Biking is Labor: App-Based Food Delivery Cyclists and Infrastructure as Justice in New York City

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BIKING IS LABOR: APP-BASED FOOD DELIVERY CYCLISTS AND INFRASTRUCTURE AS JUSTICE IN NEW YORK CITY

A Thesis Submitted to the Department of Urban Planning and Design, Harvard University Graduate School of Design

by

MARY GESCHWINDT

In Partial Fulfillment of the Requirements for the Degree of

MASTER IN URBAN PLANNING

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PROLOGUE:
NOTES ON CRISIS

Crisis is central to this thesis for two reasons. First, the March 2020 onset of the COVID-19 pandemic in New York City cannot be ignored for the ways in which it has shaped and continues to shape labor, infrastructure, and justice. This research study was conducted during the pandemic; it is impossible to separate the production of this work from the constraints and challenges instigated by a global health crisis. Second, critical infrastructure studies present crisis in infrastructure as moments of breakdown.\(^1\) When systems break down, for even the most mundane reasons, they become exceptional opportunities to reimagine and redesign them. Infrastructure breakdown requires an inherently creative act of maintenance and repair.\(^2\) It is important to me to reflect personally on the role of crisis in urban transportation and infrastructure planning, as crises of all kinds redefine the current moment. From precarious labor, to climate change, to pandemics, to war – these are all compounding, simultaneous crises we endure today. From ships stuck in the Suez Canal, to supply chain delays, to high inflation rates, the one year that I spent working on this thesis has demonstrated to me the ways in which our existing systems require planners and designers to rethink them. To maintain and repair them.

This work presents research grounded in data analysis, literature reviews, relevant theories, and adapted frameworks – all essential elements of a rigorous research project at the graduate level. But I intend this work to be more than a research project. I write it as reflection on one moment in which an infrastructure system is in breakdown and in need of repair to create a better world. I hope this research emerges from a turbulent period of crises to remind urban planners of the unique perspectives and abilities we have to reimagine and redesign an alternative future of just labor through an infrastructural lens. I hope to rebuild infrastructure in more critical and thoughtful ways as a productive and creative response to crisis, and invite others to think about their roles in similar efforts.

\(^1\)Star, “The Ethnography of Infrastructure.”
\(^2\) Graham and Thrift, “Out of Order.”
INTRODUCTION

This thesis is about contradiction. Who is planned for as the intended user of the street and who is disproportionately endangered on that same street is a contradiction that yields injustice. The setting of this story is the gig economy, which reveals through its disruptive nature the contradictions written into legal and planning structures. Through revealing these contradictions, I explore how these structures can be reconsidered by urban planners. This is a moment of gig economy urbanism, in which reconceptualizing who is planned for and for what activity is necessary in order to confront a contradiction in transportation planning: planning for safety and efficiency simultaneously. Focusing on app-based food delivery cyclists in New York City as a case study, I frame labor justice as an evolving responsibility of transportation planners in the disruption induced by the gig political economy.

Talking about who bikes and why today is important for planning for tomorrow. When I ride my bike in New York City, I ride for transportation purposes. I stop at stop lights and am thanked by strangers, who then express frustration that delivery cyclists never stop for the light, bike the wrong way down one-way streets, and ride on the sidewalk. I have always seen these outward expressions from strangers as manifestations of their own biases, but I know I have my own as a transportation cyclist, too. To understand this issue as more than a matter of bias, I have zeroed in on this topic to dissect what the conflict really is in delivery cycling. Trained as a designer, I know there is something critical to explore about these “inappropriate” behaviors of working cyclists. I know that to break the law for the sake of doing so is not a complete story. This thesis explores app-based food delivery cyclists as those for whom biking is not transportation alone, but labor. When labor is the primary activity on the street, behaviors change. Economic incentives and time pressures to make deliveries as fast as possible influence behavior.

What interests me the most is not the ways in which behaviors are different between those biking for transportation and those biking in order to make a living. Nor do I seek to excuse behaviors that may put other road users at risk. Equally still I do not place blame on transportation planners who are challenged with making roads safer for everyone despite the conflicts that exist between users. Rather, I make it my goal to understand the baseline constraints of app-based food
delivery cyclists in the gig economy as labor and infrastructure conditions riddled with contradiction.

App-based food delivery cyclists in New York City comprise the case study I am using to think about the gig economy’s influence on transportation spaces. Some extreme examples illustrate the contradiction between food delivery consumers and workers. Consider the case of the delivery cyclist caught on camera in September 2021 in the waist-high floodwaters of Hurricane Ida, balancing an order on his handlebars as he pushed his e-bike through the water.³ A hurricane meant a night in ordering dinner for one, and a night out navigating the extremely unsafe street for another. Or what about the legislative battle over regulating e-bikes in New York State in recent years? E-bikes have been viewed as a threat to safety by the general public, and each year the state legislature considers the ban on operating an e-bike. Yet these bikes are the essential infrastructure for food delivery work, enabling these cyclists to fulfill multiple orders over many miles in the course of a day. At the same time, Citi Bike introduced a pedal-assist e-bike in 2018 to much less public pushback.⁴ Who is allowed to use what kind of equipment furthers the contradiction of who is planned for and welcome in certain spaces.

I contemplate this case study to ask: if the gig economy is here to stay, and if delivery cyclists are entangled in their own battle between safety and efficiency, in what ways as a transportation planner can I intervene? Many planners I spoke with describe their goal as planning for the most vulnerable road users, including planning for more infrastructure to help future users feel safe. In this work, I suggest that those delivery cyclists who are already risking their lives on the street, making less than minimum wage to support their families, are among the most vulnerable. I reflect throughout this work: in what political economy, as the gig economy is indeed here to stay, do planners have a responsibility to plan for safe, fair infrastructure for vulnerable, working cyclists? In what political economy is there justice?

Chapter 1 provides background on delivery cycling and the gig economy in New York and presents the initial two of my three arguments. The first is that delivery cyclists are essential

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³ Goldberg, “A Delivery Man Struggled.”
⁴ Appendix A: Data Tables, Local News Media
workers who have been overlooked in transportation planning. The second is that biking is labor, making the street a workplace. Chapter 2 describes the research design and qualitative methods deployed. Chapter 3 presents the third argument, which builds upon the previous: transportation planners can apply a political economy theory of political responsibility as a labor justice framework to create safe and fair infrastructure as a matter of justice. Chapter 4 outlines the findings from analyzing my data through the political responsibility framework. Chapter 5 concludes by reflecting on future research questions for creating fair and just public infrastructure, suggesting ways to reframe current processes for transportation planners.
CHAPTER 1

App-Based Food Delivery as Gig Economy Case Study

“When the customer sees their bill from GrubHub or DoorDash, they see different fees and cost of the item, and tip, but what’s not listed on the bill is the human toll on the workers... The broken leg they got while delivering.”

- Do J. Lee, delivery cyclist scholar

“We do this work without any protections. At the end of the day it’s DoorDash that’s getting all the money, while we’re the ones taking the risk on the streets.”

- Mario Estrada, delivery worker

“I am working with food apps because I don’t have a boss and I have flexible hours. I can rest whenever I can... But there are other times that apps do not understand you. Your tire goes flat, your bike is stolen, they don’t answer for us.”

- César Solano Catalán, delivery worker

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6 Warerkar, “NYC Food Delivery Worker’s Death Amplifies Concerns For Gig Employees.”
7 Flores, “How Facebook Became a Lifeline for Immigrant Bike Messengers.”
CHAPTER 1:
APP-BASED FOOD DELIVERY AS GIG ECONOMY CASE STUDY

Biking is Personal

Studying app-based food delivery cyclists in New York City matters for personal and practical reasons. When I set out to select a research topic, I knew I would choose what I know and love: bicycle infrastructure. As a transportation cyclist in New York City, planning for better bicycle experiences is a goal I aspire to as a future transportation planner. Around the time of my topic selection deadline, a New York City news outlet published an article about Francisco Villalva, a delivery cyclist murdered for his e-bike in East Harlem.8 Reading about this tragedy forced me to reflect on the contradictions at play in the incident. I considered what it would take for me to perform a delivery by bike: what equipment and physical efforts would it take? I considered the emotional layer: the dangers I would have to accept, the consistent fears. I would need an e-bike. I would need safe places to park it. But with that infrastructure lacking, I would have to lock and unlock my bike quickly to whatever structure possible throughout the workday. I would always be looking over my shoulder.

Bicycle robberies were up 27% from 2019 to 2020.9 When the COVID-19 pandemic fell over New York, few people occupied the streets. Delivery cyclists remained on the roads, quickly becoming targets for their valuable e-bikes.10 The murder of Villalva forced me to ask questions about who gets access to safe infrastructure. What would have prevented that violent death? Certainly improved physical infrastructure has a role in protecting people in public spaces, but there are also exploitative labor conditions to contend with. Perhaps Villalva held onto his e-bike because the vehicle itself constitutes a delivery cyclist’s livelihood. Perhaps if another bike could have been guaranteed, or if this one had been insured by a food delivery app company, he could have surrendered the bike to the thief and his life could have been spared. Villalva’s story is not the only one this tragic. There are many stories rife with smaller injustices which do not end in

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8 Offenhartz, “Delivery Cyclist Is Killed In Armed Robbery.”
9 Freytas-Tamura, “Bike Thefts Are Up 27% in Pandemic N.Y.C.”
Chapter 1: App-Based Food Delivery as Gig Economy Case Study

Tragedy, but which are endured by working cyclists daily. What makes this a planning problem is that this is not a singular experience, but one felt by delivery cyclists across the city.

**One Question, Three Arguments**

How could transportation planners respond to the rise of the gig economy’s influence on urban space in New York City by providing app-based food delivery cyclists with the physical infrastructure required to perform their work safely and fairly? This is the primary question I am using to consider delivery cyclists in New York as a case study for broader gig economy planning implications. This issue is important practically and personally. Practically, because the gig economy has arrived and is growing in cities, meaning transportation planners have new challenges to address to ensure successful safe streets. Personally, it was through becoming a transportation cyclist on the city’s streets myself, and witnessing the ways in which the use of the streets and bicycle infrastructure by delivery cyclists were growing that I first became attuned to the gig economy as a spatial problem. The gig economy introduces an evolution of the political economy of shaping the city street and other public infrastructures. This thesis investigates the complexities of delivery cycling as a spatial issue that planners can address to make the public realm safer and fairer for gig workers and other road users. I use this work to outline how I will personally approach my work as a transportation planner focused on labor justice. I introduce this political economy reframing through three arguments, review the planning problem it presents, and situate my study in broader planning conversations in this chapter.

App-based food delivery cyclists are featured in this thesis as a case study in which I explore a broader urban planning issue: the changing social compact in response to the rise of the gig economy. The gig economy is reshaping the expectations of what infrastructure the government should provide as a public good and for whom. There are three arguments I make throughout: 1) App-based food delivery cyclists are essential workers; they are the maintainers of New York City’s economic system. 2) Biking for these essential workers is labor. Categorizing biking as labor makes the street the physical workplace for delivery cyclists. 3) If biking is labor, then the unsafe and unfair conditions these delivery cyclists face can be analyzed through a labor justice framework. These three arguments are considered as a whole to propose transportation planners’ adoption of political economist Iris Marion Young’s labor justice theory of political
responsibility. It is through this theory that safe and fair streets for delivery cyclists may be accomplished.

Delivery cyclists are the essential maintainers of the city. They are everywhere: weaving in and out of bike lanes, each cyclist makes myriad trips in a single day. While ubiquitous, their unfair and unsafe conditions as workers for the gig economy goes unnoticed. As a designer, I have been trained to consider the ways in which different users behave in the same space. As a transportation cyclist, my observation of delivery cyclists’ treatment as gig workers has engaged curiosity about how they use the street. I have imagined designing infrastructure to fit their specific needs. I have wondered on their working conditions. I have considered the connection between biking inappropriately, as one may notice they do, and the small earnings they make per trip; it is a small income to live on in an increasingly expensive city.\(^\text{11}\) I do not condone running red lights, but neither do I condone exploitative wages. As essential maintainers who keep the city running – especially during the pandemic – delivery cyclists deserve essential protections. Could safer streets be possible for all with safer labor conditions for delivery workers?

Broadly, this thesis is about gig economy urbanism and changing ideas about who to plan infrastructure for. It is about the contradiction in public narratives; why is it acceptable for me, a transportation cyclist, to commute to and from work, while it is simultaneously unacceptable for delivery cyclists to ride their e-bikes to complete their jobs? Why is it unacceptable for delivery cyclists to use restaurant bathrooms? Why is it unacceptable for them to occupy the street space they need to do their work safely and fairly? I chose to use this thesis to respond to these narratives, to demonstrate that a set of legal, political, economic, social, and spatial contradictions create the identity of the working cyclist and limit their ability to work safely and fairly. App-based food delivery cyclists represent an intersection of issues in how urban and transportation planners conceptualize the world under the gig economy. The digital scale of gig work enables a new spatial understanding of the city: no distance is too far. Transportation

planners cannot continue planning for the same streets in the same ways as the users, uses, and boundaries shift.

**Framing the Problem**

*Unsafe Infrastructure, Unfair Labor Conditions*

New York City’s 65,000 app-based food delivery cyclists face danger on the job every day. Guaranteed fair wages and working hours and benefits do not apply to them as independent contractors. This research aims to bring awareness to delivery cyclists’ conditions in New York City, connect the various pieces of legal policy and planning decisions that enforce the environment that enables their conditions (understanding what is inside and outside of delivery cyclists’ own control), and to map what delivery cyclists require to eliminate inadequate and exploitative working conditions. I anticipate that some policy and some transportation planning initiatives are required; the goal of this research is to inform transportation planners of what the implications of the broader gig economy on transportation space are, especially for gig workers.

This issue matters for specific and broad reasons. Specifically, this issue matters because it reflects a large group of people for whom there is little protection from large, institutional state and economic actors. As I will demonstrate in later sections, even the general public vilifies rather than protects such essential workers. This is a labor justice issue. More broadly, this issue matters because it is a case study for what planning for the rise of the gig economy means for the future of cities. Gig economy work takes on spatial elements. The cars for Uber and Lyft and the bicycles for the delivery apps all take up limited road space and reset the expectations for how the road is used. Transportation planners especially have a role to play in ensuring the roads remain safe for travel and curbs are accessible for every user that is now scrambling to claim that space. This is the 21st century challenge of who gets prioritized with finite space.

