# FILLING A GAP IN BICYCLE TRANSPORTATION PLANNING: ESSENTIAL RIDERS IN ATHENS-CLARKE COUNTY, GA

by

# ASHLEY CARMEN KUAN

(Under the Direction of Stephen Ramos)

#### ABSTRACT

Essential riders are individuals who rely on a bicycle as a primary, indispensable mode of transportation due to constraints on mobility. Legacies of uneven development and disproportionate wealth accumulation along race and class lines result in social, financial, or political barriers that restrict the mobility of essential riders. Responses to racially biased transportation planning practices call for equitable and meaningful participation from underrepresented communities. Equitable public participation necessitates local knowledge, or tacit information known to an individual through experience, as legitimate and valuable information in decision making processes. I collaborated with BikeAthens, a community bicycle organization, to listen to the experiences of essential riders in Athens-Clarke County, GA. While essential riders in Athens-Clarke County did not convey profound input for transportation planning purposes *per se*, their perceptions of navigating transportation networks made primarily for automobiles underscore the need to minimize negative impacts of transportation planning decisions on underrepresented communities.

INDEX WORDS: essential riders, transportation equity, local knowledge, BikeAthens

# FILLING A GAP IN BICYCLE TRANSPORTATION PLANNING: ESSENTIAL RIDERS IN ATHENS-CLARKE COUNTY, GA

by

# ASHLEY CARMEN KUAN B.S., UNC CHAPEL HILL, 2013

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment

of the Requirements for the Degree

MASTER OF ENVIRONMENTAL PLANNING AND DESIGN

ATHENS, GEORGIA

2019

© 2019

Ashley Carmen Kuan

All Rights Reserved

# FILLING A GAP IN BICYCLE TRANSPORTATION PLANNING: ESSENTIAL RIDERS IN ATHENS-CLARKE COUNTY, GA

by

# ASHLEY CARMEN KUAN

Major Professor: Committee: Stephen J. Ramos John F. "Jack" Crowley Jennifer L. Rice Elliott Caldwell

Electronic Version Approved:

Ron Walcott Interim Dean of the Graduate School The University of Georgia December 2019

# DEDICATION

"Just a small dot in a huge, incredible world trying to do big things."

- Anne Kimball Davis (1994-2016)

This thesis is dedicated to Anne Kimball Davis (1994-2016) whose heart for justice, enduring optimism, and dedication to helping others continue to inspire me in my pursuit for social justice. This thesis is also dedicated to Tall Tony and Reggie, both of whom I admire and respect for their persistence and their bravery in an unjust world.

#### ACKNOWLEDGEMENTS

Thank you to my advisor, Stephen Ramos, and my thesis committee members, Jack Crowley, Jennifer Rice, and Elliott Caldwell, for your guidance over the past year. I am especially thankful to Jason Perry, Scott Long, and Tyler Dewey, for your earnest support, collaboration, and friendship in the years leading up to and through my graduate school endeavors. Thank you to the 2017 MEPD cohort for the much-needed laughs and camaraderie when the going got tough. Finally, thank you to my family, Luis, Windy, and Casey, and my cat, Pickles, for your constant support, love, and encouragement in all stages of this process.

# TABLE OF CONTENTS

	Page
ACKNOW	/LEDGEMENTSv
LIST OF T	TABLESix
CHAPTER	R
1	INTRODUCTION
2	EQUITY, MOBILITY, & LOCAL KNOWLEDGE
	Chapter Introduction
	Transportation Equity & Mobility Justice
	Is Accessibility Enough?11
	Epistemic Justice Through Local Knowledge13
	Chapter Conclusion16
3	HOW TRANSPORTATION PLANNING FAILS TO CONSIDER ESSENTIAL
	RIDERS
	Chapter Introduction17
	Civil Rights in Transportation Planning Policy
	Public Participation in Transportation Planning
	The Demographics of Bicycling in the United States
	Confronting Racism in Bicycle Advocacy and Bicycle Planning
	Essential Riders, Not Invisible
	The Plights of Essential Riders: Policing & Education

	The Plights of Essential Riders: Infrastructure & Security
	The Value of Community Bicycle Organizations
	Chapter Conclusion
4	BIKEATHENS & BICYCLE PLANNING IN ATHENS-CLARKE COUNTY 41
	Chapter Introduction
	The Demographic Profile of Athens-Clarke County41
	Bicycle Transportation Planning in Athens-Clarke County
	BikeAthens, A Community Bicycle Organization51
	Chapter Conclusion
5	THEMES FROM INTERVIEWS WITH ESSENTIAL RIDERS
	Chapter Introduction55
	Research Methods
	Semi-structured Interview Procedure
	Results Summary
	Theme 1: Bicycles Provide Betterment of Lives
	Theme 2: Planning Needs Shine Through Experiences
	Reflexive Statement
	Limitations of the Study
	Chapter Conclusion70
6	DISCUSSION
	Chapter Introduction72
	Results Overview
	Chapter Conclusion77

7	CONCLUSION	79
BIBLIOG	RAPHY	84
APPENDICES		
А	Interview Flyer	93
	Interview Protocol	94

# LIST OF TABLES

Table 1: Race and Poverty Demographics of Athens-Clarke County, GA	42
Table 2: Means of Transportation to Work by Poverty Status in the Past 12 Months	44
Table 3: Rates of Daily Bicycle Commutes of Low-Income Individuals by Race	45
Table 4: Thematic Analysis Matrix of Essential Rider Interviews	67

#### **CHAPTER 1**

#### INTRODUCTION

On September 5, 2019, a gentleman by the name of Byron Lee Williams died at the hands of police in Las Vegas.<sup>1</sup> The reason for his arrest? Riding without bicycle lights. In a similar scenario six months prior in Los Angeles, a gentleman was placed in handcuffs at the University of Southern California and cited for... riding without bicycle lights.<sup>2</sup> While these instances may seem anecdotal, they are not random. Another similarity between the two incidents? Both men were black. Reports of racial profiling of bicyclists by police are ubiquitous, and investigations into police citations in Minneapolis, New York City, and Tampa reveal that cyclists of color are more likely to be stopped by police than white cyclists.<sup>3</sup> In the case of the two gentleman who were arrested for riding without bicycle lights, regulations that obligate the use of bicycle lights unfairly penalize individuals who may not be able to afford required equipment. Such impacts restrict the mobility of low-income individuals of color. As exemplified by the two aforementioned events, approaches to bicycle transportation policies need to incorporate

<sup>2</sup> Sahra Sulaiman, "Handcuffing of Cyclist by USC Public Safety Raises Questions about Tactics, Oversight, Accountability," *Streetsblog Los Angeles* (blog), March 1, 2019, https://la.streetsblog.org/2019/03/01/handcuffing-of-cyclist-by-usc-public-safety-raises-questions-about-tactics-oversight-accountability/.

<sup>3</sup> Melody L Hoffmann and Anneka Kmiecik, "Bicycle Citations and Related Arrests in Minneapolis 2009-2015" (Minneapolis: Minneapolis Bicycle Coalition, October 2016); Harry Levine and Loren Siegel, "Criminal Court Summonses in NYC" (Public event, April 24, 2014), http://marijuana-arrests.com/docs/Criminal-Court-Summonsesin-NYC--CUNY-Law-School-April-24-2014.pdf; Alexandra Zayas and Kameel Stanley, "How Riding Your Bike Can Land You in Trouble with the Cops — If You're Black," *Tampa Bay Times*, April 17, 2015, https://www.tampabay.com/news/publicsafety/how-riding-your-bike-can-land-you-in-trouble-with-the-cops---if-youre-black/2225966; Stefani Cox, "Could the Challenges of 'Biking While Black' Be Compromising Bike Share Outreach Efforts?," *Better Bike Share* (blog), November 8, 2016, http://betterbikeshare.org/2016/11/08/difficulties-biking-black-compromise-bike-share-outreach-efforts/.

<sup>1</sup> Ricardo Torres-Cortez, "Man Who Died in Metro Custody Repeatedly Said He Couldn't Breathe - Las Vegas Sun Newspaper," September 9, 2019, https://lasvegassun.com/news/2019/sep/09/man-died-metro-custody-repeatedly-couldnt-breathe/.

planning processes that can appropriately address policies and practices which disproportionately affect communities of color.

It is widely recognized that communities of color have endured a history of uneven government policy that was brought to public light during the environmental justice movement of the 1980s and was followed by the transportation justice movement of the 1990s.4 Both movements highlighted the ways in which adverse effects of planning and policy unjustly overburdened low-income and minority individuals. Communities of color continue to be repressed, ignored, or demolished by planning and politics at-large, but ongoing work to address transportation equity identifies ways to reform and redress discriminatory practices in transportation planning. The work to resist traditional forms of planning, funding, and implementation of transportation systems calls for better representation and inclusion of historically marginalized individuals, and it activates alternative modes of inquiry within communities to center social equity. Such approaches to transportation planning facilitate the redistribution of benefits and resources and reorients the planning practice towards equity.

One of the current movements towards integrating equity into the planning profession is rooted in efforts to acknowledge the wide-ranging histories and experiences of community members of whom the decisions of planners will ultimately impact. Challenges to the epistemological bounds of planning shifted the field from a top-down, technocratic profession that rationalized cities on the basis of economic development to one that engages with the multiplicative knowledge that is represented within communities.<sup>5</sup> The emphasis within planning to value the local knowledge of communities was articulated as a way to remediate issues of

<sup>&</sup>lt;sup>4</sup> Robert D. Bullard, Glenn S. Johnson, and Angel O. Torres, eds., *Highway Robbery: Transportation Racism & New Routes to Equity* (Cambridge, Mass: South End Press, 2004), 20.

<sup>&</sup>lt;sup>5</sup> Leonie Sandercock and Peter Lyssiotis, *Cosmopolis II: Mongrel Cities in the 21st Century* (London; New York: Continuum, 2003).

environmental health through community-based planning.<sup>6</sup> This epistemological turn away from a traditional mode of planning presents opportunities to disrupt racially oppressive practices of the profession, transform the discourse of public input, and empower marginalized persons for more equitable processes and outcomes.

Members of communities of color each have their own individual perspectives and experiences that are crucial to understanding mobility within an inequitable social and political landscape. With regards to transportation, transportation resources are crucial for access to employment opportunities which can then influence the socioeconomic mobility of the individual.<sup>7</sup> Access to affordable and reliable modes of transportation, such as bicycles, enhances the mobility of an individual and is a crucial component of achieving transportation equity. In instances where individuals are not able to operate a single-occupancy vehicle (SOV), afford an SOV, or obtain the legal documents to obtain or operate an SOV, alternative modes of transportation present indispensable options for mobility. Bicycles are an affordable, alternative option, provided that the user has the physical capacity to ride a bicycle.

According to the 2017 National Household Travel Survey, low-income individuals of color are more likely to ride a bicycle on a daily basis than any other identified race.<sup>8</sup> This trend is echoed in Athens, GA where, according to the 2017 American Community Survey, individuals living at or below poverty level who commute by bicycle are more likely to do so than wealthier

7 Bullard, Johnson, and Torres, *Highway Robbery*; John Urry, "Social Networks, Mobile Lives and Social Inequalities," *Journal of Transport Geography* 21 (March 2012): 24–30,

<sup>&</sup>lt;sup>6</sup> Jason Corburn, "Bringing Local Knowledge into Environmental Decision Making: Improving Urban Planning for Communities at Risk," *Journal of Planning Education and Research* 22, no. 4 (June 2003): 420–33, https://doi.org/10.1177/0739456X03022004008.

https://doi.org/10.1016/j.jtrangeo.2011.10.003; Tim Cresswell, "Towards a Politics of Mobility," *Environment and Planning D: Society and Space* 28, no. 1 (February 2010): 17–31, https://doi.org/10.1068/d11407.

<sup>8</sup> National Household Travel Survey, "Frequency of Bicycle Use for Travel Daily by Race and Household Income" (Federal Highway Administration, 2017).

individuals.9 In essence, bicycles present as useful transportation resources for individuals who are limited in their mobility by socioeconomic constraints. BikeAthens is a 501c (3) non-profit organization in Athens, GA that works toward transportation equity by donating bicycles to those in need of transportation. The organization collaborates with local service partner organizations to discern potential recipients and distribute donated bicycles. Often individuals who receive these donated bicycles are homeless, without stable housing or employment, and are living at or below poverty level. As such, the work and space that they occupy within transportation equity presents as an opportunity for collaboration in an effort to highlight the perspectives of "essential riders" on transportation and mobility. I define "essential riders" in this thesis as those who rely on a bicycle as a primary, reliable mode of daily transportation. I attribute the use of "essential riders" to having first heard the term in use at the annual Untokening in Detroit, MI in 2018. The Untokening is a multi-racial network of planners, activists, artists, and community leaders who convene annually to address the "interpersonal work it takes to be Black, Indigenous, People of Color (BIPOC) in mobility advocacy, planning, and policy spaces."<sup>10</sup>

The goal of my research with BikeAthens will be to highlight the experiences of essential riders in order address gaps in representation within the transportation planning process. In particular, I investigate the ways in which essential riders value a bicycle and how it informs their mobility through short semi-structured interviews. By inquiring into the experiences and knowledges of essential riders, I intend to reorient dominant perceptions of how low-income individuals get around, who a "cyclist" is, and demonstrate how the experiences of essential riders can inform transportation planning. Specifically, the question I seek to address is: how can

<sup>9</sup> American Community Survey, "B08122: Means of Transportation to Work by Poverty Status in the Past 12 Months" (U.S. Census Bureau, 2017).

<sup>10</sup> The Untokening National Team, "The Untokening," The Untokening, 2016, http://www.untokening.org.

personal narratives of essential riders inform planning decisions in productive or useful ways? In order to ascertain these experiences, I utilize qualitative research methods inspired by phenomenology to structure the methodology of my research. In doing so, I set out to collect descriptions and knowledges from essential riders that culminates into a narrative of the essence of being an essential rider in Athens, GA. By inquiring into the experiences of essential riders and examining how their personal experiences could shape planning decisions, my research methods build upon phenomenology and local knowledge.11

Hermeneutic phenomenology interprets individual experiences as meaningful through personal narratives.<sup>12</sup> Hermeneutic phenomenology, as described by Heidegger (1962), is based on the assumption that mind and body co-constitute each other and, thus, experiences are shaped by "historical meanings of experience and their developmental and cumulative effects on individual and social levels."<sup>13</sup> This approach assumes that meanings within the experiences of essential riders are influenced by their situated freedom, a concept that emerges from the works of Sartre wherein decisions are made based upon the "existential reality" of an individual.<sup>14</sup> Situated freedom implies that individuals exist within social, political, and cultural contexts that influence, or create, experiences and the meanings that can be extracted from them. A related concept of situated knowledge as articulated by Haraway (1988) echoes the notion that individuals operate within a "finite freedom" to form experiences that altogether produce

<sup>&</sup>lt;sup>11</sup> Sarah Lewis, "Qualitative Inquiry and Research Design: Choosing Among Five Approaches," *Health Promotion Practice* 16, no. 4 (July 2015): 57–62, https://doi.org/10.1177/1524839915580941.

<sup>&</sup>lt;sup>12</sup> Susann M. Laverty, "Hermeneutic Phenomenology and Phenomenology: A Comparison of Historical and Methodological Considerations," *International Journal of Qualitative Methods* 2, no. 3 (September 2003): 21–35, https://doi.org/10.1177/160940690300200303.

<sup>&</sup>lt;sup>13</sup> Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson, First (Oxford, UK: Blackwell Publishers Ltd, 1962), http://pdf-objects.com/files/Heidegger-Martin-Being-and-Time-trans.-Macquarrie-Robinson-Blackwell-1962.pdf; Laverty, "Hermeneutic Phenomenology and Phenomenology," 27.

<sup>&</sup>lt;sup>14</sup> Kay A. Lopez and Danny G. Willis, "Descriptive Versus Interpretive Phenomenology: Their Contributions to Nursing Knowledge," *Qualitative Health Research* 14, no. 5 (May 2004): 729, https://doi.org/10.1177/1049732304263638.

meaning across a network of communities.<sup>15</sup> The investigative methods of phenomenology attempts to combine related experiences of individuals with varying freedoms into a single essence of such experiences.

I interpreted two themes based on the interviews with essential riders which are outlined in a matrix that includes significant statements from the interviews as well as my own observations about the themes based on the interviews (Table 3). Theme 1, bicycles provide betterment of lives, emerges directly from interview content about how essential riders consider the usefulness of their bicycles. Theme 2, planning needs shine through experiences, precipitates from varying experiences of essential riders related to navigating the transportation network in Athens-Clarke County.

With regards to Theme 1, bicycles provide betterment of lives, the resource of a bicycle provides not only a form of transportation but also adds positive value to the livelihood of an essential rider. This was evident through the ways essential riders described how a bicycle helps them in their daily lives. With regards to Theme Two, planning needs shine through experiences, essential riders have pertinent information to add within the planning process. The themes extrapolated from the data in this research confirm that essential riders possess insight that is useful for informing planning decisions. Ultimately, this local knowledge communicated through the experiences of essential riders. Negative encounters with erratic drivers indicated the need for protected space from cars which is a matter of installing improved bicycle infrastructure. Essential riders also made mention of the plight of not having safe spaces to ride on the road while also being restricted from riding on the sidewalk. The resulting fines or citations that they risk incurring is a matter of creating better planning policy to mitigate undue burdens on

<sup>15</sup> Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (1988): 579–80, https://doi.org/10.2307/3178066.

essential riders due, in part, to the lack of safe bicycle infrastructure. Overall, this thesis demonstrates that essential riders know bicycles are helpful resources with positive benefits, and this value is extracted more so from the utility of the bike than the somatic effects of riding a bicycle, such as relieving stress. In addition, essential riders are the experts of their own needs based on their experiences on the road, and these experiences are valuable for improved bicycle transportation planning.

The content of Chapter Two articulates a framework of transportation equity and mobility justice to situate the work of this thesis. Chapter Three reviews transportation planning within the context of civil rights and environmental justice movements, articulates the principles of transportation equity and mobility justice as they pertain to bicycle transportation planning, and describes the effects of uneven transportation planning and policies on essential riders. Chapter Four sets the stage for this thesis by describing the existing sociodemographic conditions and bicycle transportation planning status in Athens, GA. Chapter Five explains the qualitative research method used for data collection and analysis, details the results from the semi-structured interviews, and outlines study limitations. Chapter Six connects the research and results of this thesis to the overarching framework of transportation equity and mobility justice. And, finally, Chapter 7 reviews the work of this thesis, provides recommendations for planning policy and other related domains, and concludes with points for future research.

7

# **CHAPTER 2**

#### EQUITY, MOBILITY, AND LOCAL KNOWLEDGE

#### CHAPTER INTRODUCTION

Chapter Two defines the terms "transportation equity" and "mobility justice" to set the framework for this thesis. Mobility justice is articulated to outline the paradigm from which this thesis takes shape. The concept of equity is reviewed as it pertains to transportation planning. Equity is then situated within the arc of transportation planning procedures through a discussion of accessibility and representation. From there, the chapter continues into a discussion of local knowledge as a way to shift the epistemological traditions of the planning practice.

### TRANSPORTATION EQUITY & MOBILITY JUSTICE

Transportation equity focuses on redistributing transportation benefits and resources to those who have been historically oppressed or burdened by past transportation planning and policy. Bullard (2004) outlines three different manifestations of disparate transportation planning and policy outcomes: procedural, geographic, and social.<sup>16</sup> Procedural manifestations of uneven transportation planning focus on decision-making processes, geographic manifestations inquire into spatial impacts of transportation planning decisions, and social manifestations center on the distribution of benefits and burdens of transportation planning decisions. Considering that geographic and social outcomes of planning are often informed through planning processes,

16 Highway Robbery, 27.

planning procedures offer opportunities for substantiating calls for equity. Transportation equity efforts that address procedural inequities reorients public input such that historically marginalized communities are acknowledged and prioritized in the planning process. To do so, transportation decision-making processes need to seek, include, and reflect the voices of lowincome and marginalized communities. By shifting the planning process to prioritize the perspectives and input of low-income and individuals of color, transportation equity moves to disrupt a longstanding history of injustice.

