, I detail the trajectory for increasing equity within transportation planning. Learning how SFMTA has grown throughout history is essential for identifying how the agency can continue to advance to increase equitable outcomes.

Prior to 1999, San Francisco's transportation network was managed by separate city agencies. As a result of a voter-approved mandate, the city consolidated its individual agencies into one governing body that would be "responsible for the management of all ground transportation in the city, including oversight of the Municipal Railway (Muni), as well as bicycling, paratransit, parking, traffic, walking, and taxis."[78] Through the aggregation of multiple departments influencing a variety of transportation processes throughout the city, SFMTA continues to develop policies that influence priorities within the growth of the city streetscape.

[78] San Francisco Municipal Transportation, Agency. "History of the SFMTA." SFMTA.com, n.d.

Throughout history, this has enabled SFMTA to uniformly advance policy and agency goals across all aspects of the city's transportation network.

As San Francisco grows and the city's transportation system adapts to the rising density, policies that establish, support, and reinforce sustainable modes of transportation increasingly influence the direction of transportation planning. SFMTA's Transit-First policy and Climate Action Plan seek to ensure that the growth of San Francisco is considered and guided towards sustainability in plans that impact the city's network. In response to larger national trend of prioritizing modes of transport beyond the use of single occupancy vehicles, San Francisco leads the way for an adaptive transportation system. With the goal to encourage an increase in walking and biking, the Active Transportation Program (ATP) was created in 2013 through the passing of Senate Bill 99. "The goals of the ATP include, but are not limited to, increasing the proportion of trips accomplished by walking and biking, increasing the safety and mobility of non-motorized users, advancing efforts of regional agencies to achieve greenhouse gas reduction goals, enhancing public health, and providing a broad spectrum of projects to benefit many types of users including disadvantaged communities."[79]

Public Outreach and Engagement Strategy (POETS)

As SFMTA produced policies that reinforced the values and goals of the city, the establishment and enforcement of these values required extensive communication and engagement with the public. In 2014, the SFMTA conducted a rigorous internal assessment of its public outreach and engagement practices. "This six-month assessment included an analysis of project management processes, a review of calls and letters from the public, surveys and focus

[79] California Transportation Commission. "Active Transportation Program." Catc.ca.Gov, 2022.

groups with stakeholders and staff, and interviews with project managers in other City departments. The assessment revealed that community members are often confused and frustrated by the public process, and that staff members often lacked the tools and training to work effectively with the public."[80] The goal of the assessment was to understand the strengths and weaknesses of the agency and to use that analysis to create a consistent approach to outreach and engagement across its divisions and staff. Based on its assessment, SMFTA launched its Public Outreach and Engagement Team Strategy (POETS) program.

The formation of SFMTA's POETS program took three years to develop and institutionalize. In 2015, SFMTA's POETS program received a grant from the Davenport Institute for Public Engagement and Civic Leadership to assist in building out the program. The public engagement model from the International Association of Public Participation ("IAP2"), "the preeminent international organization advancing the practice of public participation,"[81] was used as an architype for the formation of the SFMTA's POETS program. By utilizing the IAP2 training for staff and team members, the IAP2 model acted as an anchor for the POETS's program. In addition to providing training and resources to staff to uphold agency best practices in the field of public participation, "The purpose of POETS is to create a consistent approach to outreach and engagement across SFMTA projects, and to strengthen community relationships by promoting transparency and accountability in our work with stakeholders."[82] In 2017, the SFMTA was named organization of the year by IAP2 after establishing the core elements of POETS as: "(1) Requirements for outreach and engagement that every project is expected to

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[80] "Public Outreach and Engagement Report." San Francisco Municipal Transportation Agency. SFMTA.com: SFMTA, June 19, 2018.
[81] Ibid.
[82] Ibid.

meet, (2) Resources and training to support staff members who are responsible for working with the public, and (3) Relationships with our stakeholders to build trust in the community."[83]

In 2018, the POETS program launched newly updated requirements for all SFMTA projects. The new requirements consisted of four checkpoints: every project must have a Public Outreach and Engagement Plan, the project team must implement the plan, the execution of the plan must be documented, and a report must be submitted following implementation of the project. The purpose of requiring each project to have and submit a plan is to hold the agency accountable for the intended impacts of the project. The POETS plan places importance on the planning phase of a project as an opportunity to identify key stakeholders and partners, and coordinate with ongoing projects in the neighborhood. In addition, the POETS plan formalizes the purpose of the outreach by necessitating pre-established goals and messaging. Different communication messaging is required for project outreach intended on keeping the community informed about a project than the messaging needed for community engagement seeking input from the community to guide the planning of a project. The final intention of the POETS plan requirement is to formalize the process of developing an outreach budget for the projects.

The requirements for implementation-related outreach and engagement are focused on making sure that the intended plan for outreach is carried out. At a minimum, this includes engaging stakeholders early in the process, using multiple channels and techniques to ensure stakeholders are engaged, monitoring inclusivity and accessibility of notices and meetings. It is imperative that the planner keeps stakeholders informed during inactive phases of the project. Documenting the outreach and engagement plan creates for more accountability of executing the

[83] Ibid.

POETS guidelines. Project managers must document how the outreach and engagement is executed, the outcome of the execution, and how the community feedback is utilized in the project.

The reporting requirement of the POETS program is a survey to be filled out by the project team and submitted to the POETS webpage. The team manager reviews the report and passes it along to the division leadership. Often, a project's outreach plan may change course in response to feedback from the community, so if there were any changes to the plan during implementation, the project manager must record these changes and provide reasoning. The report includes a section that aims to continually improve outreach and engagement within the agency by asking, "What lessons did you learn that you'll carry over to the next phase of the project?". One critical element of the reporting requirement of the POETS plan is closing the feedback loop with the public. This involves keeping the public informed about the project as well as reporting back to the public on how their input was taken into account and shaped the final project. Through these established guidelines, the POETS program sought to reform the agency's outreach efforts and create a resource within the agency to advance practices.

Racial Equity Action Plan (REAP)

As we have discovered in the previous exploration of San Francisco's past, transportation operations do not always have equitable outcomes. Author and scholar, Chester Hartman, writes about how SFMTA's muni service was disproportionately funded to better serve San Francisco's predominately white communities.[84] This, among many other instances of racist practices,

[84] Hartman, Chester. *City for Sale: The Transformation of San Francisco*. University of California Press, 1984. P. 35

represent the past harm that the SFMTA has inflicted on the city's most marginalized communities. In response to this, in December 2020, SFMTA launched Phase 1 of its Racial Equity Action Plan. The implementation of the Racial Equity Action Plan was divided into two phases: Phase 1, which focuses on internal operations and racial equity within the workplace, and Phase 2, which will focus on external operations by outlining how the SFMTA will prioritize racial equity through agencywide service delivery. Appendix A of Phase 1 of SFMTA's Racial Equity Action Plan touches upon the agency's approach to enforcing equity in transportation planning practices. "The SFMTA's mission is to serve and support the needs of vulnerable population throughout the City and County of San Francisco… The SFMTA is working to make sure that all communities are served, particularly low-income and minority populations, and neighborhoods with the least access to services."[85] SFMTA supports this mission through the policies the agency adopts that supports the goal of transportation equity, such as the Muni Service Equity Strategy and Vision Zero, which aide in the equitable distribution of services.

Office of Race, Equity, & Inclusion (OREI) intended on launching Phase 2 of the Racial Equity Plan in 2021, but the implementation of the second phase of this program is experiencing delays. As of the time of writing this report, Phase 2 has yet to launch. The OREI team is said to be currently in the researching phase and the anticipated release of Phase 2 is expected towards the end of 2022 or early 2023.

[85] "SFMTA Racial Equity Action Plan." San Francisco Municipal Transportation Agency. SFMTA.com, 2020.

Historical Reckoning: How History Influences Future Practices

Transportation planning is currently going through a reckoning. With the emerging field of transportation equity and ongoing advancements of community outreach and engagement practices, planners are placing more importance on the incorporation of diverse and representative input from the public and the equitable distribution of infrastructure and resources. Through growth in planning practices and tools, transportation planning is striving to produce more equitable outcomes in the city streetscape and in its adjacent impacts on public health, safety, and social equity.

One effective tool for guiding development and an equitable allocation of active transportation safety improvements is the Vision Zero movement. "Using the San Francisco Department of Public Health's Visions Zero High Injury Network, a program to identify and eliminate traffic deaths, San Francisco Municipal Transportation Agency determines high traffic crash areas that could benefit from a Quick-Build project."[86] According to the San Francisco Vision Zero program, "A third of San Francisco's streets run through historically disadvantaged communities, yet streets in these neighborhoods are almost twice as likely to be on the high injury network… Native American and Black individuals were overrepresented in fatality data relative to San Francisco's population in 2019."[87] By focusing on the High Injury Network, the 12% of San Francisco's streets that comprise 70% of all serious injuries and fatalities, street infrastructure investments have an equitable method of distribution. Vision Zero provides a statistical lens to identify the severity of San Francisco's traffic danger crisis.

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[86] Ibid.
[87] "Equity: Social Equity Is at the Core of Vision Zero." Vision Zero SF, 2017.

With a similar intention of equitably allocating improvements, the Healthy Places Index is another emerging tool for evaluating projects. In response to the growing adaption of transportation plans throughout San Francisco and grounded in an acknowledgement of historical wrong doings, increased equity considerations and new metrics for measuring success are introduced into the daily operations of transportation planning. "Tools such as the Healthy Places Index (HPI), first introduced as a source for public health information in the 2019 ATP Cycle, also have utility as a way for communities to highlight a disadvantaged community that does not appear in more traditional sources such as census data. Additionally, crowd-sourcing platforms were added to the Safety question of the application, allowing applicants to demonstrate the safety need of a project area without using law enforcement data."[88] The Healthy Places Index, among other emerging metrics, represent a new approach to planning that greater emphasizes the impact on communities and overall livability.

History influences policy. Acknowledging the historical wrongdoings that transportation development has burdened Equity Priority Communities within the past is only the first step towards creating a more just transportation planning field. As the approach to transportation evolves, new measures of success and evaluation guide progress in this ever-changing field. Transportation Equity, Mobility Justice, and the subsequent policies and practices will not be feasible without a comprehensive understanding of the historical context of these developments.

[88] California Transportation Commission. "2021 Active Transportation Program: Engagement Summary." CA.gov, March 2021.

LITERATURE REVIEW

As demonstrated in the Introduction and History sections of this project, the complexity of how transportation planning interacts with communities of color is representative of the temporal-political context and the sociocultural norms present throughout the history of a city. Through the introduction of participatory planning techniques, the field of transportation planning in the United States began to evolve tremendously to incorporate the considerations of the community around the 1960s. Transportation planning in San Francisco lacked organized efforts explicitly aimed to advance equity until 2019, when Mayor London Breed signed racial equity legislation mandating the development of a city-wide racial equity framework and the creation of the Office of Racial Equity.[89] Although equity is increasingly integrated into transportation planning practices, it is critical that incremental infrastructure improvements are partnered with systemic change to address the existing inequity embedded within San Francisco's transportation network. This network inequity is a result of a system that has historically excluded communities of color.[90] Throughout this literature review, I explore the scholarly conversations surrounding this topic to better comprehend the intricacies that have resulted in San Francisco's mobility inequity.

In this literature review, I draw connections between three bodies of literature to highlight the existing arguments of scholars who have advanced the conversation of transportation equity. I first analyze the scholarly discussions within the field of active transportation planning to illuminate its entangled influences on public health, gentrification, and the sustainability

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[89] Breed, Mayor London N. "Racial Equity Action Plan." Office of the City Administrator. sf.gov: City and County of San Francisco, November 2021.

[90] Bullard, Robert D., Glenn S. Johnson, and Angel O. Torres. *Highway Robbery: Transportation Racism & New Routes to Equity*. Cambridge, Massachusetts: Sound End Press, 2004.

movement. In the following section, I take a deeper look at the conversations within the rising field of transportation equity, the varying definitions and applications of equity, and I provide a focused perspective by concentrating on the history of transportation development in the city of San Francisco. Finally, I look to the evolution of discourse pertaining to community outreach policies, specifically the increase of public participation, as a path forward for increasing representation in active transportation planning projects. These bodies of literature act as a foundation for understanding the historical, societal, cultural, and political forces that influence active transportation today. This comprehensive foundation knowledge will assist in addressing my research question: *How can San Francisco effectively engage Equity Priority Communities in active transportation development through participatory planning?*

PART I- Active Transportation: Path to sustainability or paving the way for gentrification?

In order to forge a path forward for increasing equity in active transportation, it is crucial to understand the contextual complexities in which the field of active transportation grew to popularity. The cultural affiliations and political nature of active transportation projects continue to shape the way cities implement walking and biking improvements. In this section of the literature review, I utilize the scholarly perspectives within the field of transportation planning to demonstrate the intricacies of active transportation development.

Scholars have studied the rise in population in urban areas and the effect of this growth on city transportation networks.[91] In addition to concerns related to carbon emissions and

[91] Yago, Glenn. "The Sociology of Transportation," Annual Review of Sociology 9, 9 (August 1983): 172.

inevitable scenarios of peak oil,[92] findings suggest that many urban transportation systems have reached the point of capacity that transportation planners must prioritize considerations outside of vehicle travel demand to accommodate the increasing density of settlement.[93] Through the dissection of the planning dilemma that seeks to move urban residents safely and efficiently throughout the city in opposition to societal preference for single-occupancy vehicles, I examined scholarly literature that investigated the development of this field within urban planning. In exploration of this planning dilemma, David Banister writes about designing city transportation networks to encourage sustainable modes of traffic, such as walking and biking.[94] Banister makes the argument that the concepts of derived demand and travel cost minimization need to adjust to accommodate the sustainability goals of a city. The discussions around designing a city's transportation network to encourage sustainable modes of travel, in lieu of transportation planning to accommodate current and forecasted traffic, reveal how the environmental movement is entrenched in active transportation projects; walking and biking is inherently political.

The linking of inner-city active transportation projects to the emergence of the environmental movement and sustainability sentiments of the urban population is critiqued by scholars as justifying the evasion of social justice principles in development. Lubitow and Miller critique the larger sustainability movement for not successfully integrating environmental justice issues, claiming causation between an increased importance of environmental concerns and the

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[92] Mercier, Jean. "Equity, Social Justice, and Sustainable Urban Transportation in the Twenty-First Century," Administrative Theory and Praxis 31, 31, no. 2 (December 7, 2014): 153.