The basic issue of app-based food delivery cyclists as gig economy workers is this: they are not supported adequately through policy or infrastructure. They are legally self-employed and yet their working conditions are tightly controlled by the apps for which they work. What is more, these workers lack basic labor protections and benefits that are more traditionally associated with

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employment. This thesis looks at the case of app-based food delivery cyclists to ask a broader question: if personal safety nets are disappearing – such as healthcare, sick time, set hours, guaranteed wages, and so on – then where and how will workers access these benefits? Who will guarantee that their lives are not exploited by these gig companies who eliminate these benefits in order to increase their profits? The labor justice theory of political responsibility argues for the responsibility of government – specifically transportation planners, with some help from policymakers – to address the issue of safe and fair infrastructure as a matter of justice itself.

Delivering on Los Deliveristas’ Demands

App-based food delivery cyclists take orders from digital platforms, or apps. When a consumer uses an app such as UberEats or Grubhub to order a meal from a restaurant, the app’s algorithm assigns a cyclist the job. The purpose of the app is to organize and assign fulfillment of the delivery service to a third-party worker. Delivery cyclists work as independent contractors for multiple food delivery apps at a time in what is called gig work. The gig economy employs workers operating on flexible schedules to fulfill on-demand services for consumers; food delivery is but one gig market. In New York, the food delivery market is made possible by thousands of working cyclists subject to unsafe working conditions and exploitative labor practices. Frustrated by these experiences, the city’s delivery cyclists organized their own local labor union, Los Deliveristas Unidos, in 2019. The labor union expresses a list of five demands related to their experiences of exploitative labor and inadequate infrastructure:

1. The right to access restaurant bathrooms.
2. The right to a living wage and a hazard pay.
3. Essential protections from e-bike robberies, wage theft and health and safety hazards.
4. The right to use a physical public space to eat, rest, and be protected from extreme weather.
5. The right to organize.  

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14 Los Deliveristas Unidos, “Los Deliveristas Demand.”
Chapter 1: App-Based Food Delivery as Gig Economy Case Study

Items one, four, and to a limited extent, three, demonstrate the gaps in the physical infrastructure that lead to an unsafe environment for delivery cyclists. This reflects the cyclists’ claim that the existing infrastructure is inadequate. Items two, three, and four reflect the exploitative claims on their working conditions. Exploitation is a term used by the cyclists to describe their real experiences; understanding the relationship between all app-based food delivery actors as who is exploited and who is exploiting helps to define exploitation in the gig economy. This chapter relies on these terms – inadequate and exploitative – to examine the current state of delivery cycling in New York City.

The Streets as a Dangerous Workplace

In New York City, there is a public perception of delivery cyclists as lawless cyclists, despite mutual implication of the public as a consumer of food delivery. The labor pressures of delivery cyclists enforce what is viewed as their reckless behavior. For example, delivery cyclists may run red lights in order to deliver food on time in order to earn tips. Delivery cyclists’ identities and labor conditions produce a negative public perception of themselves for these inappropriate behaviors. As largely immigrants and people of color, these workers are criminalized for doing their jobs, making app-based food delivery in New York an immigration, class, and race issue in addition to a labor issue. The COVID-19 pandemic has further labeled these workers as essential, yet they still do not have their basic needs met in the public realm, meaning they remain invisible in planning work.

Delivery cyclists are vocal about the infrastructure they need. In an interview for a recent news article Hildalyn Colón Hernández, a policy director for Los Deliveristas Unidos, describes the importance of gaining the delivery cyclists’ perspective of using the city’s existing infrastructure: “Because delivery workers often start and end their days in the dark, just repairing street lights in places where they’ve been neglected would help ensure safer rides. Identifying these immediate fixes is a matter of listening to workers and reframing the way society thinks about biking.”

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15 Lee et al., “Delivering (in)Justice.”
16 Lee et al.; Figueroa et al., “Essential but Unprotected”; Hoffmann, Bike Lanes Are White Lanes.
17 Lee et al., “Delivering (in)Justice.”
18 Figueroa et al., “Essential but Unprotected,” 8.
19 Lee et al., “Delivering (in)Justice,” 118.
20 Erdenesanaa, “New York’s ‘deliveristas’ Are at the Forefront.”
Colón Hernández’s point is that these cyclists have clear ideas about what physical infrastructure they need. The same article discusses the need for New York City to rethink bicycles as only for leisure and instead consider how physical infrastructure is essential for keeping food delivery workers safe. As deputy director of Transportation Alternatives, Marco Conner DiAquoi, explains “The streets are the workplace of delivery workers… They need, they deserve, they must have safe work conditions.”

Delivery cyclists face dangerous conditions. In the words of delivery cyclist Manny Ramírez, “Those of us who do this work, we’re risking our lives in the street.” Ramírez speaks for the city’s 65,000 food delivery cyclists who face injury, assaulted robbery, and even death every time they deliver. Essential but Unprotected: App-based Food Couriers in New York City is a 2021 survey of 500 delivery cyclists conducted by the Cornell School of Industrial and Labor Relations (ILR) and the Worker’s Justice Project (WJP). The survey reports that “Fifty four percent of the WJP-Cornell survey participants reported having experienced bike theft, and about 30 percent of these said that they were physically assaulted during the robbery.” These robberies sometimes recur in specific locations and may be deterred by a solution as simple as properly maintained streetlights. Assaulted robbery is not the only safety concern; out of thirteen cyclist deaths in 2021 alone, eleven of those killed on the streets were delivery cyclists. Statistics presented in Figure 1 illustrate that delivery work is in need of safer conditions. While safe street conditions are a necessity for all types of cyclists, delivery cyclists are disproportionately harmed on the city’s streets compared to all other cyclists. It is this disproportionate harm that makes planning for delivery cyclists a justice issue.

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21 Erdenesanaa.
22 Erdenesanaa.
Chapter 1: App-Based Food Delivery as Gig Economy Case Study

The Gig Economy’s Rise

These labor conditions result from pressures imposed on cyclists by their independent contractor status within the gig economy. Reliance on independent contractor labor is one of the gig economy’s key practices. The gig economy can be defined as a subsection of precarious employment in which workers do not have access to the same benefits associated with traditional employment, such as minimum wages and healthcare. The gig economy’s structural practices require independent contractor labor, or gig workers, to fulfill on demand services on a digital platform application (the “app”). From ride hailing apps such as Uber and Lyft to app-based food delivery services such as DoorDash and Grubhub, gig work is on the rise in New York City and around the globe. The gig economy’s influence on urban space is growing, as Uber drivers and Relay food delivery cyclists take over street space to fulfill the demands of consumers. In the app-based food delivery market in New York City alone, revenues increased 200 percent between 2016-2021. While much of this increase occurred during unusually high demands as a

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26 Figueroa et al., “Essential but Unprotected”; Graham and Shaw, Towards a Fairer Gig Economy; Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?”
27 Graham and Shaw, Towards a Fairer Gig Economy; Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?”; Montgomery and Baglioni, “Defining the Gig Economy.”
result of the COVID-19 pandemic, the industry is expected to continue growing.\textsuperscript{28} The nature of pursuing new, on-demand services in which tasks are assigned to independent, third-party workers appears endless; because the gig economy is known for its constant evolution and adaptation, the next big gig market may soon be coming. This thesis is situated in the conversation surrounding what the growing gig world means for gig workers, and what it means for transportation planners to respond to such labor structures.

The gig economy is promoted by its corporations as a new kind of work for the flexible hours and low barriers to entry that it offers workers.\textsuperscript{29} But in reality it is a reinvention of typical capitalist labor relations through a new technology platform,\textsuperscript{30} as summarized by labor scholars Tom Montgomery and Simone Baglioni:

\begin{quote}
The disruption brought by technology to the lives of workers can often evoke images of Silicon Valley and novelty of a wave of innovations based on applications (or ‘apps’). In reality, the impact of technological change to working people has been a concern as old as capitalism itself.\textsuperscript{31}
\end{quote}

The labor may be typical, but the policy that labels gig workers as independent contractors has negative consequences for their abilities to earn a living wage.\textsuperscript{32} For the delivery cyclists of New York City, consequences include no minimum wage and no benefits such as healthcare.\textsuperscript{33} Table 1 lists the differences between app-based food delivery cyclists’ labor expectations as compared to legal requirements for traditional employment in New York City. While the gig economy is not a new way of working, it is a disruption that imagines a future of limited protections for workers. Those who argue for the improved conditions of gig workers, including seeing their status changed from independent contractor to employee, view regulation as a potential tool that

\begin{table}
\caption{Differences between app-based food delivery cyclists’ labor expectations and legal requirements for traditional employment in New York City.}
\end{table}

\textsuperscript{28} Figueroa et al., “Essential but Unprotected,” 15.
\textsuperscript{29} Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?,” 1.
\textsuperscript{30} Montgomery and Baglioni, “Defining the Gig Economy”; Zwick, “Welcome to the Gig Economy.”
\textsuperscript{31} Montgomery and Baglioni, “Defining the Gig Economy,” 1.
\textsuperscript{32} Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?”
\textsuperscript{33} Figueroa et al., “Essential but Unprotected.”
resolves loopholes in the legal worker status.\textsuperscript{34} This perspective takes the responsibility for workers out of the private sector’s hands and into the hands of the government. Part of this thesis calls for the responsibility of the state to pursue regulation and planning tools as a means of distributing labor justice.

<table>
<thead>
<tr>
<th>App-Based Food Delivery Cyclists</th>
<th>Traditional Employment in NYC</th>
</tr>
</thead>
<tbody>
<tr>
<td>$7.87 average hourly net pay (without tips)</td>
<td>$15 per hour minimum wage</td>
</tr>
<tr>
<td>12 hour work day, 6-7 days/week</td>
<td>40 hour work week with paid overtime, unless “exempt”</td>
</tr>
<tr>
<td>No guaranteed breaks</td>
<td>24-hour rest period/week required</td>
</tr>
<tr>
<td>No paid sick leave</td>
<td>40-56 hours of annual paid sick leave</td>
</tr>
</tbody>
</table>

Table 1: Delivery Cyclist Wages, Hours, and Benefits Compared to Traditional Employment in NYC. Delivery cyclists are not guaranteed set wages, hours, or benefits as part of the nature of their jobs as independent contractors.\textsuperscript{35}

\textit{Exploitation from All Actors}

Studying labor policies informs the baseline economic conditions of delivery cyclists and contextualizes what the general public may see as inappropriate cycling behavior. According to the \textit{Essential but Unprotected} survey, “\[e\]xcluding tips… the average net pay of app-based delivery workers amounts to $7.87” which is less than New York City’s minimum wage of $15 per hour.\textsuperscript{36} This lack of a legally enforceable living wage creates an incentive for delivery cyclists to bike inappropriately in order to deliver food as quickly as possible; faster service is rewarded with higher tips.\textsuperscript{37} The pressures of the gig economy on these cyclists, by nature of their employment as independent contractors, enforces an inappropriate use of the city’s bicycle infrastructure. Yet such cycling behavior is a sign of the labor exploitation of delivery cyclists. Recognizing this may yield policies and plans which address the labor and infrastructure problems at their source.

\textsuperscript{34} Graham and Shaw, \textit{Towards a Fairer Gig Economy}; Donovan, Bradly, and Shimabukuro, “What Does the Gig Economy Mean for Workers?”; Stewart and Stanford, “Regulating Work in the Gig Economy”; Figueroa, “Institutional Experimentation and the Challenges of Platform Labor.”

\textsuperscript{35} Figueroa et al., “Essential but Unprotected”; NYS Department of Labor, “Wages and Hours.”

\textsuperscript{36} Figueroa et al., “Essential but Unprotected,” 7; NYS Department of Labor, “Wages and Hours.”

\textsuperscript{37} Lee et al., “Delivering (in)Justice,” 115.
Being precise about who is exploited, how, and by whom may also generate more appropriate policies and plans. How exploitation works matters for answering the “fairly” part of the primary research question. As Figure 2 illustrates, the actors associated with app-based food delivery include the private sector (the app, restaurants, and consumers), the state (New York City), and the worker (delivery cyclists). Delivery cyclists are the primary exploited actor, while the apps are the primary exploiting actor. The city, the consumer, and restaurants participate in both exploiting delivery cyclists as well as being exploited by the apps. Through policy, planning, and enforcement mechanisms, the city exploits delivery cyclists by simultaneously profiling their actions and overlooking their needs in planning.39 Delivery cyclists recount unfair treatment by restaurants, including being turned away from restaurant bathrooms.40 Consumers exploit the cyclists by placing on them pressures of high volumes of orders and unrealistic time expectations.41 The apps extend the most obvious exploitation on the delivery cyclists for withholding benefits, paying below minimum wages, and expecting cyclists to purchase and maintain all required equipment at great personal expense. The apps also exploit the restaurants

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39 Lee et al., “Delivering (in)Justice.”
40 Aponte and Velasquez, “NYC Food Delivery Workers Band.”
41 Lee et al., “Delivering (in)Justice.”
by charging commission fees for outsourcing what was once an in-restaurant job. Finally, by making use of public streets without contributing to their provision and maintenance, the apps take advantage of the city. That the apps assume no role in physical infrastructure is another reason for New York City to consider how the gig economy is a spatial disruption, and must take on the responsibility of planning a response.

The COVID-19 Pandemic: Essential Workers in Crisis
App-based food delivery cyclists were granted essential worker status when the COVID-19 pandemic hit New York in March 2020. As many New Yorkers with the option to stay home did so, delivery cyclists kept the city running. Yet this essential status has done little to alleviate exploitative working conditions. In fact, the public’s reliance on delivery workers to sustain the city through crisis has only exacerbated their already precarious working conditions. The intersectional, structural problems endured by delivery cyclists are not only a labor issue. As largely immigrants and people of color, including an unknown number of undocumented immigrants, app-based food delivery work is also an immigrant, class, and race issue. As Lee et al. explain, “Essential to racial hierarchies are labor markets, which often scapegoat undocumented immigrants for unfair labor practices that primarily benefit private interests while also preventing conditions of racial and economic solidarity.” As the pandemic revealed for other essential workers, who got to stay home during a public health crisis and who was required to keep working on the basis of economic survival revealed these ingrained societal contradictions of immigration, class, and race.

As long as exploitation and labor justice are considered in this thesis, it is important to consider the ways in which structural injustices have been exacerbated by the pandemic to make these workers even more vulnerable. For example, delivery cyclists were one of the few frontline workers out on the street, interacting with scores of people daily. Not only did they risk injury and death on the street as they would typically, but this risk was compounded by the health risk of contracting the virus. For workers who do not have access to healthcare through their employment, this risk entails a profoundly disproportionate sense of insecurity for these workers.