Equity seeks to shift the distribution of wealth and power in order to reduce the marginalization of those who have historically been ignored, oppressed, and silenced. Equity as an element of the configuration of space and place emerges from the field of geography as identified in investigations of social conflict and power differentials in capitalist societies.<sup>17</sup> Margins of wealth, resource accessibility, and economic mobility widened under the influence of capitalism as it promoted unequal distributions of capital along race and class lines. As such, planning of the built environment responded to the demands of such socioeconomic structures and, as in the case of highways, city form exacerbated the uneven development resulting from racially discriminatory planning practices.<sup>18</sup> These geographies produced from the spatial configurations of wealth and power echo and perpetuate continued spatial injustice.<sup>19</sup> In other words, the disproportionate accumulation of capital and discriminatory practices embedded

<sup>17</sup> David Harvey, *The Urban Experience* (Baltimore: Johns Hopkins University Press, 1989); Manuel Castells, *The City and the Grassroots: A Cross-Cultural Theory of Urban Social Movements*, California Series in Urban Development 2 (Berkeley: University of California Press, 1983).

<sup>&</sup>lt;sup>18</sup> Bullard, Johnson, and Torres, *Highway Robbery*; Laura Pulido, "Geographies of Race and Ethnicity II: Environmental Racism, Racial Capitalism and State-Sanctioned Violence," *Progress in Human Geography* 41, no. 4 (August 2017): 524–33, https://doi.org/10.1177/0309132516646495; Edward W. Soja, *Seeking Spatial Justice*, Globalization and Community Series (Minneapolis: University of Minnesota Press, 2010).
<sup>19</sup> Soja, *Seeking Spatial Justice*.

within the politics and planning of housing and transportation regimes in the United States continue to perpetuate the development of uneven consequential city forms.

Within the context of mobility justice, it is not solely the spatial and geographical manifestations that dictate unjust and unfair distributions of wealth and power, but also the processes by which multi-scalar relations, continuities, connections, and resonances are formed. Mobility justice, as articulated by Sheller, sets out to reframe the ontological and epistemological tenets of mobility by reorienting the discourse of movement from one that is simply the action in-between to one that considers movement "as a foundational condition of being, space, subjects, and power."<sup>20</sup> Within the context of urban processes, the new mobilities paradigm disturbs the spatial bounds of cities by emphasizing the multi-scalar, dynamic state of how spaces exist through historical, social, political, and cultural assemblages. Specifically, it does not center access to specific destinations as the means of mobility, but rather focuses on mobility as a process *and* product of uneven development.<sup>21</sup> Mobility justice extends spatial justice, as articulated by Edward Soja, by framing these mobile assemblages within consequential spatial configurations of the built environment.<sup>22</sup> In essence, mobility is reflective of not only policy and infrastructure, but also social, cultural, and political elements that produce space.

Mobility justice calls upon principles of equity and inclusion. As such, mobility justice "is therefore not simply about expanding mobility or even accessibility but is [also] concerned with the cultural meanings and hierarchies surrounding various means of and infrastructures for mobility, including their valuation and who determines this value."<sub>23</sub> A mobile ontology

<sup>21</sup> Mimi Sheller and John Urry, "The New Mobilities Paradigm," *Environment and Planning A* 38, no. 2 (February 2006): 207–26, https://doi.org/10.1068/a37268.

<sup>20</sup> Mimi Sheller, *Mobility Justice: The Politics of Movement in the Age of Extremes*, First published (London Brooklyn, NY: Verso, 2018), 9.

<sup>22</sup> Sheller, *Mobility Justice*, 40.

<sup>23</sup> Sheller, 29.

cognizant of spatial injustices recognizes cities as dynamic conglomerations of managed historical, social, political, and cultural assemblages that are in play with shifting relations between wealth and power. It is also cognizant of the uneven relations and distributions of power that have informed and produced our material worlds. It is this realization from which mobility justice "calls for recognition, participation, deliberation, and procedural fairness to be up for discussion, adjustment, and repair... to understand the ways in which uneven mobilities produce differentially enabled (or disabled) subjects and differentially enabling (or disabling) spaces."<sup>24</sup>

### IS ACCESSIBILITY ENOUGH?

Mobility justice, environmental justice, and spatial justice within the realm of transportation planning can be articulated, in part, by matters of accessibility. Access to affordable and reliable modes of transportation, such as transit, provides physical mobility to an individual and is a crucial resource for individuals to have access to employment opportunities that can lead to improved socioeconomic mobility.<sup>25</sup> Accessibility can be measured in terms of physical capability; however, a broader interpretation of accessibility is that which considers social, cultural, and political contexts. Pereira et al. (2017) proposes accessibility as the optimal focus for transportation equity research because accessibility stands as an indicator of social equity from a combined egalitarian and capabilities approach framework.<sup>26</sup> Instead of perceiving transportation from a cost-benefit approach which centers economic equity over social equity, the authors discuss using a blended theoretical framework of Rawls 'egalitarianism and

<sup>24</sup> Sheller, 28.

<sup>&</sup>lt;sup>25</sup> Bullard, Johnson, and Torres, *Highway Robbery*; Urry, "Social Networks, Mobile Lives and Social Inequalities"; Cresswell, "Towards a Politics of Mobility"; Raj Chetty and Nathaniel Hendren, "The Impacts of Neighborhoods on Intergenerational Mobility," 2015, 6.

<sup>&</sup>lt;sup>26</sup> Rafael H. M. Pereira, Tim Schwanen, and David Banister, "Distributive Justice and Equity in Transportation," *Transport Reviews* 37, no. 2 (March 4, 2017): 170–91, https://doi.org/10.1080/01441647.2016.1257660.

capability approaches.<sup>27</sup> With this framework, transportation research, as applied to equity, incorporates sociocultural factors associated with the distribution of services as it relates to the capabilities of each individual and their operational contexts. Simply, the interpretation of accessibility through the theoretical framework proposed by Pereira et al. (2017) contextualizes the individual and evaluates mobility and access in consideration of one's social, cultural, and political constraints.

While the framework considers factors that may influence an individual's mobility and accessibility, it is restrictive in that it does not seek to address how these constraints and contexts were produced through the legacies of biased decision-making and discriminatory practices. Accessibility, in this sense, fails to confront how mobility and accessibility are products and producers of uneven development. Mobility justice and transportation equity are "... not simply about expanding mobility or even accessibility but... [are also] concern[ed]... with the cultural meanings and hierarchies surrounding various means of and infrastructures for mobility, including their valuation and who determines this value."28 A wealth of transport research helped us to understand factual aspects of movement, but there is a gap in the representation of who moves and "how mobility is actually embodied and practiced."29 Therefore, in order to effectively reform the *modus operandi* by which disparate mobilities are produced and reproduced, transportation planning requires a turn towards epistemic justice that reprioritizes whose voices are heard, included, and valued.

#### EPISTEMIC JUSTICE THROUGH LOCAL KNOWLEDGE

<sup>27</sup> Pereira, Schwanen, and Banister.

<sup>28</sup> Sheller, Mobility Justice, 29.

<sup>29</sup> Cresswell, "Towards a Politics of Mobility."

Epistemic justice within a mobility justice framework calls for the need to prioritize and value the experiences of individuals whose voices have long been ignored, repressed, or disparaged.

Mobility justice demands that historically marginalized communities be heard as full partners in planning processes, not asked to rubber stamp predetermined objectives but engaged in the effort to generate those objectives from the outset. [...] In addition to addressing the need for neighborhood-level measurements, the lived experiences of community members must be given priority as "data" in assessing infrastructure and investment needs, while also accounting for the deep and lasting trauma from the erasure of social, cultural and economic networks.<sub>30</sub>

By upholding the experiences of marginalized individuals, examining the production of space through social, cultural, and political relations, and emphasizing the need to consider the mobile histories and contexts of communities within the planning process, epistemic justice aims to reframe whose perspectives are prioritized in planning decisions. The reframing of whose knowledge holds merit and which forms of knowledge are valid rejects the notion that only an objective, rationalized knowledge can lead to an absolute truth.<sub>31</sub>

Epistemic justice extends justice beyond distributive equalities and emphasizes the need to value and integrate the "local knowledge" of vulnerable and marginalized persons within decision-making processes.<sup>32</sup> Corburn (2003) articulates "local knowledge" as a mode of inquiry that is informed by "firsthand experience[s]" of community members. "Local knowledge" contributes to epistemic justice by providing alternative forms of knowledge and representation to traditional planning epistemology and decision-making processes.<sup>33</sup> Members of communities

<sup>30</sup> Adonia Lugo et al., "Untokening Mobility: Beyond Pavement, Paint, and Place," January 2018, 12–13.

<sup>31</sup> Sandercock and Lyssiotis, Cosmopolis II, 63.

<sup>32</sup> Sheller, Mobility Justice, 33.

<sup>33</sup> Corburn, "Bringing Local Knowledge into Environmental Decision Making."

each have their own individual perspectives and experiences that are crucial to understanding accessibility and mobility within a complex social and political landscape.

In order to address current limitations of planning discourse and reform the epistemology of traditional planning practice, it is imperative that efforts be made to acknowledge and value the experiences of oppressed groups. Seminal work by Geertz (1983) indicates that these experiences are what substantiate "local knowledge."<sup>34</sup> Corburn (2003) goes on further to describe local knowledge as drawn "in part from actual sights, smells, and tastes, along with the tactile and emotional experiences encountered in everyday life."<sup>35</sup> Local knowledge challenges reductive modes of inquiry that the planning profession has traditionally relied upon to inform decision-making by blurring "hard distinctions between expert and lay, scientific and political order, and facts and values."<sup>36</sup> The ability for individuals to identify and connect their experiences with issues in the built environment presents an opportunity within planning for efforts that go beyond listening to stakeholders to collaborations *with* stakeholders.

One argument against such qualitative forms of inquiry is that subjective information can be narrow in focus and represent an extremely nuanced perspective with personal contexts and histories that are unbeknownst to planners or other decision makers.<sup>37</sup> However, local knowledge is useful in enhancing collaboration between stakeholders with specific information about the issues at hand. In his article, Corburn (2003) provides examples in New York of how local knowledge influenced decisions for environmental health projects. One such project might have used inadequate air-quality data if the local knowledge of community members had not been

<sup>34</sup> Clifford Geertz, *Local Knowledge: Further Essays in Interpretive Anthropology* (New York: Basic Books, 1983), 75.

<sup>35</sup> Corburn, "Bringing Local Knowledge into Environmental Decision Making," 421.

<sup>36</sup> Corburn, 423.

<sup>37</sup> Merlijn van Hulst, "Storytelling, a Model of and a Model for Planning," *Planning Theory* 11, no. 3 (August 2012): 313, https://doi.org/10.1177/1473095212440425.

seriously taken into consideration. The dataset overlooked a critical contributor to toxic air pollution within residential buildings because air-quality data was collected by a single monitor across an entire neighborhood. Upon realizing that the local knowledge was corroborated by former studies of the area, the EPA changed their project assessments to reflect the information provided by the local residents.<sup>38</sup> In this case, local knowledge identified and reoriented data gathering techniques of a federal entity based on a collection of information that was known through the *experiences* of community members. Local knowledge is useful in that it contributes "pragmatic, experience-based insights from those who know a situation firsthand"<sup>39</sup>, it can enhance existing datasets for better decision making, and it can create collaborations between decision makers and communities.

Local knowledge considers tacit information known primarily to individuals through their experiences and connects it to broader community issues, such as public health or city planning. In this way, local knowledge presents an opportunity for city planners and decision makers to incorporate alternative forms of information into decision making processes. If the local knowledge of an individual is informed by their interactions with and within the built environment, then to know that local knowledge requires exploration into such experiences. I aim to discover the local knowledge of essential riders as it pertains to bicycle transportation planning by utilizing phenomenological methods. I define "essential riders" as the individuals who rely on a bicycle as a sole, reliable mode of daily transportation due to socioeconomic or legal circumstance. This definition is covered extensively in the following literature review. Specifically, I ask how essential riders value a bicycle, how it might inform their day-to-day

<sup>38</sup> Corburn, "Bringing Local Knowledge into Environmental Decision Making," 423.

<sup>&</sup>lt;sup>39</sup> Judith E. Innes and David E. Booher, "Using Local Knowledge for Justice and Resilience," in *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy* (Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2010), 170.

lives, and how the local knowledge of essential riders can inform bicycle transportation planning. By focusing on the local knowledge of essential riders, I intend to make room for the voices of those who are least frequently heard and push the bounds of planning epistemology.

#### CHAPTER CONCLUSION

Transportation equity and mobility justice are complementary methods of shifting urban power dynamics and reorienting the planning profession in that transportation equity aims to bring into practice what mobility justice articulates in the abstract. Mobility justice seeks to address systemic restrictions on those who, through oppression or discrimination, are withheld from advocating for themselves. Transportation equity pursues the redistribution of transportation benefits and services to prioritize historically marginalized communities. Mobility justice argues that this can be achieved through epistemic justice or reconsidering what type of knowledge and whose knowledge is valued and prioritized within transportation planning procedures. As such, I situate my research within the mobility justice framework for the premise of my efforts is to address gaps in the representation of "essential" bicycle riders whose voices are not typically heard or valued within bicycle advocacy or transportation planning.

### CHAPTER 3

# HOW TRANSPORTATION PLANNING FAILS TO CONSIDER ESSENTIAL RIDERS

#### CHAPTER INTRODUCTION

Chapter Three reviews the copious amounts of literature pertaining to equity and justice within the realm transportation planning. The chapter begins by describing the outcomes of discriminatory planning practices and the regulatory response to civil rights actions in transportation planning. This regulatory response set the tone for planning procedures to follow including that of public participation mandates. The chapter goes on to describe the gaps of public participation in transportation planning and how to address these gaps through engagement with community-based organizations. From there, the chapter discusses the demographics of bicycling in the United States and the manifestations of racism in bicycle advocacy and bicycle transportation planning. Chapter Two concludes by focusing on the primary population of this thesis, essential riders, and their challenges related to uneven planning policies and procedures.

#### CIVIL RIGHTS IN TRANSPORTATION PLANNING POLICY

Transportation planning practices are built upon the foundation of racially biased policies and practices catalyzed by the expansion of the U.S. federal highway system. These policies and practices are formed or guided by decision making bodies that largely consist of planners who have been trained in a traditional, Eurocentric planning discourse that is predominately utilitarian and rationalizing of cities and the fabric of communities that exist within them. Policies that were formed in an effort to maintain racial segregation and discrimination in the early-to-mid 1900s, especially against Black communities, set the template for the planning profession wherein the formation of urban policies thereafter perpetuated the patterns of uneven development<sub>40</sub> mostly to the detriment of low-income communities of color. The expansion of the U.S. Federal Highway System served in part as justification to expunge Black neighborhoods under the guise of "slum clearance" within economic development zones during the era of urban renewal.41 Discriminatory housing policies, such as restrictive covenants and redlining, as well as largescale transportation projects determined the physical configurations of cities. Federally subsidized transportation projects that focused on connecting suburban neighborhoods to centercity business and entertainment districts resulted in widespread displacement of low-income minority neighborhoods, exacerbated racial segregation within urban areas, and isolated individuals from job centers, community hubs, schools, and social service providers.<sup>42</sup> Even so, transportation and access to services, food stores, and jobs remain as barriers in low-income communities.43

<sup>&</sup>lt;sup>40</sup> Christopher Mele and Robert M. Adelman, "Racial Exclusion and Spatial Inequality in Metropolitan America," in *Race, Space, and Exclusion*, 2015, 5; June Manning Thomas, "Planning History and the Black Urban Experience: Linkages and Contemporary Implications," *Journal of Planning Education and Research* 14, no. 1 (October 1994): 2, https://doi.org/10.1177/0739456X9401400101.

<sup>&</sup>lt;sup>41</sup> Robert Bullard, "The Anatomy of Transportation Racism," in *Highway Robbery: Transportation Racism & New Routes to Equity*, 2004, 20; Thomas, "Planning History and the Black Urban Experience," 4.

<sup>&</sup>lt;sup>42</sup> Aaron Golub, Richard A. Marcantonio, and Thomas W. Sanchez, "Race, Space, and Struggles for Mobility: Transportation Impacts on African Americans in Oakland and the East Bay," *Urban Geography* 34, no. 5 (August 2013): 699–728, https://doi.org/10.1080/02723638.2013.778598; Jason Henderson, "Secessionist Automobility: Racism, Anti-Urbanism, and the Politics of Automobility in Atlanta, Georgia," *International Journal of Urban and Regional Research* 30, no. 2 (June 2006): 293–307, https://doi.org/10.1111/j.1468-2427.2006.00662.x; Joshua Inwood, Derek Alderman, and Jill Williams, "Where Do We Go From Here?': Transportation Justice and the Struggle for Equal Access," *Southeastern Geographer* 55, no. 4 (2015): 417–33.

<sup>&</sup>lt;sup>43</sup> Robert Cervero, "Job Isolation in the US: Narrowing the Gap through Job Access and Reverse-Commute Programs," in *Running on Empty* (The Policy Press, 2004), 181; Nancy Jakowitsch and Michelle Ernst, "Just Transportation," in *Highway Robbery: Transportation Racism & New Routes to Equity* (South End Press, 2004), 161.

The Bus Riders Union case brought to public light these common discriminatory development patterns and galvanized a public movement to address social inequity in transportation planning processes through successful litigation against the Los Angeles County Metropolitan Transportation Authority.44 The plaintiffs of the Bus Riders Union case were able to explicitly show the irreparable and disproportionate impact of rising transportation costs and uneven funding through widely disparate subsidies per transportation system (i.e. bus and rail) by arguing that the majority of bus riders consisted of racial minorities and the proposed rail expansion would benefit the outlying neighborhoods which predominately consisted of white residents.45 In response to the growing environmental justice movement in the 1990s, the federal government established legislation in an attempt to alleviate the disparate impacts of discriminatory practices on low-income communities of color.46 Clinton's Executive Order 12898 in 1994 administratively required government organizations to consider equity issues. This was to include Metropolitan Planning Organizations (MPOs) which were developed as a way to advise state-level transportation planning policy by establishing a planning body for transportation planning efforts at a regional scale.47 The order states, "[MPOs] shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."48 However, MPOs

<sup>&</sup>lt;sup>44</sup> Eric Mann, "Los Angeles Bus Riders Derail the MTA," in *Highway Robbery: Transportation Racism & New Routes to Equity* (Cambridge, Mass: South End Press, 2004), 32–47.

<sup>&</sup>lt;sup>45</sup> Labor/Community Strategy Center v. Los Angeles County Metropolitan Authority, No. 99–56581 (Ninth Circuit U.S. Court of Appeals August 31, 2001).

<sup>46</sup> Bullard, "The Anatomy of Transportation Racism," 25.

<sup>&</sup>lt;sup>47</sup> Benjamin K Olson, "The Transportation Equity Act for the 21st Century: The Failure of Metropolitan Planning Organizations to Reform Federal Transportation Policy in Metropolitan Areas," *Transportation Law Journal* 28 (2000): 155.

<sup>&</sup>lt;sup>48</sup> The White House, "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations" (Federal Register, February 16, 1994).

have quickly become conduits for federal funding for transportation projects that funnel money into processes which have not adhered to Civil Rights Title VI mandates, and instead, perpetuate the uneven development in cities.49

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) formalized the federally mandated adherence to Title VI by formulating a process that would allocate federal funds directly to MPOs without state-level interference. The statute also clarified and expanded the parameters of metropolitan transportation planning to involve more diverse stakeholders, and to include social goals when assessing the efficacy of the MPO processes and plans.<sup>50</sup> While ISTEA did not address equity specifically, the act did call for improved public processes in one of the ways that MPOs are held accountable<sup>51</sup>: public participation plans. Public participation plans are required by federal legislation yet efforts for public participation are often narrow in scope which limits the extent of public engagement with MPOs. Modes of public participation to inform these plans rarely expand beyond minimally required public hearings, and outreach methods can fail to reach underserved and marginalized populations through generalized interpretations of public demographics (e.g., income and race).<sup>52</sup> The Transportation Equity Act of the 21<sup>st</sup> Century, passed in 1998, built upon the mandates of ISTEA by addressing transportation access and transportation improvements specifically to serve the needs of low-

<sup>50</sup> Gian-Claudia Sciara, "Metropolitan Transportation Planning: Lessons From the Past, Institutions for the Future," *Journal of the American Planning Association* 83, no. 3 (July 3, 2017): 262–76, https://doi.org/10.1080/01944363.2017.1322526.

<sup>&</sup>lt;sup>49</sup> Thomas W. Sanchez and James F. Wolf, "Environmental Justice and Transportation Equity: A Review of Metropolitan Planning Organizations," January 2005, 1–23.