[93] Balaker, Ted, and Sam Staley. *The Road More Traveled: Why the Congestion Crisis Matters More Than You Think, and What We Can Do About It*. New York: Rowman & Littlefield, 2006.

[94] Banister, David. "The Sustainable Mobility Paradigm," Transport Policy 15, 15, no. 2 (March 2008)

de-centering of people within sustainability projects.[95] Lubitow and Miller expand upon their critique towards the exclusionary intentions of active transportation, specifically highlighting the "post-political"[96] ease of implementing bike infrastructure projects as fuel for the disregard of race and inequality issues. Furthermore, they argue that by placing a stronger emphasis on the urgency of environmental concerns, the concerns of the community are not prioritized.

Through an analysis of identity politics, John Stehlin shares similar sentiments to Lubitow and Miller, but extends the critique of the exclusive quality of active transportation development in his book, *Cyclescapes of an Unequal City: Bicycle Infrastructure and Urban Development*.[97] In the first chapter, titled "The City and the Cyclescape," Stehlin elaborates on the exclusivity of different modes of commuting through the lens of race. In comparison to riding the bus, which Stehlin explains is extremely racialized for people of color, he makes a connection between the sustainability-fueled increase in bicycle ridership to the young-professional creative class and, frankly, the white demographic. Stehlin argues that "the image of the bicycle has shifted from a vehicle of last resort (signifying racialized urban poverty) to a symbol of choosing a cosmopolitan, less carbon-intensive life (making visible the return of the largely white middle class.)"[98] This shift is exemplified in the rising costs and popularity of electric-assisted bicycles.[99] Not only are the motivations behind cycling shifting from necessity

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[95] Lubitow, Amy, and Thaddeus R. Miller. "Contesting Sustainability: Bikes, Race, and Politics in Portlandia," Environmental Justice 6, 6, no. 4 (August 2013): 2.
[96] Ibid. 122.
[97] Stehlin, John. "Chapter 1: The City and the Cyclescape." Cyclescapes of the Unequal City: Bicycle Infrastructure and Urban Development, 2019.
[98] Ibid 9.
[99] Piatkowski, Daniel, Rachael Bronson, Wesley Marshall, and Kevin J. Krizek. 2015. "Measuring the Impacts of Bike-to-Work Day Events and Identifying Barriers to Increased Commuter Cycling." Journal of Urban Planning and Development 141 (4)

to choice, but the societal perception of the activity adopts trend-like desirability when intertwined with white culture.

Scholars challenge the perceived whiteness of bicycle culture and the implications this has for vulnerable communities. Melody Hoffman makes the same connection between the themes of sustainability and the racialization of bicycle culture in her book, *Bike Lanes Are White Lanes,* arguing that bicycle development's attachment to the environmental movement "contributes to [the environmental movement's] ability to build community, influence gentrifying urban planning, and obscure and reify systemic race and class barriers." [100] The inextricable segregation of culture and race that is structured within bicycle culture raises sensitive considerations for the implementation of bicycle infrastructure projects. Hoffman also discusses the paradox of bicycle development as an indicator of gentrification, critiquing cities that use bicycle projects as a way of making themselves "desirable to the creative class",[101] providing benefits to attract a new demographic rather than to serve the existing community.

The dichotomous nature of active transportation projects is contested by scholars in an attempt to distinguish intention from implication. Hoffman's theme of duality, concerning active transportation infrastructure serving as a universal public good while also serving as fuel for gentrification, is echoed by Lubitow and Miller in their case study of North Williams Traffic Safety Operations Project in Portland, Oregon.[102] Set in a historically Black neighborhood, the North Williams project is an excellent example of how environmentally fueled development can

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[100] Hoffman, Melody. *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*. United States: University of Nebraska Press, 2016: 36

[101] Ibid. 43.

[102] Lubitow, Amy, and Thaddeus R. Miller. "Contesting Sustainability: Bikes, Race, and Politics in Portlandia," Environmental Justice 6, 6, no. 4 (August 2013): 1–7.

conflict with the desires of the community. Lubitow and Miller write about how the Black community of North Williams fought against the development of traffic safety improvements in their neighborhood due to concerns of gentrification. "The apolitical framing around safety and access led to a genuine sense of surprise at the emergence of the controversy over how to develop the street… This history of exploitation and marginalization [of Portland's Black community] became a live political issue as black residents highlighted how the current attempt to recreate the street echoed earlier city dynamics that excluded African Americans from decision-making processes and sacrificed community interests for the sake of the city's vision."[103] This is just one example of how the ostensibly benevolent intentions of active transportation development, whether masked in sustainability or revitalization motivations, can carry with them deeply rooted racial and social justice implications.

Through an analysis of infrastructure distribution, scholars challenge active transportation investment through a needs-based analysis. Despite the overall perception of cycling culture as an extension of upper-middle class white society, "the fastest growth in bicycling is among the Hispanic, African American and Asian American populations."[104] A report from the National Household Travel Survey published by the League of American Bicyclists surveyed bicycle behavior from 2001 to 2009 and analyzed ridership growth based on race. The report found that the Hispanic population biked 50% more than years prior. The Asian population had an 80% increase in trips completed by bike and Black ridership increased by 100% during this period. Overall, Asian, Black, and Hispanic bicycle ridership rates grew from 16 to 23 % of all bike trips

[103] Ibid. 124-125.
[104] The League of American Bicyclists. "The New Majority: Pedaling Towards Equity." Sierra Club. bikeleague.org: Bike League, n.d.

in the U.S.[105] The report acknowledged that a large percentage of people of color who ride bicycles are not well-documented, referring to these cyclists as *the invisible cyclist. "*These *invisible* bicyclists, often without equipment like lights and helmets, ride out of economic necessity and come from immigrant or marginalized communities without access to safe bicycling education and disconnected from bike advocacy groups and resources."[106] Hoffman also speaks to the lack of representation for communities of color in bicycle advocacy, also referring to this demographic as "the invisible cyclist."[107] Through the lens of sustainable transportation mode-shift, scholars argue that this *invisible* demographic is an untapped market for active transportation investment.

Generations later, a history of exclusionary zoning and racist land use practices are the strongest-holding influence on the demographic distribution and racial segregation of cities.[108] These city planning decisions are still impacting the these communities of color generations later; Black and Hispanic cyclists are statistically more likely than white cyclists to die in a fatal collision[109, 110] and Black and Hispanic cyclists represent a disproportionate amount of bicycle fatalities.[111] A study that took place in the San Francisco Bay Area analyzed more than 7,000

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[105] Ibid. 3.
[106] Ibid. 8.
[107] Hoffman, Melody. *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*. United States: University of Nebraska Press, 2016.
[108] Massey, D.S., 2004. Segregation and stratification: a biosocial perspective. *Du Bois Review: Social Science Research on Race*, 1 (1), 8.
[109] Knoblauch, Richard, and Rita Seifurt. "The Pedestrian and Bicyclist Highway Safety ProblemAs It Relates to the Hispanic Population in the United States." United States Department of Transportation. The Media Network, Inc.: Center for Applied Research, December 30, 2004.
[110] National Highway Traffic Safety Administration. (2016). Fatality analysis reporting system (FARS). Retrieved from http://www.nhtsa.gov/FARS
[111] The League of American Bicyclists. "The New Majority: Pedaling Towards Equity." Sierra Club. bikeleague.org: Bike League, n.d.

bicycle collisions and determined through spatial autocorrelation that there was a significant negative correlation between bicycle infrastructure and communities of color, specifically in Black and Hispanic neighborhoods.[112] A similar study that took place in New York City analyzed pedestrian and bicycle collisions throughout the city and attributed the distribution pattern to a correlation between neighborhoods of color and lacking infrastructure.[113] Nicholas Ferenchack and Wesley Marshall write about the concept of "Mobility Justice,"[114] a concept grounded in in Title VI of the 1964 Civil Rights Act that advocates for an increase in representation of minorities in transportation planning as a method for mitigating the disproportionate impacts of transportation felt by these communities. In the book, *Transportation and Environmental Justice: History and Emerging Practice,* Karner et al. expands on the theme of Mobility Justice, writing that it focuses on establishing "equitable access to participation in the planning process; equitable exposure to localized environmental burdens; and equitable distribution of the benefits of transportation investments and systems."[115]

When discussing the benefits of active transportation, scholars acknowledge poor walking and biking infrastructure as a multi-dimensional public health concern. In addition to the traffic safety impacts we have discussed, due to its economical nature and ease of integration,

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[112] Barajas, Jesus M. "Not All Crashes Are Created Equal: Associations between the Built Environment and Disparities in Bicycle Collisions," The Journal of Transport and Land Use 11, 11, no. 1 (October 22, 2018): 872.

[113] Rebentisch, Hannah, Rania Wasfi, and Daniel P. Piatkowski. "Safe Streets for All? Analyzing Infrastructural Response to Pedestrian and Cyclist Crashes in New York City, 2009-2018," Journal of the Transportation Research Board 2673, 2673, no. 2 (February 15, 2019): 675.

[114] Ferenchak, Nicholas N., and Wesley E. Marshall. "Bicycle Facility Inequalities and the Causality Dilemma with Socioeconomic/Sociodemographic Change," Transportation Research Part D: Transport and Environment, 97. (August 2021).

[115] Karner, Alex, Aaron Golub, Karel Martens, and Glenn Robinson. *Transportation and Environmental Justice: History and Emerging Practice*. 1st ed. Routledge, 2017.

active transportation is an effective method of improving physical health and promoting community health equity.[116] Noreen McDonald writes of the benefits of integrating active transportation into communities through the context of the policy effort of the "Safe Routes to School" program that emerged in the United States in the 1990s.[117] This policy aimed to tackle rising obesity levels in children through street infrastructure improvements that supported a safer commute to school. This policy was also an effective equity tool for supporting low income families and communities of color: "Hispanics had the highest rate of active transportation (27.7%), followed by non-Hispanic blacks (15.5%), Asian and Pacific Islanders (13.4%), respondents reporting more than one race (12.2%), and whites (9.4%)...Students from families earning less than $30,000 walked more than twice as much as students from households earning more than $60,000 ($p<0.001$)."[118] In an article published in the Journal of the American Planning Association, Kristen Day speaks to the multidimensionality of active transportation's entanglement in public health and the associated equity implications.[119] By demonstrating the connection between disproportionate obesity levels and disproportionately lacking infrastructure that both exist in communities of color, Day makes the argument that active transportation planning should prioritize establishing infrastructure in these communities.

Through a review of the scholarly discussions that surround active transportation, I have

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[116] Wu, Yizheng, Dana Rowangould, Jonathan K. London, and Alex Karner. "Modeling Health Equity in Active Transportation Planning," Transportation Research Part D: Transport and Environment 67, 67 (2019): 530

[117] McDonald, Noreen C. PhD. "Critical Factors for Active Transportation to School among Low-Income and Minority Students: Evidence from the 2001 National Household Travel Survey." *American Journal of Preventive Medicine* 34, no. 4 (April, 2008): 341.

[118] Ibid 342.

[119] Day, Kristen. "Active Living and Social Justice: Planning for Physical Activity in Low-Income, Black, and Latino Communities," Journal of the American Planning Association 72, 72, no. 1 (November 26, 2007): 88–99. https://doi.org/10.1080/01944360608976726.

provided an analysis that illuminates the social and cultural complications attached to advancing this component of sustainable development. Blurred lines between intention and implication stifle communities and results in inequity embedded in the city streetscape. Through the synthesis of the provided scholarly perspectives, I make the argument that cities must place a stronger emphasis on equity in the planning process as they set out to further prioritize active transportation in future developments.

PART II- Transportation Equity: In the Center Lane

The field of transportation equity is rising in prevalence. In an attempt to mitigate the wrongdoings of the past, San Francisco, along with many major cities through the United States, have adopted equity-focused policies to guide planning efforts. Through an analysis of scholarly conversations surrounding transportation equity within San Francisco, I make connections in this section of the literature review between modern transportation development and the historical context of a place. Through a review of discourse, I demonstrate the importance of integrating the history of San Francisco in future transportation equity advancements.

San Francisco is a complex case study of transportation equity. Parallel to large-scale urban revitalization efforts to remove "blight" from inner-city neighborhoods of the 1960s, the city of San Francisco has a history of racially targeted transportation planning efforts that disproportionately impacted communities of color. Most notable are the efforts to construct highways that bisect San Francisco's historically Black neighborhoods.[120] Raymond Mohl writes about the freeway revolts that occurred throughout many American major cities and makes the

[120] Mohl, Raymond A. "Stop the Road: Freeway Revolts in American Cities," Journal of Urban History 30, 30, no. 5 (July 1, 2004): 674.

argument that the "freeway revolt shared many aspects of sixties countercultural and change-inducing activity."[121] Mohl solidifies this comparison by pointing out the increasingly prevalent rejection of top-down decision making and the growing political power of the Black community in San Francisco. The tension between transportation planning and communities of color, specifically with San Francisco's Black community, is a long-recurring conflict. The grassroots movement of the 1960s that advocated against the construction of a freeway through the center of San Francisco was a highly racialized protest, with signs that read "No More White Highways Through Black Bedrooms."[122] The events that occurred in the 1960s are an example of the continuing antagonistic relationship between transportation planning and San Francisco's Equity Priority Communities.

Race and transportation investment is discussed by scholars to be a contentious topic rooted in local history. In an article published in the International Journal of Justice and Sustainability, William Riggs touches upon the tensions between transportation planning and San Francisco's Black population through an evaluation of San Francisco's walkability. Through time series regression models, Riggs finds a spatial correlation between the city's Black population and less walkable areas, framing this inequity as a product of systemic oppression that influences the distribution of the Black population to areas of lacking infrastructure. "These factors are especially important for low-income and minority populations who have historically suffered from location-based discrimination and may not have the financial means to choose

[121] Ibid. 675.
[122] Ibid. 679.

more walkable neighborhoods."[123] The privilege of housing choice is undoubtably entrenched in equity; racial identity determines the walkability of the neighborhood that you are born into.