42 Figueroa et al., “Essential but Unprotected.”
A double standard emerged during the pandemic: essential workers are needed to sustain the city through crisis, but they do not deserve protections themselves. This is a recurring theme throughout this thesis; the COVID-19 pandemic added to the already existing precarious conditions for delivery cyclists and revealed the ways in which exploitation of such workers operates along immigrant, class, and racial lines.

Planning for Adequate Food Delivery Infrastructure

Infrastructure for app-based food delivery cycling encompasses more than merely the physical bicycle infrastructure that all cyclists use. There are two infrastructures that make up the infrastructure of app-based food delivery: physical infrastructure such as bike lanes and bike parking, and the digital food delivery app and its algorithm. This thesis is primarily concerned with the former because it falls under transportation planners’ responsibility. Physical infrastructure includes the bicycle infrastructure and its elements such as bike lanes and bike parking facilities. What makes this bike infrastructure different for delivery cyclists is that they have more specific needs beyond bike lanes. Table 2 demonstrates how each of these physical elements are related to the act of cycling itself. For example, commuter and recreational cyclists may have access to secure bike parking facilities and bathrooms at their starting or final destinations. The distinction is that the act of cycling is a fixed time and distance as a means of transporting oneself for these cycling identities. For delivery cyclists, whose workplace is the city street, more access to bike parking facilities, bike charging stations, bathrooms, and weather-proof rest shelters to rest between deliveries become necessities of the job. These elements take place at the citywide scale. The individual scale of app-based food delivery infrastructure includes the bicycle, a reliable bike lock, bike lights, a smartphone, and accessories such as insulated bags, among other miscellaneous bicycle equipment that may make the job easier or more comfortable. When the individual scale meets the citywide scale, a nearly complete food delivery infrastructure forms.

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44 Gould and Kandra, “Only One in Five Workers Are Working from Home Due to COVID.”
Chapter 1: App-Based Food Delivery as Gig Economy Case Study

Table 2: Transportation Cyclists and Delivery Cyclists Infrastructure Needs. While all cyclists may benefit from infrastructural elements like bathrooms and places to charge e-bikes, to delivery cyclists, these elements are necessities while on the job.45

<table>
<thead>
<tr>
<th>Transportation Cyclists</th>
<th>Delivery Cyclists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected bike lanes</td>
<td>Protected bike lanes</td>
</tr>
<tr>
<td>Bike parking facilities <strong>at trip destinations</strong></td>
<td>Bike parking facilities <strong>at all delivery points</strong></td>
</tr>
<tr>
<td>Street lighting</td>
<td>Street lighting</td>
</tr>
<tr>
<td><strong>Safe intersection design</strong></td>
<td><strong>Safe intersection design</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Secure bike parking with charging capabilities</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Bathrooms</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Weather-proof rest shelters</strong></td>
</tr>
</tbody>
</table>

The final element that completes the food delivery infrastructure system is digital: the app. The app as a digital communications infrastructure enables interaction in the system by multiple parties (the consumer, the restaurant, the delivery cyclist, the app company) and generates work through assignment of a task (division of labor). Like the bicycle and other equipment, the digital app is part of the infrastructure of labor. The app and the personal equipment are essential elements for producing the delivery worker. Because the delivery work must occur on city streets, the city’s physical infrastructure extends into the food delivery labor infrastructure. To make an adequate, app-based food delivery infrastructure requires recognizing these elements as an infrastructure of labor.

Adequate infrastructure is infrastructure that is safe and complete. Safe means that the risks of injury, assault, or death are minimized. It means that any such risk that can be avoided with proper planning and design is avoided to the fullest extent possible. Complete means that an adequate network has all of the basic elements that are required for it to function seamlessly for the user. In an ideal world, this infrastructure could look like bridges that travel over intersections for delivery cyclists to safely surpass red lights. It could look like dedicated e-bike

delivery lanes protected from motor vehicle traffic. It could look like a distribution of e-bike stations located near restaurant zones which delivery cyclists could use at their convenience as a delivery bikeshare network. Such visioning, as Figure 3 presents, requires planners to think critically about what kind of access to infrastructure is needed and by whom. In an ideal world, delivery cyclists would have rest stops dispersed across all city neighborhoods equipped with bathrooms, shelters, charging stations, and secure bike parking. But part of this ideal world requires seeing delivery cyclists as humans whose labor creates harmful conditions for their wellbeing, in addition to potential harms for the public. Planning is equipped to handle such challenges of access to urban space.

Figure 3: A Speculative Image of Delivery Cycling Infrastructure. Delivery cyclists are vocal about their needs, from secure bike parking to street lighting to rest shelters.

These are speculative ideas for how physical infrastructure could mediate the tensions between safe and efficient food delivery, and existing and complete infrastructure. It is a creative planning exercise to imagine the limitless possibilities for safe and complete food delivery cycling
infrastructure in New York, but the reality is that there are already many existing elements which could be deployed to complete the network. How could transportation planners use existing infrastructural elements in the public realm to realistically address the following scenarios? The food delivery cyclist has a place to securely park his e-bike while he enters a restaurant to retrieve an order. He travels in a protected bike lane which separates him from motor vehicle traffic. The streets he travels are well-lit and free from blind-spots for thieves to hide. On his rest break, he can use the bathroom and wash his hands from the comfort of a protected shelter while his e-bike battery charges nearby. In what other ways is it the planner’s purpose to envision creative solutions to mundane problems?

**Implications Beyond New York**

App-based food delivery cyclists are essential workers.46 Their essential status was not fully realized by the public until the onset of the COVID-19 pandemic. At the local scale, delivery cyclists became the most important link between people and goods, sustaining the city’s economy throughout this crisis.47 The local issues of goods delivery movement and transportation labor in the pandemic can be applied to a national and even global situation of invisible human linkages maintaining the modern world. Essential workers in the transportation labor industry – from app-based food delivery cyclists to container ship crews – are the maintainers of a global economic system. The impacts of poor labor protections on such workers can be felt by consumers around the world.48

Central to this thesis is recognizing the essential economic maintenance work performed by delivery cyclists as a rationale to plan for this group’s needs. There are ties even at this local level to multiple scales of goods movement, offering local planners lessons in how to accommodate the needs of an essential workforce. Governments around the world are currently grappling with their own responsibilities in ensuring the human workforce has the adequate, non-exploitative protections and infrastructure in place to perform jobs that the entire globe depends on. The same is true for New York City and its responsibility to its delivery cyclists.

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47 Freytas-Tamura, “Food Delivery Apps Are Booming. Their Workers Are Often Struggling.”
48 Platten, “The Supply-Chain Crisis Is a Labor Crisis.”
This work also has greater implications for the increasingly influential role that the gig economy has on cities. In considering the structures of labor in the United States as constraints on the worker, but enablers for the growth of the gig economy, a future in which all labor lacks protections becomes easy to imagine. The issues that arise from the changing landscape of labor are not unique to New York City. If the gig economy is growing, issues faced by New York’s transportation planners are issues that other cities will soon face. The case study of food delivery cyclists in New York elicits broader themes and trends that could be applied elsewhere.

That imagined future is a precarious one if the state of labor remains precarious. For many, the gig economy has offered reprieve from unemployment as the pandemic has spurred historic job loss in the United States. Still for others, the inability of the gig economy to fulfill basic economic needs makes it a job of last resort. Faced with the multiple crises of the present, is an increasingly precarious future one that workers are willing to accept? Regardless of the answer, labor regulation and planning intervention can be employed as political tools to regulate the gig economy’s persistent, exploitative practices. In this sense, labor regulation and planning for city services are public goods. To what extent should the public good be considered, and who should provide it? In this case study, the public good extends from policy to physical infrastructure. There are the intangible, structural injustices which can be resolved with policy, but there are also physical conditions of space that reproduce injustice. Planners are just as responsible as policymakers in producing conditions in which precarious labor thrives.

**Bicycles, Labor, and Infrastructure in the Gig Economy**

This thesis is situated within a conversation on labor, infrastructure, cyclist identity and behavior, the gig economy, and planners’ responsibility to intervene in disruption. In dialogue with these scholarly perspectives, this work claims several positions. One, I claim that bicycling is labor. The cyclist identity, behavior, and bike infrastructure planning literatures tend to discuss bicycling as transportation. Two, I claim that if bicycling is labor, then it follows that the street is a workplace. Transportation labor literature provides precedent for this claim. Three, I claim that the gig economy is not an exceptional, new type of labor, but that it is disruptive to traditional

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work. Finally, I claim that transportation planners have the responsibility to plan for infrastructure as way of spatializing a justice response to the emerging gig political economy, and that there is precedent for this even in New York.

**Bicycling as Labor and Street as Workplace**

This thesis ties together bicycle, transportation labor, and gig economy literatures to claim that biking is labor. The delivery cycling conversation recognizes that these cyclists are under pressure to deliver food as fast as possible in order to make a living from tips.\(^51\) However, the argument lacks development in discussing the presence of existing infrastructure; I propose that there is an absence of adequate physical infrastructure due to delivery cyclists’ invisibility as maintenance workers of the city’s economic system. This thesis addresses the absence in cycling identities and infrastructure literatures that biking can include labor. By historically planning for bicycle infrastructure for transportation purposes alone, those who use that infrastructure primarily as a workplace are inadequately planned for. This absence creates a fundamental disconnect between who transportation planners plan for and who already uses the road.

Because I am focused on the experiences of the cyclist as a person first and a mode of transportation second, the conversation begins with cycling identities. When I refer to app-based food delivery cyclists, I mean a very particular type of working cyclist. Transportation planners may be familiar with Roger Geller’s “Four Types of Cyclists” which seeks to categorize cyclists based on their levels of comfort. Working from experience in Portland, Oregon, Geller labels his categories: “‘The Strong and the Fearless,’ ‘The Enthused and the Confident,’ ‘The Interested but Concerned...’ [and] nonriders, called the ‘No Way No How’ group.” Geller is explicit that these categories reference transportation cyclists.\(^52\) Geller does discuss working cyclists – specifically bicycle messengers in Portland – as falling into the “Strong and Fearless” group.\(^53\) Contradiction arises, however, when labeling app-based food delivery cyclists in New York as “Strong and Fearless.” Gig work is flexible and has low barriers to entry. Many delivery cyclists take on this work because it is the only work available to them.\(^54\) When labor is the primary

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\(^{51}\) Lee et al., “Delivering (in)Justice,” 115.

\(^{52}\) Geller, “Four Types of Cyclists,” 1.

\(^{53}\) Geller, 4.

\(^{54}\) Figueroa et al., “Essential but Unprotected,” 25.
reason for getting on a bike, is “Strong and Fearless” an accurate label? There are delivery cyclists who express fear while on the job every day.\textsuperscript{55} Because it is work accessible to them, especially for immigrants, delivery cyclists are on their bikes anyway, despite an absence of adequate infrastructure. Thanks to their socioeconomic pressures and limited job opportunities, one may inaccurately observe these cyclists as competent – or “Strong and Fearless.” Where Geller is concerned with inclination to bike, other researchers have studied factors such as race and gender to understand how cyclists might behave or be attracted to biking as transportation.\textsuperscript{56} These factors, in addition to socioeconomic conditions and immigration, may be useful for constructing a complete picture of the challenges delivery cyclists face while on the job.

Understanding biking as labor as an intersectional problem – in which many structural injustices are compounded – may help to define a cyclist category for working cyclists. To do so could mean that infrastructure is more accurately planned for a greater variety of cycling needs.

Definitions of infrastructure are key to returning the conversation to app-based food delivery cyclists and their use of existing infrastructure. The delivery cyclists of New York are essential workers and therefore maintainers of the city’s economic system.\textsuperscript{57} Maintenance is by definition an invisible act; its goal is to ensure that systems remain running, and maintenance work often requires deploying creative solutions for critical infrastructure repair.\textsuperscript{58} Invisibility of infrastructure is a key characteristic of working infrastructure; when working properly, infrastructure is invisible. When it is visible, the infrastructure system is in breakdown.\textsuperscript{59} Through this definition of infrastructure I relate delivery cyclists as maintainers to their status as visibly-invisible.\textsuperscript{60} One may also recognize a systemic infrastructure issue: the visibility of delivery cyclists as a product of their responses to their labor pressures shows that the economic structure and the nature of labor stability in New York City is in breakdown. Yet the invisibility of delivery cyclists as immigrants and people of color, and as essential, “maintenance” workers of the city, is reflected in how they have been absent from policy and planning considerations.

\textsuperscript{55} Marcos, “As Bike Thefts Jump, Delivery Workers Band Together for Safety.”
\textsuperscript{56} Aldred, “Incompetent or Too Competent?”; Hoffmann, Bike Lanes Are White Lanes.
\textsuperscript{57} Figueroa et al., “Essential but Unprotected.”
\textsuperscript{58} Graham and Thrift, “Out of Order.”
\textsuperscript{59} Star, “The Ethnography of Infrastructure.”
\textsuperscript{60} Lee et al., “Delivering (in)Justice.”
This is also where a labor justice theory of political responsibility becomes relevant: what is the role of the state to address this breakdown?

There is historical precedent for the state to take responsibility in regulating other goods movement industries and recognizing workers as essential maintainers of global trade. Goods movement and transit operations labor literatures offer insight into labor in transportation fields that may provide answers for how planners can address the theoretical, infrastructural breakdown. The broader goods movement labor literature focuses on the working conditions and labor protections of the human operators of modes for transporting goods. The literature primarily focuses on large scale modes, such as freight, rail, air, and maritime shipping. With respect to the bicycle as a mode for making deliveries, this literature only discusses bicycles for their possibilities in being an environmentally sustainable mode of goods delivery. There is no discussion, however, of the cycling labor force. Despite this absence, the broader goods movement literature is useful for connecting similarities between the labor structures and working conditions of operators of these large scale modes and the small scale delivery cyclists. This literature can help transportation planners think through the notion of street as workplace: If bicycles are a mode of transportation labor that is used on a large scale in New York, then perhaps planners can apply goods movement labor approaches to bicycles.