<sup>&</sup>lt;sup>51</sup> Cameron Gordon, "Varieties of Transportation Justice: U.S. Transportation Equity Policy and the Civil Rights Movement," *Transportation Research Record: Journal of the Transportation Research Board* 2531, no. 1 (January 2015): 180–86, https://doi.org/10.3141/2531-21.

<sup>&</sup>lt;sup>52</sup> Alex Karner and Richard A. Marcantonio, "Achieving Transportation Equity: Meaningful Public Involvement to Meet the Needs of Underserved Communities," *Public Works Management & Policy* 23, no. 2 (April 2018): 106, https://doi.org/10.1177/1087724X17738792.

income and income-assisted individuals.<sup>53</sup> For example, the statute added an equity-based jobs program to fund non-governmental and governmental entities that provided transportation resources for low-income and income-assisted persons to get to and from jobs and other services.<sup>54</sup> Metropolitan planning organizations are powerful in that they hold federal funds as a resource for planning purposes. However, the inefficacy of current modes of public participation and lack of administrative adherence to Title VI of the Civil Rights Act prevent MPOs from achieving their full potential of redistributing these funds in an equitable manner.

# PUBLIC PARTICIPATION IN TRANSPORTATION PLANNING

Traditional methods of public participation in transportation planning severely undermine the needs of low-income and minority communities because such individuals are inadequately represented in decision-making processes. This is especially true of legally mandated public participation in governmental and quasi-governmental decision-making processes of transportation projects.<sup>55</sup> Transportation-related research that guides planning and policy decisions primarily utilizes quantitative data to assess the quality of the system in question without regards to qualitative metrics.<sup>56</sup> As such, community/public input is generally disregarded in procedures where much of the decision making occurs before the public is provided with public comment opportunities. Efforts towards transforming the public

<sup>53</sup> Karner and Marcantonio, 106.

<sup>54</sup> Gordon, "Varieties of Transportation Justice."

<sup>&</sup>lt;sup>55</sup> Geneviève Boisjoly and Genesis T. Yengoh, "Opening the Door to Social Equity: Local and Participatory Approaches to Transportation Planning in Montreal," *European Transport Research Review* 9, no. 3 (September 2017): 43, https://doi.org/10.1007/s12544-017-0258-4; Judith E. Innes and David E. Booher, "Reframing Public Participation: Strategies for the 21st Century," *Planning Theory & Practice* 5, no. 4 (December 2004): 419, https://doi.org/10.1080/1464935042000293170.

<sup>&</sup>lt;sup>56</sup> Sanchez and Wolf, "Environmental Justice and Transportation Equity: A Review of Metropolitan Planning Organizations"; Floridea Di Ciommo and Yoram Shiftan, "Transport Equity Analysis," *Transport Reviews* 37, no. 2 (March 4, 2017): 139–51, https://doi.org/10.1080/01441647.2017.1278647.

participation process for a more collaborative approach that emphasizes the importance of dialogue between stakeholders has been conceptualized by Innes and Booher (2010).57 It is through dialogue by which each stakeholder can actively participate in developing solutions and provide knowledge to the planning issue at hand. However, dialogue between stakeholders and decisionmakers can do little to empower the citizens who partake in the public participation process because there still exists a power imbalance that minimizes the legitimacy of citizen input—at the end of the day those who hold the power make the decisions.

Karner and Marcantonio (2018) stress the importance of community-based public involvement that relies on engaging with low-income and individuals of color to best understand how to meet the needs of underserved communities.<sup>58</sup> While the dialogue-focused, collaborative rationality approach of Innes & Booher (2004) would do well to encourage trust and build rapport amongst stakeholders, project timelines are typically not conducive to such long-term engagements and require near-term execution.<sup>59</sup> As such, community-based public input in efforts towards transportation equity builds upon the knowledge of low-income and individuals of color through "meaningful public involvement" that includes "rely[ing] on and provid[ing] resources to known community-based organizations that have [existing and] trusting relationships with low-income, transit dependent, senior, and limited English proficiency constituencies."<sup>60</sup> In order for planners to prioritize equity in their work, it is crucial to recognize that often low-income and individuals of color are less inclined to partake in civic action because former confrontations with law enforcement and government officials has led to mistrust.<sup>61</sup>

<sup>57</sup> Judith Eleanor Innes and David E. Booher, *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy* (Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2010).

<sup>58</sup> Karner and Marcantonio, "Achieving Transportation Equity."

<sup>59</sup> Karner and Marcantonio, 112.

<sup>60</sup> Karner and Marcantonio, 119.

<sup>&</sup>lt;sup>61</sup> Omari Fuller and Edgar Beltran, "The Invisible Cyclists of Los Angeles," Planners Network, July 14, 2010, http://www.plannersnetwork.org/2010/07/the-invisible-cyclists-of-los-angeles/.

Therefore, strategies for engagement with stakeholders to gather public input should prioritize collaboration and communication with service organizations (i.e. community kitchens, homeless shelters) or community organizations (i.e. churches, advocacy groups) that have working relationships with marginalized individuals. These efforts would not forgo the need to reach out to underserved members of the community directly but could supplement any knowledge given by individual input to ensure that the needs of the underserved constituents are represented accurately and to the furthest extent possible.

Furthermore, sharing resources early into the project timeline to these civic organizations could generate the impetus needed to produce constructive public input. Boisjoly and Yengoh (2017) found that the lack of citizen engagement was due in part to "a lack of motivation to get proactively involved in the participatory process and in transportation planning in general."<sub>62</sub> Often, information about a particular project is not easily available to community members and where public input fits in is not always clear or effective. The impact of transportation planning at the local level can be understated or not understood even within local community service organizations and especially in municipalities without dedicated alternative transportation advocacy groups.<sup>63</sup> To mobilize communities towards transportation equity requires planners and advocates to connect transportation as a crucial resource for low-income and marginalized individuals to access jobs and other day-to-day services. Furthermore, information regarding proposed transportation projects and how they relate to the local community can help the public more effectively identify their transportation needs and gaps with planners and other stakeholders.

<sup>&</sup>lt;sup>62</sup> Boisjoly and Yengoh, "Opening the Door to Social Equity," 43.<sup>63</sup> Boisjoly and Yengoh, 43.

#### THE DEMOGRAPHICS OF BICYCLING IN THE UNITED STATES

The prevalence of bicycle commuting in the U.S. is low compared to other modes of transport, however, bicycle commuting overall has increased nationally between 2005 and 2016.64 Former data from the National Household Travel Survey (NHTS) pointed to an increase in ridership that was observed most drastically in non-white populations, e.g., African American, Asian, Hispanic between 2001-2009.65 However, the most recent NHTS 2017 data indicates that the proportion of all biking and walking trips by minority individuals, i.e. non-white, has slightly decreased since 2009. While the proportion of minority riders has dipped within the last decade, the observation that overall bicycle commuting has increased implies that ridership is growing. According to data retrieved from the 2012 American Community Survey, the highest rates of bike commuting to work are amongst those with incomes below \$25,000, and at lower rates, at the highest income levels of "\$150,000 to \$199,999" and "\$200,000+."66 Additionally, rates of bike commuting reported were highest amongst those with a graduate or professional degree followed by those who had not attained a high school diploma.67 Based on these signifiers, bicycles seem to be most used as a mode of transportation amongst low-income individuals, high-income individuals, those with the least educational attainment, and those with the most educational attainment. This bimodal trend of the income and education demographics of bike commuters destabilizes the common perception of who rides a bicycle. While the stereotype of an affluent, white cyclist holds true to the identity of some bicycle riders, the data indicates that

65 Carolyn Szczepanski, "The New Majority: Pedaling Towards Equity" (League of American Bicyclists & The Sierra Club, May 2013), fig. 1, http://bikeleague.org/sites/default/files/equity\_report.pdf.

<sup>&</sup>lt;sup>64</sup> Ken McLeod et al., "Bicycling & Walking in the United States: 2018 Benchmarking Report," Benchmarking Reports (Washington, DC: The League of American Bicyclists, 2018), 184, https://bikeleague.org/benchmarking-report.

<sup>&</sup>lt;sup>66</sup> Brian McKenzie, "Modes Less Traveled—Bicycling and Walking to Work in the United States: 2008–2012,"
<sup>67</sup> McKenzie, 12.

there is ridership amongst other demographics, namely low-income and individuals with low educational attainment.

#### CONFRONTING RACISM IN BICYCLE ADVOCACY AND BICYCLE PLANNING

The question of whose needs are being represented within bicycle advocacy was brought to the forefront of the contemporary bicycle movement as bicycle infrastructure became conflated with increased property values, rapid neighborhood growth, and the displacement of low-income and minority individuals. This became most evident in what transpired around a proposed bicycle lane project in Albina, a predominately African American neighborhood in Portland, OR.68 The Portland Bureau of Transportation identified North Williams Ave as a site for bicycle infrastructure improvements in 2011 citing safety concerns and increased multimodal traffic rates as rationale for selecting the street.69 Long-term residents and community members of the Albina neighborhood vocalized their indignation and connected the project to Portland's history of racial discrimination: "You say you want it 'safe 'for everybody, how come it wasn't safe 10 years ago?... We wanted to have safe streets back then; but now that the bicyclists want to have safe streets then it's all about the bicyclists getting safe streets" ... "We have an issue of racism and of the history of this neighborhood... we really need to address some of the underlying systemic issues."70 The outcry from residents and community members in opposition to the project brought into question the larger frame of how uneven capital development influences and normalizes racially biased urban policies.

<sup>68</sup> Melody Lynn Hoffmann, *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning* (Lincoln, NE: University of Nebraska Press, 2016), chap. 3; Amy Lubitow and Thaddeus R. Miller, "Contesting Sustainability: Bikes, Race, and Politics in Portlandia," *Environmental Justice* 6, no. 4 (August 2013): 124, https://doi.org/10.1089/env.2013.0018.

<sup>69</sup> Lubitow and Miller, "Contesting Sustainability," 123.

<sup>&</sup>lt;sup>70</sup> Jonathan Maus, "Meeting on Williams Project Turns into Discussion of Race, Gentrification," *BikePortland.Org* (blog), July 22, 2011, https://bikeportland.org/2011/07/21/racism-rears-its-head-on-williams-project-56633.

As urban design guides and urban transportation policies began to emphasize walkability and green space to encourage biking and walking, bicycling advocates gained momentum in their campaigns. Cities started to recognize the economic benefit and future development opportunities of integrating multi-modal transportation into the urban fabric. This meant that planning for bicycle infrastructure relied on status quo transportation planning procedures that perpetuate uneven capital development. Until prompted by community responses such as that for the North Williams Ave project, bicycle advocacy within the U.S. had not fully confronted issues of racism and discrimination related to planning for bicycle infrastructure. Even so, efforts to integrate equity into national bicycle advocacy within one of the largest non-profit advocacy organizations, the League of American Bicyclists (LAB), were met with resistance and apprehension. LAB attempted to get ahead of racial discrimination in bicycle advocacy by hiring Adonia Lugo as the director of the LAB Equity Initiative in 2013. However, she writes,

Securing funding and getting design standards adopted for street infrastructure were *the* end goals of advocacy, [...] It seemed that what was allowable equity-wise was to brand infrastructure as desperately needed in low-income neighborhoods. To me this seemed to be a far cry from meaningful participation, [...] but the leadership at LAB wasn't interested in adding to their agenda unless new ideas came from a very specific network of peer organizations, [...] However, given the history of bicycle racism and the white advocacy space it produced, maintaining a closed network in effect meant that ideas from individuals who didn't fit in with that network didn't find support.71

Any propositions by Lugo to modify bicycle advocacy in a manner that supported equityinformed work was disregarded by the profession at-large. It is evident that up until very recently national-level bicycle advocacy had been disingenuous in its attempts to address and reform its

<sup>71</sup> Adonia E. Lugo, *Bicycle, Race: Transportation, Culture, & Resistance* (Portland, OR: Microcosm Publishing, 2018), 175–76.

history of racial discrimination, and instead, focused on perpetuating its placemaking objectives that emphasized infrastructure and economic development.

Recent work in transportation equity resists the dominant narrative within bicycle advocacy that champions bicycles and bicycle infrastructure solely as amenities for capital development by attracting "creative class" individuals.72 As city leaders began to recognize the asset potential related to urban amenities such as bicycle infrastructure, bicycle advocacy shifted towards a rhetoric that was more palatable to political platforms that pushed economic development. This incentive that likens bicycle infrastructure with economic growth is one that emerges from Richard Florida's theory of "creative capital" within which he posits that the mainstays of knowledge-based professionals and the "creative class" are "places that are innovative, diverse, and tolerant."73 According to Florida, creative class individuals are not looking to live in places with "sports stadiums, freeways, urban malls, and tourism-andentertainment districts that resemble theme parks" but rather in "communities [...] abundant [in] high-quality experiences, an openness to diversity of all kinds, and, above all else, the opportunity to validate their identities as creative people."74 Pushback against Florida's theory, specifically with regards to bicycle advocacy, argues that "advocates and policymakers who frame bicycle facilities as amenities that will attract a creative class population ignore and potentially undermine bicycle mobility by those who do not fit into this desired group of

<sup>&</sup>lt;sup>72</sup> Melody Lynn Hoffmann and Adonia Lugo, "Who Is 'World Class'? Transportation Justice and Bicycle Policy" 4, no. 1 (2014): 17; Hoffmann, *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*, chap. 4; Samuel Stein, "Bike Lanes and Gentrification," *Progressive Planning*, 2011.
<sup>73</sup> Richard Florida, "Cities and the Creative Class," *City and Community* 2, no. 1 (March 2003): 8, https://doi.org/10.1111/1540-6040.00034.

<sup>74</sup> Florida, 9.

citizens."75 In pursuit of the "creative class" through consumer-driven bicycle infrastructure and policy, city leaders create a monolith of bicycle riders and disregard socioeconomic contexts of the individuals who ride bikes. The impetus to attract the "creative class" through bike infrastructure caters to a single set of individuals, generally the upwardly mobile white cyclist, and overlooks those who ride in the margins. Doing so raises concerns about the equity implications of promoting a "one-size-fits-all" approach to bicycle advocacy and bicycle planning. Considering how low-income, homeless, and minority individuals continue to experience discrimination and harassment on the street, equity-focused bicycle advocacy must consider the implications of race and class and move beyond bike lanes in order to address the systemic barriers of mobility.

### ESSENTIAL RIDERS, NOT INVISIBLE

The question of '*who* rides a bike? 'is one that lends focus to the identities of "invisible riders." The most ubiquitous depiction of a bicycle rider is one of a middle-class, Lycra-clad, white man. While this perception is not false, it is misleading to the detriment of those who have historically not been considered in bicycle advocacy or transportation planning. Where a conventional cyclist is likely to own and operate a single-occupancy vehicle at their discretion, "invisible riders" are those who rely on a bicycle as a primary, reliable mode of daily transportation for all types of trips. One of the earliest references to the term was published in a feature article in Bicycling Magazine in 2006. Koeppel writes,

The men who pedal the streets at daybreak [...] are invisible in so many ways. Some are here without permission and must hide from the official world. They are not noticed by the cars and buses that roar past, sometimes to tragic effect. They're not

<sup>75</sup> Hoffmann and Lugo, "Who Is 'World Class'? Transportation Justice and Bicycle Policy," 46.

even seen by those of us who claim to love cycling. We'll pick out a sleek Italian racing bike from across an intersection, but a dozen day laborers on Huffys dissolve into the streets. [...] The bicycle is the blood of this invisible body of labor [...] The Invisible Riders, for instance, log far more hours than most "serious" cyclists. They do so on equipment most of us wouldn't touch and under the most adverse conditions: at the height of rush hour on the busiest thoroughfares.76

What distinguishes "invisible riders" from an individual who conscientiously decides to eliminate the use of a single-occupancy vehicle as a lifestyle is the capacity to make such a decision. For "invisible riders", relying on a bicycle for transportation is not a lifestyle, but a necessity. As such, bicycles are essential to the mobility and welfare of working-class individuals—they are, in essence, essential riders.

The term, "invisible", facilitates an implicit divide along lines of societal and political power amongst bicyclists which is counterproductive to efforts calling for inclusivity and equity within bicycle advocacy and planning. It also reaffirms the marginalization of low-income, minority individuals and puts the onus on "invisible riders" to assert themselves to be seen and valued within the bicycling realm. I use the term "essential riders" to refer to the described "invisible riders." By using the term "essential riders", I intend to dissolve the notion that only certain types of bicyclists have relevant knowledge and experiences pertaining to bicycle planning and advocacy.

### THE PLIGHTS OF ESSENTIAL RIDERS: POLICING & EDUCATION

Essential riders are typically low-income individuals who cannot afford a car or obtain a license to operate one. Existing barriers and threats to safety and autonomy on the mobility of

<sup>76</sup> Dan Koeppel, "How Low-Income Cyclists Go Unnoticed," *Bicycling*, 2006, https://www.bicycling.com/news/a20049826/how-low-income-cyclists-go-unnoticed/.

essential riders marginalize low-income and minority groups by further limiting access to affordable transportation. There is emerging research on how essential riders navigate the sociopolitical constraints to mobility. An article on essential riders in Los Angeles noted that a majority are working-class Latino immigrants whose transportation options are limited due to restrictions on who is allowed to receive a driver's license.77 The inability for undocumented immigrants to obtain a driver's license leads many immigrants to ride bicycles out of necessity78 — some without having learned to ride a bicycle or navigate traffic laws in America. The risk of being stopped while driving without a license for undocumented immigrants carries more punitive consequences, such as deportation, than the risk of being stopped while riding a bicycle does not require government documentation."79 Even so, undocumented immigrants remain vulnerable while riding a bicycle in the event of a crash or assault. Bernstein (2016) writes,

[...] a group of young men started to harass and chase Jose on his bike [...] Jose feared the men wanted to rob him [...], so he tried to speed away [...] he took a bad spill in the process and sustained minor injuries. He was not wearing a helmet and had not called the police [...] because he feared the possibility of being turned back over to ICE [...] This incident exemplifies how bike safety and immigration status intertwine, impacting undocumented individuals 'ability to advocate for themselves if they face injustice or are victims of crimes while on their bikes.80

Fear of law enforcement prevents essential riders who are undocumented immigrants from reporting instances of personal injury which reifies gaps in power and renders them 'voiceless 'at the cost of their wellbeing. This fear brings into question how mobility is framed by citizenship

<sup>77</sup> Fuller and Beltran, "The Invisible Cyclists of Los Angeles."

<sup>&</sup>lt;sup>78</sup> Joanna Bernstein, "No Choice but to Bike: Undocumented and Bike-Dependent in Rust Belt America," in *Bicycle Justice and Urban Transformation: Biking for All?*, Equity, Justice, and the Sustainable City (New York, NY: Routledge, 2016), 148; Fuller and Beltran, "The Invisible Cyclists of Los Angeles."

<sup>79</sup> Bernstein, "No Choice but to Bike: Undocumented and Bike-Dependent in Rust Belt America," 151. 80 Bernstein, 149.

which informs the right to participate within the public arena. Undocumented immigrants are often unable to engage in civic processes or advocate for vital resources such as transportation, and distrust of government officials and law enforcement can hinder successful outreach efforts. As such, it is crucial to recognize how barriers to mobility of undocumented immigrants are rooted in broader immigration policies that require bicycle advocates and planners who profess equity to consider the sociopolitical contexts of essential riders and expand their efforts beyond infrastructure.

Cities can enact ordinances for sake of public safety and even minor infractions, such as missing a bicycle light, can result in punitive measures. Food delivery workers in New York City (NYC), who are typically low-income, Asian or Latino immigrants, rely on e-bikes as a means of transportation and income. Strict regulations in the name of bike safety for cyclists, without having considered the needs and experiences of essential riders, impose an undue burden upon these riders who already operate within an oppressive system. "Car-based street spaces are not conducive, efficient, or safe for food delivery cycling and thus help to produce 'irresponsible ' behaviors, such as riding the wrong way or riding on sidewalks in order to deliver food quickly [...] exacerbated by increased demand for food deliver under bad weather conditions of rain, snow, and ice."<sup>81</sup> Ordinances that regulate riding behavior unfairly target essential riders who may be unable to afford required safety equipment or access educational materials about safe cycling practices. The financial burden of requiring essential riders to wear safety gear, such as lights and helmets, with punitive consequences criminalizes being poor.