Transportation-focused racial tensions as a result of San Francisco's tech boom are widely-discussed by scholars. John Stehlin contributes to the discussion of the relationship between racial identity and neighborhood street infrastructure in the article "Cycles of Investment: Bicycle Infrastructure, Gentrification, and the Restructuring of the San Francisco Bay Area,"[124] by viewing active transportation infrastructure as an investment in the community as inherently tied to the evolution and sometimes, gentrification, of that community. While taking into account the historical demographic composition of different neighborhoods throughout San Francisco, Stehlin questions the motivating force behind transportation improvements seen in these neighborhoods. Through the analysis of the historically Hispanic neighborhood, San Francisco's Mission district, Stehlin structures his argument for the correlation between gentrification and bicycle transportation planning by making connections between the "greening" of cities and the bicycle-commuter persona, drawing parallels between the change in the city's demographics caused by the tech boom of the 1990s and the historical leveraging of bicycle infrastructure development as catalyst for gentrification. Stehlin's article raises the question of whether neighborhoods with historical significance for communities of color are only deserving of street infrastructure improvements once they have experienced gentrification.

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[123] Riggs, William. "Inclusively Walkable: Exploring the Equity of Walkable Housing in the San Francisco Bay Area," The International Journal of Justice and Sustainability 21, 21, no. 5 (June 23, 2017): 533.

[124] Stehlin, John. "Cycles of Investment: Bicycle Infrastructure, Gentrification, and the Restructuring of the San Francisco Bay Area," Environment and Planning 47, 47, no. A (July 16, 2013): 122.

Through the same acknowledgment of the disenfranchisement of communities of color in transportation development, scholars discuss the various approaches to and applications of equity. Shane Epting responds to the disproportionate impact of transportation on marginalized communities through an analysis of various interpretations and applications of equity within the field of transportation.[125] Epting analyzes the theme of distributive justice within the environmental justice frameworks modeled by Figueroa[126], making the argument that distributive justice could be an effective model for redistributing power to marginalized communities within transportation planning by ensuring "planners and engineers working on particular projects are accountable to the public that they serve or served."[127]

Scholards, Richard Lee, Sener Ipek and Nathan Jones, acknowledge the existing transportation inequity discussed by Epting, Stehlin, Riggs, and Mohl and provide the discourse a path forward by detailing different approaches to applying equity.[128] Lee et al. emphasize two main categories of approaching equity: social equity and spatial equity, arguing that a wider approach to tackling inequities is more powerful than solely focusing on low income and minority communities. Unlike Epting, who holds strong to environmental justice frameworks that center social equity, Lee et al. make the argument for spatial equity over social equity, based on the concept that a city's transportation system is a network. By targeting the areas within the

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[125] Epting, Shane. "A Different Trolley Problem: The Limits of Environmental Justice and the Promise of Complex Moral Assessments for Transportation Infrastructure," Science and Engineering Ethics 22, 22 (November 24, 2015): 1781.

[126] Figueroa, R. (2005). Bivalent environmental justice and the culture of poverty. *Rutgers University Journal of Law and Urban Policy*, *1*(1), 32.

[127] Epting, Shane. "A Different Trolley Problem: The Limits of Environmental Justice and the Promise of Complex Moral Assessments for Transportation Infrastructure," Science and Engineering Ethics 22, 22 (November 24, 2015): 1785.

[128] Lee, Richard J., Ipek N. Sener, and S. Nathan Jones. "Understanding the Role of Equity in Active Transportation Planning in the United States," Transport Review 37, 37, no. 2 (October 20, 2016): 211.

network that lack infrastructure and connectivity, Lee et al. believe that this is a more effective application of equity than an emphasis on community empowerment and social equity.

In contrast to the themes advocated by Lee et al., which focused on the quantitative distribution of goods and opportunity, Karner et al. share the opposite belief and advocate for a shift in focus from equity to justice.[129] Karner et al. discuss the concept of transportation justice, which sets out to transform social structures that dictate the decision-making process within the transportation field. "Transportation justice describes a normative condition in which no person or group is disadvantaged by a lack of access to the opportunities they need to lead a meaningful and dignified life. It involves transforming the structures and processes that lead to the inequitable distribution of transportation's multiple externalities (e.g., noise, pollution, visual intrusion, risk of bodily harm, and exposure to law enforcement, among others) across populations and space."[130] Karner et al. explain that the successful transportation justice is a result of increased public participation: "Also essential to this notion of transportation justice is that residents and other stakeholders should be able to actively participate in and influence the decisions that affect their lives."[131] The application of transportation justice utilizes the role of the transportation planner to facilitate public involvement to empower the communities that they serve.

Just as Karner et al. reinterpret the role of the transportation planner as an opportunity for increasing structural equity, Marc Brenman and Thomas Sanchez advocate for increased

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[129] Karner, Alex, Jonathan London, and Dana Rowangould. "From Transportation Equity to Transportation Justice: Within, Through, and Beyond the State," Journal of Planning Literature 35, no. 4 (May 29, 2020): 459.
[130] Ibid. 440.
[131] Ibid. 441.

prioritization of diversity in city planning through the central idea that "diversity makes communities more cohesive."[132] Brenman and Sanchez write about how an integration of a variety of public participation applications create opportunity for attracting diverse input to inform the planning process. The role of the planner for Brenman and Sanchez is to facilitate the recruitment of diverse values throughout each operation of planning to foster a representative decision-making process.

Historical discussions within the scholarly literature reveal how deeply rooted transportation is in San Francisco's history of racial discrimination. As scholars strive to mitigate the adverse impacts that this discrimination has resulted in, the definition and application of equity is contested in the literature. As the field of transportation equity grows, a consensus around effective approaches grows to further integrate equity into planning practices.

PART III- Public Participation: Whose Streets? Our Streets!

The practice of public participation grounds city planning in a model of democracy. Often, the discourse of democracy in relation to the collaboration between citizens and public administration draws upon the theories of Jürgen Habermas. In Habermas' theory of deliberative democracy,[133] a central theme of a universal shared goal extends the presumption that participants are well-intentioned and accept that other participants are also well-intentioned. This theory, in practice, is tainted through democratic elitism[134] and distrust rooted in historical harm of marginalized communities. As scholars approach the application of participatory planning,

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[132] Brenman, Marc, and W. Thomas Sanchez. *Planning as If People Matter: Governing for Social Equity*. Center for Resource Economics: Island Press, 2012.
[133] Habermas, J. (1979). What is universal pragmatics?. In Communication and the evolution of society(T. McCarthy, Trans.; pp. 47). Boston: Beacon Press.
[134] Ibid. 176.

contextual considerations are necessary for an analysis that can apply to modern-day applications.

The role of the planner has changed significantly throughout the history of transportation planning. The concept of involving the public to take part in planning decisions was first introduced in the late 1960s. Sherry Arnstein's *A Ladder of Citizen Participation*[135] is considered as one of the grounding ideologies of community outreach and public participation models in planning. Informed by her previous work as a community advocate, Arstein revolutionized the urban planning field, which was autonomously exclusive and structured from the top-down at the time. Arnstein describes the public participation process through the metaphor of a ladder, with each rung of participation providing more citizen involvement and planning transparency. By acknowledging the public as stakeholders and utilizing the local knowledge of members of the community, Arnstein uses the ladder model as a call to action to redistribute power to create systemic change.

Throughout history, scholars have developed evolutions of Arnstein's *Ladder of Citizen Participation* that reflect the priorities and society of the time they were formed. In 1988, Desmond Connor's *A New Ladder of Citizen Participation*[136] expands on Arnstein's model by placing more emphasis on education. Connor writes about the consequences of insufficient information in the planning process, explaining the double-sided nature of this lack of information as a combination of misinformed city planning management and an uninformed public. Through increased planning efforts that optimize publicly available information, Connor

[135] Arnstein, R. Sherry. "A Ladder of Citizen Participation," Journal of the American Institute of Planners 35, 35, no. 4 (July 1969): 216.
[136] Connor, Desmond M. "A New Ladder of Citizen Participation," National Civic Review 77, 77, no. 3 (May 1988): 250.

argues that this approach contributes to decreased controversy surrounding project development. In 1997, Elizabeth Rocha published her expansion of the ladder model, *A Ladder of Empowerment*,[137] which places a stronger emphasis on community empowerment. Through the context of the Clinton Administration's Empowerment Zone Program, Rocha's model advances towards inclusion and increased diversity within urban planning. Through a motivation to address a history of marginalization of communities of color an argument is made to acknowledge the lack of equity when implementing community outreach. The evolution of the ladder model of participatory planning demonstrates the conceptual growth of the concept of equity.

The shift in planning practices to include the input of the community has created a shift in priorities. Barry Wellman published *Public Participation in Transportation Planning*[138] in 1977, just as many cities across the United States began mandating participatory planning practices. In contrast to classical planning practices, which utilize preset metrics to measure the success of projects, Wellman explains that introducing public input changes the criteria that assess the success of transportation developments to reflect the wants and needs of the residents, rather than the traditional engineering mechanisms of evaluation.

Through this reassessment of priorities and success, Collins and Ison provide a critique to Arnstein's model of participatory planning, asserting that while community input is important for guiding development, more direction is needed to ensure that the utilization of public participation is optimized for success. "While a significant contribution to opening up a

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[137] Rocha, Elizabeth M. "A Ladder of Empowerment," Journal of Planning Education and Research 17, 17, no. 1 (September 1, 1997): 34.

[138] Wellman, Barry. "Public Participation in Transportation Planning," Traffic Quarterly 31, 31, no. 4 (1977): 646.

discussion on the epistemologies of participation, and in particular the purpose of participation… we suggest that Arnstein's ladder, with its focus on power, is insufficient for making sense of participation at a conceptual or practice level."[139] Through a more contemporary lens, Collins and Ison argue that more consideration of larger initiative and city planning efforts need to be incorporated into planning models to better align with evolved metrics of success. In their article, "Dare we Jump off Arnstein's Ladder? Social Learning as a New Policy Paradigm", Collins and Ison explore the concept of social learning, which places emphasis on the collective advancement of thought and priorities within society, in contrast to traditional concepts of education that focus on individual learning. The theories of Collins and Ison advance an important acknowledgement of overarching goals within modern-day planning practices that determine how the success of planning efforts is measured.

By analyzing the history of the evolution of participatory planning and community outreach, my analysis reveals growth in transportation planning practices and policies, while also illuminating opportunities for improvement. The success of participatory planning efforts will need to be evaluated accordingly as city priorities shift and planning efforts adapt to accommodate this shift. Transportation planning practices will have to evolve as the growth of San Francisco necessitates advances in equity.

PART IV- Implications for the Future

Through an analysis of the growth of active transportation, the rising prevalence of equity-focused policy within transportation, and the evolving field of participatory planning and

[139] Collins, Kevin, and Raymond Ison. "Dare We Jump off Arnstein's Ladder? Social Learning as a New Policy Paradigm ," Proceedings of PATH (Participatory Approaches in Science & Technology) Conference, June 2006, 4–7.

community outreach, my literature review offers a better understanding of the necessary precautions and considerations that must be made in the redesign of San Francisco's street network. The common ground between these three themes is that they all still necessitate further growth and evolution through the incorporation of increased representation. Through the constant improvement of transportation planning practices enforced through policy, my capstone sets out to provide a path forward for the advancement of San Francisco's community outreach efforts.

The development of active transportation improvements is necessary for San Francisco's sustainability goals, but necessary precautions must be taken to effectively consider the city's historical contention with Equity Priority Communities. Walking and biking infrastructure will play an important role in fostering healthy and sustainable urban communities. The multitude of layers within establishing equitable walkability and bikeability for San Francisco requires acknowledgement of the history and the systems that resulted in the inequitable distribution of improvements in the first place. Despite the fact that communities of color will benefit the most from active transportation infrastructure development, historical disenfranchisement of minorities in tandem with a lack of diverse representation within public participation in planning contributes to an inequitable distribution of walking and biking investments throughout the city of San Francisco.

How San Francisco can effectively engage the city's diverse communities in community outreach is a question of regaining trust lost over generations of disenfranchisement. Throughout my research, the scholarly conversations lacked a redistributive solution to correct the systemic inequities within city transportation planning. While an acknowledgement of San Francisco's wrongdoings within historical transportation development is a necessary catalyst for change, a

path forward can only be forged through the utilization of effective planning tools. My literature review has directed focus towards community outreach and participatory planning as leverage for reinforcing equity within San Francisco's active transportation network. It is my intention to continue the scholarly discussion and evolution of the role of the planner in facilitating this change.

METHODS

To better understand the role of the planner in enacting change, my project set out to incorporate the voices of San Francisco's current acting transportation planners. In the quest to research the evolution of participatory planning models, gathering the perspectives of the enforcers of these models was vital to understanding what is working well in current transportation planning, as well as where there are the most opportunities for improvement. My goal for this project was to look at how San Francisco's transportation planning practices, specifically within public participation and community outreach, have changed over time and how they might continue to change to encourage an increase in diverse and representative community input. To best execute the extraction of perspective, information, and experience from San Francisco's transportation officials, I executed a mixed-methods approach, incorporating archival study, asynchronous interviews administered through an online survey, and semi-structured interviews conducted over video conferencing software.

To accompany the interview portions of my project's data collection, I conducted an archival study of outreach demographic of street infrastructure projects implemented throughout the city and a policy review SFMTA's community outreach and engagement policies. As detailed by scholars Anne Galletta and William Cross, archival study is the extraction of

information from archival materials that "include newspaper clippings, meeting minutes, maps, charts, tables, photographs, video footage, external studies, and other forms of documentation."[140] I gathered outreach participant demographic data from various active transportation projects implemented throughout the city from various SFMTA transportation officials. By comparing the varying demographic compositions of each project, I gained insight into the varying levels of participation in different neighborhoods throughout San Francisco. Alongside this analysis, I compiled archival information on current and past SFMTA policies that enforce equity and uphold standards for community outreach. This component of research was essential for understanding the institutional guidelines that dictate current practices. By examining how policies have evolved overtime, my research reveals a shift in systemic values and extracts an overall trajectory for policy growth.

With the goal to identify potential growth in San Francisco's transportation planning, one of the greatest strengths of my project is the inclusion of the powerful perspectives I gathered through a combination of asynchronous interviews and semi-structured interviews. I prioritized semi-structured interviews to maximize the input I was able to receive through a stronger conversational approach. Asynchronous interviews, also referred to as email interviews,[141] allowed my project more flexibility within scheduling to gather a larger inventory of interview subjects. Asynchronous interviews were conducted through an online Google Form survey for the few participants who were unable to commit to a Zoom meeting due to scheduling conflicts.