The (un)Exceptional Gig Economy

Gig economy companies claim they are offering a new type of work that provides flexibility to workers and frictionless service to customers. However, labor experts who study the gig economy have argued that only the technology for how consumers are connected to an outsourced service has changed. The algorithms associated with the app work behind the scenes to manage the labor of workers, from scheduling work hours, to assigning deliveries, and even enacting punishment for slow deliveries or unhappy customers. Maria Figueroa explains that in the end, the algorithmic management leads to “deflexibilization as the incentive structures

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63 Montgomery and Baglioni, “Defining the Gig Economy,” 1.
and algorithmic management encouraged full-time engagement with very little working time flexibility." In understanding how the app is used to connect consumers to a service, the labor relationship may be more similar to the already-established practice of outsourcing labor. This shift from in-house labor to outsourced labor is true for food delivery in New York City; food delivery cyclists once worked directly for restaurants before the apps proliferated. The concern about labor justice that arises from the distinction between a new way of work and outsourcing is that the gig economy is using its “newness” narrative to disguise the legal removal of labor protections from its workforce. The app as a digital communications infrastructure for labor assignments blurs the definitions of employer and employee. The app becomes the workplace, supervisor, and organizer of tasks all in one. The traditional structure of work remains embedded in the app, although it is masked by technology, not in labor reorganization strategies as the app companies claim. The real strategy is to legally label workers independent contractors to save costs and limit union organizing. United States labor law has afforded gig-based corporations large sources of independent contractors to whom there is no legal obligation to guarantee minimum wage nor traditional employment benefits such as healthcare.

This thesis agrees that the gig economy is not new, but disruptive. This claim is drawn from three sides of the gig economy conversation: the potential benefits of the gig economy, the current harms for gig workers, and how the gig economy can be regulated to maximize benefits and reduce harm. Daniel Spurk and Caroline Straub sum up the debate:

Those who advocate gig work claim that it provides career opportunities by providing resources like greater work autonomy and a high potential for work-nonwork, resulting in more boundaryless, individualized, and whole life careers. However, labor activists fear that gig work is associated with increased risks for workers, including precarious and demanding employment conditions (including low or sporadic pay, lack of welfare coverage, social isolation, overwork, less developmental opportunities, and job as well as career insecurity), resulting in more fragmented and bounded careers.

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64 Figueroa, “Institutional Experimentation and the Challenges of Platform Labor,” 347.
65 Figueroa et al., “Essential but Unprotected,” 19.
Spurk and Straub further argue that the COVID-19 pandemic is a crisis that is exacerbating another crisis of labor around the globe. They call for these benefits and harms to be examined under the COVID-19 pandemic and the ways in which gig workers’ status changed relative to their working conditions.68 Interestingly, the conversation around the pros and cons of the gig economy tends to have a human focus, despite the invisibility of labor that digital, on-demand services produce. Citing evidence from other gig economy and labor scholars’ studies of platform labor around the world, Figueroa suggests that the technology used in platform labor – from “algorithmic management of labor” to data collection – is a new tool that is changing the ways in which existing labor structures operate but not a new type of work for workers.69

The perspective that supports gig work points to a number of benefits for workers. Namely, flexibility and the ability to control one’s own schedule is often cited as a draw for workers.70 On the other hand, those wary of the gig economy cite the ways in which the harms outweigh the benefits of a flexible work arrangement. Montgomery and Baglioni explain:

...what the gig economy has come to symbolize for some is an opportunity for flexibility, to earn additional income through short term opportunities and thus yields tangible benefits. For others however, the gig economy has simply meant a decline in the quality of employment in terms of pay and conditions.71

The fact that workers are classified as independent contractors poses a big issue. When they are not considered employees, workers are not granted the same protections as employees under the law. The use of independent contractor as a legal label to apply to workers – despite the amount of control companies may actually exert over their workforce – creates a barrier to increased labor protections for gig workers. Such a strategy is employed as a cost-saving approach for the app companies.

68 Spurk and Straub.
70 Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?”
71 Montgomery and Baglioni, “Defining the Gig Economy,” 1.
A third part of the conversation asks labor scholars to consider that studying the gig economy’s impact on workers requires moving beyond qualifying the gig economy as either good or bad. Rather, to address workers’ conditions, the gig economy must be viewed through its worker policies and how these may change. While some scholars have voiced recommendations in favor of regulating the gig economy, Healy et al. go one step further. They ask researchers to contemplate “What instruments can regulators use to ‘nudge’ platform companies towards better labor-management practices?”\(^\text{72}\) Seth Harris and Alan Krueger see one such instrument at regulators’ disposal to create a new, legal category of worker altogether, as a means of neutralizing independent worker status when compared to the benefits and protections afforded to traditional employees under United States labor law.\(^\text{73}\) Their argument is to create a new category of worker to then grant these workers a distinct set of labor rights. Meanwhile, other scholars suggest state intervention in the practices of the app companies.\(^\text{74}\)

Figueroa agrees that new regulatory frameworks are required to address the gig economy’s rearrangement of traditional labor relations through algorithms. She asks a series of questions about whether regulation alone is the answer:

> Technological change is not a new challenge for unions and workers. In the face of labour platforms’ disruptive effects across industries and institutional frameworks for worker protections, however, labour advocates must confront the following questions: is it enough simply to enforce existing rules and strengthen our institutions? Is digital technology just an old challenge dressed in new clothes? Alternatively, are we facing an irreversible shift in the paradigm for work organization and labour relations?\(^\text{75}\)

Surrounding Figueroa’s queries is a debate about how to address the precarious labor conditions brought on by the gig economy’s labor structures. The extent to which the government is


\(^\text{75}\) Figueroa, “Institutional Experimentation and the Challenges of Platform Labor,” 349.
responsible as an intervening agent in worker exploitation may be seen through historical precedent, if the gig economy indeed is not a new challenge.

Contemporary goods movement labor connects to the labor structure of the gig economy. Truck drivers are not part of the gig economy in the same way as app-based food delivery cyclists; there is no app through which they are assigned work. However, the labor trend for goods movement has been shifting since the deregulation of these industries in the 1970s and 1980s. In cost-saving efforts, retail and manufacturing firms have opted to outsource their shipping labor to independent contractors. These independent contractors are responsible for providing and maintaining their own, up-to-standards equipment in order to continue providing appropriate labor for these jobs. This labor trend increases unsafe working conditions and reductions in wages.76 The shift from traditional employment of truck drivers to outsourced contractors brings to mind the similar conditions of delivery cyclists. Through goods movement labor, it is easy to define gig work as more typical outsourced labor. Goods movement labor is outsourced to minimize the costs of retaining full-time employees. By eliminating the employee, the employer’s responsibility to provide benefits is erased.

That the labor model is similar to that of delivery cyclists debunks the idea that the gig economy is a new type of work. What the literature does suggest through its observation of trends is that outsourcing is on the rise.77 This suggests that gig work is here to stay. It additionally may help to pose the question critical to the gig economy’s self-imposed narrative: If there are similarities between gig work and outsourcing traditional freelance labor, then is the gig economy really so exceptional? This thesis reflects on app-based food delivery work as a combination of the conditions of other goods movement workers and their outsourcing labor structures, coupled with the technological advancements of the gig economy. Through these conversations, I understand that the gig economy is not exceptional as a new form of work. Still, while it is not new, it is disruptive to traditional labor expectations and the use of urban space.

76 Peoples and Talley, *Transportation Labor*.
77 Rich, “Productivity, Technical Change and Labor Relations in Transportation Industries.”
The gig economy is a disruption to traditional labor and consumption. In New York City especially, food delivery has seen rapid growth through apps such as Grubhub, Postmates, and UberEats, among nine others and counting. The differences between traditional labor and gig work may appear numerous at a glance: gig work lacks a physical workplace, physical colleagues, and a hierarchical workplace structure where employees higher up are responsible for distributing tasks to each worker. The division of labor and responsibilities are clearer in the traditional workplace structure. New York City policymakers have acted to address some of these labor issues with the recent package of bills, but these bills only go so far. These bills will create transparency in base pay and the portion of tips which go directly to the cyclists. There is still work to do to ensure that the policy addresses the basic needs of this labor force and protects them against exploitative practices. Yet policy alone cannot address each one of delivery cyclists’ problems. Policy can improve intangible conditions, but the physical, environmental conditions of the street remain a job for planners. Policymakers in New York have already begun to address the labor disruption of the gig economy; planners have a place in addressing infrastructural disruption.

**Justice as Precedent for State Intervention in Crisis**

The precedent for the public good speaks to the responsibility of the state to respond to crisis in the first place. Historically, planners and policymakers at local, state, and national levels in the United States have taken responsibility to respond to crisis. This section uses three precedents to argue for political responsibility by planners and policymakers to respond to app-based delivery cyclists’ unsafe and unfair conditions. Three eras of crises in New York City in particular are considered: the past crisis of near fiscal collapse in the 1970s, the present crisis of the COVID-19 pandemic, and the future crisis of increasingly precarious work.

**Past Crisis: Economic Disruption**

If the gig economy is an economic disruption, then this is nothing new for New York City. The city has been faced with severe economic disruption in the past. The Progressive and New Deal

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78 Donovan, Bradley, and Shimabukuro, “What Does the Gig Economy Mean for Workers?,” 1.
79 Figueroa et al., “Essential but Unprotected,” 15.
80 Erdenesanaa, “New York’s ‘deliveristas’ Are at the Forefront.”
Eras come to mind as moments in history when government stepped in to regulate labor protections and engage in infrastructure building for the sake of a public good. But the fiscal crisis of the 1970s marks a period specific to New York’s planners and policymakers. Crisis, as Benjamin Holtzman writes, is specific to many decreasing conditions of urban life of the moment: “‘Crisis’ was frequently used to describe New York City during the late 1960s and 1970s… While the term ‘crisis’ can easily be deployed as hyperbole, the regularity with which New Yorkers invoked it suggests a not insignificant degree of concern.”

The urban crisis in question was a moment of immense municipal debt exacerbated by a declining taxpaying population and economic industry, as well as aging and unstable housing and parks infrastructures. While the response to the Great Depression was to fund major infrastructure projects to employ the American public and imagine great public works for the public good, this notion of public good – who pays for what and for whom – evolved for the 1970s fiscal crisis response in New York. To get out of debt, a reimaging of the social compact was necessary. New York City emerged from the fiscal crisis thanks to civic and economic processes, from the grassroots to the municipal level, in which “the responsibilities of city governance [were taken] into the private sector and market.”

Important in stories of crisis is the way in which such historical moments reignite questions of responsibility. Holtzman explains this perspective:

Historians commonly point to the Populist and Progressive Eras as when many Americans began to fundamentally rethink their relationship to government. Local urban governments in the late nineteenth century began to take on expanded and new regulatory or service-providing functions, such as installing and maintaining streetlamps, developing and enforcing robust health and building codes, and enlarging the park system. During the early twentieth century, reformers pushed the state’s presence even further. New York City’s progressive reformers “believed that government might properly become a

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82 Holtzman, 235.
powerful regulatory force and a public service provider,” as historian John Louis Recchiuti has described...\textsuperscript{83}

This thesis asserts that a reimagining of the social compact between a municipality’s citizenry and its government is warranted in times of great change. Part of Holtzman’s argument is that the fiscal crisis did just that, writing that “New York faced an economic crisis beginning in the late 1960s that disrupted long-standing assumptions about the services city government could provide.”\textsuperscript{84} In the same way that Holtzman theorizes the evolution of the social compact arising from fiscal crisis, I argue that the entrance of the gig economy into New York City – as economic and spatial disruption – requires the same line of questioning. In what ways is the city government responsible for responding to the gig economy’s impacts on daily life? What can the public expect the city to provide as a public good in the age of digital, on-demand commerce and services? Applying the framework of political responsibility may answer such questions.

\textit{Present Crisis: A Global Pandemic}

Arguably, the most obvious present-day crisis afflicting New York City is the COVID-19 pandemic. With the declaration of a state emergency by former New York State Governor Andrew Cuomo on March 7, 2020,\textsuperscript{85} and the World Health Organization’s (WHO) determination that the spread of COVID-19 constituted a global pandemic on March 11, 2020,\textsuperscript{86} this crisis has been ongoing ever since. The pandemic immediately saw some government response. But such a public health crisis also made visible vast social inequalities in the United States. One example is health insurance. Tied to traditional employment, health insurance is necessary to receive medical care in the United States. In the gig economy, insurance is not provided by employers, because independent contractors are technically self-employed. But gig workers like app-based food delivery cyclists are some of the most vulnerable members of society. During the pandemic, they were classified as essential, frontline workers, risking their own health to deliver food and other goods to those who had the option to stay home. Without health insurance to depend on in order to seek care for COVID-19 itself, the risk to these workers was complicated by their lack

\textsuperscript{83} Holtzman, 7.
\textsuperscript{84} Holtzman, 1.
\textsuperscript{85} “Governor Cuomo Declares State of Emergency.”
\textsuperscript{86} Adhanom, “WHO Director-General’s Opening Remarks at the Media Briefing on COVID-19.”
of protection, all due to the structure of employment. Who, then, becomes responsible for ensuring these workers can get the medical treatment they need? Such questions ask planners, policymakers, and the public to reimagine the social compact.

**Future Crisis: Precarious Work**

Failing to take on the political responsibility to address the labor injustices faced by delivery cyclists has broader implications for a future in which work continues to become increasingly precarious. Gig economy scholars who sit on the side of the debate that the gig economy is harmful for workers recommend taking regulatory action to codify better working conditions. The recommendation for regulatory intervention raises questions about the responsibility of government to respond to the conditions imposed on working people by large, economic institutions. What is the responsibility of the state to respond to disruption? What is the responsibility of the state to provide public goods and services? On one hand, the matter of delivery cyclists’ lack of adequate infrastructure and their criminalization is part of what Lee et al. describe as mutual implication. This mutual implication relates to Iris Marion Young’s labor justice framework of political responsibility, which calls for participation of all implicated actors to strive for systemic, institutional justice. When there is an inability by some actors to provide basic public services, that responsibility may shift to others. That shift may be to neoliberal actors, but when the neoliberal actors fail to deliver services in an equitable and just way, governments may need to intervene. Such is my rationale for adapting Young’s political responsibility framework as my own labor justice framework to explore the relationship between labor and infrastructure provision as a public good, and providing adequate infrastructure as a matter of justice. Such examples suggest that New York City is within precedent to redefine its responsibility to its citizens during a period of great economic disruption.

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88 Holtzman, The Long Crisis; Mody, Infrastructure Delivery.
89 Lee et al., “Delivering (in)Justice.”
90 Young, “Responsibility and Global Labor Justice.”
91 Holtzman, The Long Crisis.
Planning for a Just Future

The Gig Economy is Here to Stay

As I write this at a street-facing window, a delivery worker on a bicycle passes by. The insulated bag he wears on his back says “15-Minute Grocery Delivery” in blue text on a white background. It is snowing and sleetling; the roads are iced over. Still, the cyclist has a task to fulfill and ends to meet. In the gig economy, the next on-demand service is always around the corner. While the past decade has seen the rise of ride-hailing and food delivery apps, these on-demand platform services are being joined by the promise of 15-minute grocery delivery. Such on-demand services have implications for the human labor aspect as well as reorganizing the spatial flows and their patterns of movement and congestion in cities. As with any spatial concerns, there are issues related to physical infrastructure. Where do delivery vehicles park? How do they access the curb? How do workers efficiently access buildings? Is a 15-minute delivery window really feasible, or better yet, safe for the worker and public sharing the street?