Furthermore, many educational materials on "safe" cycling practices are developed in English which prioritizes English-speaking riders, and the unavailability of the materials in other

<sup>&</sup>lt;sup>81</sup> Do Lee et al., "Delivering (in)Justice: Food Delivery Cyclists in New York City," in *Bicycle Justice and Urban Transformation: Biking for All?* (Routledge, 2016), 120.

languages puts non-English speakers at a disadvantage of understanding bicycling regulations and traffic safety. Violation of these "safe" cycling regulations can result in fines or confiscation of bikes which unjustly places undue financial burdens on essential riders and further limits the mobility of these individuals.<sup>82</sup> Ultimately, food delivery workers in NYC are relegated to operating within a feedback loop: educate-and-punish model of street safety + car-centric street design + demand-oriented employment + tip-based livelihood  $\rightarrow$  targeted policing + e-bikes restriction  $\rightarrow$  financial dispossession through fines OR detention if undocumented OR confiscation of e-bike. Each of these outcomes limits the mobility of essential riders, and for many of these riders, low mobility means fewer opportunities for employment, healthcare, education, and other social services that are crucial to the wellbeing of an individual.

Bike safety education rarely considers the hostile environments that essential riders are often required to navigate for their livelihoods, and it also reifies a binary discourse of the 'bad ' versus 'good 'cyclist. Essential riders can face aggressive behavior or verbal offenses because of their social, political, and economic vulnerabilities and how they've been portrayed within multimedia journalism. Lee et al. (2016) assessed the media portrayal of food delivery cyclists in NYC and found that media *without* food delivery voices (n=54) were 68% more likely to depict food delivery cyclists as bad or deviant than media *with* food delivery voices (n=20), and were twice as likely to discuss educating, punishing, or policing food delivery cyclists for "public safety."<sup>83</sup> The rhetoric within the media and in the bicycle advocacy realm dispossesses essential riders of power and agency by negating and invalidating their lived knowledge. Essential riders are misconstrued as irresponsible, unruly cyclists who must be corrected, educated, or reprimanded for trying to earn a living and protect their livelihoods. Bike safety projects often

82 Lee et al., 121.83 Lee et al., 121.

require workers to acquire and dress in safety gear, such as reflective vests, which draws increased negative attention to essential riders.<sup>84</sup>" Bike safety projects demand that racialized migrant subjects make themselves visible in places where racial aggression directed at migrants is routine [..., and they] fail to broach issues of worker rights.<sup>85</sup> Because of the ways in which mass media portrays essential riders, they are often stigmatized to the degree of heightened policing.

Discriminatory policing practices against minority and low-income cyclists dovetail "public safety" efforts as a way to regulate these "bad" cyclists to make streets safer. A report in Tampa, FL found that out of 10,000 bicycle tickets issued over 12 years, more than 79 percent were cited to black individuals who, at the time of reporting, made up a quarter of the city's population.<sup>86</sup> According to the article, black cyclists were unfairly targeted by police and implicated for minor infractions, such as riding without a light, as grounds to legitimize stops for further investigation of the individual for other criminal activity. Patterns of racialized policing of black cyclists are also evident in Chicago, IL where twice as many bike citations were allocated in majority black neighborhoods than in majority white or Latino neighborhoods.<sup>87</sup> In the case of food delivery workers in NYC, the culmination of discriminatory policing practices and stigmatizing bicycle safety projects results in a "positive feedback loop in which delivery cyclists are cast as criminals while the evidence of their criminality is created through increased ticketing of people who often cannot effectively contest ticketing because [of language

<sup>&</sup>lt;sup>84</sup> Lee et al., 121; Emily Reid-Musson, "Shadow Mobilities: Regulating Migrant Bicyclists in Rural Ontario, Canada," *Mobilities* 13, no. 3 (May 4, 2018): 318, https://doi.org/10.1080/17450101.2017.1375397.
<sup>85</sup> Reid-Musson, "Shadow Mobilities," 321.

<sup>&</sup>lt;sup>86</sup> Zayas and Stanley, "How Riding Your Bike Can Land You in Trouble with the Cops — If You're Black."
<sup>87</sup> Mary Wisniewski, "Biking While Black': Chicago Minority Areas See the Most Bike Tickets," *Chicago Tribune*, March 17, 2017, https://www.chicagotribune.com/news/breaking/ct-chicago-bike-tickets-minorities-0319-20170317-story.html.

barriers]."88 Furthermore," the policing of communities of color has always had a large impact on how we get around our communities."89 Tickets are written as administrative citations in the name of "public safety", but traffic safety stops with the intent to stop-and-frisk or check for warrants can result in more devastating outcomes such as arrest or deportation—it is no wonder that essential riders navigate the streets in fear.

### THE PLIGHTS OF ESSENTIAL RIDERS: INFRASTRUCTURE & SECURITY

While keeping the sociopolitical constraints of mobility in mind, insight garnered in emerging research can guide bicycle advocates and planners in understanding how essential riders perceive physical aspects of the built environment as risky or safe. An assessment by the League of American Bicyclists indicated that "a strong and diverse majority of Americans say more bike lanes and trails would encourage them to ride more, including 60% of people of color and 59% of those earning less than \$30,000 per year."<sub>90</sub> The lack of dedicated infrastructure may cause essential riders to resort to riding on the sidewalk alongside busy, heavily trafficked streets. This is especially true when work opportunities are in locations where large trucks and very little bike infrastructure exists.91" Deviant" riding behavior that is in response to protecting oneself could result in unfair policing. Even so, low-income communities are half as likely as high-income communities to have sidewalks, let alone bike lanes.92 A survey conducted by Charles Brown of the Alan M. Voorhees Transportation Center at Rutgers University showed

<sup>88</sup> Lee et al., "Delivering (in)Justice: Food Delivery Cyclists in New York City," 121.

<sup>89</sup> Miguel Ramos in Adonia Lugo, "Seeing & Believing in Bike Equity," Text, League of American Bicyclists,

November 25, 2014, https://bikeleague.org/content/seeing-believing-bike-equity.

<sup>90</sup> Szczepanski, "The New Majority: Pedaling Towards Equity," 6.

<sup>91</sup> Reid-Musson, "Shadow Mobilities," 320.

<sup>92</sup> Sara Zimmerman et al., "At the Intersection of Active Transportation and Equity" (Safe Routes to School National Partnership, 2015), 17, https://www.saferoutespartnership.org/sites/default/files/resource\_files/at-the-intersection-of-active-transportation-and-equity.pdf.

that the three most prevalent barriers to cycling within black and Hispanic communities are "fear of traffic collision", "fear of robbery/assault", and "pavement condition."93 Aside from "pavement condition", resolving the other indicated barriers with infrastructural improvements would be minimum effort by transportation professionals and bicycle advocates to remedy "fear of traffic collision" and "fear of robbery/assault" as obstacles to ridership in minority groups. The LAB assessment also reported that "people of color (47%) were [...] more likely than whites (32%) to indicate that 'plentiful, secure bike parking 'would increase their bicycling. While 45% of those earning less than \$30,000 per year [said bike parking would increase their bicycling], only 30% of those earning more than \$75,000 per year [indicated the same]."94 For essential riders whose livelihoods depend on a bicycle, personal security can be of utmost importance. A recent study that examines differences in how safety, i.e. crime and crash, is perceived by lower income, minority residents on various types of bicycle facilities and urban contexts corroborates this evidence. Qualitative surveys (n=219) on the safety risks associated with an array of bicycle environments found that residents in higher crime and lower income neighborhoods are less likely to bike for fear of the bike being stolen while riding or assault at night.95 These fears coincided with bicycling environments in isolated, quiet areas or environments with poor lighting and sightlines, all of which heighten user vulnerability.96 While it is intuitive to install shared-use paths or cycle tracks that are isolated from vehicular traffic to limit car-bike interactions and prevent crashes, low-income and minority residents of higher crime neighborhoods indicate that these facilities in this particular environment create more risk for

<sup>93</sup> Charles Brown, "A Silent Barrier to Bicycling in Black and Hispanic Communities," *Institute of Transportation Engineers Journal*, September 2016, fig. 1.

<sup>94</sup> Szczepanski, "The New Majority: Pedaling Towards Equity," 8.

<sup>95</sup> Anne Lusk et al., "Bicycle Facilities Safest from Crime and Crashes: Perceptions of Residents Familiar with Higher Crime/Lower Income Neighborhoods in Boston," *International Journal of Environmental Research and Public Health* 16, no. 3 (February 7, 2019): 14, https://doi.org/10.3390/ijerph16030484. 96 Lusk et al., 11.

crime. Transportation professionals, bicycle advocates, and bicycle planners should take note of how low-income and minority individuals discern different bicycling environments as insight for best practices that will respond to different needs and perceptions of cycling facilities within high-income, low-income, high crime rate, and low crime rate areas.

### THE VALUE OF COMMUNITY BICYCLE ORGANIZATIONS

In order to work towards realizing equity in transportation, it is crucial that bicycle advocacy and planners adopt methods and solutions that address the ways in which essential riders experience the streets. The contemporary bicycle advocacy movement runs the risk of negating a population of riders who are primarily low-income and/or minority individuals because of its focus on promoting bicycling as an amenity for economic development. Physical street design and bicycle infrastructure will not fully resolve racialized harassment and discriminatory policing practices enacted against essential riders nor will implementing safety education programs or requiring safety equipment protect essential riders from physical harm while riding. "It's important for our profession to hear that people of color in the U.S. have good reasons to fear being physically unprotected in our public right-of-way, and to hear that there may be pretty fucking good reasons that people of color feel biking/walking projects should have lower priority than, say, police brutality & lack of economic opportunity."97 Bicycle equity requires planners and advocates to reassess the social, economic, and political contexts within which essential riders exist. The lived knowledge and experiences of essential riders needs to be prioritized and valued within the process of planning in order to create informed solutions

<sup>97</sup> Jessica Roberts in Lugo, "Seeing & Believing in Bike Equity."

through productive collaborations with essential riders or trusted appointees in a productive and meaningful manner.

While it is tempting for planners and advocates to reach out to essential riders directly, the long-term work of building trust with essential riders has been ongoing in cities and towns where there are transportation-focused service organizations that provide mobility options to those in need of transportation. These community-based organizations are understated in their importance and value for expanding mobility options to the individuals that they serve. Donating bicycles and related services to those who need a reliable, affordable mode of transportation addresses the social determinants of health and resolves barriers to mobility.98 Unlike advocacy or policy-focused organizations, these organizations are often in direct contact with essential riders through their donation programs. Community cycling programs, often called bicycle kitchens or bike co-ops, are not-for-profit shops that typically follow any or all of these three objectives 99: "(1) implicitly critique the wastefulness of capitalism through recycling, (2) promote an environmentally sustainable mode of transportation, and (3) advocate selfempowerment and participation as direct alternatives to consumption and alienation." Some models of community bicycle organizations provide free or low-cost repairs and bicycles to lowincome, homeless, or transitioning individuals while others focus on bicycle maintenance workshops or "earn-a-bike" programs for youth. Each of these various models of community bicycle organizations "pay[s] attention to some of the distinct ways in which mobility is intricately connected with race, class, and gender privilege."100

<sup>&</sup>lt;sup>98</sup> Lucas Zellmer and Nathan Fleming, "Wheels For All: Addressing Social Determinants of Health One Bicycle at a Time" (La Crosse, WI: Wisconsin Medical Society, August 2017).
<sup>99</sup> Zachary Mooradian Furness, *One Less Car: Bicycling and the Politics of Automobility*, Sporting (Philadelphia: Temple University Press, 2010), 175.
<sup>100</sup> Furness, 171.

The Community Cycling Center established in 1994 in Portland, OR developed the first adult "earn-a-bike" program which taught low-income individuals basic bicycle maintenance, safe riding skills, and provided them with bicycles and riding essentials, e.g. locks, helmets, lights.101 The prolonged history of working with low-income, homeless, and minority individuals prompted the Community Cycling Center to commence a research project to answer questions regarding if and why or why not low-income communities and communities of color were interested in bicycling.<sup>102</sup> Their process included partnering with other service organizations to gather responses from individuals through focus groups and bringing together policymakers and their constituents to roundtable discussions—techniques that are often utilized in communitybased planning. "While there were common barriers, there were also unique stigmas, challenges, and historical realities between culturally-specific groups."103 Several new neighborhood programs to teach maintenance and riding skills, policy recommendations, and even changes to a greenway design emerged from the endeavor.104 Individuals of low-income, minority, and immigrant populations contributed their lived knowledge and experiences to inform and guide planning policy and design, program development, and organizational strategies. Despite not having been compensated monetarily for their time or knowledge, community members were prioritized in engagement efforts and empowered to shift the conversation for more equitable outcomes.

Community bicycle organizations are in a unique position to bridge the disconnect between essential riders and bicycle advocates and planners. The potential for community

101 Furness, 176.

<sup>102</sup> Community Cycling Center, "Understanding Barriers to Bicycling Project" (Portland, OR, July 2012), 3, https://www.communitycyclingcenter.org/wp-content/uploads/2012/07/Understanding-Barriers-Final-Report.pdf. 103 Community Cycling Center, 21. 104 Community Cycling Center, 21.

bicycle organizations to render historically marginalized groups audible in the field of transportation planning is one that can result in shifts towards mobility justice. The work of the Community Cycling Center in Portland exemplifies these possibilities. Such organizations are able to connect decision-making individuals in planning and policy with those who are rarely considered or heard from in public hearings or through public outreach yet are directly impacted by changes in transportation infrastructure and policy. Community bicycle organizations with a history of working with low-income and minority individuals are a helpful resource for planners because they operate at the intersection of transportation and community service, and this distinct position offers valuable insight about the often-overlooked gaps and needs in transportation policy and infrastructure.

#### CHAPTER CONCLUSION

Transportation planning and policy in the United States perpetuated the uneven development of the built environment through discriminatory practices and inaccessible procedures to low-income communities of color. Regulatory policies that were enacted in response to the environmental justice movements called for public participation strategies that were to consider minority populations. Unfortunately, current transportation planning procedures only reflect the minimum participation efforts that are mandated by law. As a result, the transportation planning continues to lack equitable planning practices. Bicycle transportation planning was not immune to these discriminatory planning traditions and planning for bicycles quickly became a site where the dominant narrative reflected the needs of the "creative class" versus that of the "essential rider". Essential riders are individuals who rely on a bicycle as a primary, reliable mode of transportation due to fixed or low incomes and challenges to obtaining

a driver's license. Recent work in transportation equity pertaining to bicycles calls for meaningful participation from low-income communities of color and from essential riders. Essential riders often face challenges that are related to the planning and policies of the built environment, such as receiving citations for riding without bike lights. The concept of local knowledge assumes that individuals hold valuable insight that should be prioritized and valued in the planning process. As such, an equitable approach to bicycle transportation planning seeks to include the local knowledge of essential riders in decision making processes. One method of accessing that valuable information is via community bicycle organizations. Community bicycle organizations that have established trust with essential riders are important resources for bicycle transportation planners and advocates in order to pursue meaningful public participation in planning processes.

# **CHAPTER 4**

# BICYCLE PLANNING AND BIKEATHENS IN ATHENS-CLARKE COUNTY

### CHAPTER INTRODUCTION

Chapter Four describes the current sociodemographic conditions and recent transportation trends in Athens, GA, specifically focusing on the population living in poverty. Data from the American Community Survey and National Household Travel Survey is used to exhibit these patterns. Chapter Three also recounts city-sanctioned bicycle and pedestrian plans of Athens-Clarke County and discusses the status of bicycle transportation planning within the area. The local community bicycle organization, BikeAthens, is also profiled in this chapter to highlight their role in Athens, GA as a service-based non-profit group for essential riders.

### THE DEMOGRAPHIC PROFILE OF ATHENS-CLARKE COUNTY, GA

Athens-Clarke County, GA is located in the northeast region of the state of Georgia. The county is approximately 122 square miles and is the smallest county in Georgia.<sup>105</sup> According to the U.S. Census Bureau, the Athens-Clarke County, GA metro area in 2018 had an estimated population of 211,306. The majority of the population reported as White alone (66.1%) followed by Black or African American (20.1%), Hispanic or Latino (8.3%), and Asian (3.6%) (see Table 1). It is important to note that the flagship university of the state, The University of Georgia, is

<sup>105</sup> Athens-Clarke County, "Athens-Clarke County By The Numbers," January 2017, https://www.ahensclarkecounty.com/DocumentCenter/View/535/Athens-Clarke-County-By-the-Numbers?bidId=. located in Athens-Clarke County. As such, the demographics of the Athens-Clarke County area is heavily skewed by the presence off-campus college students.<sup>106</sup> Statistics by the U.S. Census Bureau for 2017 5-year estimates report that the overall poverty rate of Clarke County is 35.2%. However, the adjusted overall poverty rate, which was reassessed to account for the presence of off-campus college students, is 26.4%.<sup>107</sup>

According to the U.S. Department of Health and Human Services, the poverty guideline

in 2017 was \$12,060 for individuals and single households.108 Poverty rates in Athens-Clarke

County are highest amongst Black and Hispanic or Latino individuals despite their minority

representation within the population of the area compared to whites. The 2017 American

Community Survey 5-year estimates of poverty rates in Athens-Clarke County (Table 1) report

that 19.5% of whites live at or below poverty level followed by 30.5% of Asian, 35.7% of Black,

and 43.0% of Hispanic or Latino individuals.109

Table 1. Representation of race shown in comparison with the proportion of indicated race living below the poverty level within the Athens-Clarke County Metro Area. 2013-2017 American Community Survey 5-year Estimates, Tables DP05 and S1703.

	Total	Less than 100%
	Population	of poverty level
White	73.80%	21.1%
White, alone	66.09%	19.5%
Black or African American	21.14%	35.7%
American Indian and Alaska Native	0.53%	6.9%
Asian	4.21%	30.5%

<sup>&</sup>lt;sup>106</sup> Craig Benson and Alemayehu Bishaw, "Examining the Effect of Off-Campus College Students on Poverty Rates," The United States Census Bureau, December 7, 2017,

<sup>108</sup> Assistant Secretary for Planning and Evaluation, "2017 Poverty Guidelines," ASPE, January 12, 2018, https://aspe.hhs.gov/2017-poverty-guidelines.

109 U.S. Census Bureau, "American Community Survey 5-Year Estimates, Table S1703," 2017.

https://www.census.gov/data/tables/2017/demo/income-poverty/acs5yrs.html; Craig Benson and Alemayehu Bishaw, "When Many College Students Live Off Campus, Poverty Rate Goes Up," The United States Census Bureau, October 22, 2018, https://www.census.gov/library/stories/2018/10/off-campus-college-students-poverty.html.

<sup>107</sup> Benson and Bishaw, "Examining the Effect of Off-Campus College Students on Poverty Rates."

Native Hawaiian and/or Pacific Islander	0.10%	14.3%
Hispanic or Latino	8.31%	43.0%

While it is difficult to make conclusions about the racial distribution of poverty in Athens-Clarke County because of how off-campus college students skew the census data, the higher rates of poverty amongst Black, Hispanic or Latino, and Asian individuals compared to each of their respective proportions of representation within the total population of Athens-Clarke County indicates that non-white individuals disproportionately possess the burden of poverty in comparison to white individuals.

It is widely understood that the mobility of those living at or below the poverty level is exceedingly limited due to financial constraints associated with transportation costs such as vehicle ownership or public transit fares. Lucas et al. describes this limitation as one factor of transport poverty that is especially relevant in developed countries where infrastructure and transit services are likely to exist.110 Such limits to mobility can restrict social activity, employment opportunities, and food security of an individual which have important implications for an individual's wellbeing as social determinants of health.111 According to the 2017 American Community Survey 5-year estimates, individuals below the poverty level in the Athens-Clarke County Metro Area were more likely to use public transit, walk, or travel to work by other means, such as bicycling, than their wealthier counterparts (Table 2).

<sup>Karen Lucas et al., "Transport Poverty and Its Adverse Social Consequences,"</sup> *Proceedings of the Institution of Civil Engineers - Transport* 169, no. 6 (December 2016): 353–65, https://doi.org/10.1680/jtran.15.00073.
Karel Martens, "Role of the Bicycle in the Limitation of Transport Poverty in the Netherlands," *Transportation Research Record: Journal of the Transportation Research Board* 2387, no. 1 (January 2013): 20–25, https://doi.org/10.3141/2387-03; Cervero, "Job Isolation in the US: Narrowing the Gap through Job Access and Reverse-Commute Programs"; Kelly J. Clifton, "Mobility Strategies and Food Shopping for Low-Income Families: A Case Study," *Journal of Planning Education and Research* 23, no. 4 (June 2004): 402–13, https://doi.org/10.1177/0739456X04264919.