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[140] Galletta, Anne, and William E. Cross. *Mastering the Semi-Structured Interview and Beyond: From Research Design to Analysis and Publication*. New York, NY: NYU Press, 2013. P.25

[141] Amri, Michelle, Christina Angelasklis, and Dilani Logan. "Utilizing Asynchronous Email interviews for Health Research: Overview of benefits and Drawbacks," BMC Research Notes 14, 14, no. 148 (2021): 1.

I made the decision to conduct interviews with pre-written guiding questions to provide structure and organization to my project's data collection.[142] Preparation of interview questions was not only an effective method of extracting data from asynchronous interview participants through an online survey, but also assisted my project in establishing continuity between the asynchronous interviews and the interviews conducted over Zoom. Galletta and Cross attribute to semi-structured interviews "great potential to attend to the complexity of your research topic. [Using semi-structured interviews] allows for the engagement of the participant with segments of the interview, each progressively more structured."[143]

The questions I formulated were predominately open-ended, to encourage asynchronous interview participants to elaborate on their responses, as well as provided the semi-structured interviews with a natural and structured flow to encourage conversation. This selected style of questions for the interviews provided space and flexibility for the interview subjects to expand upon their responses, allowing their experiences to take the front seat and guide the interview. These decisions were intentional to support the core goal of the research project: to understand what acting transportation officials saw as a path forward for increasing representation in public participatory efforts within San Francisco's active transportation development.

Figure 6: Research Subjects Table

Interview Participant	**Position**	**Interview Format**	**Date**
SFMTA Employee #1	Planner	Asynchronous (Online Survey)	2/11/22
SFMTA Employee #2	Planner	Asynchronous (Online Survey)	2/11/22
SFMTA Employee #3	Engineer	Asynchronous (Online Survey)	2/18/22
SFMTA Employee #4	Planner	Zoom meeting	2/22/22

[142] See Appendix A for a full list of the pre-written interview questions and protocol.

[143] Galletta, Anne, and William E. Cross. *Mastering the Semi-Structured Interview and Beyond: From Research Design to Analysis and Publication*. New York, NY: NYU Press, 2013. P.24.

SFMTA Employee #5	Planner	Zoom meeting	2/24/22
SFMTA Employee #6	Planner	Asynchronous (Online Survey)	2/24/22
SFMTA Employee #7	Planner	Zoom meeting	2/25/22
SFMTA Employee #8	Planner	Zoom meeting	2/28/22
SFMTA Employee #9	Public Relations Officer	Zoom meeting	2/28/22
SFMTA Employee #10	Planner/Engineer	Zoom meeting	3/3/22
SFMTA Employee #11	Planner	Zoom meeting	3/3/22
SFMTA Employee #12	Program Manager	Asynchronous (Online Survey)	3/5/22
SFMTA Employee #13	Planner	Zoom meeting	3/7/22
SFMTA Employee #14	Planner	Zoom meeting	3/8/22
SFMTA Employee #15	Planner	Zoom meeting	3/21/22
SFMTA Employee #16	OREI Team Member	Zoom meeting	3/23/22

Over the duration of my data collection process, I interviewed ten SFMTA transportation officials over zoom and conducted asynchronous interviews with five SFMTA transportation officials. All names were kept anonymous. (See Figure 6 for a breakdown of interview participants and their positions within the agency.) To provide relevance to my research topic, I only selected participants who practice community outreach and engagement within SFMTA's Streets Department, the section of the agency that focuses on street infrastructure projects. Through word of mouth and interagency research, I was able to identify SFMTA planners with interests in the agency's advancement of equity and experience working on transportation projects that required extra consideration for Equity Priority Communities. The questions covered each participant's current participatory planning practices, experiences working in transportation planning, experiences with the public, and ideas for improving the field of community outreach within active transportation planning.

The benefit of a mixed-methods approach to address my research question is the diversity of response formats I collected. My archival spatial analysis helped establish foundational knowledge of current conditions to inform my project. The asynchronous interviews gathered free response data as well as multiple-choice answers, and the semi-structured interviews

facilitated the inclusion of more personal accounts of day-to-day practices of San Francisco's transportation officials.

One limitation of my data collection was the restrictive selection criteria for research subjects. Transportation planning is an interaction between city officials and the public. For the purposes of this research project, which seeks guidance for future agency reform, only perspectives from SFMTA employees were gathered. For further exploration of how transportation can better incorporate diverse public input, future research efforts would benefit from the inclusion a wider array of perspectives that includes consultants, community-based organizations, active transportation advocacy organizations, and other involved stakeholders within participatory planning.

POSITIONALITY STATEMENT

The intention of my capstone project is to form policy recommendations for the City of San Francisco on how to increase diversity in public participation within active transportation projects. This project is grounded in addressing issues of representation and systemic inequities. Throughout the implementation of my project, it was crucial that extra consideration for how my own identity and perspective would play a role in this project's data collection and my analysis.

My interest in equity and community outreach first began while working as a community organizer for an active transportation advocacy nonprofit organization in Seattle, Washington. In this role, I worked closely with community groups and city transportation planners, acting as a bridge between the two. Following this role, I joined the SFTMA as a transportation planning intern, which provided me with experience from the perspective of a city employee. Through the combined experiences of an advocate communicating the needs of the community and a city

official managing community input, the lack of representation for communities of color in public participation has been a constant theme in the forefront of my work.

As a person of color who grew up in a historically underrepresented neighborhood, my passion for diverse representation in city planning practices fuels my capstone project research. To maintain the integrity of the research, I must concede that despite unavoidably relating my personal experiences to the communities that I am researching, I recognize that I am not a member of these communities. The possible shared experiences between my community identity and of the individuals that belong to the communities I address within my capstone has forced me to approach my research from a lens of increased empathy and consideration. Although I executed my project with consistent intentions to not project my own experience onto the communities within my research, my lived experiences admittedly influence the subjectivity of my data collection process and ultimately, of my project. By fully acknowledging how this perspective informs my interpretation of environmental justice frameworks in transportation planning, I declare the potential for bias within the conversations I contribute to this field of study.

It is my hope that with both the perspective of a city planner, as well as the perspective of a community organizer, I was able to approach the conversation of increasing representation in public participation from a multifaceted lens. I utilized my prior experience as a community organizer to effectively communicate the stories of communities that I discuss within this project. As a former employee of SFMTA, I leveraged connections within the city agency to gather transportation officials to participate in the interviews that informed my project.

When interviewing my former colleagues within the agency, it was important to recognize how my relationship with them could influence the responses I received. In order for

my intentions for the project to not tarnish the authenticity of their answers, it was important that I excluded my own experience as much as possible from the interview process. For instance, if I had approached interview subjects with a preconceived idea of the necessary improvements to increase equity, my project would not benefit from the authentic input of my interview subjects.

Although my various experiences and identity fuel my passion and interest in this research project have the capability of producing misguided findings, I practiced relentless due diligence throughout the data collection and analysis process so that these factors did not inhibit the gathering of reliable data and perspectives. I created an environment where interview subjects felt comfortable sharing their input through an approach to the research with the pure intention of learning more. Having approached the research with utmost integrity, I feel confident in the credibility my findings.

THEORETICAL FRAMEWORK

Due to the multifaceted sociocultural landscape that my project exists within, it was imperative that the data gathered through surveying and semi-structured interviews was interpreted through a clearly defined theoretical framework. With the intention of providing a path forward for more equitable and representative participatory planning practices for future operations in San Francisco's active transportation planning, my capstone adopted the ideals of Susan Fainstein's *The Just City*[144]. Fainstein's model of equity is grounded in the concept of redistribution. I gathered data on current best practices for inclusive planning and mechanisms of

[144] Fainstein, Susan. "The Just City," International Journal of Urban Sciences 18, 18, no. 1 (September 19, 2013): 1–18. https://doi.org/10.1080/12265934.2013.834643.

empowerment for underrepresented communities in hopes of leveraging this knowledge to enlighten opportunities to redistribute power within the decision-making process.

Through the central theme of enacting change, my analysis implored Fainstein's theory of urban justice, which instills that "planners, as agents of the state, have the capacity to work inside the system in order to reform it."[145] Fainstein's theoretical framework provides my project with a clear focus that emphasizes the potential for positive change within current city agency structures. For this research project, I approached the collection of perspectives and insight of San Francisco's current acting transportation planners through this framework.

DATA ANALYSIS

In the previous sections of this research project, I demonstrate through scholarly discourse and historical analysis that there is tremendous opportunity for improving how active transportation planning interacts with diverse neighborhoods and Equity Priority Communities. By forming an in-depth understanding of the role of the transportation planner in facilitating community involvement in the evolution of San Francisco's transportation network, my project identifies potential ways to improve representation in public participation as a means of fostering increased equity in the growth of the city's active transportation infrastructure. The analysis I present aims to address two goals of my project; I begin by establishing the current practices within San Francisco's active transportation development to diagnose the shortfalls of engagement strategies, followed by the identification of tangible actions for advancing participatory planning practices. Through the amalgamation of the demographic data analyses of

[145] Bucknell, Alice. "Learning from Susan Fainstein: Do Planners Have a Responsibility to Fight for Social Equity?" Harvard.Edu, December 9, 2019.

twenty-one active transportation project's outreach results, combined with the synthesis of sixteen interviews with acting transportation officials at SFMTA, I set out to answer the following research question: *How can San Francisco effective engage Equity Priority Communities in active transportation development through participatory planning?*

Socially Distant Engagement: Transportation Outreach During the COVID-19 Pandemic

I asked my research question during a historically unique time. The COVID-19 pandemic has tremendously impacted the way we view transportation and how city government interacts with the public. The influence that the stay-at-home order has had on travel patterns throughout the San Francisco Bay Area, combined with health concern-induced impacts on public transportation services, has resulted in an increased emphasis on the importance of active transportation in city planning. This is exemplified in the expansions of San Francisco's Bicycle Network, Slow Streets, and Sustainable Operations in SFMTA's Transportation Recovery Plan.[146]

In addition to stimulating a change in how San Franciscans travel throughout the city, COVID-19 has sparked a pivotal reframing of the field of community outreach. With limitations placed on in-person events and communication strategies, I consistently received input from my interview subjects that share the viewpoint of the COVID-19 pandemic as a catalyst for improvement within the field of outreach and engagement. One of the SFMTA employees I interviewed said, "COVID has forced us to be more innovative in the way we do outreach in

[146] "Transportation Recovery Plan: Rebuilding Our Transportation System for a Resilient Recovery." San Francisco Municipal Transportation Agency. SFMTA.com: SFMTA, September 1, 2020.

more isolated settings, we also value outreach efforts more by investing more resources."[147] The pandemic as a creator of an environment that has necessitated adaption of outreach strategies within the agency was a core contextual reference point throughout the data collection process. As my research sought avenues for improving community outreach and engagement, participatory planning practices were undergoing a transformation caused by the pandemic. Another SFMTA employee spoke to this by saying, "With COVID, we've had to shift to virtual meetings-- which I think is an overall improvement in making public meetings accessible to those who typically wouldn't attend a 6 p.m. meeting in a school cafeteria."[148] Both of these anecdotal insights are instances of transportation professions embracing the pandemic and the associated adjustments to public engagement.

However transformative the effects of the pandemic were on their work within transportation planning, the transition to virtual engagement practices was not as fully embraced by all throughout the agency. While conducting my data collection, I observed varying sentiments around the equity implications of COVID-19 on community outreach. An SFMTA employee shared with me in an interview, "On the one hand, the virtual space allows for more community participation from those who were previously unable to attend in-person events, but it still feels like we are failing to reach particular groups of people, who often disproportionately are impacted by changes in traffic/transit."[149] The pandemic not only sparked a restructuring of outreach practices across the agency, but coincidentally raised concerns over current and new engagement practices and their impact on low-income and diverse populations, such as Equity Priority Communities. Another interviewee expressed, "I have concerns about who may be

[147] SFMTA Employee #1. Interview by Jordan Hoy. Asynchronous Interview. February 11, 2022
[148] SFMTA Employee #2. Interview by Jordan Hoy. Asynchronous Interview. February 11, 2022
[149] SFMTA Employee #3. Interview by Jordan Hoy. Asynchronous Interview. February 18, 2022

excluded from a process with a lack of computer or phone access to participate."[150] The growing prominence of virtual elements in outreach and engagement precedes the COVID-19 pandemic, but as virtual communications continue to increase in importance for SFMTA's outreach practices, transportation officials are concerned for how socially-distant engagement strategies may be even further excluding marginalized groups.

Although not the primary focus of my research, I believe an acknowledgement of the COVID-19 pandemic's role in the pivotal momentum within active transportation planning and community outreach is necessary to provide context to my data collection. At the time of this research, the pandemic continues to fluctuate in severity and outreach practices within transportation planning have fluctuated and adapted in reaction to this. COVID-19 has been a catalyst for the evolution of the field of community outreach, reinforcing the capability of transportation planning to make necessary changes and accommodations. My research depicts a system that necessitates change to advance the prioritization of equity. For the remainder of the data section, I make connections and identify parallels between my various interview subjects and the discussions I conducted with them about the advancement of outreach for the future of transportation planning.

Best Practices vs. Standard Practices

With the goal of identifying possible areas for advancing outreach in transportation planning, it was critical for me to establish a foundational knowledge of current standard practices for SFMTA's transportation officials that work with the community. Through my conversations with SFMTA employees, ranging from transportation planners, engineers,

[150] SFMTA Employee #4. Interview by Jordan Hoy. Zoom Interview. February 22, 2022

program managers, and public information officers, I was able to identify a consistent theme that influenced each transportation official's view on the agency's practices: The standard for outreach practices at the SFMTA is far from the agency's best practices. SFMTA's written standards for outreach practices[151] are open-ended and left to interpretation. The level of public participation and community engagement is not only highly dependent on the project, but also varies greatly with each employee.

My research project utilizes sixteen transportation officials employed at the SFMTA as primary sources. During the data collection process of this project, I asked each of the SFMTA interview subjects how community outreach has grown throughout their career. One interviewee said, "I feel like planning has a pretty template-approach to how we do outreach. You have your three meetings. You have your survey. There's not a lot of innovation in terms of the process."[152] This quotation sums up the sentiment I commonly received from interviewees concerning the presence of transportation planning practitioners that execute the *"*bare minimum" qualifications.