These are important questions for transportation planners to consider. The growth of the gig economy in cities is a design challenge as much as it is a policy challenge. Since composing this thesis in the spring of 2022 in Cambridge, Massachusetts – about 200 miles from New York City – delivery cyclists in purple jackets riding on purple bikes branded with “Getir” have multiplied. In this smaller city, replete with a comprehensive network of physical bicycle infrastructure, it is clear that the next big thing in the gig economy is finding a way in, even if app-based food delivery does not regularly operate by bicycle in Cambridge. This tells me that transportation planners even in Cambridge, Massachusetts must realize similar concerns that planners in New York are contending with. New stakeholders, from the app company based in San Francisco to the undocumented immigrant worker, must be engaged. New goals and strategies must be determined by planners and policymakers for how to ensure the public realm remains safe for all users, that the economic draw of such gig companies remains, and that the workers who perform the essential task of connecting consumers to businesses to keep the city running are protected.

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93 Getir is one of the emerging 15-minute grocery delivery companies.
Tying Political Responsibility to Action

In September 2021, the New York City Council passed a series of six bills aimed at improving labor conditions for app-based food delivery cyclists.\textsuperscript{94} The legislation has been the first step in addressing the unfair labor conditions that delivery cyclists endure as gig workers. But delivery cyclists are clear that these laws only go so far in undoing the exploitation that is systemically ingrained in gig economy policies and United States labor law. As Los Deliveristas Unidos demonstrates in the group’s demands, the physical infrastructure does not work for delivery cyclists, either. The labor justice theory of political responsibility is therefore necessary to examine the ways in which existing policy structures and physical spaces do not work for delivery cyclists. Such an examination can point to potential planning intervention.

The next big gig market – 15-minute grocery delivery – already poses problems for New York City. In cities like Berlin, where 15-minute grocery delivery began in 2020, New York City planners can see their own future: congestion, unsafe and exploitative working conditions, and a threat to local businesses such as bodegas.\textsuperscript{95} The demand for intervention in the gig economy makes its case here: the gig economy is not going away, and neither will the precarious labor conditions. Gig companies will continue to take advantage of urban space and legal frameworks to maximize profit. It does not matter whether the food delivery worker is bringing a takeout order or groceries to one’s front door. The issues surrounding safe, adequate infrastructure and exploitative working conditions remain the same. State intervention is needed to address the gig economy’s influence on urban space.

My Role as a Transportation Planner

This thesis is not only for transportation planners – it is also for me. I am about to become a transportation planner. I use this work to establish my own transportation planning framework that assumes labor justice as a guide. I see this work as a way to interrogate my own role in planning for the equitable distribution of infrastructure as a public good. In the process of producing this work, I have sat with discomfort. I was interested in studying the conditions of app-based food delivery cyclists because I recognized the contradiction that they were faced with

\textsuperscript{94} Aponte and Velasquez, “New York City Passes Landmark New Protections for Food Delivery Workers.”
\textsuperscript{95} Boyer-Dry, “Will Rapid Grocery Delivery Change N.Y.C.?”
Chapter 1: App-Based Food Delivery as Gig Economy Case Study

in their constant cycling; as a cyclist in New York City myself, I spent much less time on the roads but generally had no problems making choices about how I biked and where. Finding available bike parking at destinations was challenging but I could take the time to find it. I could bike slowly on unfamiliar streets or walk my bike on the sidewalk in spaces where the bike lanes disappeared. I did not run red lights because there was no incentive for me to do so. I was privileged in my transportation cycling constraints, knowing that there were virtually none that would hinder the purposes of my trip. I became frustrated by the lack of critical thinking coming from others – including from those I know who are trained in designing for the built environment. In these more privileged spaces, I witnessed opinions about delivery cyclists that made me see contradictions in who is welcome to bike on the city’s streets at all.

Developing the research question, then, required understanding further discomfort I felt about the privileged space of biking as a transportation or recreational cyclist and for whom public infrastructure is intended. In first asking what infrastructure would allow app-based food delivery cyclists to do their jobs safely and efficiently, mapping which actors exploit and which are exploited demonstrates that the app companies would continue to benefit from the answer to such a question. If I cared about centering the delivery cyclists in this research, then I had to face contradiction in my own work. Would talking about the responsibility of planners to provide infrastructure as a public good for delivery cyclists really further the bottom line of app companies? Would this allow the private sector to continue to exploit, or take advantage of people and space on the public’s dollar?

This is how I determined that the research question had to be tied to non-exploitative working conditions, paving the way for a labor justice framework. Otherwise, adequate infrastructure only continues to support the efficiency of the work to the benefit of the private company. Sitting with discomfort in this research question means I have been sitting with how to accept my own research contradictions. I initially thought an easy way to resolve this contradiction would be to center delivery cyclists’ own voices. As I discuss in Chapter 2, this was not possible. How does one center the primary voices when one does not have access to them? I acknowledge this absence, maintain respect for that particular audience, and accept that there are other ways to tell a story. This has become my story, because I am the primary voice I have permission to access.
entertain throughout this work spaces in which I have felt discomfort in writing about and planning for other people whom I do not know. This is the challenge of my future career as a planner, let alone a graduate student. I might as well practice the skills to respectfully engage in narratives now.

I now accept that public infrastructure will benefit the food delivery apps. I accept this outcome because I know that the work emphasizes the fairness and safety of the individuals I first sought to learn how to protect. I remind myself that I am not working in this thesis to plan directly for the food delivery cyclists. They know their own planning needs and are vocal about them. The New York City Department of Transportation (NYC DOT) is beginning to plan with them. I am seeking ways to support their needs and goals for their own infrastructure concerns. To do this, I am focusing more on what it would take for planners to reframe their responsibilities, processes, and goals under the political economy of this gig new world. Planning in changing political economies is not perfect. In a perfect world, the app companies would protect their workers without being asked. In a perfect world, the private sector would pay for this necessary infrastructure. But this is not a perfect world, and I would rather use my role as a planner to protect one group even if doing so continues to benefit another.

The bottom line for me is that no one is harmed in the spaces I plan. What I demand of this work, of my own discomfort, of contradiction in who I am really planning for, is that I ask: adequate infrastructure for whom? The answer to this question steers me to the just outcome. Centering delivery cyclists means recognizing a group of people who know their own planning needs. Inserting myself into their story is about getting beyond my discomfort and understanding how I can provide support as a form of justice. Throughout this thesis, I turn to labor justice theory as an offering to planners like me in future implications for planning for the gig economy.

**Looking Forward**

This thesis is situated in future planning action. It looks critically at the role of transportation planners in New York City to address the labor conditions of app-based food delivery cyclists and the physical infrastructure that they need to do their jobs safely and fairly. It falls within the responsibility of planners to address the labor issues prompted by the gig economy because the
gig economy is a disruptive force – spatially, economically – that is here to stay. This section has presented the background of the issue of food delivery work in New York City and covered the academic discussion surrounding the identity of cyclists, the use of cycling infrastructure, the gig economy’s operations and effects on human labor, labor in the transportation and goods movement industries, and precedents for government to intervene in providing infrastructure improvements as a public good. Subsequent sections elaborate on my claims that delivery cyclists are essential workers, biking is labor, and the street is a workplace to apply a new labor justice framework of political responsibility for transportation planning.
“Perhaps more than any other population, our food delivery workers have embodied the arduous labor and struggles of frontline workers during this pandemic... they are the heroes...”

- Scott Stringer, former NYC Comptroller

“The city keeps saying we’re essential workers, and we want them to act like it and protect us.”

- Gustavo Ajche, delivery worker

“It shouldn’t have taken a global pandemic to make the mayor realize that we rely on these immigrant workers to prepare and deliver food.”

- Tiffany Chang, policy advisor

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96 Hallum, “Stringer to de Blasio.”
97 Los Deliveristas Unidos, “Testimonials.”
CHAPTER 2:
DESIGNING A GIG ECONOMY CASE STUDY

Research Goals

Questioning Planners’ Responsibility and the Changing Social Compact

This thesis attempts to enter into a larger, complex conversation about who is responsible for providing what kind of infrastructure as a public good. This work seeks to understand how this responsibility evolves with the increasing influence of the gig economy. According to gig economy scholars, the gig industry is on the rise as its labor pool and service demands are expanding. This has implications for cities, but it needs to be clearer in what ways urban space and urban dwellers will be impacted by the rise of digital platform labor and services. Studying app-based food delivery cyclists as a case study enables a better understanding on the part of transportation planners of the ways in which they might focus on future relationships between labor and infrastructure. The case of app-based food delivery cyclists in New York City relates to broad implications for the responsibility of governments and planners to plan for changing work expectations and spatial impacts on public spaces. A primary goal of this research is to bring insight to the conversation on the evolving expectations of the social compact in cities in which the gig economy operates.

Research Question

This thesis asks questions related to inadequate infrastructure – public infrastructure which may be intended for a dominant user or which altogether fails a larger population of intended users – and exploitative labor conditions. It looks into transportation planners’ responsibility to intervene in such conditions. As Los Deliveristas Unidos has made clear in their list of demands, the conditions of inadequacy and exploitation are conditions of injustice. The future of work and the nature of the social compact therefore require an understanding of how inadequate infrastructure and labor exploitation operate. This brings me to two research questions. The first and primary research question deals with the specificity of the delivery cyclists case study. How could transportation planners respond to the rise of the gig economy’s influence on urban space in New York City by providing app-based food delivery cyclists with the physical infrastructure required to perform their work safely and fairly? The second expands on the former to ask a broader
question about the responsibility of the planning profession in response to the gig economy. Transportation planners are responsible for providing what and to whom?

Research Goals

There are three goals for this research. The first is to understand the physical infrastructure and labor needs of app-based food delivery cyclists to form a baseline understanding of what fair and safe infrastructure looks like for this group. This goal calls for using methods focused on delivery cyclist perspectives. The second goal is to expand the perception of who rides a bike and why. Expanding this definition is necessary to ensure that delivery cyclists are planned for through the lens of their labor, rather than through the lens of cyclists who bike for transportation purposes only. The third goal of this research is to communicate how the findings and opportunities of the case study might be deployed to include the needs of app-based food delivery cyclists in future transportation planning efforts. The labor justice framework as a finding in itself may be applied to other gig economy problems.

Methods

Data Sources and Analysis Overview

Key to examining the primary research question is collecting data that presents current labor and infrastructure conditions for delivery cyclists. These current conditions are a starting point for analyzing the ways in which the gig economy influences people and places, and help me answer the question of what New York City’s transportation planners can do to address delivery cyclists’ needs. This study is designed to connect the parts played by each actor in app-based food delivery to data. I collected three categories of data sources, each of which corresponds to an actor involved in app-based food delivery:

1. Delivery Cyclists – to inform a baseline understanding of the labor conditions and infrastructural experiences of these cyclists
2. City Government – to understand the legal and political implications of delivery cyclists’ conditions
3. The Public – to understand public perception and changing narratives around delivery cyclists in New York City
I pursued delivery cyclist interviews, the *Essential but Unprotected* survey, interviews with planners and policymakers, city and state bicycle laws, the labor policies of food delivery platforms, local labor laws, city bicycle plans, and local news media articles as data. Delivery cyclist perspectives obtained through interviews and existing survey responses required the most time and serve as primary data. Policymaker and planner interviews, city policies, and city plans are secondary sources important for understanding how delivery cyclists are constrained by existing infrastructure and labor conditions. These policies and plans take less effort than the primary data analysis, as these documents are brief and limited in number. Finally, the local news media contextualizes the shifting public narratives of delivery cyclists in New York. This hierarchy attempts to center delivery cyclists’ experiences in order to answer the question of what infrastructure they require to do their jobs safely and fairly. All other data contextualizes these experiences and suggests how the city can respond. Data tables that summarize my analysis can be found in Appendix A for reference.

*Delivery Cyclists – Interviews and Surveys*

App-based food delivery cyclists are the primary actor. They are the group I am most interested in studying to answer the question: What makes up fair, safe infrastructure? Answering how unfairness, or exploitation, could be resolved requires enumerating the specific instances and patterns of exploitation. Recommending how the existing bicycle infrastructure can be made safer to suit the needs of delivery cyclists involves listening to the needs of these workers on bikes. Semi-structured interviews constitute the first part of delivery cycling perspectives. With an initial plan to interview app-based food delivery cyclists, this research method quickly developed to include other voices involved in app-based food delivery in New York. Attempts to reach delivery cyclists through Los Deliveristas Unidos were made, unsuccessfully; one interview with a delivery cyclist was conducted. I asked this participant to share what a typical workday is like, what the most challenging parts of the job are, what would make the job easier, and who should be responsible for improving their conditions.

Because I did not interview as many delivery cyclists as I had hoped, the interviews are supplemented by responses from an existing survey. Published in September 2021, *Essential but Unprotected: App-Based Food Couriers in New York City* reports the findings of a survey of 500
app-based food delivery cyclists in New York City. The survey and report were co-authored by the Cornell School of Industrial Relations and the Worker’s Justice Project, a New York City-based organization. To make use of this recent survey data, data pieces were extracted from the report and coded by theme. The interview highlights specific instances of safety, compensation, worker treatment, and others that are reflected in the survey responses. It is therefore imperative that the semi-structured interview and the survey responses be considered together as one method for understanding what it takes to deliver food by bicycle in New York City.

City Government – Interviews, Policies, and Plans
Secondary actors include New York City government and the food delivery app companies. These public and private forces react to one another. App policies, for example, are reinforced by the legal boundaries imposed by the state. The state may respond to private corporations with legislative action. Mapping how these actors influence and respond to one another illustrates the constraints that shape delivery cyclists’ existing conditions, and may present potential areas of opportunities to respond to the conditions of exploitation and inadequate infrastructure.

In addition to the delivery cyclist interview, I conducted eight semi-structure interviews with nine planners and policymakers, representing NYC DOT and the New York City Council, respectively. I asked each participant four standard questions across the following themes: labor conditions, bicycling conditions, and the future of bicycle infrastructure in New York City. These discussions are helpful in understanding institutional constraints and establishing a baseline understanding of the city’s own definition of responsibility.