	100 percent of poverty level		100-149 percent of poverty level		150+ percent of poverty level	
	A-CC	Georgia	A-CC	Georgia	A- $CC$	Georgia
SOV	74.57%	68.71%	73.77%	72.55%	80.89%	81.56%
Carpool	7.35%	15.49%	15.51%	15.41%	9.83%	9.09%
Public	6.41%	4.85%	2.58%	3.73%	1.59%	1.71%
Walk	5.82%	3.39%	2.79%	2.26%	1.28%	0.93%
Other	2.69%	3.62%	1.85%	2.66%	1.73%	1.40%
Home	3.16%	3.94%	3.51%	3.38%	4.69%	5.32%

Table 2. Means of Transportation to Work by Poverty Status in the Past 12 Months, 2013-2017 American Community Survey 5-Year Estimates, Table B08122

The observed estimates in Athens-Clarke County align with statewide trends wherein individuals living at or below poverty are more likely to use alternative modes of transportation than those living just above the poverty level. The prevalence of SOV use for work commutes increases with poverty status while use of alternative transportation modes decreases in both Athens-Clarke County and the state of Georgia. This could indicate that individuals use other alternative transportation due to financial constraints associated with owning and using an SOV. Furthermore, Athens-Clarke County households who do not own any vehicles are more likely to walk (80.15%), bike (66.73%), or use public transit (77.84%) than those who own one or more vehicles. It should be noted that the presence of a large flagship university can skew walking and bicycling data in Athens-Clarke County as it does for poverty data inasmuch as whether off-campus college students commute by bike or attribute the university bus system as taking public transit.

Rates of walking and using public transit of those living below poverty level in Athens-Clarke County are significantly higher than rates of bicycling or carpooling represented in both the metro area and across the state (Table 2). Two potential factors to explain this trend may be: 1) the prevalence of off-campus students represented in census data, or 2) the small square mileage of Athens-Clarke County wherein much of the employment and low-income housing are located in dense, urban areas. In essence, individuals living at or below poverty level in Athens-Clarke County who commute to work by bicycling, walking, or taking public transit may do so out of necessity and, as such, these forms of transportation are essential to the mobility of such individuals. Data from the National Household Travel Survey shows that black, low-income individuals are more likely to ride a bicycle on a daily basis than any other identified race earning below 125% of the 2017 poverty level (Table 3).

	Household income		
	Less than \$10,000	\$10,000 to \$14,999	
White	11.72%	7.53%	
Black or African American	39.05%	18.34%	
Asian	5.75%	2.30%	
American Indian or Alaska Native	7.14%		
Native Hawaiian or other Pacific Islander		50.00%	
Multiple responses selected	20.00%	2.35%	
Some other race	25.64%	10.26%	
All	14.40%	8.18%	

Table 3. Proportion of individuals who commute via bicycle on a daily basis by race, 2017 Federal Highway Administration National Household Travel Survey.

Seeing as poverty is concentrated amongst non-white individuals in Athens-Clarke County, it can be assumed that these essential riders are likely to identify as Black, Asian, or Hispanic or Latino. In conjunction with nationwide bicycle ridership trends of low-income individuals, essential *bicycle* ridership in Athens-Clarke County is likely to predominately consist of Black or African American riders.

# BICYCLE TRANSPORTATION PLANNING IN ATHENS-CLARKE COUNTY

Bicycle and pedestrian projects and other alternative transportation projects first became eligible for federal funding through the Congestion Mitigation and Air Quality Improvement Program (CMAQ) that was established by the Intermodal Surface Transportation and Efficiency Act (1991).112 Additional federal funding mechanisms for bicycle and pedestrian projects were established in the years following, such as the Transportation Alternatives Program. Even so, a majority of federal transportation funds are distributed through metropolitan planning organizations (MPOs) who are responsible for prioritizing such projects for funding in a transportation improvement program (TIP) through regional transportation planning efforts. Athens-Clarke County falls within the Madison Athens-Clarke Oconee Regional Transportation Study (MACORTS) MPO region. MACORTS consists of a technical coordinating committee with staff from Athens-Clarke County, Madison County, Oconee County, the University of Georgia, the Georgia Department of Transportation, and the Federal Highway Administration, as well as a policy committee that consists of eight voting members and eleven non-voting members from Madison County, Athens-Clarke County, Oconee County, University of Georgia, and the Georgia Department of Transportation.113 The ACC Planning Department is designated by the Governor of the state of Georgia as the administrative seat of MACORTS, and, as such, the ACC Planning Department is responsible for executing regional transportation planning, developing the long-range transportation plan, and prioritizing transportation projects in a TIP for the MACORTS region.

<sup>112</sup> Ellen Schweppe, "Legacy of A Landmark: ISTEA After 10 Years," *Public Roads Magazine*, November 2001, https://www.fhwa.dot.gov/publications/publicroads/01novdec/legacy.cfm.

<sup>&</sup>lt;sup>113</sup> Madison Athens-Clarke Oconee Regional Transportation Study, "MACORTS Technical Coordinating Committee," October 24, 2019, http://www.macorts.org/files/TCC-committeeupdated-10-24-19.pdf; Madison Athens-Clarke Oconee Regional Transportation Study, "MACORTS Policy Committee," October 24, 2019, http://www.macorts.org/files/MACORTS-POLICY-COMMITTEE-10-24-19.pdf.

Public participation measures are federally mandated throughout the transportation planning process with directives to identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."<sup>114</sup> However, only one transportation planner within the ACC Planning Department, the administrative seat of MACORTS, is dedicated to execute these planning processes for the entire MACORTS region. While there is potential to enact equitable transportation planning within the MACORTS region through more comprehensive public participation plans, the extent of transportation planning by ACC and MACORTS is performed at the federally mandated minimum requirements in order to receive federal funding "as the conduit through which federal transportation funds come to the urbanized area."<sup>115</sup> As such, MACORTS, similarly to other MPOs across the United States, operates merely as a pocketbook used to maintain status quo planning procedures that perpetuate the underrepresentation of marginalized communities.

Due to the limited capacity of transportation planning in Athens-Clarke County and lack of initiative on behalf of MACORTS, bicycle transportation plans, let alone public participation and outreach efforts, were implemented sporadically with zero to little consideration of public input. The first county-wide bicycle plan in Athens-Clarke County was published by Charles F. Floyd for the Athens-Clarke County Planning Commission in 1974. As one of the earliest bicycle planning documents in Athens, it describes various archetypes of bicycle infrastructure, criteria related to planning for such facilities, and it proposes a comprehensive network of bikeways throughout the county. The two main goals of the plan are to reduce the amount of

<sup>114</sup> The White House, "Executive Order 12898."

<sup>&</sup>lt;sup>115</sup> Madison Athens-Clarke Oconee Regional Transportation Study, "Madison Athens-Clarke Oconee Regional Transportation Study," MACORTS, accessed November 2, 2019, http://www.macorts.org/.

automobile-cyclist conflicts and encourage the use of bicycles as transportation. Floyd acknowledges the lack of data and existing facilities nationwide as barriers to encouraging bicycle use as well as the limited funding available for the implementation of bikeways. Floyd also writes that the prevalence of cyclists in Athens is amplified due to the presence of collegeaged riders who attend the University of Georgia.116 As such, university ridership was noted as an opportunity for catalyzing bicycle transportation in Athens-Clarke County. The 1974 plan cites evidence of a growing nationwide movement that emerged out of the University of California at Davis as an indicator of the potential for bikeways to reform commute modes in Athens.117 The proposed network focused on connecting the University of Georgia to areas throughout Athens-Clarke County, and specific connections to Downtown Athens in the proposed network were based on a study by two University of Georgia graduate students at the School of Environmental Design in May of 1974.118

It is clear that the 1974 bikeway plan was developed in response to the bicycle boom of the 1970s wherein cycling adopted a renewed status of being both a positive, healthy recreational activity and a critique of automobile monoculture.<sup>119</sup> A comprehensive bikeway network was proposed and articulated in the plan although Floyd did not conduct any surveys "or other similar expensive and time-consuming techniques" on account of "their very limited usefulness and validity."<sup>120</sup> Instead, he attributes the success of the network as "bikeways tend to create their own demand."<sup>121</sup> Unfortunately, the 1974 bikeway plan serves as an example of the utilitarian

<sup>&</sup>lt;sup>116</sup> Charles F. Floyd, "Bikeways for Clarke County: A Proposed Comprehensive System" (Athens-Clarke County Planning Commission, November 1974), 16.

<sup>117</sup> Floyd, 17.

<sup>118</sup> Floyd, 19.

<sup>&</sup>lt;sup>119</sup> Jeff Mapes, *Pedaling Revolution: How Cyclists Are Changing American Cities* (Corvallis, OR: Oregon State University Press, 2009), 37.

<sup>120</sup> Floyd, "Bikeways for Clarke County: A Proposed Comprehensive System," 13. 121 Floyd, 13.

tradition of transportation planning in which planners disregard the complexities of race, education, and transportation as social determinants of socioeconomic mobility. By negating the value of surveys and public input due to the lack of data, traditional planners also overlook the value of local knowledge that community members hold of their natural and built environments.

The following comprehensive bicycle transportation master plans of Athens-Clarke County were not completed and adopted by the unified government until December 2001 and again in November 2018. The 2001 plan included origin-destination surveys in the development of the proposed network and comments to advise the plan which were received in a public forum. The origin-destination surveys were publicized on a webpage and in a local newspaper to reach those who were not internet active<sub>122</sub> —only 17 hardcopy surveys were received by the consultants. The surveys also included "demographic" information to the extent of requesting age, rider experience, and area of residence from the respondent.<sup>123</sup> Despite heavy attendance at the public forum, the 2001 report indicates that the proceedings of the event were largely conducted as an information session in which the public was only concerned with the project timeline.<sup>124</sup> The lack of racial and socioeconomic questions in the surveys or in the 2001 plan narrative of who completed the surveys or attended the public forum indicate that race and socioeconomic conditions had yet to be considered as relevant to bicycle transportation planning.

The most recent comprehensive bicycle plan in Athens-Clarke County that addresses and includes robust public outreach efforts was funded through the ACC Transportation and Public Works Department (ACC TPW) and implemented by Toole Design Group. Only recently has

<sup>122</sup> Gray-Calhoun & Associates, Inc., "Athens-Clarke County Bicycle Master Plan," Final Technical Report (Athens-Clarke County, December 2001), 30.

<sup>123</sup> Gray-Calhoun & Associates, Inc., 28.

<sup>124</sup> Gray-Calhoun & Associates, Inc., 46.

Athens-Clarke County adopted a bicycle master plan, Athens In Motion, that includes equity goals and objectives as components of the plan. These goals and objectives focus on ensuring that citizens of all ages and abilities can access improved infrastructure through better connections to bus stops and elementary and middle schools.<sup>125</sup> More specifically, these equity goals and objectives are exhibited by the prioritization and implementation of the proposed network. Public outreach was included as a part of the planning process, and outreach efforts were advised through the Bicycle and Pedestrian Citizens Advisory Committee which is now established as a formal city-county commission circa June 2019. Public outreach included soliciting surveys at various community events, posting an online web survey and interactive map, and hosting regular public information sessions and workshops at community events and venues across the county. The published document states that over 700 surveys were received to inform the development of the proposed network, yet it is unclear to what extent responses were received from the black or low-income communities.

Inadequacies about how Athens In Motion addressed equity was highlighted by Charles Brown during the Georgia Bike Summit soon after the plan was finalized. Brown's critique of the plan underlines an overlooked component of the call for equity in planning: race. By failing to mention race in the entirety of the report, Brown states that the plan is place-based rather than people-based and, as a result, fails to work towards racial equity.<sup>126</sup> Seeing as the planning profession has historically conformed to a traditional, often Euro-centric mode of practice, the history of bicycle transportation planning in Athens overlooks the value of meaningful public input and has recently negated the value of racial representation within the plan, and that Black

<sup>125</sup> Toole Design Group, "Athens In Motion Bicycle and Pedestrian Master Plan" (Athens-Clarke County, August 2018), 4–5.
126 Charles Brown, "Georgia Bike Summit Keynote" (October 12, 2018).

or African American individuals compose one-third of the racial demographic of Athens-Clarke County, it may be reasonable to conclude that the input of essential riders have yet to be considered within bicycle transportation planning in Athens-Clarke County. As such, the role of community bicycle organizations can be of importance in amplifying the needs and experiences of essential riders for the purpose of inclusivity and equity in transportation planning.

## BIKEATHENS, A COMMUNITY BICYCLE ORGANIZATION

Community bicycle organizations took root in Athens, GA in 1997 as the Athens Safe Cycling Association, later to be known as BikeAthens. BikeAthens started as a small-scale bike recycling program to fix and donate old bicycles, and it has grown into a broader non-profit organization that also educates and advocates for reliable, inexpensive alternative transportation options for the Athens community. The organization currently operates in three parts: advocacy, education, and the Bicycle Recycling Program (BRP). The BRP program, which functions as the community service component of BikeAthens, refurbishes bicycles that are then donated to specific individuals in need of transportation via established partner organizations in Athens-Clarke County. Education within BikeAthens involves a handful of events to teach safe cycling to youth groups, tabling at various events around Athens-Clarke County, and instructing an hourlong session at the Athens-Clarke County Municipal Court ticket diversion class. The education component of the organization is funded through a grant administered by the Governor's Office of Highway Safety in Georgia to pay for an executive director to teach safety programs and to purchase bicycling safety equipment, such as lights and helmets. Advocacy at BikeAthens addresses wider mobility concerns in Athens-Clarke County by petitioning the local government for safe bicycling infrastructure and alternative transportation friendly policies.

BikeAthens maintains a unique role within Athens-Clarke County as the sole city-wide bicycle advocacy group as well as the only non-profit bicycle organization focused on donating bikes to essential riders. BikeAthens receives bicycles to refurbish primarily through in-kind donations from Athens residents. These bicycles are assessed to ensure that the frame has not been compromised for safety and are then scrapped or repaired by volunteers for reuse. Considering the excess number of bicycles that are received, bicycles are determined to be sold or donated based on existing inventory and donation requests. Sales of refurbished bicycles allow BikeAthens to maintain a physical location which houses the repair shop, office, and storage. Unlike other models of community bicycle organizations, BikeAthens does not operate an "earna-bike" program due to limits in staff capacity. However, like other community bicycle organizations nationwide, BikeAthens offers free repairs to recipients of donated bikes through partner organizations as well as sliding-scale repairs to other low-income and homeless customers. Donation clients receive a bicycle most commonly through BikeAthens partner organizations. Partner organizations discern whether an individual is in need for a reliable, safe mode of transportation and submit anonymous requests for a bicycle to BikeAthens which are fulfilled through the BRP program. As such, BikeAthens actively addresses individual mobility concerns and contributes to transportation equity and mobility justice.

The multiple objectives of BikeAthens have helped the organization to form a wide range of relationships within the Athens community. The advocacy and education work connect the organization to local government, community foundations, neighborhood associations, and other non-profit organizations. Alternatively, the BRP program and its services connect the organization to volunteers, bike enthusiasts, and riders of all socioeconomic and racial backgrounds. These relationships situate BikeAthens at an advantage to bridge the political gap

between underrepresented stakeholders and local decision-makers for the purpose of improving the transportation needs of BikeAthens donation clients. Because of its long tenure as a donationbased community service organization with a physical location in town, BikeAthens has developed relationships with many essential riders. Some of these relationships emerge with essential riders who had been provided with a BikeAthens-specific bicycle and visit the shop for maintenance or to volunteer while some relationships form with individuals who learn about the BikeAthens shop and its services through word-of-mouth and seek assistance in securing a bicycle or repairs. The service work and stable location of BikeAthens creates a unique opportunity for an advocacy organization to build trust and remain in touch with those for whom the organization advocates.

# CHAPTER CONCLUSION

Athens-Clarke County, GA is a predominately white city-county wherein the city's poverty is disproportionately located within the Black population. Athens-Clarke County is also considered a college town which are known to have inflated rates of poverty due to the presence of off-campus college students. Lack of transportation is indicated as a major limitation of those living in poverty. Transportation is crucial resource to be able to access employment opportunities, healthcare, and other social services, all of which influence socioeconomic mobility. Higher rates of walking, riding public transit, or bicycling are observed in Athens-Clarke County (ACC) populations living at poverty level than other comparable income levels, and this trend is also observed at the state level and across the United States. Individuals living in poverty rely on alternative forms of transportation, and community bicycle organizations, such as BikeAthens, can provide a means to an end for essential riders. The history of bicycle

transportation planning in Athens-Clarke County, GA is brief, and equitable engagement in planning processes is incomplete. Specifically, the needs of essential riders in Athens-Clarke County, GA were not considered in past bicycle planning efforts, and it is one of the goals of this research to highlight them.

# **CHAPTER 5**

### THEMES FROM INTERVIEWS WITH ESSENTIAL RIDERS

#### CHAPTER INTRODUCTION

Chapter Five introduces the research methods used to collect interviews with essential riders, the goals of the research interviews, and the analytical methods of this thesis. The procedure for the semi-structured interviews is outlined as well as the thematic analysis method of the interviews. In order to bring authenticity to my research, I include a reflexive statement that describes my experiences with BikeAthens and essential riders that guided me into this research. Chapter Four expounds upon the themes that were synthesized from the interviews, describes the results of the interviews, and concludes with some limitations of the study.

### **RESEARCH METHODS**

Within bicycle transportation planning, the experiences of essential riders provide a crucial opportunity to better understand mobility gaps for individuals who rely on a bicycle as a primary mode of transportation. Local knowledge may be accessed through community bicycle organizations who maintain relationships with essential riders. The premise of my research assumes that essential riders possess a form of local knowledge that is useful for planning. It is the goal of my research to understand how the essential riders navigate and experience the transportation network in Athens, GA in order to inform gaps in knowledge within bicycle

transportation planning. As such, I use qualitative research methods to collect and interpret semistructured interviews with essential riders.

Semi-structured interviews were used to allow for some organic conversation at the discretion of the interviewee. The objectives for the semi-structured interviews were to highlight the particular knowledge of essential riders about transportation needs in Athens-Clarke County, and to understand how the personal narratives of essential riders connect to the ways that they perceive the value of having a bicycle and navigate the built environment in Athens-Clarke County. Specifically, I asked: (1) how the essential rider perceives the value of the bicycle; (2) what their experiences have been navigating as a bicycle rider; (3) what their thoughts are of BikeAthens; and (4) ways that BikeAthens or Athens-Clarke County can improve their experiences as a bicycle rider. In short, I examine the experience of relying on a bicycle as a primary mode of transportation as a phenomenon and assess how the bicycle influences the life of an essential rider through thematic analysis of semi-structured interviews with ten essential riders.

An inductive analytical approach to the collected interviews orients the analysis such that the content of the interviews guides the coding process from which to build themes from the data. Thematic analysis coalesces interview data into themes that are detected in co-occurring patterns within the dataset.127 Specifically, I assess interviews for common terms mentioned in response to each interview question, extract significant statements pertaining to experiences and knowledges of the interviewees, group the terms and statements based on the meanings given to

<sup>127</sup> Virginia Braun and Victoria Clarke, "Thematic Analysis," in *APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological.*, ed. Harris Cooper et al. (Washington: American Psychological Association, 2012), 57–71, https://doi.org/10.1037/13620-004.

them through descriptive responses from interviewees, and interpret meanings pertaining to each dataset (see Table 4).

#### SEMI-STRUCTURED INTERVIEW PROCEDURE

Semi-structured interviews with BikeAthens donation clients were sourced through impromptu interactions with the individual while at the BikeAthens shop. The shop manager, executive director, and board president of BikeAthens each had long tenures with the organization. As such, their daily presence at the shop familiarized them with some of the essential riders in Athens-Clarke County. Based on their long-term relationships and familiarity with the donation clients, they would prompt me of a potential interview whenever an essential rider would enter the BikeAthens shop for bicycle repairs. Often, essential riders visit the shop whenever their bicycle is in need of service. These visits are random and do not occur frequently enough to warrant occasional research visits to the BikeAthens shop. I selected to conduct all research interviews at BikeAthens at the convenience of the client in order to minimize any potential burdens upon the individual.