Section 31 of the California Environmental Protection Act[153] enforces the "bare minimum" required in transportation planning, requiring projects to provide the public opportunity to provide input and a twenty-day notice of public hearing items. There are instances throughout the agency of excellent outreach and engagement practices, but they are not representative of the majority of current planning practices. My interview subjects often told me a version of the following quote: "I've seen examples of great things staff did in certain projects,

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[151] San Francisco Municipal Transportation Agency. "Public Outreach Notification Standards: Public Outreach and Engagement Team Strategy (POETS)." SFMTA, July 2016.
[152] SFMTA Employee #10. Interview by Jordan Hoy. Zoom Interview. March 3, 2022
[153] California Environmental Quality Act Procedures and Feed. Statute, § 31. California Administrative Code (n.d.).

but they're regarded as an exemplary model and not necessarily commonplace practice."[154] Within SFMTA's Livable Streets department, my research subjects unanimously shared with me that the current standard practices at the SFMTA include project webpage updates, email and mail correspondence to project subscribers, and an online survey.

To shed light on the implications of community outreach "standard practices", I solicited data from twenty-one active transportation projects from selected transportation officials within SFMTA. First, I will provide a demographic analysis of the outreach data to assess the relationship between survey participant demographics and the representation of San Francisco's diverse communities. For this analysis, I use demographic data collected through the "standard practice" of email/mail/website correspondence and an online survey. Demographic information of survey respondents was collected through an optional set of demographic questions within the online survey. Following the demographic assessment of the public participation from "standard practices", I provide a review of outreach methods from additional projects conducted in Equity Priority Communities (Western Addition, Bayview, and Tenderloin) as a counter-analysis of exemplary practices within participatory planning.

[154] SFMTA Employee #3. Interview by Jordan Hoy. Asynchronous Interview. February 18, 2022

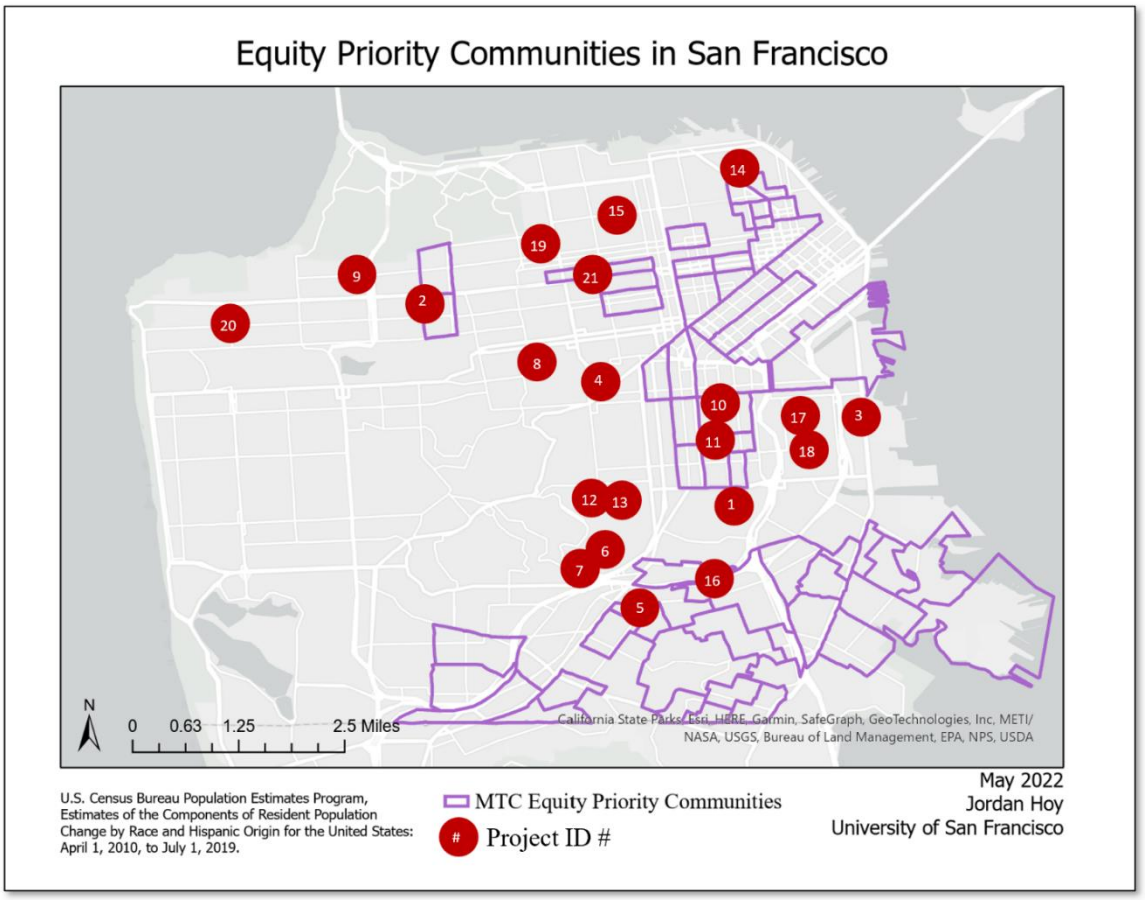


Figure 7 (above): Equity Priority Communities in San Francisco[155]

Indicated with red circles, Figure 7 displays the twenty-one projects used for the demographic analysis, placed in the relative location of the project sites with alphabetically assigned Project ID numbers determined by the neighborhood the project takes place in. Outlined in purple, this map displays the MTC identified Equity Priority Communities throughout San Francisco. For the purposes of this analysis, the projects selected for this analysis share a consistent method of demographic data collection. All twenty-one projects conducted their outreach periods throughout 2020, using the same online surveying website and the same

[155] Hoy, Jordan. Equity Priority Communities in San Francisco. 2021

template of demographic questions, both of which are widely used throughout SFMTA and considered “standard practice.”

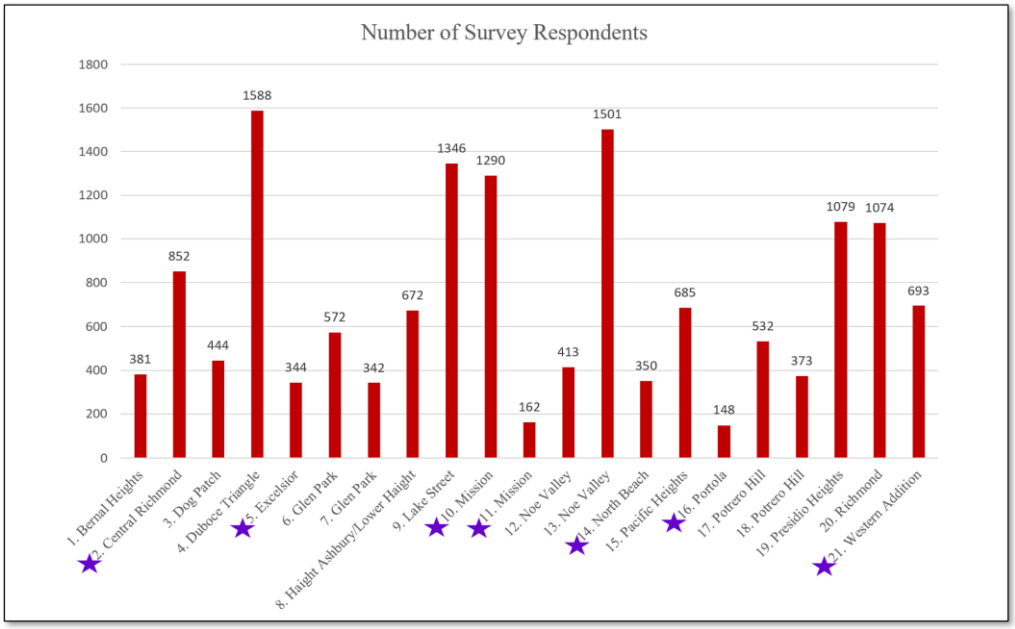


Figure 8 (above): Number of Survey Respondents[156]

Figure 8 displays the number of participants for each project’s outreach survey. For the purposes of our analysis, great effort was made to sample projects across the city, both in and outside of Equity Priority Communities. The number of survey respondents appears to be highly project specific. The level of public participation is determined by multiple factors such as where the project takes place, who is impacted, how political the project is, and so on. Projects within Equity Priority Communities, indicated with a purple star, display a tendency to lack participation.

[156] Hoy, Jordan. Number of Survey Respondents. 2021

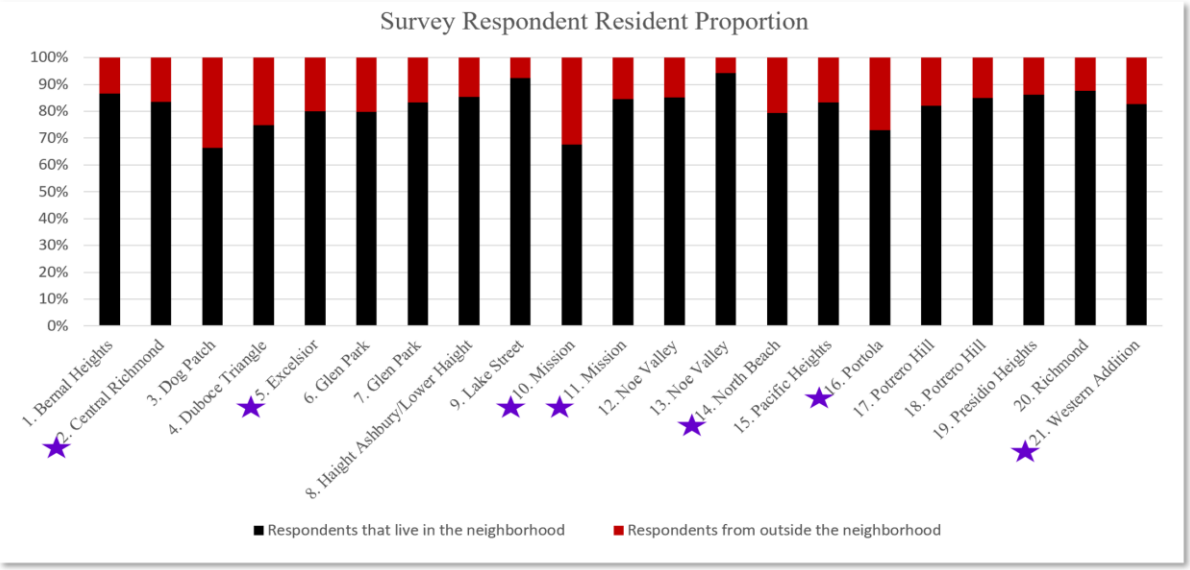


Figure 9 (above): Survey Respondent Resident Proportion[157]

Figure 9 shows the proportion of survey respondents that live in the project neighborhood and the respondents that are from outside the neighborhood. Projects located in Equity Priority Communities are identified with a purple star. For each project, the black proportion represents the survey respondents that identified themselves as residents of the neighborhood and the red proportion represents the participants not residing in the project's neighborhood.

Resident proportion is a commonly used data metric for measuring how representative the participation of outreach efforts is of the project neighborhood. I make the claim that this is a flawed metric for determining representation. Although survey respondents may be sufficiently comprised of residents from the neighborhood, it is important to recognize that this does not ensure a representative participation, racially or otherwise. For instance, a project's engagement can be comprised of one hundred percent residents of the neighborhood and still fail to represent the diversity of the community. For the remainder of the demographic analysis, I focus on the

[157] Hoy, Jordan. Survey Resident Proportion. 2021

racial diversity of participation to determine the level of representation among respondents.

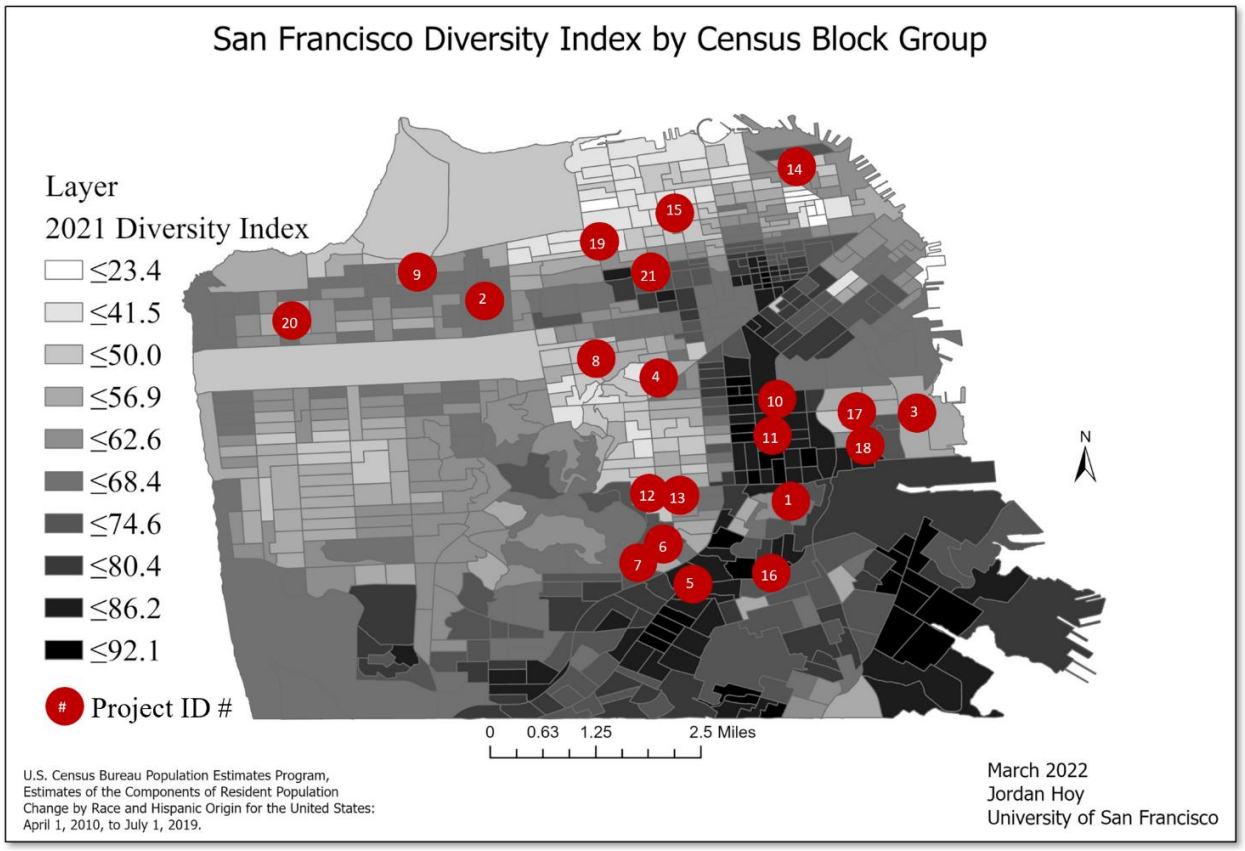


Figure 10 (above): San Francisco Diversity Index by Census Block Group[158]

The map above displays diversity throughout San Francisco and the relative location of the twenty-one active transportation projects used for this analysis. To display the variance in diversity in San Francisco's neighborhoods, the 2020 Diversity Index developed by the United States Census Bureau was used to symbolize each block group in grayscale. "This index shows the probability that two people chosen at random will be from different race and ethnic groups."[159] The diversity index of a neighborhood is an effective tool for planners for developing

[158] Hoy, Jordan. San Francisco Diversity Index by Census Block Group. 2021
[159] Jensen, Eric. "Measuring Racial and Ethnic Diversity for the 2020 Census." Census.Gov, August 4, 2021.

outreach strategies catered to the neighborhood. The twenty-one projects selected for this analysis take place in a wide selection of neighborhoods across the city with varying levels of diversity.