Seven NYC DOT planning documents covering fifteen years of transportation planning goals and initiatives – coinciding with the rise of app-based food delivery by bicycle in the city – were reviewed in a content analysis. In these documents, I looked for evidence of who has been historically planned for and who is currently being planned for in transportation initiatives. This provides insight into who the city considers a cyclist and what activities they participate in; the type of cyclist planned for may relate to the type of infrastructure and bicycle transportation planning goals that arise from such planning initiatives. One additional document concerning commercial cyclists is included in this content analysis as well, as it is part of a larger planning
initiative that is highlighted in one of the citywide planning documents. In each plan, I consider who the intended audience is, who is planned for in the initiative, and what the objectives of the plan and its intended outcomes are. As these are broad transportation planning documents which span many modes of transportation, I also note any discussions of bicycle and delivery infrastructure. I read these plans to understand the general bicycle planning discussion, the general delivery planning discussion, if there is one, and a delivery cycling discussion, if one exists. Finally, each plan’s objectives, goals, and enumerated initiatives are considered with respect to the political responsibility of the NYC DOT, as a government agency, to provide adequate infrastructure. This method, when read with the semi-structured interviews and survey, may demonstrate the gaps in physical infrastructure needs of delivery cyclists. By themselves, these documents may reveal who is considered a cyclist to NYC DOT and enrich the overall findings of this research to communicate the opportunities for including app-based delivery cyclists in future planning initiatives.

Besides public planning documents, New York City and New York State laws regarding bicycles and labor are reviewed for additional context on the constraints of delivery cyclists. Because delivery cyclists are workers who bike as their labor, and do not merely bike for transportation purposes, both legal perspectives are required; bicycle laws cannot be completely understood in reference to working cyclists without also understanding how they are implicated by labor laws. Reviewing these laws allows me to map additional constraints on workers and provide context for their “inappropriate” cycling behaviors. For example, understanding that delivery cyclists, as independent contractors, do not have guaranteed wages and must rely on tips, suggests that the behavior of running a red light is a rational response to needing to deliver food quickly. I analyzed fifteen labor laws applicable to New York City, twelve city cycling laws, and eleven bicycle laws passed by the state. I coded these laws to map their relationships to the survey data as part of understanding delivery cyclists’ legal constraints.

Finally, the app companies’ worker policies are reviewed and compared against one another. The four most popular companies in New York were selected for comparison, including Grubhub, UberEats, DoorDash, and Relay. I looked for trends across these platforms to determine what common traits in the industry are exploitative, if any. The bicycle and labor laws also provide
context to how these policies work and act as an additional layer to show how the state enables private companies to exploit their workforces. The comparative analysis of the companies’ employment policies is required to picture the extent to which app-based food delivery cyclists are constrained or enabled by their employment conditions. A central tenet to the operation of the gig economy is that gig workers operate as independent contractors, a label which has a distinct legal interpretation in the United States. The question in reviewing these app policies, then, is whether app-based food delivery cyclists experience a level of control and supervision of their labor by these apps that nullifies the independent contractor status. For example, should these policies be found to dictate assigned shifts, then the level of employer control is transferred to the app companies and not to the independence of individual workers after all. This would be an important finding because it could become grounds for extending traditional employee protections to gig workers. My research question asks planners to think about safe and fair infrastructure – studying app company worker policies may reveal the spaces in which safety and fairness come into conflict with infrastructure in the first place. Planners may work backward from such points of conflict.

The Public – Local News Media

The third and final actor is the general public. While there is a less direct relationship between the general public and the conditions faced by delivery cyclists, general public attitudes and narratives still impact these workers, their access to safe infrastructure, and their fight for fair working conditions. According to Lee et al., these cyclists tend to be criminalized for their immigrant or “other” status, which is complicated by the economic pressures they face to cycle “inappropriately.”99 Lee et al. also describe the public’s indirect treatment of delivery cyclists as “mutual implication” in the conditions faced by these workers.100 A content analysis of local news media from January 2018 to December 2021 captures the public narrative and coded themes surrounding delivery cyclists. This period was selected as food delivery was already established in New York and in high demand. This period also presents an important shift in the public narrative as a result of the COVID-19 pandemic. Search terms, “NYC delivery cyclist”, “NYC food delivery”, “food delivery NYC”, and “NYC food delivery man” were used to search

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99 Lee et al., “Delivering (in)Justice,” 120.
100 Lee et al., 122.
for local media. Only news media sources focused on or based in New York City were selected to maintain a local public narrative focus. Large news organizations, transportation blogs, and neighborhood news media are the categories of sources collected that fit the criteria. In total, 101 articles were collected and divided into three periods. The first, pre-pandemic period contains 22 articles from January 2018-February 2020. The second, essential workers period features 55 articles from March 2020-August 2021. The final period on policy momentum holds 24 articles published between September-December 2021.

This perspective matters for answering the research question because the general public plays a role in reinforcing the state and economic policies through their own expectations as citizens of the state participating in the gig political economy. Transportation planning and labor policy decisions that are made by the city to respond to delivery cyclists’ needs will have an impact on the public realm and its users. Concerns held by the public about safety, for example, can be addressed for both delivery cyclists and the general public by new plans and policies, and so the public voice matters. This perspective additionally brings together the third piece of the exploitative actions taken against delivery cyclists; without this third and final actor, it would be difficult to see completely how delivery cyclists’ conditions could be made safer and fairer.

Limitations
As with any research project, there are limitations in the data analysis. This project’s limitations include data availability, the global COVID-19 pandemic, and researcher bias. The semi-structured interviews are the particularly limited data method for their number; I initially aspired to engage twenty app-based food delivery workers and did not meet this number. Even if I had, the perspectives of twenty individuals cannot accurately represent the whole population of 65,000 workers. This is why complementing the interviews with the existing survey data is essential for reaching a larger sample size. The anecdotal data collected from the one interview therefore does not provide concrete facts which represent all delivery cyclists’ experiences, but expands on survey results. The interview backs up the survey data by providing specific examples for issues documented in the survey.
Another limitation is the nature of conducting research remotely during a pandemic. I became interested in this research topic as a resident of New York City, and bring my own personal experience as a transportation cyclist on the city’s streets to this work. However, my perspective is different from delivery cyclists’ as working cyclists, and my observations have been limited to the time that I spent in New York from July 2018-July 2021. The majority of this data analysis was performed remotely with limited reliance on my personal knowledge of cycling infrastructure in New York City. Remote outreach to app-based food delivery cyclists was limited to online forms of communication only, such as email, social media, and Zoom due to inability to travel to New York and interview cyclists in person. Had COVID-19 not been a factor, requiring caution and individual responsibility to keep other people safe (particularly the delivery cyclist population who does not have guaranteed sick time or health insurance) obtaining interviews on-the-ground would have been feasible. All other observation, data collection, and analysis were completed online. Thanks to the nature of public documents and laws made accessible online by the City of New York, the digitization of local news media, and the online publication of the Essential but Unprotected survey, much of this observation was made possible. I have been able to read such sources in extensive, creative, and detailed ways to the best of my abilities.

A final limitation is researcher bias. Nothing quite tested my researcher bias more than engaging in a semi-structured interview with a policymaker who voiced opposition to the city’s rapid implementation of bike lanes over other types of transportation infrastructure – a valid argument that I cannot dispute. But it has led me to reflect on the ways in which my bias as an urban planning student, a designer of public space, a city dweller, and a transportation cyclist impacts this study. I have sought to not let similar conversations or other data become too personal. But it is not always easy to separate my own experiences from what I see, read, and hear while doing this work. For example, local news media stories about cyclist deaths on streets I used to bike on became emotionally challenging to analyze. I continue to reflect on how my experiences relate to this study and question why I feel strongly about what is raised in certain data encounters to reduce my personal bias.
CHAPTER 3
A New Labor Justice Theory for Transportation Planners

"[the food couriers are] the most vulnerable workers in digital labor."
- Maria Figueroa, labor scholar

"The majority of us are immigrant workers, and we’re being unfairly targeted by the police just for working. We’re doing our jobs."
- Hermalindo Carrillo, delivery worker

"They don’t think about you, your life, your bicycle. We cannot make demands, otherwise [the apps] will block you. But we have no choice. How can we live?"
- Otoniel Timoteo, delivery worker

"This is a job like any other job, it deserves respect."
- Pepe, delivery worker

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102 Aratani, “‘It’s Persecution,’”
103 Freytas-Tamura, “Food Delivery Apps Are Booming. Their Workers Are Often Struggling.”
104 Colon, “RELIEF!”
CHAPTER 3: A NEW LABOR JUSTICE THEORY FOR TRANSPORTATION PLANNERS

Why Planners Need Labor Justice

Labor Conversations in Planning

The contradiction faced by delivery cyclists is not only contradiction, but injustice. When NYPD officers were brought in by the Park Slope Business Improvement District to ask all cyclists to bike slowly on the 5th Avenue Open Street, in which cyclists and pedestrians share street space, the police responded by ticketing immigrant delivery cyclists.105 When essential workers were granted curfew exemption during the 2020 protests taking place in New York City following George Floyd’s murder, a delivery worker was arrested for working past the curfew amid the police’s confusion over his essential status.106 When delivery cyclists became targeted for e-bike thefts during the pandemic, many thefts went unreported because cyclists were concerned about the NYPD’s ability to find the bikes at all or feared going to the police as undocumented immigrants.107 Stories like these are numerous. From an early stage of this project, I knew that to incorporate a means of studying structural injustices and the ways in which delivery cyclists’ identities intersect with a transportation planning issue would require the application of a justice theory. Because I am positioning biking as labor, a labor justice theory is appropriate. Because the gig economy forces planners and policymakers to ask questions about the ways in which the political economy of planning for urban streets is changing as part of the evolving social compact, a political economy perspective fits. Iris Marion Young’s labor justice theory of political responsibility is adapted in this work for its applicability to transportation planning in changing political economies.

Urban planners may ask, what does labor justice have to do with planning physical space? Labor is discussed in urban planning literature. In the planning curriculum in which I have studied, I have noticed that labor as a planning topic is addressed as it relates to housing problems and urban growth. In the history and theory of urban interventions curriculum for emerging planners,

105 Colon, “Park Slope BID Asks NYPD For ‘Help’ with Delivery Cyclists Then Quickly Regrets It.”
106 McCarthy and Barone, “Bicycle Delivery Man Arrested for Breaking Curfew Was Making Deliveries.”
107 Nir and Singer, “They Once Were Attacked for Their Cash. Now It’s Their E-Bikes.”
the work of Friedrich Engels is contemplated as it relates urban labor pressure to new housing questions and problems of state intervention.\footnote{Engels, “The Great Towns.”} David Harvey is similarly widely read in my curriculum and considered for his theories on how the city is framed and reframed with socioeconomic class struggles.\footnote{Harvey, “The Right to the City.”} What these works have in common is similar to what this thesis attempts to do: recognize the ways in which urban labor intersects with other urban planning problems to see them as matters of injustice.

Transportation labor in itself is a vast body of research within which discussions on state regulation, safety, efficiency, labor conditions, health of workers, and others abound. As far as labor justice goes, there are discussions on the unionization of transit operators and the impact of increasing freelance jobs for truck drivers.\footnote{Peoples and Talley, \textit{Transportation Labor}.} I have found some useful ties to transportation labor scholarship in the experiences of app-based food delivery workers, such as to make the claim that the street is a workplace for working cyclists. I have not formulated strong enough ties to transportation labor discussions on my own to develop a theory of labor justice that derives from the transportation realm alone, which is why it is important to connect this back to the discussion of labor in planning spaces.

The discussion of labor in urban planning that I have been exposed to has been useful to understand labor’s relationship to urban space and the regulation of that space. It has been useful to see how labor is tied to other planning problems, like housing, global supply chain infrastructure, and of course, transportation. Labor is considered as a problem in itself as well as a problem that impacts other areas in urban planning. A labor justice theory is merely another way of looking at labor’s relationship to planning and regulating urban space. A new theory of labor justice may have a place in urban planning practice. As I have discussed through historical precedent in Chapter 1, change in the labor market prompts a reconsideration of organization and intervention in the city.
A Proposal for the Gig Political Economy

Justice serves as a framework through which transportation planners in New York City can consider the labor and infrastructure issues facing app-based food delivery cyclists. I propose adapting political economist Iris Marion Young’s labor justice theory of political responsibility to transportation planning. A political economy theory is relevant because the building of infrastructure is related to a political economy. With the gig economy taking hold as the next major economic influence, the use and design of New York City’s streets are under examination. The gig economy’s disruption to urban space forces transportation planners to rethink the political economy of the existing infrastructure and plan for this new political economy under the gig economy. This raises new questions for planners, such as for whom are they planning physical space: for the app companies, for the consumers, or for the gig workers themselves? By taking a perspective of political economy, transportation planners can apply their planning processes to a set of actors involved in the shaping of this new world. At the same time, questions like “who are we planning for?” pushes planners to make decisions. As a political economy framework is useful for planners in this new political economic age, I suggest that a labor justice theory is necessary to guide planners to plan, design, and implement for the most vulnerable in the city.

Political responsibility can be adapted to create a labor justice mindset in planning for physical infrastructure and space used by people who are structurally harmed by the institutional actors in the gig political economy. I adapt Young’s labor justice framework of political responsibility in the following ways to discuss app-based food delivery cyclists: Political responsibility 1) is about the mutual implication of gig economy actors; 2) is about recognizing the structural injustices of labor in New York City; 3) is about imagining the scenarios of a just future; 4) is about distributing infrastructure as a public good; and 5) is about the roles that policymakers and planners have in a shared responsibility to address injustice. Deploying a labor justice framework frames the argument for the responsibility of planners to respond to changing working conditions accompanying the rise of the gig economy. Importantly, a theory of responsibility from a political economy perspective allows me to take two actions.

111 Young, “Responsibility and Global Labor Justice.”
First, it allows me to map all of the actors who contribute to exploitation in app-based food delivery work to actions in policy or infrastructure. In short, this makes the answer to my research question of who is responsible for what clearer to navigate. Those implicated in exploitation can be viewed as a web of actors with a shared responsibility to cease their exploitative actions on the exploited. Young uses political responsibility as a way to call institutions to act against exploitation. As she explains, political responsibility is different from liability, which typically calls for a response in which guilty parties are punished for past harms. On the other hand, political responsibility is a framework that can be used for taking action towards a just future.112 This helps to connect political responsibility theory to relevance in urban planning – just as planning is about planning, designing, and implementing a set of future goals, political responsibility is about planning for a future in which justice is one of those aspirations.