All initial interactions with the essential riders were brief. They included a short introduction of myself and the research via a small project flyer (see Appendix A) and concluded by requesting 30 to 45 minutes for an interview and a photo op while they individual was waiting for bicycle repairs. Interviews were conducted and audio-recorded on an Olympus LS-10 in the BikeAthens office to minimize ambient noise. Each interviewee was compensated for their knowledge and time with two Athens Transit bus passes and a \$10 gift card to Dollar General. Following the interview, all interviewees were requested of a picture with their bicycle. Those who opted for the photo were provided with a printed photo image. The interview protocol (see

Appendix B) describes the overall process for the interview and lists the specific interview questions.

#### **RESULTS SUMMARY**

Ten interviews with essential riders were conducted to investigate the experiences of essential riders and how these experiences might inform transportation planning decisions. Many of the essential riders who participated in an interview for this thesis indicated the importance of having a bicycle to use in their daily lives. For some, this was a matter of survival—a way of gaining access to job opportunities, assistance programs, shelters, and medical care. For others, the bicycle provides transportation, but it is also a place of mental and emotional refuge to relieve stress or dissipate anger. Essential riders were also cognizant of some ways that their riding experiences could be improved through transportation planning. Overall, the essential riders reflected on the positive impacts that riding a bicycle has on their lives. However, the emotive quality of some interviews suggested that not all essential riders found relying on a bicycle as a particularly enjoyable need. In general, essential riders consider the value of a bicycle to be a matter of the bicycle's utility as a mode of transportation or a form of physical activity. For most essential riders who were interviewed, bicycles are helpful, but not in a way that creates sentimental value for the bicycle. The following subsections describe the themes that were extracted from the interviews in further detail. Pseudonyms are used to protect the identity of interview participants, and all quotes have been edited for clarity but not for grammar.

### THEME 1: BICYCLES PROVIDE BETTERMENT OF LIVES

Arthur\* first moved to Athens in 2011. His mother died in 1992 on Christmas, after which he spent years in and out of jail and living on the streets in Atlanta. Arthur "got tired of being homeless", so he contacted his cousin in Athens and relocated to the area to join a social services program. Arthur was unable to get disability after breaking his spine in 2011, and does "outside work, yard work, landscaping stuff like that" to earn money. Arthur's primary mode of transportation is a bicycle, and he finds that it allows him to get to jobs "all over Athens". The transportation benefit was a common response amongst the essential riders. When asked about how the bicycle is helpful, Gary responded, "I haul grocery on the bike [...] I mean I do all things on that bike that you never think I did. [...] I go everywhere and do everything just about a car does all except putting another human being on it."<sup>128</sup> Other essential riders also noted that the usefulness of a bicycle as transportation can be more efficient than using the transit system, although the bus is helpful when the bicycles are in need of repair or during inclement weather.

Bicycles also provide a physically healthy mode of transportation through exercise and daily physical activity, and for some it is also the most accessible option for transportation. Herman noted that having a bicycle allows him to be more mobile than if he had to walk or relied solely on public transit: "I ride not so much for exercise as relief from knee pain. [...] I'm not cycling to be a cyclist; I'm using it for transportation."<sup>129</sup> For other essential riders, like Gary, a bicycle is useful for transportation and also as a form of disease prevention. "The bikes also help me with my good cardio too cause I have heart failure [...] and ever since [BikeAthens] help me with my bikes help me to keep it fixed and stuff and I be able to ride it. And guess what

<sup>128</sup> Gary, Interview with Essential Rider, In-person at BikeAthens, June 25, 2019.

<sup>129</sup> Herman, Interview with Essential Rider, In-person at BikeAthens, July 2, 2019.

doctor told me the great news [...] my heart is better just like it's normal like I ain't got heart failure."130

Essential riders who were interviewed also made note of the benefit of saving money related to using a bicycle as a primary mode of transportation. "I don't have a Georgia driver's license. That's one reason [...] price of insurance and everything, payments [...] I mostly get around on my bicycle ever since I've been in Athens, know what I'm saying? That's the easiest way of getting around, you know, help me save a buck or two."<sub>131</sub> While cost-savings is not a particularly unique reason to ride a bike to only essential riders, the fixed or low-income status of these individuals heavily informs the need to rely on a bicycle as a primary mode of transportation.

Some essential riders also indicated that using a bicycle as a mode of transportation helped them to visit social service organizations that could connect them to housing and job programs or health services. During his interview, Demetrius mentioned that he stopped by BikeAthens while on his way to the Salvation Army to apply for housing. When asked about his riding habits, Demetrius indicated that riding a bicycle was also helpful mentally and emotionally. "I ride all day long [...] It's a good way to relieve stress and everything. If you're angry, I mean, just going out riding—it's really low stress."<sup>132</sup> This sentiment was also shared by other essential riders:

Gary: [I like to ride] where my heart leads, know what I'm saying.133

Elmer: [My family knows] that it's kind of, you know, my own place to just go out and hang out and have a good time, as well as just, you know, look around, look around the world and see what's going on around me.134

133 Gary, Interview with Essential Rider.

<sup>130</sup> Gary, Interview with Essential Rider.

<sup>131</sup> Corey, Interview with Essential Rider, May 31, 2019.

<sup>132</sup> Demetrius, Interview with Essential Rider, In-person at BikeAthens, June 11, 2019.

<sup>134</sup> Elmer, Interview with Essential Rider, In-person at BikeAthens, June 11, 2019.

Arthur: [It] make me feel comfortable, really comfortable. Like you at home sittin 'on a couch or something. [...] You enjoy the scenery more better than in the car. In a car, you gotta stop at that red light, at that red light. [On a] bicycle you hit the trail [it's] so calm quiet peaceful life. Yes, it feel so good, it release all your stress. You tension in your body and everything feels so relax.<sup>135</sup>

Overall, essential riders had positive comments about their bicycle and the experiences that they derive from it including improved health, relaxation, recreation, and mobility. Seeing as employment and economic stability are social determinants of health, the ability to access these services via bike provides opportunities to essential riders to also improve their socioeconomic mobility. During their interviews, essential riders recognized the importance of having a bicycle and articulated the ways in which it is a useful resource.

The essential riders who were interviewed for this thesis were asked about how they heard of BikeAthens or came to receive a bicycle from the organization. Some had received bicycles through partner organizations in the past, while others heard about BikeAthens through word-of-mouth from other homeless people.

I started talking to [a homeless man] one day, and he told me about BikeAthens. [...] So, he had a bike and then after that, I kind of I noticed people that were maybe a little bit more poor, you know, and I started talking to them, and they started telling me, they were getting free bikes. You know, so I thought that was a commendable project. Because some of these people, what I later found out was they actually work but their wage is so low. They can't afford a \$300 bike. That's like a car to them.136

The essential riders who were interviewed were appreciative of the service that BikeAthens provides by donating a bike or assisting with repairs for zero to little cost. Many of their

<sup>135</sup> Arthur, Interview with Essential Rider, In-person at BikeAthens, May 24, 2019.

<sup>136</sup> Frederick, Interview with Essential Rider, In-person at BikeAthens, June 20, 2019.

impressions of BikeAthens were that it is a critical resource in the community, and that the people at BikeAthens are kind and provide a good service.

Gary: I was homeless in the street in Marietta and course I was riding bike as usual, they got people down there and work on bikes as well, but not as good as BikeAthens.137

Arthur: I been a client a long time. I have so many bikes from these people. Yes. And there's so much love ova here and you meet different people, and I'm like man, I have so much fun. [...] The atmosphere. that's the best part about it. The atmosphere is fun [and] the energy is up. [...] There's no negativity or nothin 'in here. When you come here everybody smile, laugh, and you might be feeling down [but] as soon as you step through that door, boom.138

While the service of BikeAthens is crucial, the interviews also suggested that the services of community bicycle organizations can only do so much to improve the lives of essential riders. The assistance of BikeAthens extends as far as providing a mode of transportation and repair services for free or at a reduced cost. How essential riders experience riding a bike on the road is ultimately a matter of the planning and policy of the built environment. The following section articulates the experiential knowledge of essential riders that are relevant to bicycle transportation planning.

# THEME 2: PLANNING NEEDS SHINE THROUGH EXPERIENCES

Demetrius\* moved to Athens, GA with his wife from New York state to be with his father who had passed away in the past year. He and his wife were recently homeless and had heard of BikeAthens through another homeless person. Demetrius had only been using a bicycle as a primary mode of transportation for 5 months at the time of his interview. Yet, his perception of the need for improved bicycling conditions is indicative of the acute awareness that essential

137 Gary, Interview with Essential Rider.

<sup>138</sup> Arthur, Interview with Essential Rider.

riders have of the built environment. "Lexington road is hard to ride on. Because I mean, there's nowhere to really ride because the side of the road is not wide enough for a bike and a car. And people don't pay enough attention."<sup>139</sup> The need for bike lanes and bike paths was commonly mentioned amongst all interview participants, but they were indicated as needed along major routes within Athens-Clarke County, such as Milledge Avenue, Prince Avenue, and Lexington Road. When asked about the use of existing bicycle trails in Athens, Frederick indicated that the existing bicycle paths and trails were sometimes useful as shortcuts to get into town from the Lexington Road area. However, Jeffrey indicated the need for connections that are convenient to destinations.

Interviewer:	Do you know about the Greenway?
Jeffrey:	Yes, I know about the Greenway.
Interviewer:	And is that useful to you at all?
Jeffrey:	Well, I mean, riding it is, but how about if I gotta go to the store and the store
-	ain't that way and stuff like that?

Essential riders also connect dangerous riding conditions to their vulnerability on the road. Frederick and Jeffrey each had suffered physical injuries due to erratic driver behavior. Both expressed concerns for their safety during their interviews when asked if they had ever encountered any negative interactions or were injured while riding.

- Frederick: They, they really should do something to make it even more bike friendly. You know, instead of us having to be exposed to the idiots that believe we don't have the right to be on the road. [...] I had a car get close to me on Hawthorne. I went down I broke my leg and fractured my ribs, and that took me about three to four months to get over. [...] I was in the bike lane [and] the car came over.<sup>140</sup>
- Jeffrey: [The bike lane is] marked off and you know that's where you're supposed to be, and I can stay in there, but I don't know if these other guys stay in their lane. [It] can get scary out there. I see a lot of scary stuff.141

<sup>139</sup> Demetrius, Interview with Essential Rider.

<sup>140</sup> Frederick, Interview with Essential Rider.

<sup>141</sup> Jeffrey, Interview with Essential Rider, In-person at BikeAthens, July 7, 2019.

Yet, even after suffering injuries, essential riders continue to ride a bicycle as a means to a need for transportation. Jeffrey suffered broken ribs and a cracked pelvis when he was hit from behind by an elderly man driving with dementia. As someone who rode his bicycle to travel to job sites for work as a painter, the resulting injuries caused physical harm as well as lost opportunities to earn an income. A few months later, Jeffrey was clipped by a woman who had crossed over into the opposite lane in front of his bike and "hit me and the stop sign and the yard and everything" 142. When asked about the events of his two crashes and his take on feeling safe on the roads, Jeffrey responded:

Jeffrey: I know I was doing a straight line and everything. I know I was in the right because I remember and everything. Wasn't my fault. Just came out of nowhere. [long pause] He had dementia, you know with the old man, [...] and I seen him the other day driving! So, ain't stop him from driving. [long pause] That's what paranoids me, you never know who's behind the wheel. It could be a drunk it could be an old man, old woman, young kid.
Interviewer: Does that frustrate you or make you want to change something? There ain't nothin 'to change about it. Yeah, you know, yeah it upsets me, you know, that he's still driving. He might hit somebody else and I mean it might be,

you know, a mother, a child or something. So yeah, it upsets me.

The residual effects of these negative interactions with cars convey the gravity of such occurrences and that essential riders are the experts of their own safety and wellbeing. Essential riders are acutely aware of road conditions and the vulnerability that they face while on the road. However, essential riders are restricted when taking measures to ride safely such as using the

sidewalk to avoid interacting with car traffic or riding in poor pavement conditions.

The city, though, could [...] make the public understand that we have to ride on the road and not the sidewalk. Because I have actually spoke to some college students that told me they were given a ticket for riding on the sidewalk. [...] I was riding my bike, little conversation right there, red lights, whatever. And I was running on sidewalk and they laughed, and they said, you can get a ticket for writing. This girl told me she said her friend had just gotten a ticket the week before, for riding on

142 Jeffrey.

the sidewalk on Milledge. And that's a dangerous road. There are a thousand college students there. I believe that if they had more bike paths, they would encourage more kids to ride a bike. For one thing the parents would have these children would feel a little bit you know, like their children were safer. Instead of riding down Milledge with cars pass you by at 35 miles an hour.<sup>143</sup>

Elmer is a 22-year old young man who grew up in Athens-Clarke County, currently lives with his family, and works part-time in Athens. Prior communication with the staff at BikeAthens conveyed that Elmer is on disability for autism. Elmer is an essential rider due to his limited capacity to obtain a driver's license and reliance on a bicycle as a primary mode of transportation. When asked about his thoughts on how to improve bicycling in Athens, his concerns were mostly about the conditions of Lexington Road.

I wish they could add [...] a bike lane down Lexington road from the start of maybe Walmart on Lexington Road all the way down to the movie theater [...] because I do bike down there lots of times and there is a sidewalk I can merge onto [...] But that entire road is so bumpy and rough it's a little too unsafe for me to [...] ride down that road.144

The pavement conditions can be severe enough to cause significant physical harm to riders, and while some riders will opt to ride the sidewalk, doing so could result in burdensome fines or dispossession of the bike.

Essential riders are aware of the infrastructural improvements that are needed to facilitate safer riding and describe these improvements as a matter of needing more dedicated space. Some existing paths or bike lanes are not the most efficient routes to intended destinations, nor do they guarantee physical safety while on the road. Essential riders also home in on policy-related improvements that would provision for safer riding conditions. Concerns with poor driving behaviors, such as distracted or aggressive driving, demonstrate that in order to make effective

<sup>143</sup> Frederick, Interview with Essential Rider.

<sup>144</sup> Elmer, Interview with Essential Rider.

improvements for bicycling in general, there needs to be improvements in dedicated infrastructure *and* in policy related to vehicular traffic and driver behavior.

		Theme 1: Bicycles Prov	ycles Provide Betterment of Lives		Theme	Theme 2: Planning Needs Range in Specificity	cificity
	Mental & Emotional Refuge	Economical Benefits	Transportation Benefits	Health Benefits	Space on the road	Sidewalk riding	Vulnerability on the road
Essential riders	Riding can relieve stress, dissipate anger, and allow riders to enjoy nature or relax	Saves money by avoiding car or insurance payments	A bicycle is useful for transport of self or personal items, such as groceries	Bicycling provides exercise which is helpful for maintaining a healthy weight, metabolic levels, blood pressure, etc.	There is not enough space on the road for bikes and cars. People do not pay attention.	There is not enough space on The public does not understand Road conditions can cause the road for bikes and cars. that bicycles are required to be injuries that need medical People do not pay attention. on the road, and that riders can treatment which cost money be ticketed for riding on the and risks employment side walk. People ride on the side walk for personal safety reasons	Road conditions can cause injuries that need medical treatment which cost money and risks employment
	Riding can provide a feeling Cannot obtain a Georgia of accomplishment driver's license and with associated with reaching a price of insurance and ci destination or bypassing payments, bicycling is the traffic easiest way to get arounc	Cannot obtain a Georgia driver's license and with the price of insurance and car payments, bicycling is the easiest way to get around	Useful for accessing jobs and other employment opportunities	Bicycling is also useful for alleviating health issues and staying active	There is not needed bicycle infrastructure on primary routes through the center of town	There is not space on the road that is safe for bicycle riders and there are restrictions against riding on the sidewalk, but essential riders need to ride somewhere	Essential riders are "exposed to the idiots that believe we don't have the right to be on the road" which can result in physical injury, or death
	Provides a sense of autonomy and freedom	Riding a bicycle is cheap form of transportation without relying on others or the bus for rides	A bicycle provides unrestricted transportation that is not dependent on a bus schedule or bus fares		Bike lanes are marked off, but there is no guarantee that drivers will stay in their lane. Safe, rideable bicycle paths are lacking around Lexington Rd, a corridor frequently mentioned by essential riders		Distracted driving is a lethal issue for vulnerable road users
Researcher's reflections	A bicycle can be a way to escape the negative pressures of life's demands	A bicycle provides mobility The ability to retain jobs without challenges related to obtain employment depe obtaining a driver's license on having a bicycle as a or insurance due to personal mode of transportation medical histories	mobility The ability to retain jobs or related to obtain employment depends license on having a bicycle as a personal mode of transportation	Improvements to health was a secondary benefit to traveling ability, but were often mentioned first in interviews	Essential riders will ride on the most intuitive routes to get to their intended destinations. These are not always in the most bike- friendly areas of town, such as Lexington Rd	The current restrictions against Even while taking riding bicycles on the sidewalk precautions to avoid riding place a undue burden on traffic, essential riders can essential riders considering that face hazardous conditions there are very few safe places on sidewalks and on roads to ride that are efficient routes to intended destinations	Even while taking precautions to avoid riding in traffic, essential riders can face hazardous conditions on side walks and on roads
	Riding a bicycle brings a sense of fun and enjoyment to the essential rider		Essential riders rely on Some essential riders bicycles to access other mention that bicycling is destinations, such as food only way they are physic pantries and shelter facilities able to get around due to pantries and shelter facilities able to get around due to or even shopping trips	Some essential riders mention that bicycling is the only way they are physically able to get around due to prevailing health ailments			Physical injuries due to unsafe riding conditions can put essential riders out of work, and out-of-pocket expenses can be detrimental to livelihoods

Table 4. Thematic analysis of essential rider interviews and corresponding researcher reflections

## **REFLEXIVE STATEMENT**

I spent a considerable amount of time volunteering at BikeAthens in the fall of 2016. BikeAthens became my "third place" where I found community and purpose.145 My familiarity and camaraderie with BikeAthens allowed me to develop trust with the two staff members and the board president. This trust enabled me to collaborate closely with the community bicycle organization such that I was permitted to use audio equipment, a digital camera, and occupy some office space to record interviews with essential riders. One of the supplementary achievements of this thesis is to provide BikeAthens with material to use for advocacy and fundraising purposes. All essential riders were asked for permission both in-person and on the consent forms to share the audio recordings and photographs with BikeAthens prior to commencing the interviews.

During my many evenings spent working on bikes in the years prior to graduate school, I became familiar with some of the donation clients at BikeAthens. My familiarity with essential riders prompted a research interest to understand ways that essential riders know the built environment more intimately than those of us who travel in motor vehicles, either daily or by choice. Personally, I wanted to learn about the stories of essential riders, who they are, and how they came to become an essential rider. Admittedly, I romanticized their stories and the work of BikeAthens, and determining how to formulate this research study as objectively as possible was a surmountable project. Ultimately, my investigations into existing research about essential riders. In particular, I read Melody Hoffman's book, *White Lanes Are Bike Lanes*, and Adonia Lugo's

<sup>145</sup> Ray Oldenburg, "The Character of Third Places," in *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community* (New York: [Berkeley, Calif.]: Marlowe; Distributed by Publishers Group West, 1999), 20–42.

article, "Planning for Diverse Use/rs: Ethnographic Research on Bikes, Bodies, and Public Space in LA", in the early days of my graduate program. Both of these works challenged me to think deeper about the issues surrounding race, class, and bicycling which manifested into a research project about the experiences of essential riders in Athens-Clarke County, GA.146

# LIMITATIONS OF THE STUDY

All of the interviews were collected at BikeAthens which limits the population of essential riders to those who know about the organization or have access to visiting BikeAthens. The collection process for the interviews was somewhat brief and the only demographic question that was asked of the research participants was age. So, data and information that fully describes the participant as a person and not just as an essential rider is incomplete. However, for the purposes of this research, the data collected was primarily to understand how essential riders value their bicycle and how their experiences can inform bicycle transportation planning. In addition, the way that I approached the interviews considers current literature about the social, political, and economic circumstances of essential riders in Athens, GA.