#	E.P.C	Project Neighborhood	Asian/ Pacific Islander	Black/ African American	Hispanic/ Latinx	Middle Eastern/ North African	Native American	White	Other
1	NO	Bernal Heights	12.40%	2.20%	7.90%	1.00%	1.60%	65.10%	17.50%
2	YES	Central Richmond	24.60%	1.40%	7.10%	1.30%	0.60%	58.00%	17.00%
3	NO	Dog Patch	16.90%	1.30%	6.00%	1.90%	1.60%	66.10%	14.80%
4	NO	Duboce Triangle	9.30%	2.30%	6.20%	1.90%	0.70%	69.80%	15.20%
5	YES	Excelsior	25.00%	2.20%	19.40%	0.70%	1.50%	47.00%	17.10%
6	NO	Glen Park	11.10%	1.00%	4.40%	0.00%	1.40%	65.50%	21.20%
7	NO	Glen Park	10.00%	1.80%	7.30%	0.90%	1.10%	66.30%	21.10%
8	NO	Haight /Lower Haight	10.40%	3.60%	7.20%	1.90%	0.80%	81.30%	3.80%
9	NO	Lake Street	16.20%	2.30%	7.00%	1.80%	1.30%	76.30%	4.50%
10	YES	Mission	15.00%	2.60%	10.70%	1.10%	0.90%	67.10%	13.80%
11	YES	Mission	10.90%	0.70%	7.50%	1.40%	0.00%	81.00%	4.10%
12	NO	Noe Valley	10.50%	2.00%	9.70%	1.70%	0.60%	66.70%	15.60%
13	NO	Noe Valley	10.20%	1.80%	8.50%	1.30%	0.30%	73.60%	11.60%
14	YES	North Beach	19.70%	1.90%	6.40%	1.50%	0.80%	60.20%	17.10%
15	NO	Pacific Heights	10.30%	1.90%	6.70%	1.50%	0.90%	64.00%	22.00%
16	YES	Portola	26.40%	4.70%	17.90%	0.00%	0.90%	43.40%	17.90%
17	NO	Potrero Hill	15.50%	0.30%	7.10%	1.90%	0.00%	66.30%	14.80%
18	NO	Potrero Hill	12.30%	0.70%	4.80%	2.30%	0.20%	66.00%	20.50%
19	NO	Presidio Heights	10.70%	1.60%	4.70%	1.30%	0.50%	69.70%	17.40%
20	NO	Richmond	28.70%	2.10%	6.20%	1.60%	1.20%	46.90%	23.40%
21	YES	Western Addition	13.60%	3.30%	8.10%	2.00%	2.90%	66.50%	15.10%

Figure 11 (above): Demographics of Outreach Participants

In the table above,[160] I have provided a breakdown of the racial demographics of the outreach participants for the twenty-one projects used for this analysis. By providing percentages of the racial identities of all survey respondents, this table provides an overview of the demographic composition of the results from the "standard practice" outreach efforts of the active transportation projects implemented by the SFMTA throughout various neighborhoods of the city. The project names and specific streets have been intentionally omitted to maintain the

[160] Hoy, Jordan. Demographics of Outreach Participants. 2021

anonymity of the SFMTA staff involved. Adjacent to the alphabetically assigned identification numbers, the second column from the left indicates if the project is located within the MTC's Equity Priority Communities ("E.P.C.").

#	E.P.C.	Project Neighborhood	Racial Distribution: Survey Compared to Neighborhood	Under-Represented Race	Over-Represented Race
1	NO	Bernal Heights	Somewhat Similar	Multiple	White
2	YES	Central Richmond	Similar	Asian Pacific Islander	White
3	NO	Dog Patch	Somewhat Similar	Asian Pacific Islander	White
4	NO	Duboce Triangle	Similar	N/A	White
5	YES	Excelsior	Somewhat Similar	Hispanic-Latinx	White
6	NO	Glen Park	Somewhat Similar	Hispanic-Latinx	White
7	NO	Glen Park	Somewhat Similar	Multiple	White
8	NO	Haight Ashbury/Lower Haight	Somewhat Similar	Multiple	White
9	NO	Lake Street	Somewhat Similar	Asian Pacific Islander	White
10	YES	Mission	Similar	Hispanic-Latinx	White
11	YES	Mission	Not Similar	Hispanic-Latinx	White
12	NO	Noe Valley	Somewhat Similar	Hispanic-Latinx	White
13	NO	Noe Valley	Similar	N/A	White
14	YES	North Beach	Similar	Asian Pacific Islander	White
15	NO	Pacific Heights	Similar	Asian Pacific Islander	White
16	YES	Portola	Not Similar	Multiple	White
17	NO	Potrero Hill	Somewhat Similar	Multiple	White
18	NO	Potrero Hill	Somewhat Similar	Asian Pacific Islander	White
19	NO	Presidio Heights	Similar	Multiple	White
20	NO	Richmond	Somewhat Similar	Asian Pacific Islander	White
21	YES	Western Addition	Not Similar	Black-African American	White

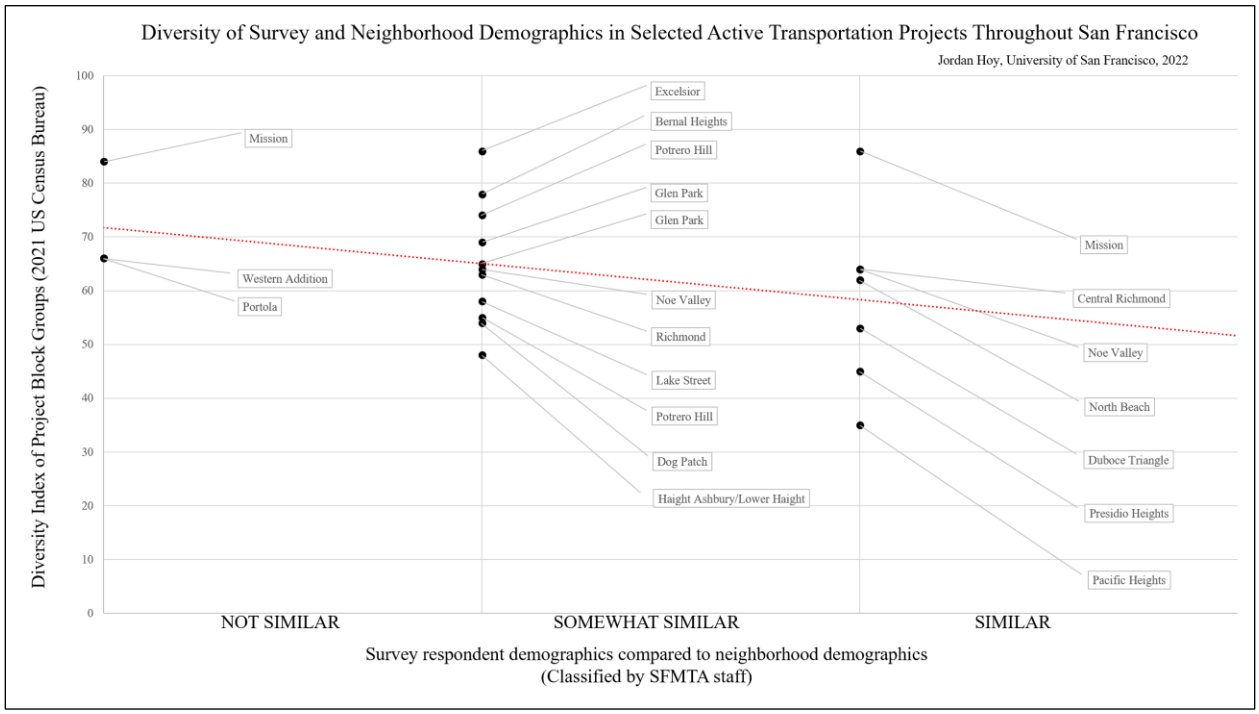
Figure 12 (above): Racial Over-Representation and Under-Representation in Outreach Respondents[161]

Figure 12 is a table that includes the summarization of the data conducted by SFMTA staff. Based on the neighborhood demographic data used in SFMTA's internal dashboard, the project team(s) identified under-represented and over-represented racial demographics for each project and categorized the racial representation of survey respondents into three classifications (Not Similar, Somewhat Similar, and Not Similar). Consistently for all twenty-one active transportation projects, SFMTA staff declared white survey respondents as the over-represented

[161] Hoy, Jordan. Racial Over-Representation and Under-Representation in Outreach Respondents. 2021

race in survey participation. This data confirms previous discussions in this project about the white exclusivity that permeates in active transportation and in participatory planning involvement.

Figure 12 (below): Diversity of Survey and Neighborhood Demographics in Selected Active Transportation Projects Throughout San Francisco[162]



$$\rho = 1 - \frac{6\sum d_i^2}{n(n^2-1)}$$

Coefficient (r_s):	-0.4
Number of samples:	21
T statistic:	1.922
Degrees of freedom:	19
p value:	0.035

Figure 13 (Left): Summary Statistics Table for Spearman's Rank Correlation. [163]

Using the representation classifications generated by SFMTA staff and the average Diversity Index of each project's block group(s), I tested for correlation between these two variables. Using Spearman's Rank Correlation Test, the statistical model found a significant negative correlation between the

[162] Hoy, Jordan. Diversity of Survey and Neighborhood Demographics in Selected Active Transportation Projects Throughout San Francisco

[163] Hoy, Jordan. Summary Statistics Table for Spearman's Rank Correlation

Diversity Index of the active transportation project block groups and the degree of representation present in the outreach participants. The data shows a trend of decreasing representation within survey participants with increased diversity of the project neighborhoods. This statistical analysis supports the claim that standard practice community outreach efforts within active transportation planning fail to engage diverse communities.

Best Practices

Now that I have established the claim that "standard practices" are not effective in engaging communities of color in transportation planning, I will provide my assessment of exemplary outreach and engagement practices. Prior to sharing the "best practices" identified in my research, I want to state my acknowledgement and understanding of the varying resources, approaches, and outreach goals that are dictated by the specifics and scope of the project. Long-range transportation planning, such as the development of community-based transportation plans, places more emphasis on community engagement than project-based outreach necessitates. Broader scoped projects regularly incorporate substantial local expertise to guide the development and funding of future projects, whereas project-based outreach is often limited to informing the public of upcoming developments.

Extra consideration for outreach and engagement is incorporated into the long-range planning often because there is funding to specifically do so. My interview with an SFMTA Transportation Planner, Christopher Kidd, illuminated the intricacies of planning San Francisco's first Bicycle Plan since 2009. When asked about the prioritization of community input in the development of the project, Kidd told me, "Part of it is about bringing these organizations in and building their capacity and giving them power within the process that we're building for the bike

plan. But part of it as well is, you know, in part, of course, very cynically, is that this scored well with Caltrans and their grant guidelines." This is an example of how external forces, such as Caltrans' grant qualifications, influence community outreach on larger projects, in this case, resulting in a more robust inclusion of community involvement.

With the acknowledgement of the spectrum of goals within the field of participatory planning, the following assessment of "best practices" intends on identifying effective engagement practices that may be implored in future transportation planning efforts to increase representation in public participation. Through the lens of Fainstein's theory of Urban Justice,[164] I reframe my assessment of "best practices" away from exceptions to the standard, and towards understanding them as potential tools that SFMTA employees may leverage to advance equity from within the agency.

Meet People Where They Are

> "How do we convince people that it's really important? I can tell you 60% of the survey respondents are white men making over $150,000. Do you want to make sure that your budget reflects your community? Because this is what you're up against. We need to figure out ways to motivate people to respond."[165]

A central theme arose from my conversations with acting transportation officials within the agency: *meeting people where they are*. There is a certain demographic that commonly attends participatory planning events, such as open houses and public hearings. They are affluent, have ample free time, and more than often, they are white. When transportation planning wants to incorporate underrepresented voices in their community input, city officials

[164] Fainstein, Susan. "The Just City," International Journal of Urban Sciences 18, 18, no. 1 (September 19, 2013): 1–18.
[165] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022

cannot expect residents in Equity Priority Communities to have the resources to go out of their way to participate.

I spoke with a transportation planner who conducted outreach in San Francisco's Excelsior neighborhood. When asked about effective strategies for increasing public participation, they shared with me, "Finding spaces people feel best in. Church is an important thing for many Excelsior residents, and so to be able to connect with churches, particularly those that are monolingual Spanish speaking- That was important for me. Understanding: not creating the space, but going to spaces that people already feel good in."[166] They also shared with me that they frequently adopt a similar approach to outreach by partnering with local schools. By understanding the existing community structures in the neighborhood, they were able to foster an environment in their outreach that residents felt comfortable and safe getting involved in.