Second, employing a labor justice theory of political responsibility allows me to relate Lee et al.’s study of app-based food delivery cyclists in New York City to specific actions that the city’s transportation planners can take to achieve the just future. As I discussed in Chapter 1, Lee et al. has conceptualized three points related to food delivery cyclists in New York: 1) Mutual Implication, 2) Visibly-Invisible Cyclists, and 3) Border Crossings.113 I will discuss these points as they relate to the labor justice theory of political responsibility throughout this chapter. What is important in this connection to the labor justice theory is that the theory can be illustrated in specific terms for delivery cyclists. The theory can help reveal the ways in which the policy and infrastructure problems faced by delivery workers are in the hands of gig political economy institutions; through this framework, these institutions, including planners, can connect their own agency within their participation in the gig economy to real decisions that can be made about labor policy and physical transportation infrastructure.

In this chapter, I elaborate on the ways in which these two points can be applied to constructing a just future of safe, fair working conditions for app-based food delivery cyclists in New York City. First, I contextualize Young’s theory of political responsibility and explain what insight

112 Young, 377–78.
113 Lee et al., “Delivering (in)Justice.”
transportation planners have to gain from such a framework. Second, I detail the ways in which Young’s theory is adapted to the case of food delivery workers in New York. Finally, I reflect on new questions that a new theory of labor justice has for transportation planners in planning for the gig political economy.

Political Responsibility for Planners

Justice is a matter of protecting the most vulnerable. In the gig economy, the most vulnerable are the workers who lack basic labor protections and safe working conditions. One question raised by the emergence of the gig economy is: Whose responsibility is it to protect these vulnerable workers? I have argued that city governments are responsible based on historical precedent to respond to great economic disruption. As the social compact has evolved in the past regarding what infrastructures are the responsibility of the government to provide as a public good, I propose including labor justice as a current public good. While planners work to reimagine the city under the gig economy, they may fold labor justice into these plans. If it is the job of planners to respond to challenges and opportunities in the city, then the case of app-based food delivery cyclists is a major challenge that fits into planners’ responsibility to ensure the safety and well-being of this group.

Young’s theory of political responsibility has something to offer transportation planners who seek to plan for the emerging gig economy as a matter of delivering justice to workers. In Young’s framework, political responsibility is structured in five parts: 1) It does not isolate responsibility to some parties to absolve others, thereby separating responsibility from liability. 2) It is concerned with structural injustices which are normal and ongoing. 3) It is forward-looking. 4) Assigning political responsibility is open and discretionary. 5) Political responsibility is shared by an agent with others whose actions contribute to the structural processes which produce the injustice. While Young’s theory is scaled for global labor justice, I propose adapting it to the scale of the city. Lee et al. frame the labor issues facing delivery cyclists as injustices in bicycling spaces. Lee et al.’s discussion can be used to see political responsibility at the city scale. They point out the ways in which all actors in the food delivery system are implicated in injustice through “mutual implication;” the consumer is made responsible for their

speedy delivery expectations. They call attention to injustice by describing the ways in which delivery cyclists are treated as “visibly-invisible” by the public and city institutions. They discuss cyclists’ identities as immigrants and people of color who are unfairly targeted for their “border crossing” into white, affluent neighborhood territories. They highlight small scale injustices at the site of the individual as the individual interacts with physical infrastructure. These observations on the part of Lee et al. hold similar arguments as Young’s in calling for global political responsibility. Young points to the invisibility of global manufacturing workers. Lee et al. point to the invisibility of delivery cyclists which renders their safety concerns invisible, too. This invisibility of the workers’ conditions perpetuates the precarity of the workplace and its set of labor practices.

The mutual implication of all actors within a city who produce a situation of injustice balances a tension in scales. At both the individual and global scales, it is difficult to assign responsibility. Recognizing who is mutually implicated allows for a distinct collective to form who can be called upon to take action. Young writes that the theory of political responsibility can be used to rationalize conflicting ideas about individual responsibility:

I theorize a conception of responsibility that can make sense of the claims of the anti-sweatshop movement, or indeed, any claims of responsibility that members of a society might be said to have toward harms and injustices of distant strangers. Objectors to the anti-sweatshop movement are right to argue that these claims make little sense within a dominant conception of responsibility as liability. I propose and elaborate a different conception of responsibility, political responsibility, to correspond to these claims.

Young’s theory relates the conditions of a seemingly invisible workforce – invisible in her case because of the distance from the source of production to the eventual site of consumption – to a collective responsibility to respond to the unjust labor conditions faced by workers. It is difficult to see connections of individual responsibility to someone whom consumers of a product or

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116 Lee et al., 117.
117 Lee et al., 119.
service may not see and therefore never contemplate. Her theory is that consumers can tie the agency of collective responsibility to a larger institutional construct that holds all institutional actors accountable within it. By surpassing individual responsibility, the individual is no longer held solely accountable and expected to address the harms placed on workers in a far-off country. Indeed, the notion that individual consumers have the agency to personally right the wrongs of unjust labor conditions of people whom they have never met nor have means of getting into contact with in a reasonable way is absurd. But applying this theory is useful for transportation planners to see which institutions – including planners themselves – must be held accountable in producing conditions of justice at the city scale.

Limitations

There are some limitations to this theory that planners should remember in the application. I do not suggest that this theory be applied as a one-to-one translation from political economy work to urban planning work. This requires work on the part of the planner to be context-specific and scrutinize any findings through the applied theoretical lens. The first limitation of this theory might be obvious: scale. Young writes about a theory of labor justice on a global scale. I am arguing for a local approach to planning. Still, it is applicable in the way in which scale produces invisibility. Young argues that the invisibility of workers that is created by the vast, global scale is what makes it nearly impossible to assign responsibility for correcting workers’ exploitative conditions. Her theory is intended to intervene, to address that vastness to create actionable change. I argue that the transition of work organization to a digital platform does something similar; the digital interface of an app makes it that much harder for a consumer to recognize the person on the other end who fulfills the service. Working conditions then become easily obscured. In this sense, the scale of the digital means that the scale of the city itself is changing as neighborhood boundaries and delivery zones are dissolved. While this is not a global scale as Young considers, there is an utter vastness to digital space that can be categorized along the same lines.

The other limitation is related to scale, but deals more with institutional parties. Young focuses on a global scale in which national and international institutions may intervene. This may be where a future of labor justice in gig work is one day headed, but I do not entertain this as a
possibility in the near future. Instead, institutional parties for this thesis contain the parties related to an infrastructure of app-based food delivery. Young does something similar by relating an infrastructure of global labor to the institutions which have the power to intervene in this infrastructural scale. Where Young is calling on national government forces in particular to intervene, this is a limitation for applying the labor justice theory to the city scale. Rather than require national institutions to step in, the highest level of government with the power to regulate is required in the gig economy transportation planning case. This would be the municipality’s transportation planners.

Labor Justice for App-Based Food Delivery Cyclists

Adapting Political Responsibility to Transportation Planning

The five points in Young’s framework on political responsibility are adapted to this work in order to be more specific about how app-based food delivery workers and gig workers overall may be treated as a labor justice subject. My adaptation of Young’s labor justice theory of political responsibility follows her structure of five parts. I reiterate and further describe each part here: Political responsibility 1) is about mutual implication; 2) is about recognizing the structural injustices of labor in New York City; 3) is about imagining the scenarios of a just future; 4) is about distributing infrastructure as a public good; and 5) is about the roles that policymakers and planners have in a shared responsibility to address injustice. As a local example of the changing nature of urban labor, Young’s theory on a global scale can be translated to the case of delivery cyclists in the specific ways in which each of the actors – public institutions, private institutions, the general public, and delivery cyclists – interact through the transactions associated with app-based food delivery. The justice framework may then lead transportation planners to action.

Political Responsibility as Mutual Implication

I tie the first point in Young’s framework to Lee et al.’s idea of mutual implication. Young conceptualizes the first point in her framework as the distinction that political responsibility is different from liability attributed to individuals who have caused harm, and from collective responsibility attributed to larger organizations rather than solely individuals who have caused harm. To Young, political responsibility is instead “…a responsibility for what we have not
done… Many cases of harms, wrongs or injustice have no isolatable perpetrator, but rather result from the participation of millions of people in institutions and practices that result in harms.”119 Lee et al.’s discussion of mutual implication strives to connect the conditions of app-based food delivery cyclists to the actors associated with enabling food delivery. The entire government (regulators), the apps (market), and the customers are mutually implicated in app-based food delivery; they are not liable for the conditions of food delivery cyclists, but they are responsible for producing or accepting the conditions. Recognizing who is mutually implicated in structures of injustice is necessary for assigning responsibility. For app-based food delivery cycling injustices, it can be useful for transportation planners to reflect on the ways in which they are implicated in order to connect their implication to their agency in creating more just conditions.

Political Responsibility as Mapping Structural Injustice

The second point in the labor justice framework assumes that normal and ongoing structural injustices – immigration, precarious labor, a lack of protections and benefits, the minority identities of people holding these jobs – are largely responsible for creating and perpetuating injustice. App-based food delivery cyclists, as primarily immigrants and people of color, are affected by other systems of injustice which intersect with the conditions of their labor. By piecing together the multiple ways in which delivery cyclists are impacted by all structural injustices, it is easier to see how policy and planning processes are harming or helping these cyclists. The policies and plans that I analyze are viewed in the ways in which they create or contribute to structural injustice. I analyze the city and state laws and the private company contract policies as institutional constraints on the delivery worker.

When the identities of delivery workers are seen through their struggles in the workplace, it suggests that the codified injustices of law and private enterprise – as molded by the law itself – are compounded by other injustices that they intersect with. In particular, gig work is seen as valuable for proponents of the gig economy for its low-barrier access. Indeed, it is a most useful form of employment for undocumented immigrants. Yet the undocumented status of workers also means that they may not feel comfortable nor have the option to formally complain about

119 Young, 377.
unjust workplace practices. A more just approach to gig work could recognize that such work offers employment opportunity for those for whom seeking jobs carries many institutional barriers. At the same time, these workers would be protected against labor exploitation in a way that allows workers to protect their identities. Finding a way to ensure this balance reflects one step towards gig economy labor justice.

*Political Responsibility as a Future for Better App-Based Food Delivery*

According to Young, part of political responsibility is to be forward-looking. The reason for this is that political responsibility, rather than liability, which is looks backward in order to punish, is concerned with action that produces a more just future. As Young explains:

> Political responsibility seeks not to reckon debts, but aims rather to bring about results, and thus depends on the actions of everyone who is in a position to contribute to the results. Taking political responsibility in respect to social structures emphasizes the future more than the past.\(^{120}\)

In the case of app-based food delivery, forward-looking means considering the urban planning intervention (policy or plan) that can resolve the identified injustices from the current point forward. This point in the framework is concerned with striving toward an adequate and non-exploitative future. Such a future has the necessary physical infrastructure required by delivery cyclists and protects their guaranteed, fair labor conditions to the fullest extent of the law.

What would a future of app-based food delivery in New York City look like if it were perfect? That is, what would the physical infrastructure look like to ensure that the delivery cyclists and general public were safe on the roadways, yet cyclists could continue to make deliveries as fast as possible? What would the policy have to look like to protect these workers from exploitative labor practices? Who ensures just compensation and access to healthcare? How could app companies contribute to this infrastructure and improved labor structure without merely taking advantage of improvements in order to maximize their own profits at the expense of the public? These are all questions to ask under this point in the framework. A theory of labor justice asks

\(^{120}\) Young, 379.
planners to speculate on an imagined, future world in which justice is a given. Such an experiment is not only useful for this theory, but there is precedent in planning. It is the job of planners to create future visions for their municipalities in the first place. Therefore, this part of the framework can be folded into how planners and policymakers contribute to future visions of New York City. The most important question with respect to creating future visions is: Who is being planned for and in what ways?

**Political Responsibility to Distribute Infrastructure as a Public Good**

The fourth point deals with open and discretionary assignment of responsibility. That is, actors are concerned with a specific outcome rather than in performing their own assigned duties. There is a branch of labor justice theory, which Young draws from in her work, that claims that responsibility is not the same as duty. \(^{121}\) In a changing social compact, the kind of infrastructure that is considered a public good and the responsibility of the government to provide is also changing. A changing conception of what infrastructures constitute a public good means that there are myriad opportunities for what that infrastructural future can be. Responsibility is about ensuring that the future is set up to become more just. Duty is about fulfilling a present obligation. Liability is about recognizing a past wrong and rectifying it in the present, but only in a way in which the past wrong is righted. Responsibility transcends both liability and duty as a continuum of justice. It recognizes that it may take time to be perfected, but that a lack of perfection does not mean that authorities should regress in their justice approaches; it means actively experimenting, reevaluating, implementing, regulating, intervening, planning, and so on.

**A Shared Political Responsibility for Planners and Policymakers**

The fifth point of Young’s framework says that political responsibility is shared by an agent with others whose actions contribute to the structural processes that produce the injustice. \(^{122}\) This point relates the sum of collective actions of injustice to a collective responsibility to address it. This means that all of those actors from my first point about mutual implication may together see how their actions contribute to the structural injustices perpetuating labor exploitation and inadequate infrastructure for delivery workers. Still, these structural injustices are perpetuated by

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\(^{121}\) Young, 379.

\(^{122}\) Young, 388.
larger institutions with the policy and planning authority to codify elements of injustice into law. Recognizing how injustices create roadblocks to achieving better futures for app-based food delivery cyclists in New York, as point three supposes, as well as distributing infrastructure for a greater public good, as point four claims, is the responsibility of those agents of the state codifying the very structures of injustice in the first place. It is less about ensuring that no injustice is met to begin with, but that there is self-reflection within the state’s practices – including its policies and plans – to make sure injustices are dealt with. This requires an acknowledgement on the part of planners and policymakers to understand the ways in which they are mutually implicated and how to proceed with dismantling institutional impediments to labor justice for app-based food delivery cyclists.

Reflecting on Labor Justice as a Framework

Applying Justice as a Research Lens

Bringing in a labor justice lens is personally important for the kind of urban planner I aspire to be. What caused me to select this as a thesis topic was a visual manifestation of injustice on the streets of my neighborhood. Justice was always important to this thesis for its potential in envisioning a better world – as a planner, it is justice in all physical and social infrastructures that I seek. As a student of transportation and infrastructure planning, I am constantly exposed to examples of the built environment in which racial, socioeconomic, and environmental injustices play out. Why not include labor in this justice mix? In a world of increasingly precarious employment, it is relevant to see how labor intersects with urban space in unfair and unsafe ways. I would not be fulfilling my responsibility as a planner if I knew that I was planning for transportation cyclists but not for working cyclists. For box truck freight but not for Amazon e-bike messengers. For white, affluent commuters but not for immigrant workers. With essential workers as maintainers of the entire city’s economic structure, why should they not be centered in planning?