The prompting of interview participants was based on the knowledge of BikeAthens staff and their familiarity with the clientele of the shop. All interviewees had either received a donation bicycle or repair services from BikeAthens in the past, or the interviewee was currently receiving assistance from BikeAthens and was asked for an interview at the time of service. It is possible that this relationship could have impacted whether or not the interviewee was open to

<sup>&</sup>lt;sup>146</sup> Hoffmann, *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*; Adonia E Lugo, "Planning for Diverse Use/Rs: Ethnographic Research on Bikes, Bodies, and Public Space in LA," *Kroeber Anthropological Society* 101, no. 1 (2012): 49–65.

participating in the research as well as the content of their interview. In addition, all of the interviews were with male essential riders which led to missing perspectives from female essential riders within the interview data. The missing data was due to a scarce number of female essential riders who visited the BikeAthens shop during the research period.

## CHAPTER CONCLUSION

This thesis seeks to understand how essential riders can inform bicycle transportation planning using semi-structured interviews to collect the local knowledge of essential riders in Athens-Clarke County and thematic analysis procedures to synthesize and gather results from the interview data. Two themes were developed from the interviews: (1) bicycles provide betterment of lives and, (2) planning needs shine through experiences. These two themes are based upon the bicycling-related experiences that were expressed during interviews with essential riders. Theme one concludes from direct statements of essential riders about the health, transportation, economic, and emotional benefits of riding a bicycle. Theme two combines the experiences of essential riders while on their bike with my interpretation of their experiences based on an extensive literature review of the plights of essential riders (e.g. infrastructure, security, education, policing). Some limitations of the study and the results emerge from how interviewees were gathered. I prompted and recorded the interviews with essential riders at BikeAthens which could have limited the scope of qualifying research subjects to only those who know of and visit BikeAthens. Furthermore, I was only able to interview male essential riders—many of whom continue to receive repair services or bicycles from BikeAthens which could lead to biased interviews. All in all, interviews that were conducted with essential riders culminate into two

70

themes related to how an essential rider values the resource of a bicycle and how essential riders experience the transportation network in Athens-Clarke County.

## **CHAPTER 6**

## DISCUSSION

## CHAPTER INTRODUCTION

Chapter Six connects the experiences of essential riders to the broader framework of transportation equity and mobility justice. The need to navigate car-dominated roads in Athens, GA presents a challenge to essential riders where destinations are not easily reached by bike. Even along corridors with dedicated bicycle infrastructure, essential riders in Athens, GA have experienced negative interactions with distracted or neglectful drivers. Ultimately, this places an overwhelming burden of personal safety on essential riders whose livelihoods can depend on their ability to travel by bike. Many essential riders indicated that they ride on the sidewalk to avoid dangerous areas on the road even if they know they could be stopped and issued a traffic citation. Essential riders also expressed a desire for more bike paths as a way to avoid riding in traffic, but only if such bike paths are useful for getting to useful destinations. The experiences vocalized by essential riders provide evidence of ways that current configurations of transportation infrastructure and policy impact their daily lives. Mobility justice calls for the inclusion of these experiences of essential riders and other marginalized populations within planning procedures such that their needs are reflected within planning and policy outcomes.

## **RESULTS OVERVIEW**

Essential riders occupy a small but critical subset of travelers to take heed of in transportation planning processes. Often, the wellbeing of such individuals relies upon their ability to travel to jobs and social services safely on bike. Interviews with essential riders in Athens, GA revealed that the bicycle was a crucial component of mobility and that it imparted a positive influence in their daily routines. The most common benefits garnered from a bicycle included transportation and exercise. Interviewees acknowledged the dual benefit of riding a bicycle as both helpful for their ability to travel and also maintaining their physical health. In addition, other results from the interviews indicated that essential riders had pertinent observations and recommendations for transportation planning decisions based on their daily experiences on the bicycle. When asked for specific recommendations on improvements that they would like to see, interviewees most often raised concern about being able to ride in traffic or access their destinations safely on a bicycle and made mention of a desire to see additional dedicated bike infrastructure along certain thoroughfares.

Other opportunities for transportation planning improvements were not explicitly mentioned in the interviews but were conveyed through experiences that were told during the interview. Some interviewees indicated that they were homeless, and many were unemployed or worked as intermittent laborers. Most had chronic medical ailments that required regular doctor's appointments and medicine. Of those who were employed, the bicycle was critical transportation for accessing their jobs. Many of the interviewees had very limited income for various reasons which underlined their status as BikeAthens donation clients. Some essential riders offered that they were former alcohol or drug abusers, and most had experienced a traumatic event such as the death of family, incarceration, or homelessness—often one led to the other. Despite some

73

extreme circumstances, many were grateful for the services that BikeAthens provides and emphasized how much a bicycle adds to their life. The experiences that were revealed in the interviews about the essential riders exposed the raw conditions that many of the interviewees endure on a daily basis.

Through these interviews, it became clear that what essential riders contribute to transportation planning is best communicated via their stories. Sandercock (2003) describes stories as useful for garnering empathy for action and imperative for knowing the experiences of marginalized groups.<sup>147</sup> Stories provide insight about the planning-related needs of an individual who may otherwise not be accustomed to the procedural and technical jargon associated with planning processes. The significance of a bicycle as both a benefit and a resource for essential riders is evident. Bicycles function as transportation to access destinations, and they can also function as links for maintaining social networks and gaining stable employment.<sup>148</sup> Considering that homelessness and unemployment were present amongst the interviewed essential riders, maintaining a reliable mode of transportation to access social services and broaden employment opportunities is critical for socioeconomic mobility.

Several interviewees noted that they appreciated the affordability of a bicycle, and some indicated that they actively choose not to own a car as a way to avoid any additional financial burdens. This informs transportation planning by demonstrating that essential riders live in precarious financial conditions. Physical injuries that may occur due to unsafe riding conditions could result in unexpected financial burdens. One interviewed essential rider broke their hip due to unsafe riding conditions that required them to ride on the sidewalk. Another interviewee broke

<sup>147</sup> Sandercock and Lyssiotis, Cosmopolis II, 182.

<sup>&</sup>lt;sup>148</sup> Sara Lichtenwalter, Gary Koeske, and Esther Sales, "Examining Transportation and Employment Outcomes: Evidence for Moving Beyond The Bus Pass," *Journal of Poverty* 10, no. 1 (April 28, 2006): 93–115, https://doi.org/10.1300/J134v10n01\_05; Lucas et al., "Transport Poverty and Its Adverse Social Consequences."

their wrist while riding, and another was hit from behind by a driver with dementia. Each of these instances resulted in hospitalization, unexpected financial burdens, and limited capacities to continue to work and earn an income.

Transportation equity recognizes that essential riders experience disproportionate amounts of financial stress due to uneven distributions of wealth and seeks to minimize or eliminate the impacts of planning policies that result in financial dispossession. Transportation policies that require the use of personal safety devices (e.g. helmets and lights) place undue financial burdens on an essential rider—especially if such policies are enforced with costly citations.<sup>149</sup> For example, BikeAthens partnered with the Athens-Clarke County Municipal court to teach a monthly ticket diversion class in which attendees can opt to register for the class in lieu of a full payment of bicycle-related citations.<sup>150</sup> While this does not eliminate the total fine, the ticket diversion class provides an option to essential riders to mitigate the financial impact that citations have on their financial wellbeing. These citations result in uneven consequences of transportation policies and place disproportionate burdens on essential riders. Equitable practices, such as ticket diversion, mitigate these impacts, but do not fully resolve the compounded burden of financial stress on essential riders due to uneven wealth distribution.

Transportation equity also recognizes the history of discriminatory policing on lowincome communities and communities of color. Transportation policies that exacerbate the social and geographic inequities on low-income and minority communities can create distrust of planners and local government officials. For example, bicycling on the sidewalk was the third most frequent summons in New York City in 2009 and 2010.151 And, "of the 15 neighborhoods

<sup>149</sup> Lee et al., "Delivering (in)Justice: Food Delivery Cyclists in New York City."

<sup>150</sup> BikeAthens, "Bike School – BikeAthens," 2018, https://www.bikeathens.org/engage/bikeschool/. 151 Levine and Siegel, "Criminal Court Summonses in NYC."

with the most such summonses [...] 12 were mostly Black and Latino."<sub>152</sub> Several interviewees mentioned that they would ride on the sidewalk in areas with narrow lanes or high traffic volumes as a way to safely navigate their routes, after all "a person biking on a sidewalk is just trying to use the protected bike lane that isn't there."<sub>153</sub> Essential riders are caught in problematic situation where their personal safety is tied to both their physical and socioeconomic livelihoods. However, transportation planning inadequately supplies the infrastructure needed to navigate safely by bike, and transportation policies penalize their efforts to ride safely by biking on a sidewalk. The essential riders interviewed for this thesis understand that riding on the sidewalk is against local ordinance, but they do so anyway because safer places to ride and reach their destinations are unavailable to them.

Overall, the interviews revealed experiences and stories in the lives of essential riders where the impact of transportation planning decisions are of greater significance than the decisions themselves. Essential riders represent a subset of historically marginalized individuals who rely on a bicycle as a primary mode of transportation due to financial, physical, or sociopolitical limitations on their ability to drive a car. These limitations are the outfall of discriminatory practices entrenched within transportation planning and policy. Considering that low-income communities of color have historically endured oppressive and discriminatory planning practices, equitable transportation planning requires the inclusion and empowerment of such groups.

Transportation equity calls for meaningful representation within the planning process. Specifically, transportation equity requires that underrepresented groups be included and

<sup>152</sup> Michael Andersen, "Communities of Color Bear the Brunt of Sidewalk-Biking Enforcement," PeopleForBikes, October 21, 2014, https://peopleforbikes.org/blog/communities-of-color-bear-the-brunt-of-sidewalk-biking-enforcement/. 153 Andersen.

respected in decision-making processes.<sup>154</sup> These efforts echo principles of epistemic justice that seek to center and prioritize the knowledges of marginalized individuals within transportation planning.<sup>155</sup> The concept of local knowledge essentializes meaning and value to the experiences of these individuals based on notion of "situated freedom".<sup>156</sup> Mobility justice recognizes the gravity of such impacts and aims to redistribute benefits, resources, and decision-making power. Equitable practices within transportation planning reconfigures the historical, social, cultural, and political landscapes of the profession and pushes the epistemological and ontological foundations of planning towards justice. In doing so, mobility justice disrupts a profession which has shaped and been shaped by traditions that underpin uneven development patterns and that which results in the unequal distributions of wealth and power along race and class lines.

#### CHAPTER CONCLUSION

Equitable transportation planning accounts for the ways that legacies of discriminatory policies and unfair planning procedures have resulted in disproportionate distributions of benefits, services, and burdens on low-income communities of color. The experiences of the essential riders in Athens, GA highlight ways that current policy and transportation infrastructure create challenges to their mobility. In some cases, the wellbeing of essential riders in Athens, GA depends on their ability to travel by bike. It is crucial that future bicycle transportation planning includes and prioritizes the needs of essential riders, even if they are unable to explicitly articulate these needs using technical jargon. Equitable transportation planning procedures recognizes this as a barrier and can interpret planning needs based on the *experiences* of essential

<sup>154</sup> Bullard, "The Anatomy of Transportation Racism," 29.

<sup>155</sup> Sandercock and Lyssiotis, Cosmopolis II, 63.

<sup>156</sup> Corburn, "Bringing Local Knowledge into Environmental Decision Making."

riders. Mobility justice aims, in part, to transform *who* the planning profession considers foremost in its practice based on *how* the planning practice prioritizes and values community input. By collecting interviews with essential riders, this thesis sought to contribute their voices to bicycle transportation planning efforts and reform the ways that traditional planning procedures include and value public input.

#### CHAPTER 7

#### CONCLUSION

Mobility justice seeks to reform the ways in which planning influences the form of the built environment. One such method that was addressed through the collection of interviews with essential riders is reframing whose voices are heard as it pertains to city planning. Essential riders consist of individuals who are underrepresented within bicycle transportation planning, and as such, their experiences are highlighted in this thesis to underline their perceptions of the built environment. In doing so, we amplify the knowledge and humanity of those who are underrepresented within planning, we exercise a bottom-up approach to public participation, and we learn that the planning-related needs of essential riders can be communicated through their experiences as essential riders. More specifically, the planning needs of essential riders emanate from their local knowledge of the built environment. Local knowledge regards the information provided by individuals based on their observations and experiences as legitimate data for decision making purposes.<sup>157</sup> The research of this thesis coalesces the local knowledge of essential riders in Athens-Clarke County into planning recommendations through a thematic analysis of semi-structured interviews with ten essential riders.

The interviews with essential riders underscored the need to consider how planning policies can result in higher risk and more severe consequences for their well-being by articulating their "situated freedoms" and the barriers that they face while navigating the transportation network in Athens-Clarke County. Some barriers, such as inadequate bicycle

<sup>157</sup> Corburn; Innes and Booher, "Using Local Knowledge for Justice and Resilience."

transportation infrastructure near or within their neighborhoods, resulted in challenges to safely access destinations or employment opportunities. Other barriers, such as unsafe riding conditions due to traffic or pavement, resulted in financial dispossession due to unexpected medical bills and inabilities to continue work. While the planning-related input from essential riders does not significantly differ from the input of other extreme bicycle commuters *per se*, the social, political, and financial constraints of essential riders restricts the autonomy of such individuals compared to their commuting counterparts as a result of uneven accumulation of wealth and power along race and class lines. Such limits upon essential riders imply that their livelihoods are more susceptible to the adverse outcomes of planning policies as related to infrastructure, security, education, and policing.

With regards to the four domains of planning-related policy above, the essential rider interviews indicated that the need to travel safely within the transportation network in Athens-Clarke County is a matter of space on the road. Essential riders note the predicament of not having safe spaces to ride on the road while also being restricted from riding on the sidewalk. Furthermore, negative encounters with erratic drivers indicate the need for dedicated and protected space on the road. In addition, some essential riders noted the inefficiency of using existing shared-use paths to get to intended destinations while others were not aware of these facilities. Considering that Black and Hispanic individuals expressed other fears associated with personal assault and theft on poorly lit or isolated paths in Boston and New Jersey, such experiences imply that installing separated bicycle infrastructure on existing road networks may be most useful to essential riders.158

<sup>158</sup> Brown, "A Silent Barrier to Bicycling in Black and Hispanic Communities"; Lusk et al., "Bicycle Facilities Safest from Crime and Crashes."

Personal safety concerns were prevalent in a majority of the interviews with essential riders. This was evident as some of the essential riders would ride on sidewalks to avoid interacting with heavy vehicular traffic. While only one interviewed essential rider stated that they had been stopped by law enforcement for riding on the sidewalk, an abundance of investigations across the United States into racialized ticketing practices and consequential literature indicate that such policing is pervasive in bicycling.<sup>159</sup> For essential riders, riding on the sidewalk is a matter of personal safety, and taking such measures to ensure one's wellbeing should not result in fines, dispossession, or detention, that would incur additional financial stress or impediments to one's mobility. As such, municipal governments should establish programs (e.g. ticket diversion) as standard protocol for policies related to bicycle citations that would displace fines incurred by the essential rider.

Furthermore, many cities also require the use of bicycling equipment which can be costly and impose a financial burden upon essential riders at the risk of additional citations and stops by law enforcement. City planning departments and other related divisions, such as housing or community engagement departments, are advised to include bicycling equipment that are required by city ordinance (e.g. lights, bells, helmets) in giveaway programs or outreach events for youth *and* adults. Such events present opportunities to partner with community bicycle organizations as a way to extend outreach to essential riders and include bicycling-related educational materials that are specific to traffic ordinances. The most accessible educational materials would be available in multiple languages and are easily comprehended by youth, illiterate, or neurodiverse individuals. It should be noted that concerns about personal safety from

<sup>&</sup>lt;sup>159</sup> Zayas and Stanley, "How Riding Your Bike Can Land You in Trouble with the Cops — If You're Black"; Aaron Golub et al., *Bicycle Justice and Urban Transformation: Biking for All?*, 2016; Hoffmann and Kmiecik, "Bicycle Citations and Related Arrests in Minneapolis 2009-2015"; Lee et al., "Delivering (in)Justice: Food Delivery Cyclists in New York City"; Wisniewski, "Biking While Black."

essential riders were also related to observations of poor driver behavior (e.g. distracted driving) and conflicts with drivers about occupying the right-of-way. Solely distributing educational materials to essential riders unfairly targets a subset of vulnerable road users and misinterprets broader schemes of mobility justice in transportation planning as related to the distribution of power amongst road users.<sup>160</sup> As such, cities should institute vulnerable road users laws, which increase punitive measures for drivers who seriously injury or kill a vulnerable road user, modify current driver's education programs to include educational material on interacting with cyclists on the road, and enforce the requirements of safe passing laws.<sup>161</sup>

This thesis collects the local knowledge of essential riders in Athens-Clarke County in response to calls for better equitable engagement practices within bicycle transportation planning procedures. Based on the interviews with essential riders in Athens-Clarke County, I develop policy and program recommendations to address infrastructure, education, policing, and security in relation to the mobility of essential riders. Through my research, I conclude that essential riders provide valuable input for bicycle transportation planning based on the experiences that essential riders have while navigating the transportation network in Athens-Clarke County. The experiences and profiles of essential riders revealed in the interviews underline the need for transportation planners to consider the social, economic, and political constraints of individuals who endure constrained mobility due to histories of neglect and discrimination in traditional planning practices. Future investigations into the legacies of racially biased planning practices on essential riders should include more explicit interview questions about identity and race to extend and deepen essential rider profiles. Intentional efforts to collect local knowledge from

<sup>160</sup> Reid-Musson, "Shadow Mobilities."

<sup>161</sup> Ken McLeod, "Model Vulnerable Road User Law," Text, League of American Bicyclists, June 3, 2015, https://bikeleague.org/content/model-vulnerable-road-user-law.

essential riders should also focus on interviewing female essential riders to expand the experiences with which to inform planning policy. And, additional efforts to extend the work of this thesis should include mapping exercises to ground the experiences of essential riders into the landscape of Athens-Clarke County.

# BIBLIOGRAPHY

- American Community Survey. "B08122: Means of Transportation to Work by Poverty Status in the Past 12 Months." U.S. Census Bureau, 2017.
- Andersen, Michael. "Communities of Color Bear the Brunt of Sidewalk-Biking Enforcement." PeopleForBikes, October 21, 2014. https://peopleforbikes.org/blog/communities-ofcolor-bear-the-brunt-of-sidewalk-biking-enforcement/.

Arthur. Interview with Essential Rider. In-person at BikeAthens, May 24, 2019.

- Assistant Secretary for Planning and Evaluation. "2017 Poverty Guidelines." ASPE, January 12, 2018. https://aspe.hhs.gov/2017-poverty-guidelines.
- Athens-Clarke County. "Athens-Clarke County by The Numbers," January 2017. https://www.athensclarkecounty.com/DocumentCenter/View/535/Athens-Clarke-County-By-the-Numbers?bidId=.
- Benson, Craig, and Alemayehu Bishaw. "Examining the Effect of Off-Campus College Students on Poverty Rates." The United States Census Bureau, December 7, 2017. https://www.census.gov/data/tables/2017/demo/income-poverty/acs5yrs.html.
- Bernstein, Joanna. "No Choice but to Bike: Undocumented and Bike-Dependent in Rust Belt America." In *Bicycle Justice and Urban Transformation: Biking for All?*, 143–55. Equity, Justice, and the Sustainable City. New York, NY: Routledge, 2016.
- BikeAthens. "Bike School BikeAthens," 2018. https://www.bikeathens.org/engage/bikeschool/.
- Boisjoly, Geneviève, and Genesis T. Yengoh. "Opening the Door to Social Equity: Local and Participatory Approaches to Transportation Planning in Montreal." *European Transport Research Review* 9, no. 3 (September 2017). https://doi.org/10.1007/s12544-017-0258-4.
- Braun, Virginia, and Victoria Clarke. "Thematic Analysis." In APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative,

*Neuropsychological, and Biological.*, edited by Harris Cooper, Paul M. Camic, Debra L. Long, A. T. Panter, David Rindskopf, and Kenneth J. Sher, 57–71. Washington: American Psychological Association, 2012. https://doi.org/10.1037/13620-004.

Brown, Charles. "A Silent Barrier to Bicycling in Black and Hispanic Communities." *Institute of Transportation Engineers Journal*, September 2016, 22–24.

—. "Georgia Bike Summit Keynote." presented at the Georgia Bike Summit, The Classic Center, Athens, GA, October 12, 2018.