Through a similar approach of infiltrating the community, another one of my interview subjects discussed community outreach they were involved with in the Bayview neighborhood that took place at a community garden. "We're lucky that we had a community farm on our corridor, which is a destination for people who are traveling there… [The community members] were also operating a food pantry, and so we were able to get some of our materials included in those packages."[167] This is an example of how the strategy of *meeting people where they are* often intentionally associates transportation planning with other social services in the community. By recognizing that the goal of transportation is to get people to where they need to go, utilizing local destinations is an effective strategy for targeting residents who will most impacted by the project.

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[166] SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022
[167] SFMTA Employee #4. Interview by Jordan Hoy. Zoom Interview. February 22, 2022

The concept of community structures and resources influencing outreach strategies was also present in the discussions I had with SFMTA employees who conduct outreach in San Francisco's Tenderloin neighborhood. During an interview with Eillie Anzilotti, a Public Relations Officer for Livable Streets, she shared with me how conducting community outreach for both the 6th Street Pedestrian Safety Project and the Safer Taylor Street Project in the Tenderloin is inseparably intertwined with social services: "There are a lot of low income, disadvantaged people. We're trying to structure outreach so it's very community focused and engaged. We're going to have a coffee and donuts event where we bring people by for resources bundled with communication about the project and ongoing construction with information about available social services…recognizing that it might not be a priority for people to learn about our project, when they are really more focused on other things."[168] Similarly, I spoke with another transportation planner about how the prevalence of Single Room Occupancy (SRO) housing and the high concentration of people experiencing homelessness in the Tenderloin influenced SFMTA's outreach efforts. "The spaces that tended to be best there were spaces where people would get their services… food pantries, SRO residence areas… Having a table in a meeting room in their SRO building was a better way to connect than just flyering… Understanding spaces where to meet people where they are."[169]

In an increasingly virtual society, *meeting people where they are* demands an expansion of communication methods. One planner was passionate about the expansion of SFMTA's use of virtual communication tools and their ability to reach underrepresented demographics. He shared with me, "In terms of innovative practices, it really is just about getting on more social media

[168] Eillie Anzilotti, Public Relations Officer for SFMTA's Livable Streets Department
[169] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022

platforms like NextDoor, or even TikTok, you know? We need to go to where the people are. It seems like for the younger generation, TikTok is where they're at. For the older generation, it seems to be NextDoor, right?"[170] Since this interview, the SFMTA launched a TikTok account. Another transportation planner I interviewed expanded upon the ability for social media to provide the opportunity for targeted outreach. When working on a project in the diverse Tenderloin neighborhood, they explained, "We learned that the Arab community uses WhatsApp. So, we worked with the community leaders to share these videos that we translated into Arabic and all the other languages on WhatsApp. The Chinese communities in the Tenderloin use WeChat. The Filipino community uses Facebook…"[171] Through hyper-targeted engagement, increasing digital communication methods through social media has allowed the SFMTA to *meet people where they are*, virtually.

While some praise the possibilities that expanded virtual communications brings to community outreach, many of my interview subjects critiqued online engagement for not being inclusive, with one saying, "Virtual outreach seams to reach specific communities and fails to reach others."[172] One transportation planner I interviewed shared a lesson they learned while working on a project in the Bayview neighborhood about social media use for conducting project outreach:

> "We put it out on social media that this event was happening: LinkedIn, Twitter, Facebook, all of the social media sites we could... I didn't realize until after it happened, but the turnout was just white dudes… I'm pretty sure the Bayview is

[170] SFMTA Employee #14. Interview by Jordan Hoy. Zoom Interview. March 8, 2022.
[171] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022.
[172] SFMTA Employee #3. Interview by Jordan Hoy. Asynchronous Interview. February 18, 2022.

> not a good proportion of this demographic…So I gave people a front row seat that didn't need that front row seat."[173]

Following this experience, the SFMTA employee adapted their approach to social media use for outreach on future projects to advance equity. They shared with me that for the outreach component of a project they worked on in the Tenderloin, extra consideration was taken to prevent an unrepresentative participation. They said, "I made sure that we didn't post it on Twitter until two weeks after we did some targeted outreach with community leaders. We wanted the Tenderloin neighborhood to tell the story first."[174]

Adrienne Heim, a transportation planner within SFMTA's Livable Streets Department, has a reputation within the agency for her exceptional outreach and engagement skills. Heim attributes a large portion of her successes in outreach to in-person engagement strategies. In our meeting together, Heim said, "You have to be out there and interact with people face to face. That's how you connect." In response to the virtual migration of community outreach, Heim shares her concern that this might not be an advancement in the field, but a step back. "I think there should be a requirement that [transportation planners] table at least two events per year. Minimum." This sentiment recognizes that transportation is extremely place-based; without in-person outreach, virtual engagement strategies have the capability of creating a disconnect between the project and the community that is impacted by the project.

Meeting people where they are is a concept that can be applied to the literal whereabouts of where city planning engages with the public, but also carries with it significant theoretical connotations for public participation. Through the lens of equity, which per Fainstein's

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[173] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022
[174] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022

definition[175], is redistributed, engaging with the public where they feel comfortable and through communication mediums that they have access to is an act of empowering the community. Power is redistributed in community outreach when engagement happens *in* the community.

Place-Based Expertise: The Role of Community Based Organizations

In the previous subsection, I discussed emerging communication tools and approaches to outreach that empower communities to share their input. One recurring aspect of projects that exemplify "best practices" within the field of active transportation planning is the incorporation of public participation through collaboration with community-based organizations ("CBOs"). Throughout the data collection process, one of my goals was to understand the benefits of integrating CBOs in outreach strategies, associated complications with establishing partnerships with CBOs, and how more projects can incorporate collaboration with CBOs.

Successful integration of CBOs in city community outreach efforts results in a more robust inclusion of the public and eased recruitment of participation. Due to their established role in the community, CBOs provide a benefit to outreach plans by facilitating communication and assisting in the coordination of outreach efforts. SFMTA collaborated with the organization "Mo'MAGIC" for the Western Addition Community Based Transportation Plan to coordinate an outreach event that facilitated community feedback during a backpack giveaway and health fair event.[176] For the Bayview Community Based Transportation Plan, SFMTA partnered with the organization "Girls 2000" to assist in targeted outreach to collect feedback from the

[175] Fainstein, Susan. "The Just City," International Journal of Urban Sciences 18, 18, no. 1
[176] "Community Outreach: What Did the Western Addition Community Say?" San Francisco Municipal Transportation Agency. SFMTA.com: SFMTA, 2017.

neighborhood's female youth.[177] The agency has maintained a long working relationship with the CBO "Code Tenderloin," which aids in ensuring that SFMTA's outreach efforts reach the gathering spaces for Tenderloin residents, such as SRO residence halls and food pantries.[178] Through these exceptional examples of how collaboration with CBOs can strengthen the outreach components of active transportation development, I was compelled to explore what may be preventing regular integration of CBO collaboration in transportation planning.

The largest logistical hurdle that prevents the further integration of CBOs in transportation outreach is the complicated process for compensating CBOs for their work. "As part of the project budget, a project team can decide to fund CBOs. I think the challenge is more finding the administrative steps to do it."[179] The allocation of city budget towards the work that CBOs contribute to participatory planning efforts exemplifies the redistributive nature of Dianne Fainstein's definition of equity.[180] There are three routes to securing funding for CBO integration: becoming a licensed city vendor, listing CBOs as sub-grantees, and subcontracting CBOs through a third-party consultant. I will discuss the equity implications of each method and provide professional reflections shared with me throughout my interviews regarding this.

In order for funds from a SFMTA project's budget to compensate CBOs for their work, the city requires that they be approved as city vendors. This process ensures a regulated contracting and competitive bidding process. One planner I spoke with summed up how the city approval process interacts with SFMTA's transportation officials, "Cities should partner more

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[177] "Bayview Hunters Point Neighborhood Transportation Plan." San Francisco County Transportation Authority. SFMTA.com: SFMTA, n.d.
[178] San Francisco Municipal Transportation Agency. "Tenderloin Traffic Safety Improvements Project," n.d.
[179] SFMTA Employee #12. Interview by Jordan Hoy. Asynchronous Interview. March 5, 2022.
[180] Fainstein, Susan. "The Just City," International Journal of Urban Sciences 18, 18, no. 1

closely with local organizations who have community connections and bring them in for outreach and compensate them. Why don't we all just do that? That sounds great. And then I'm like, oh, because city contracting processes are a nightmare!"[181]

A universal theme across the interviews is a shared confusion among SFMTA's transportation officials concerning the process of CBOs becoming approved vendors. "It's complicated becoming a city vendor… It's not something that I'm actually knowledgeable about."[182] says one transportation planner. Another transportation planner said, "[The city vendor approval process] doesn't really call on planners to really take it on because it's so confusing… that's another reason maybe we avoid it or people just are like, 'Oh, I didn't know you can do that…'"[183] Another transportation planner expressed concern over the accessibility of the approval process, saying, "Applying to be a vendor… that could take months, and maybe years, and they might not even have the resources to do it."[184] Whether it was a critique or a lack of knowledge about the process of becoming a city vendor, it was unanimously identified as a barrier to working with CBOs.

In reaction to the barrier caused by the city vending approval process, transportation officials at SFMTA have developed two commonly practiced workarounds for securing funding for their CBO partners. The first workaround is listing CBOs as sub-grantees. Christopher Kidd, who is using the subgrantee workaround to partner with CBOs on the development of the upcoming Bicycle Plan, shared with me, "What I've now begun to do is bring on community partners as sub-grantees within the grant application. That allows us to sole-source those

[181] SFMTA Employee #5. Interview by Jordan Hoy. Zoom Interview. February 24, 2022.
[182] SFMTA Employee #13. Interview by Jordan Hoy. Zoom Interview. March 7, 2022
[183] SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022
[184] SFMTA Employee #7. Interview by Jordan Hoy. Zoom Interview. February 25, 2022

organizations directly and contract them directly."[185] The caveat with this workaround is that it only applies to projects funded partly through grants, limiting the applicable projects.

The second, more widely practiced workaround is to fund CBOs through a third-party consultant. The process to subcontract a consultant is notably less difficult than the city vending approval process, so project managers often choose this route. Public Information Officer, Eillie Anzilotti, is working with the organization Code Tenderloin on the 6th Street Safety Project and the Safer Taylor Street Project. Anzilotti said, "Our team has a contract with a firm called David and Associates… and then Code Tenderloin is subcontracted under David and Associates. We basically pass budget through them to Code Tenderloin, and then Code Tenderloin does their work. They invoice David and Associates for it, and then that it comes back to us, but it's all paid out of our budget…. It's very complicated."

Through the theoretical framework of redistributing equity, the use of a consultant subcontractor as a workaround has questionable implications, with the third-party consultant acting as a middleman and taking part of the budget from the CBO and the city. The complications of becoming a city approved vendor has created for a convoluted process for securing funding for CBOs. With the original intent of strengthening community outreach and engagement efforts, I make the claim that barriers to securing funding for CBO partnerships prohibit the advancement of equity in transportation planning.

POETS: To Be or Not to Be

An assessment of best practices within SFMTA's participatory planning reveals original intentions of strengthening community outreach and engagement efforts. When the SFMTA first

[185] SFMTA Employee #15. Interview by Jordan Hoy. Zoom Interview. March 21, 2022

launched the Public Outreach and Engagement Team Strategy (POETS) in 2017, the program began by establishing three agency goals:

> "(1) Build trust and relationships by better managing public and stakeholder expectations. (2) Create a consistent model for public outreach and engagement that can be leveraged across all divisions. (3) Identify and deliver useful tools and resources to support public outreach and engagement."

In this section of the analysis, I implore a synthesis of the perspectives of sixteen active transportation officials at SFMTA to identify opportunities for improvement within SFMTA's policies and protocols that guide how transportation planning interacts with the public. Through an assessment of the failures and successes of the policy, I make the claim that a reformatting of the agency's regulatory influence is needed to increase representation in public participation and advance equity within transportation planning.

(1) Build trust and relationships by better managing public and stakeholder expectations

> "I feel like planners, we're always talking about what neighborhoods are lacking, right?... We use words like marginalized or disadvantaged… Understanding community also starts in what a community has to celebrate, what they have to offer, who they are… There's nothing in the poet's plan that actually has this conversation around having real conversations with community members about what their needs are. It's always about what we need to do."[186]

The theme of building trust between the public and SFMTA is commonly reoccurring in the discussion of advancing equity. When developing the Bayview Community Based Transportation Plan, transportation planner Christopher Kidd facilitated progress towards building a better relationship between the agency and the Bayview community. "Within the Bayview, there needed to be a reckoning of sorts and an acknowledgement of the impacts of

[186] SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022

structural and institutional racism within that community. And I think that it was important to not just acknowledge them, in a broad sense or historical sense, but to then acknowledge them within the context of our own agency."[187] An acknowledgement of the history of wrongdoings and the disproportionate impact that transportation has had on communities of color/Equity Priority Communities in San Francisco is just the first step towards mitigating the multi-generational impact and building trust.

Trust is built over time:

> "Whether it was coming out of communications or coming from the Planning Division, having a consistent point person for a community to feel like they can be heard, or at least that relationship can build over time. And then that's where there needs and issues can be identified…I would love to see a model like that…like more community planners, like more planners that are not assigned to projects, but more assigned to neighborhoods and building relationships…not just like reporting back to Jeff Tumlin…it's more like, you are there because your job is for trust building and you sincerely want to support the community... I feel like there's something missing, where we can really do better, more inclusive work with communities if we prioritize it."[188]

I spoke with a few interview subjects about the disappearance of the District Liaison position at SFMTA. Prior to the COVID-19 pandemic, there were designated planners and public relations officers assigned to specific districts and neighborhoods. The purpose of the District Liaison was to maintain communication with the public in that district/neighborhood, develop familiarity with the community, and build trust between the public and the SFMTA. "This was not this was not required. So, some people did very little, some people did a lot. So

[187] SFMTA Employee #15. Interview by Jordan Hoy. Zoom Interview. March 21, 2022
[188]SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022

unfortunately, it just wasn't an overseen program. It just didn't. People didn't prioritize it."[189] One of the components of the POETS program is to "build relationships with participants in advance."[190] Doing so maintains a better relationship with the community so the SFMTA isn't only interacting with the public when they need something from them. However, without the maintenance of programs like the District Liaison positions, current agency standards do not support this goal.

(2) Create a consistent model for public outreach and engagement

We have previously discussed current standard practices for community outreach at the SFMTA and how they are not conducive to producing representative public participation. Without a regulatory enforcement of the POETS guidelines, inconsistencies of engagement practices continue to persist from planner to planner. For instance, the POETS guidelines emphasize the creation of a follow-up plan to keep the public updated throughout all phases of the project, but acting transportation officials have told me, "Oftentimes, there's a lot of outreach and engagement at the beginning, and then it kind of fizzles. Even if the projects go on longer, especially for longer term projects, you really need to have like a kind of ongoing dialogue."

Another inconsistency throughout the agency is the method of evaluating public outreach and engagement. It was originally intended for all projects to develop a POETS plan to be submitted for review, but this is not an active protocol within the agency. Following the implementation of a project, the POETS guidelines suggest that project manager conducts an

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[189] SFMTA Employee #7. Interview by Jordan Hoy. Zoom Interview. February 25, 2022

[190] San Francisco Municipal Transportation. *SFMTA Public Outreach and Engagement Requirements 2019*. YouTube.com, n.d. Page 7

evaluation to reflect on how the intended outreach changed throughout the duration of the project and to identify any lessons learned that may inform future project. This process seems like it would result in improved best practices, but planners have shared with me in our interviews that reporting and completing a POETS plan is not dependably practiced and seldom, if ever, enforced.

One aspect of community engagement review that the POETS plan fails to incorporate is possible metrics of success. After interviewing sixteen acting transportation officials, I can confirm that there is not a standardized way of collecting and monitoring demographic information of participatory planning efforts. Due to the lack of requirement for reporting and evaluating, many planners do not collect data on the demographics of the residents they engage with. A transportation planner, who shall remain anonymous, told me, "I don't take tally of who shows up at a table, or who shows up at a Zoom meeting… I wish we had more time for Community Engagement evaluation."[191] With another planner commenting that "surveys cannot be the only way we measure… but I don't know how else we can measure someone's demographic background."[192]

(3) Identify and deliver useful tools and resources

The POETS program played an integral role in providing International Association of Public Participation (IAP2) training to SFMTA. When the program initially launched, it seemed to strive to be more of a resource than the policy was able to substantiate with the guidelines highlighting: "The POETS website features a wide range of educational and skill-building

[191] SFMTA Employee #14. Interview by Jordan Hoy. Zoom Interview. March 8, 2022
[192] SFMTA Employee #4. Interview by Jordan Hoy. Zoom Interview. February 22, 2022

resources available to staff, including training opportunities, on-demand webinars, an online library, and peer-to-peer support." The planners I interviewed for this research project did not mention these resources or indicate that people were utilizing them. Activation of these resources could lead to advancing best practices across the agency.

Advancements in SFMTA's outreach practices are often only made through internal advocating. Eillie Anzilotti, who has been a champion for expanding communication tools for the Livable Streets department, led the effort this year on procuring a Zoom account for the department to use for community meetings. Prior to this, SFMTA only had the enterprise licensing for Microsoft products, which many community members are unfamiliar with. Anzilotti said, "I have had positive feedback about the addition of the Zoom account. And just recently, we were able to use it to set up simultaneous translation for some outreach that [redacted] was doing in the Tenderloin." Another example of the need for internal advocating for improvements is how SFMTA was able to streamline the process for the translation of outreach communications. A transportation planner shared with me, "Every time we needed translation or interpretation services, you would need to open a new purchase order. So that in itself is a three-to-four-week or five-week process... [SFMTA] didn't have an in-house translator either. Or if we did, that's like, partially part of someone's job and they would only do it as a side part of their job. So that was also like very strange."[193] After months of advocating solutions for an expedited process, Livable Streets procured a bulk purchase order with an external translation company, Bilingva, eliminating the need for the purchase order process for each translation request.

These examples advancements in community outreach practices demonstrate the importance of SFMTA employees backing the expansion of the agency's toolkit. For a program

[193] SFMTA Employee #12. Interview by Jordan Hoy. Asynchronous Interview. March 5, 2022

that sets out to expand resources that aid in improving outreach and communication, SFMTA's POETS program fails to take action on initiating the advancement of communication tools.

Reactivating and Reframing the POETS Program

There is nothing innately wrong with the goals of the POETS program. The benevolent intentions of the policy outline best practices for outreach and engagement. The problems and failures stem from the structure of the policy that results in a lack of presence of the program. "There's no one that's coming for us or telling us to upload it. I'm not saying it should be regulated, or shouldn't it be. I feel like there's something to make it more of a process, as well as something that we take more seriously, but I don't know how to do that…"[194]

Sentiments among SFMTA's active transportation officials are conflicted over whether more stringent community engagement review would bring a benefit to their work, or act as a hindrance. When analyzed through the lens of Fainstein's urban theory of justice[195], which views the role of government employees as key components of reforming the system from within, a restructuring of community engagement review is an act of advancing equity. Rather than a regulatory hurdle, the program can be structured as a resource that stimulates collaboration within the agency. "I honestly would most likely upload something if our comms and public outreach division was going to help us make it better…imagine if the outreach or comms division had liaisons for these districts or communities… And so they know about your project, you know about them, and you're already working together with that liaison. And I feel like there's some power to that."[196]

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[194] SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022
[195] Fainstein, Susan. "The Just City," International Journal of Urban Sciences 18, 18, no. 1
[196] SFMTA Employee #8. Interview by Jordan Hoy. Zoom Interview. February 28, 2022

CONCLUSION AND RECOMMENDATIONS

In the previous section, I incorporated the voices of sixteen of SFMTA's transportation officials to extract the overarching themes throughout the various conversations in relation to improving equity in the agency's transportation planning outreach and engagement practices. I analyzed the consequences of standard practice transportation planning that meets the minimum qualifications. San Francisco's diverse communities are disproportionately excluded from the planning process that shapes the streets that they move about the city on. With the goal of contributing to the advancement of equity in transportation planning, I apply the perspectives of exemplary planners who participated in my study to form the policy recommendations in this concluding section.

The following are my recommendations for advancing effective engagement with San Francisco's diverse communities in participatory planning:

1. *Standardize demographic collection and analysis of community outreach across SFMTA*

The advancement of effective engagement strategies can only happen when there are metrics of success. One observation made through the process of soliciting demographic data from project managers across SFMTA's Livable Streets department is there is no consensus within the agency around how to collect demographic data throughout the participatory planning process. Through the standardization of the collection and analysis of outreach participant demographic, I believe that SFMTA will more effectively be able to monitor and advance their progress in receiving representative involvement on their projects.

Despite sharing the motivation to increase representation in their participatory planning practices, I have encountered some planners who seldom collect demographic data on outreach participants, many of which who are exceptional planners practicing and advancing best practices for the agency. Their focus is understandably on developing robust outreach and engagement strategies, assuming that this will result in the most equitable and representative results as possible. Unfortunately, my research has also found that some planners practice the bare minimum requirements for conducting outreach, resulting in the unrepresentative participation showcased in the data analysis. Therefore, for the advancement of agency standards, it is integral that data be consistently collected through a standardized method to aid in regulating and monitoring engagement.

2. *Streamline process to secure funding for Community Based Organizations*

Unanimous feedback received through my interviews indicates that partnerships with community-based organizations is an important aspect to conducting outreach, especially for projects that take place in Equity Priority Communities. The process for becoming a city vendor is a deterrent for community collaboration due to the complicated and time-consuming nature of the process. The city vendor application may not be accessible for all community organizations and some organizations may not have the resources or adequate technical literacy. Anecdotal data collected in my interviews also indicates that due to the complicated process of securing funding for these partnerships, some planners are deterred from incorporating this approach in their outreach.

I make the recommendation that a streamlined process for securing funding for CBOs, developed through internal review, in combination with increased resources to aide planners and

community groups through this process, will facilitate more collaboration between transportation planning efforts and community representatives and contribute to more equitable outcomes.

3. *Increase diversity within the agency*

> "We haven't always looked like or talked like the communities we serve. There is a structural class difference between planners/engineers at MTA and SF communities. By bridging this class difference with appropriate language and cultural awareness, using language that doesn't alienate the understanding of what we are doing, we can create closer connections with these communities."[197]

Phase 1 of the Office of Racial Equity and Belonging's Racial Equity Action Plan conducted an internal audit, which discovered that the management positions at the SFTMA are disproportionately held by white people. As SFMTA works towards developing advancements for the external practices of the agency, the internal hiring and promotion practices play an integral role. One planner said:

> "There's a tension point of agency and there's still a lot of growth we need to do. There's still a lot of management that still doesn't get it. I think that's been kind of the problem- promoting, hiring, and having planners stay… and then actually having them be in leadership… How do we do that more?"[198]

There is a common sentiment among members of communities that have a contentious history with SFMTA that the transportation planning efforts do not and will not reflect their needs or values. Creating a representative workforce will not only aid in

[197] SFMTA Employee #11. Interview by Jordan Hoy. Zoom Interview. March 3, 2022.
[198] SFMTA Employee #9. Interview by Jordan Hoy. Zoom Interview. February 28, 2022

building trust with the community, but also allow for perspectives within agency that are conducive to promoting equity.

4. *Adopt a community-focused planning model*

Related to the theme of creating closer connections and maintaining a relationship with the community, and in support of the trust building goals of the POETS plan, my final recommendation is for SFMTA to adopt more practices in support of community-focused planning models. The dissolution of the District Liaison positions is an example of SFMTA shifting away from prioritizing community. SFMTA has increasingly framed transportation planning strictly around projects, rather than the communities that the project will serve. Through Fainstein's urban justice model of reforming the system from inside out, increasing the agency's presence in the community builds trust and will assist in reflecting the goals and input of the community in transportation planning efforts. Reviving programs that improve the relationship between city planning efforts and the local residents, such as District Liasons, will aide in prioritizing the needs of the community in the agency's operations.

Concluding reflection

After reflecting on my interactions with the sixteen acting transportation officials at the SFMTA who participated in my research, I can confidently conclude that each and every one of them truly want equitable outcomes of their work. Through a synthesis of my research and data collection, I make the claim that agency structures and policy create for a process where participatory planning does not adequately incorporate representative voices of the community. To produce more equitable outcomes in active transportation community outreach, implements

beyond standard practices are needed to reach underrepresented groups in Equity Priority Communities and throughout all neighborhoods the city.

By definition, equity is redistributed. The growth in transportation development through the increased inclusion of participatory planning models helps shift planning towards increased prioritization of community input. Without necessary social, cultural, and historical considerations, engagement strategies do not adequately reach San Francisco's diverse communities. The evolution of San Francisco's streets requires community input that is reflective of the San Francisco's diversity. Transportation infrastructure is an aspect of the urban environment that impacts everyone. The inclusion of representative voices is needed to guide transportation development towards the path of equity.

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APPENDIX A: INTERVIEW PROTOCOL

Introduction:

Thank you for agreeing to participate in my research study. I appreciate your time and willingness to have a conversation with me about working in transportation.

I want to confirm with you that this is a good time to talk for about 45 minutes to an hour about your experience working for [SFMTA/insert transportation organization] and your involvement in participatory planning and community outreach.

Before we begin, I also want to make sure that it is okay for me to record this interview. Is that alright?

I would like to emphasize that when I share my results from this interview with others, it will only be a high-level summary of the results, or anonymous quotations, and I will not share your name or identify you.

Background:

I am doing a graduate-level research project that sets out to explore outreach practices in transportation planning as a method of increasing representation in public participation. I had the most amazing experience interning with SFMTA last Summer and I enjoyed the work so much that I continued my position up until last month. I am very passionate about transportation, and I am genuinely interested in learning more about the great work that you do to advance the infrastructure and improve safety throughout San Francisco.

You participation in this interview is completely optional and voluntary. At any point, you may choose to skip a question that you don't wish to answer. You may also choose to end the interview at any point.

I also want to let you know that due to a strong focus on equity within transportation planning, some of the interview questions may be sensitive in nature. My reasoning for asking you these questions is because I know your voice, knowledge, and experiences are extremely valuable. I want to make sure that I share your opinions and experiences accurately.

Do you have any questions for me before we begin?

Research Question:

How can San Francisco effectively engage communities of color in active transportation planning through community outreach?

1. Can you talk about what led you to your career within transportation and at the SFMTA?

a. What are some of your favorite things about your job? What are some of your least favorite?

2. Prior to your role at the SFMTA, did you take part in any participatory planning efforts? (Attend public hearings, project open houses, board meetings, community meetings, etc.)

3. SFMTA is making improvements towards establishing and enforcing equity in the MTA's practices. What does this mean to you and your daily work functions?

4. Can you talk about some of the projects you've been involved in that required extra considerations of equity-implications?
What neighborhoods do have you experienced this the most? How was this consideration managed?

5. In your experience, are the community members that take part in public participation and SFMTA's community outreach efforts representative of the neighborhoods that you're working in?

6. How has the Covid-19 pandemic impacted your day-to-day work functions?
Have you seen any impacts to community outreach and public participation practices? Representation?

7. Do you feel that active transportation projects are different to other transportation planning efforts? Are there any considerations unique to active transportation?

8. What do you see as a path forward in increasing diversity and representation in transportation planning?

9. Is there any additional information you'd like to share with me today?

Conclusion

Thank you so much for speaking with me today and for sacrificing some of your precious time. I deeply appreciate the discussion we were able to have. Your contributions to my research are invaluable. I am continuing to conduct interviews, and I would love to know if you know of anyone else who would be willing to have a conversation with me? I will gladly email you a

description of my project that you can pass along to others. Any leads or recommendations are greatly appreciated.

Once my capstone project is complete, I will reach back to see if you are interested in viewing the results of my research. I would love to share my findings with you.

Thank you, again, for your time. Enjoy the rest of your day!

Sample interview advertisement messaging:

Hello,

I am a graduate student in the Urban and Public Affairs program at the University of San Francisco and I am conducting a research study that explores community outreach as a method of increasing representation in public participation within active transportation planning.

I am actively pursuing transportation professionals willing to share their insight with me in an interview. I am reaching out to you because of your experience working in transportation. I admire the work you do day-in and day-out to advance the infrastructure and improve safety on streets throughout San Francisco.

Would you be willing and able to participate in a 30 minute to an hour interview for my research project? I would greatly appreciate it.

If you do not have the capacity at this moment, I am also conducting a surveying effort to collect data (available here: insert link). Additionally, if you know of anyone else who works within the field of transportation planning that would be willing to participate, I have attached a description of my project and contact information to this email that you can forward. Thank you very much!