- Bullard, Robert. "The Anatomy of Transportation Racism." In *Highway Robbery: Transportation Racism & New Routes to Equity*, 2004.
- Bullard, Robert D., Glenn S. Johnson, and Angel O. Torres, eds. *Highway Robbery: Transportation Racism & New Routes to Equity*. Cambridge, Mass: South End Press, 2004.
- Castells, Manuel. *The City and the Grassroots: A Cross-Cultural Theory of Urban Social Movements*. California Series in Urban Development 2. Berkeley: University of California Press, 1983.
- Cervero, Robert. "Job Isolation in the US: Narrowing the Gap through Job Access and Reverse-Commute Programs." In *Running on Empty*, 181–96. The Policy Press, 2004.
- Chetty, Raj, and Nathaniel Hendren. "The Impacts of Neighborhoods on Intergenerational Mobility," 2015, 6.
- Clifton, Kelly J. "Mobility Strategies and Food Shopping for Low-Income Families: A Case Study." *Journal of Planning Education and Research* 23, no. 4 (June 2004): 402–13. https://doi.org/10.1177/0739456X04264919.
- Community Cycling Center. "Understanding Barriers to Bicycling Project." Portland, OR, July 2012. https://www.communitycyclingcenter.org/wp-content/uploads/2012/07/Understanding-Barriers-Final-Report.pdf.
- Corburn, Jason. "Bringing Local Knowledge into Environmental Decision Making: Improving Urban Planning for Communities at Risk." *Journal of Planning Education and Research* 22, no. 4 (June 2003): 420–33. https://doi.org/10.1177/0739456X03022004008.

Corey. Interview with Essential Rider, May 31, 2019.

Cox, Stefani. "Could the Challenges of 'Biking While Black' Be Compromising Bike Share Outreach Efforts?" *Better Bike Share* (blog), November 8, 2016. http://betterbikeshare.org/2016/11/08/difficulties-biking-black-compromise-bike-shareoutreach-efforts/.

- Cresswell, Tim. "Towards a Politics of Mobility." *Environment and Planning D: Society and Space* 28, no. 1 (February 2010): 17–31. https://doi.org/10.1068/d11407.
- Demetrius. Interview with Essential Rider. In-person at BikeAthens, June 11, 2019.
- Di Ciommo, Floridea, and Yoram Shiftan. "Transport Equity Analysis." *Transport Reviews* 37, no. 2 (March 4, 2017): 139–51. https://doi.org/10.1080/01441647.2017.1278647.
- Elmer. Interview with Essential Rider. In-person at BikeAthens, June 11, 2019.
- Florida, Richard. "Cities and the Creative Class." *City and Community* 2, no. 1 (March 2003): 3–19. https://doi.org/10.1111/1540-6040.00034.
- Floyd, Charles F. "Bikeways for Clarke County: A Proposed Comprehensive System." Athens-Clarke County Planning Commission, November 1974.
- Frederick. Interview with Essential Rider. In-person at BikeAthens, June 20, 2019.
- Fuller, Omari, and Edgar Beltran. "The Invisible Cyclists of Los Angeles." Planners Network, July 14, 2010. http://www.plannersnetwork.org/2010/07/the-invisible-cyclists-of-losangeles/.
- Furness, Zachary Mooradian. *One Less Car: Bicycling and the Politics of Automobility*. Sporting. Philadelphia: Temple University Press, 2010.
- Gary. Interview with Essential Rider. In-person at BikeAthens, June 25, 2019.
- Geertz, Clifford. *Local Knowledge: Further Essays in Interpretive Anthropology*. New York: Basic Books, 1983.
- Golub, Aaron, Melody L Hoffmann, Adonia E Lugo, and Gerardo Sandoval. *Bicycle Justice and Urban Transformation: Biking for All?*, 2016.
- Golub, Aaron, Richard A. Marcantonio, and Thomas W. Sanchez. "Race, Space, and Struggles for Mobility: Transportation Impacts on African Americans in Oakland and the East Bay." Urban Geography 34, no. 5 (August 2013): 699–728. https://doi.org/10.1080/02723638.2013.778598.
- Gordon, Cameron. "Varieties of Transportation Justice: U.S. Transportation Equity Policy and the Civil Rights Movement." *Transportation Research Record: Journal of the Transportation Research Board* 2531, no. 1 (January 2015): 180–86. https://doi.org/10.3141/2531-21.
- Gray-Calhoun & Associates, Inc. "Athens-Clarke County Bicycle Master Plan." Final Technical Report. Athens-Clarke County, December 2001.

- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575. https://doi.org/10.2307/3178066.
- Harvey, David. The Urban Experience. Baltimore: Johns Hopkins University Press, 1989.
- Heidegger, Martin. *Being and Time*. Translated by John Macquarrie and Edward Robinson. First. Oxford, UK: Blackwell Publishers Ltd, 1962. http://pdf-objects.com/files/Heidegger-Martin-Being-and-Time-trans.-Macquarrie-Robinson-Blackwell-1962.pdf.
- Henderson, Jason. "Secessionist Automobility: Racism, Anti-Urbanism, and the Politics of Automobility in Atlanta, Georgia." *International Journal of Urban and Regional Research* 30, no. 2 (June 2006): 293–307. https://doi.org/10.1111/j.1468-2427.2006.00662.x.
- Herman. Interview with Essential Rider. In-person at BikeAthens, July 2, 2019.
- Hoffmann, Melody L, and Anneka Kmiecik. "Bicycle Citations and Related Arrests in Minneapolis 2009-2015." Minneapolis: Minneapolis Bicycle Coalition, October 2016.
- Hoffmann, Melody Lynn. *Bike Lanes Are White Lanes: Bicycle Advocacy and Urban Planning*. Lincoln, NE: University of Nebraska Press, 2016.
- Hoffmann, Melody Lynn, and Adonia Lugo. "Who Is 'World Class'? Transportation Justice and Bicycle Policy" 4, no. 1 (2014): 17.
- Hulst, Merlijn van. "Storytelling, a Model of and a Model for Planning." *Planning Theory* 11, no. 3 (August 2012): 299–318. https://doi.org/10.1177/1473095212440425.
- Innes, Judith E., and David E. Booher. "Reframing Public Participation: Strategies for the 21st Century." *Planning Theory & Practice* 5, no. 4 (December 2004): 419–36. https://doi.org/10.1080/1464935042000293170.
  - ———. "Using Local Knowledge for Justice and Resilience." In *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy*, 170–95. Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2010.
- Innes, Judith Eleanor, and David E. Booher. *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy*. Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2010.
- Inwood, Joshua, Derek Alderman, and Jill Williams. "Where Do We Go From Here?': Transportation Justice and the Struggle for Equal Access." *Southeastern Geographer* 55, no. 4 (2015): 417–33.

Jakowitsch, Nancy, and Michelle Ernst. "Just Transportation." In *Highway Robbery: Transportation Racism & New Routes to Equity*, 161–77. South End Press, 2004.

Jeffrey. Interview with Essential Rider. In-person at BikeAthens, July 7, 2019.

- Karner, Alex, and Richard A. Marcantonio. "Achieving Transportation Equity: Meaningful Public Involvement to Meet the Needs of Underserved Communities." *Public Works Management & Policy* 23, no. 2 (April 2018): 105–26. https://doi.org/10.1177/1087724X17738792.
- Koeppel, Dan. "How Low-Income Cyclists Go Unnoticed." *Bicycling*, 2006. https://www.bicycling.com/news/a20049826/how-low-income-cyclists-go-unnoticed/.
- Labor/Community Strategy Center v. Los Angeles County Metropolitan Authority, No. 99– 56581 (Ninth Circuit U.S. Court of Appeals August 31, 2001).
- Laverty, Susann M. "Hermeneutic Phenomenology and Phenomenology: A Comparison of Historical and Methodological Considerations." *International Journal of Qualitative Methods* 2, no. 3 (September 2003): 21–35. https://doi.org/10.1177/160940690300200303.
- Lee, Do, Helen Ho, Melyssa Banks, Mario Giampieri, Xiaodeng Chen, and Dorothy Le. "Delivering (in)Justice: Food Delivery Cyclists in New York City." In *Bicycle Justice and Urban Transformation: Biking for All?*, 114–25. Routledge, 2016.
- Levine, Harry, and Loren Siegel. "Criminal Court Summonses in NYC." Public event presented at the Summons: The Next Stop and Frisk, CUNY School of Law, April 24, 2014. http://marijuana-arrests.com/docs/Criminal-Court-Summonses-in-NYC--CUNY-Law-School-April-24-2014.pdf.
- Lewis, Sarah. "Qualitative Inquiry and Research Design: Choosing Among Five Approaches." *Health Promotion Practice* 16, no. 4 (July 2015): 473–75. https://doi.org/10.1177/1524839915580941.
- Lichtenwalter, Sara, Gary Koeske, and Esther Sales. "Examining Transportation and Employment Outcomes: Evidence for Moving Beyond The Bus Pass." *Journal of Poverty* 10, no. 1 (April 28, 2006): 93–115. https://doi.org/10.1300/J134v10n01\_05.
- Lopez, Kay A., and Danny G. Willis. "Descriptive Versus Interpretive Phenomenology: Their Contributions to Nursing Knowledge." *Qualitative Health Research* 14, no. 5 (May 2004): 726–35. https://doi.org/10.1177/1049732304263638.
- Lubitow, Amy, and Thaddeus R. Miller. "Contesting Sustainability: Bikes, Race, and Politics in Portlandia." *Environmental Justice* 6, no. 4 (August 2013): 121–26. https://doi.org/10.1089/env.2013.0018.

- Lucas, Karen, Giulio Mattioli, Ersilia Verlinghieri, and Alvaro Guzman. "Transport Poverty and Its Adverse Social Consequences." *Proceedings of the Institution of Civil Engineers -Transport* 169, no. 6 (December 2016): 353–65. https://doi.org/10.1680/jtran.15.00073.
- Lugo, Adonia. "Seeing & Believing in Bike Equity." Text. League of American Bicyclists, November 25, 2014. https://bikeleague.org/content/seeing-believing-bike-equity.
- Lugo, Adonia, Naomi Doerner, Do Lee, Sarah McCullough, Sahra Sulaiman, and Carolyn Szczepanski. "Untokening Mobility: Beyond Pavement, Paint, and Place," January 2018.
- Lugo, Adonia E. *Bicycle, Race: Transportation, Culture, & Resistance*. Portland, OR: Microcosm Publishing, 2018.
- Lugo, Adonia E. "Planning for Diverse Use/Rs: Ethnographic Research on Bikes, Bodies, and Public Space in LA." *Kroeber Anthropological Society* 101, no. 1 (2012): 49–65.
- Lusk, Anne, Walter Willett, Vivien Morris, Christopher Byner, and Yanping Li. "Bicycle Facilities Safest from Crime and Crashes: Perceptions of Residents Familiar with Higher Crime/Lower Income Neighborhoods in Boston." *International Journal of Environmental Research and Public Health* 16, no. 3 (February 7, 2019): 484. https://doi.org/10.3390/ijerph16030484.
- Madison Athens-Clarke Oconee Regional Transportation Study. "MACORTS Policy Committee," October 24, 2019. http://www.macorts.org/files/MACORTS-POLICY-COMMITTEE-10-24-19.pdf.

——. "Madison Athens-Clarke Oconee Regional Transportation Study." MACORTS. Accessed November 2, 2019. http://www.macorts.org/.

- Mann, Eric. "Los Angeles Bus Riders Derail the MTA." In *Highway Robbery: Transportation Racism & New Routes to Equity*, 32–47. Cambridge, Mass: South End Press, 2004.
- Mapes, Jeff. *Pedaling Revolution: How Cyclists Are Changing American Cities*. Corvallis, OR: Oregon State University Press, 2009.
- Martens, Karel. "Role of the Bicycle in the Limitation of Transport Poverty in the Netherlands." *Transportation Research Record: Journal of the Transportation Research Board* 2387, no. 1 (January 2013): 20–25. https://doi.org/10.3141/2387-03.
- Maus, Jonathan. "Meeting on Williams Project Turns into Discussion of Race, Gentrification." *BikePortland.Org* (blog), July 22, 2011. https://bikeportland.org/2011/07/21/racism-rears-its-head-on-williams-project-56633.

- McKenzie, Brian. "Modes Less Traveled—Bicycling and Walking to Work in the United States: 2008–2012." American Community Survey Reports. Washington, DC: U.S. Census Bureau, May 2014.
- McLeod, Ken. "Model Vulnerable Road User Law." Text. League of American Bicyclists, June 3, 2015. https://bikeleague.org/content/model-vulnerable-road-user-law.
- McLeod, Ken, Sean Herpolsheimer, Kristin Clarke, and Kendall Woodward. "Bicycling & Walking in the United States: 2018 Benchmarking Report." Benchmarking Reports. Washington, DC: The League of American Bicyclists, 2018. https://bikeleague.org/benchmarking-report.
- Mele, Christopher, and Robert M. Adelman. "Racial Exclusion and Spatial Inequality in Metropolitan America." In *Race, Space, and Exclusion*, 1–17, 2015.
- National Household Travel Survey. "Frequency of Bicycle Use for Travel Daily by Race and Household Income." Federal Highway Administration, 2017.
- Oldenburg, Ray. "The Character of Third Places." In *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community,* 20–42. New York: [Berkeley, Calif.]: Marlowe; Distributed by Publishers Group West, 1999.
- Olson, Benjamin K. "The Transportation Equity Act for the 21st Century: The Failure of Metropolitan Planning Organizations to Reform Federal Transportation Policy in Metropolitan Areas." *Transportation Law Journal* 28 (2000): 147–83.
- Pereira, Rafael H. M., Tim Schwanen, and David Banister. "Distributive Justice and Equity in Transportation." *Transport Reviews* 37, no. 2 (March 4, 2017): 170–91. https://doi.org/10.1080/01441647.2016.1257660.
- Pulido, Laura. "Geographies of Race and Ethnicity II: Environmental Racism, Racial Capitalism and State-Sanctioned Violence." *Progress in Human Geography* 41, no. 4 (August 2017): 524–33. https://doi.org/10.1177/0309132516646495.
- Reid-Musson, Emily. "Shadow Mobilities: Regulating Migrant Bicyclists in Rural Ontario, Canada." *Mobilities* 13, no. 3 (May 4, 2018): 308–24. https://doi.org/10.1080/17450101.2017.1375397.
- Sanchez, Thomas W., and James F. Wolf. "Environmental Justice and Transportation Equity: A Review of Metropolitan Planning Organizations," January 2005, 1–23.
- Sandercock, Leonie, and Peter Lyssiotis. *Cosmopolis II: Mongrel Cities in the 21st Century*. London; New York: Continuum, 2003.

- Schweppe, Ellen. "Legacy of A Landmark: ISTEA After 10 Years." *Public Roads Magazine*, November 2001. https://www.fhwa.dot.gov/publications/publicroads/01novdec/legacy.cfm.
- Sciara, Gian-Claudia. "Metropolitan Transportation Planning: Lessons From the Past, Institutions for the Future." *Journal of the American Planning Association* 83, no. 3 (July 3, 2017): 262–76. https://doi.org/10.1080/01944363.2017.1322526.
- Sheller, Mimi. *Mobility Justice: The Politics of Movement in the Age of Extremes*. First published. London Brooklyn, NY: Verso, 2018.
- Sheller, Mimi, and John Urry. "The New Mobilities Paradigm." *Environment and Planning A* 38, no. 2 (February 2006): 207–26. https://doi.org/10.1068/a37268.
- Soja, Edward W. *Seeking Spatial Justice*. Globalization and Community Series. Minneapolis: University of Minnesota Press, 2010.
- Stein, Samuel. "Bike Lanes and Gentrification." Progressive Planning, 2011.
- Sulaiman, Sahra. "Handcuffing of Cyclist by USC Public Safety Raises Questions about Tactics, Oversight, Accountability." *Streetsblog Los Angeles* (blog), March 1, 2019. https://la.streetsblog.org/2019/03/01/handcuffing-of-cyclist-by-usc-public-safety-raisesquestions-about-tactics-oversight-accountability/.
- Szczepanski, Carolyn. "The New Majority: Pedaling Towards Equity." League of American Bicyclists & The Sierra Club, May 2013. http://bikeleague.org/sites/default/files/equity\_report.pdf.
- The Untokening National Team. "The Untokening." The Untokening, 2016. http://www.untokening.org.
- The White House. "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations." Federal Register, February 16, 1994.
- Thomas, June Manning. "Planning History and the Black Urban Experience: Linkages and Contemporary Implications." *Journal of Planning Education and Research* 14, no. 1 (October 1994): 1–11. https://doi.org/10.1177/0739456X9401400101.
- Toole Design Group. "Athens In Motion Bicycle and Pedestrian Master Plan." Athens-Clarke County, August 2018.
- Torres-Cortez, Ricardo. "Man Who Died in Metro Custody Repeatedly Said He Couldn't Breathe - Las Vegas Sun Newspaper," September 9, 2019. https://lasvegassun.com/news/2019/sep/09/man-died-metro-custody-repeatedly-couldntbreathe/.

- Urry, John. "Social Networks, Mobile Lives and Social Inequalities." *Journal of Transport Geography* 21 (March 2012): 24–30. https://doi.org/10.1016/j.jtrangeo.2011.10.003.
- U.S. Census Bureau. "American Community Survey 5-Year Estimates, Table S1703," 2017.
- Wisniewski, Mary. "Biking While Black': Chicago Minority Areas See the Most Bike Tickets." *Chicago Tribune*. March 17, 2017. https://www.chicagotribune.com/news/breaking/ctchicago-bike-tickets-minorities-0319-20170317-story.html.
- Zayas, Alexandra, and Kameel Stanley. "How Riding Your Bike Can Land You in Trouble with the Cops — If You're Black." *Tampa Bay Times*. April 17, 2015. https://www.tampabay.com/news/publicsafety/how-riding-your-bike-can-land-you-introuble-with-the-cops---if-youre-black/2225966.
- Zellmer, Lucas, and Nathan Fleming. "Wheels For All: Addressing Social Determinants of Health One Bicycle at a Time." La Crosse, WI: Wisconsin Medical Society, August 2017.
- Zimmerman, Sara, Michelle Lieberman, Karen Kramer, and Bill Sadler. "At the Intersection of Active Transportation and Equity." Safe Routes to School National Partnership, 2015. https://www.saferoutespartnership.org/sites/default/files/resource\_files/at-theintersection-of-active-transportation-and-equity.pdf.

# **APPENDIX A**

# **PROJECT OVERVIEW**

Bicycles as Transportation: Perceptions of mobility from essential riders in Athens, GA

## INTRODUCTION

We are interested in knowing how a bicycle influences the quality of life of a person who relies on a bicycle as their only reliable mode of transportation, and how their experience can help to inform transportation planning decisions.

# WHY IS IT IMPORTANT?

We would like to learn these things about you and your experience so that we can represent your experience accurately to support the service of BikeAthens and to make recommendations for improvements in transportation system around Athens.

# SOME FACTS

# QUESTIONS?

- Interviews will take anywhere between 20-30 minutes
- You will receive a \$10 gift card and two bus passes

Carmen Kuan (706) 363-3957 carmen.kuan@uga.edu

# **APPENDIX B**

# Interviewer: Carmen Kuan

Interviewee: "essential rider", an individual who relies on a bicycle as their sole, reliable mode of transportation

# Introduction

Review research project and full consent form Confirm permission to interview Reaffirm confidentiality of information

Initialize interview with prompting interviewee to expound on the following questions:

- 1. May you please state your name and age?
- 2. How did you end up in Athens?
- 3. What do you do for a living?
- 4. What is your primary mode of transportation?

# **Research-related Interview Questions**

- 1. Can you tell me about a time when you were in need of transportation?
- 2. Have you received a bicycle or help with your bicycle from BikeAthens?
- 3. How does having a bicycle help or not help you?
- 4. Can you tell me about a time when you did not feel safe or comfortable while riding your bike?
- 5. What has bicycling in or around Athens been like for you?
- 6. Can you describe your most frequent routes to get home, to work, to school, or other places?
- 7. What are some ways that Athens can improve your experience as a bicycle rider?
- 8. What are some ways that BikeAthens can improve your experience as a bicycle rider?

These questions are generic enough to ask any client of BikeAthens and address the goal of understanding what values BikeAthens's clients might, or might not, adhere to having a bicycle as a reliable mode of transportation. Follow-up sub-questions will be determined by the content of the interview and prompting by the interviewee.

# Conclusion

Thank the interviewee

Ask to take picture if they consented to it on consent form

Restate confidentiality of information provided

Compensate interviewee

Ask if interviewee would like to continue to be notified of updates

Gather contact information, if needed.