Part of this aspiration is to recognize the importance of labor in shaping all parts of the urban experience. My interest in labor began with being exposed to maintenance theory in my infrastructure studies. Maintenance is a creative act. It requires a level of intelligence and
creativity that is different from institutional intelligence. As I see physical and social infrastructure systems disintegrate around me, as I read from scholars concerned about the same, as climate change, pandemics and economic struggles threaten contemporary ways of life, I revere the maintainers. Maintenance and repair demands dignity. But as Lee et al. remind me, these maintenance workers, like the infrastructure they repair, are invisible. Bringing justice to these workers is also about learning from them as a way of creating a future that is less susceptible to other crises and societal collapse.

Learning from a real case shows me the specific instances of injustice and places for intervention. The first actor and data analysis category includes app-based food delivery cyclists and others involved in app-based food delivery decisions, like planners and policymakers. Understanding delivery cyclists’ personal perspectives on their labor requires seeing how as individuals they are affected by other structural injustices, and what their future vision for safer streets and better labor conditions are. The goal for interviewing and referring to existing survey data for this actor category is to establish the baseline conditions of injustice for delivery cyclists. Analyzing these interviews and surveys through this framework allows me to direct my findings towards conclusions that are actionable in addressing what makes food delivery cycling labor and infrastructure conditions unsafe and unfair. The second actor category, city government, relates to all points of the labor justice framework. Policies analyzed in my methodology include New York City bicycle and labor laws that impact delivery cyclists. NYC DOT’s planning documents are viewed to determine how delivery cyclists are included in future visions for a just city. The worker policies from the major food delivery app companies operating in New York demonstrate the ways in which structural injustices are perpetuated through legal loopholes. Finally, the public is analyzed as a third actor category through local news media. Because the public is mutually implicated in food delivery, tracing the public narrative reveals the extent to which the public engages in self-reflection. Does the public see the behaviors of delivery cyclists as part of a complex system of labor practices and legal constraints or as individual behavior? The public has influence over political proceedings in New York, to the extent that they elect the officials who craft and pass laws in the City Council, to the NYC DOT’s presentations on planning initiatives in local Community Board meetings. Active reflection by the general public

in the ways in which they are implicated in the future of a just society in which all labor is
treated with dignity may yield a society in which all are more protected.

New Questions on the Political Responsibility of Planners
I recognize that my labor justice theory has its limitations and may not serve the purpose of labor
justice in transportation planning perfectly. But it is worth trying to adapt some theory, and as
this is the closest fit, I know questions will emerge about how to adapt it in more appropriate
ways. I have the rest of my transportation planning career to test and refine this application. But
some other questions that I know of now include the applicability of scale. At what scale should
political responsibility be applied? The city is certainly a regulatory body capable of intervening
in the gig economy in this case, but as the conversation trends nationally, how can labor justice
theory be applied to the federal scale? Can the United States Department of Transportation make
use of political responsibility in recommending laws for Congress to implement, for example?
Does the Federal Highway Administration need a labor justice theory? As the gig economy
scales, larger scale institutions just might need a labor justice theory that adapts to that scale. As
the gig economy trends evolve, new questions may emerge and are more than welcome. This is a
lifelong pursuit of justice.
“We’ve all been talking for well over a year about essential workers, and I think it’s fair to say that delivery workers have been some of the most essential in our city.”¹²⁴

- Carlina Rivera, City Council Member

“It really makes me feel good for our work to finally be recognized as essential. Little by little, people are waking up to all the hard work that we do.”¹²⁵

- Sergio Ajche, delivery worker

“The streets are not safe, and the apps are pushing to go faster, faster, faster. It risks the life of deliveristas.”¹²⁶

- Gustavo Ajchee, delivery worker

¹²⁴ Colon, “RELIEF!”
¹²⁵ Velasquez and Aponte, “Reversing Course, Cuomo Approves Imminent Vaccine Access.”
CHAPTER 4:
LOCAL FINDINGS FOR LARGER QUESTIONS

Six Findings of Contradiction
Contradiction continues in the following findings. Reading the data analysis findings through the labor justice theory yields new questions for transportation planners’ role in addressing the injustices that app-based food delivery cyclists face. The following chapter discusses six findings from the data analysis, from the three sets of perspectives – delivery cyclists, city government, and the public. Triangulating these three sets of perspectives brings me to findings that present the full picture of delivery cycling constraints and what is possible for each actor – presently and in the future. The six findings include: 1) Delivery workers are essential to maintain the city, but essential status is conditional. 2) Policymakers are already addressing exploitative labor conditions, but there are limitations to what policy can address spatially. 3) The challenges of government coordination limit planners’ ability to achieve justice for delivery cyclists. 4) Gig work is here to stay; planning for the gig economy’s actors requires understanding the conflicting needs between actors, including a tension between safety and efficiency. 5) Safe streets are for everyone despite disproportionate risks for delivery cyclists. 6) Delivery cyclists organize their own informal infrastructures to create better working conditions and adequate infrastructure; transportation planners are still catching up with formal infrastructure. In this chapter I detail each finding, explore stories of contradiction within each, and back up the discussion with what I found when triangulating the data through the labor justice lens. I point to Appendix A: Data Tables for further reference of my data results.

Essential Status is Conditional
New York City shut down in March 2020 in an attempt to contain the spread of COVID-19, which would shortly thereafter be classified as a global pandemic. Offices shuttered and workers worked virtually from the safety of their homes. Those whose jobs were capable of being performed at home were able to limit their exposure to a deadly virus. Frontline workers – doctors, nurses, grocery store workers – still needed to perform their jobs in person. These workers were quickly hailed as essential, praised publicly by officials for their sacrifices. App-based food delivery cyclists are one such group of frontline workers labeled essential. But this
labeling is riddled with contradiction in how these cyclists are treated. Delivery cyclists became essential for their ability to connect goods and services to consumers who stayed at home. App-based food delivery cyclists, as essential, frontline workers, became more visible as a result. Their essential work also supported the city’s economy. As restaurants were barred from opening their doors to diners, these local businesses increasingly relied on online food orders. For public health and for the local economy, these workers became critical links in the infrastructure of the city’s daily operations. They fed and fueled New York just as they always had, but under a new level of scrutiny.

The finding, delivery cyclists are essential workers, but that essential status is conditional, is related to the part of the labor justice theory about structural injustice. In the case of delivery cyclists, structural injustice is built into laws about appropriate ways to use space. These regulations on behavior contradict what is absent in the labor laws: room for flexible delivery times, which may be resolved with a guaranteed hourly wage. Delivery cyclists are also susceptible to structural injustice because of their identities. In the end, it does not matter that they are called essential workers through the state’s political discourse; the state praises its essential workers but fails to address real harms they face. The label, essential worker, is imposed upon workers who are already harmed by structural injustices even without the overlay of a pandemic. Additionally, structural injustice occurs in the lack of labor protections for delivery cyclists as independent contractors. Despite being essential workers, delivery cyclists do not have access to more traditional labor provisions that could have protected them during a public health crisis. With no paid sick leave, health insurance, or guaranteed PPE provided by an employer, delivery cyclists’ risks of exploitation only increased. The structural injustices embedded into gig work exposed a population already at high risk to even greater risk thanks to the precarious conditions of their employment. What the labor justice theory of political responsibility should remind transportation planners is that conditional status has power in directing public and political attention to proactively address structural injustice in the future. But first, that power must be recognized by government institutions and used to advance justice rather than apply a label for the sake of messaging.
The power behind the label “essential worker” was eventually realized for delivery cyclists. The label does two important things for delivery cyclists’ infrastructure planning needs: 1) it makes delivery cyclists visible, elevating their struggles to a more public stage. 2) It forces policymakers and planners to begin to reckon with contradiction in response to these newly visible struggles. What is peculiar about the labeling of delivery cyclists as essential workers is that delivery cyclists were not required to perform their jobs differently; they continued to make deliveries through digital third-party apps as they had prior to the pandemic. What changed was the public and political rhetoric. Having always been the invisible maintainers of the city, delivery workers were granted essential status as a condition of crisis, making them visible in a way that would eventually elevate their own fight for fair working conditions and safe infrastructure. As the public became more aware of delivery cyclists in general, these cyclists’ struggles also became more visible to a public eye. This finding presents contradiction between the invisible worker’s burden of structural injustice and the visible worker who becomes essential by political choice. The label made delivery cyclists’ issues of structural injustice visible to the public. This visibility gave the delivery cyclists momentum in their own fight for improved labor and infrastructure conditions. However, the labeling of essential worker did nothing in the moment to change delivery cyclists’ exploitative conditions or inadequate infrastructure. If anything, delivery cyclists’ conditions only became more exploitative and unsafe during the pandemic because of a lack of labor protections, despite being praised as essential.

Former Mayor Bill de Blasio exemplifies the first contradictory case with guidance on the use of e-bikes. E-bikes, the vehicle preferred by app-based food delivery cyclists to traverse the many miles a day their work takes them on, were the subject of state legislative concern prior to the pandemic. Local news media from 2018-early 2020 concentrates the public discussion of app-based food delivery cyclists on e-bike use and whether the vehicles should be legal. Illeg to operate at the onset of the pandemic, de Blasio announced a suspension of e-bike “…enforcement for the duration of this crisis” on March 16, 2020. What made this announcement significant? Only a month prior, the mayor publicly expressed his crusade against

127 See Appendix A: Data Tables, Local News Media
128 Offenhartz, “De Blasio Pauses Crackdown On E-Bikes.”
e-bike legislation. His sudden shift in policy signaled the new recognition that app-based food delivery cyclists were essential workers in a moment of crisis. New York desperately needed the workers who in turn needed these bikes. Allowing these cyclists to do their jobs became a political, public health, public safety priority.

What is contradictory about this story is that nothing about the equipment itself changed. Rather, political priorities shifted in response to crisis. Neither the physical infrastructure nor policy changed the moment that delivery cyclists were suddenly considered essential. The essential status of delivery cyclists was conditional on the nature of external events gripping the city. The way in which these cyclists were treated also did not change the moment that they were called essential workers. For example, even though they were labeled essential workers, app-based food delivery cyclists were excluded from the first round of COVID-19 vaccines intended to be distributed to essential workers in the city, further illustrating how the essential status label is conditional on the nature of the work these cyclists perform but not on their high risk status as frontline workers.\footnote{Velasquez and Aponte, “Reversing Course, Cuomo Approves Imminent Vaccine Access.”} Another exclusionary oversight occurred with the city failing to invite delivery cyclists to the “Hometown Heroes” parade, a celebration of the city’s essential workers.\footnote{Martinez and Aponte, “De Blasio’s Pandemic Heroes Parade.”}

The essential status contradiction lies in the ways in which app-based food delivery cyclists had to face more exploitative working situations and more dangerous physical environments as a result of structural injustices imposed upon them for their lack of workplace protections. Local news media from March 2020 onward features voices from delivery cyclists themselves discussing their increased exposure to COVID-19 and increase of crime on streets void of witnesses.\footnote{See Appendix A: Data Tables, Local News Media} Without health insurance, or proper workplace lines of communications, the virus increased the work-related hazards for delivery cyclists. Despite being granted essential worker status as a condition of a public health crisis, app-based food delivery cyclists remained on their own in the face of illness, traffic violence, and bike theft. As one local news article describes:
To the apps, they are independent contractors; to restaurants, they are emissaries of the apps; to customers, they represent the restaurants. In reality, the workers are on their own, often without even the minimum in government support. As contractors and, often, undocumented immigrants, they have few protections and virtually no safety net. The few times city authorities noted the delivery worker’s changing role, it was typically with confused hostility.132

Local news articles about delivery cyclists have exploded since the beginning of the pandemic; with only 22 articles written about delivery cyclists from the period of January 2018-February 2020, these articles were overwhelmingly about e-bike regulation. The 55 articles written between March 2020-August 2021 recognize delivery cyclists as essential workers, describe their working conditions, and center these workers’ voices for the first time. The 24 articles written between September-December 2021 reflect the ways in which public and political support continues to grow for delivery cyclists, as new policies have been passed and more are in consideration. These three waves of media demonstrate how the pandemic made visible the changing reactions to current labor conditions. Interviews with policymakers and planners confirm that the visibility of delivery cyclists as a result of the pandemic is pushing forward new legislation based on the recognition that gig work exploits these workers.133 New laws reflect the new visibility of conditions, with more policy to curtail the exploitative nature of the gig economy on the way. The Essential but Unprotected survey also comes as a visible tool for advancing delivery cyclists’ agenda, using “essential” in the title to point out structural contradictions. Momentum is building thanks to the visibility delivery cyclists have gained as a result of being called essential workers, but there is still much work to be done.

Policy Addresses Labor, Not Spatial Conditions
The digital nature of the gig economy produces an unseen, human cost to its fulfillment and enjoyment by consumers. Building off of the previous finding – that the essential status made delivery cyclists, their struggles, and their fight more visible – policymakers are beginning to address these previously invisible costs. While policymakers are beginning to address the

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132 Dzieza, “Revolt of the Delivery Workers.”
133 See Appendix A: Data Tables, Semi-Structured Interviews
exploitative conditions of labor resulting from structural injustices that became visible during the pandemic, there is a limit to what policy can do when it comes to structural injustice embedded in space. This is where transportation planners reenter the narrative. This is why tying labor justice theory to transportation planning is necessary to make the right impact on these workers’ lives. Reading the data through the labor justice theory of political responsibility allows me to see how the structural injustices of labor policies in New York are tied to the limitations of policy to fix spatial problems. Structural injustice is mapped onto physical space by way of enforcing intended street access and use. Because the street is their workplace, improved labor policies for app-based food delivery cyclists cannot do enough by themselves to address the full precarity of cyclists’ work. As working cyclists, transportation space equally requires consideration to render more safe and fair working conditions.

What can policy do? The set of six bills that were passed by the City Council in September 2021 became effective in January and April 2022, depending on the law. There are more bills in consideration. The bills that have gone into effect deal with the nature of labor conditions and an attempt to regain control over the gig economy’s use of public space. Specifically, the new laws regulate disclosure of gratuity policies for food delivery workers, the provision of insulated bags to workers who have completed at least six deliveries for an app company, working condition complaints and penalties against offending companies, and the establishment of minimum per trip payments for food delivery workers. The laws also authorize the Department of Consumer and Worker Protection to study app-based food delivery cyclists’ working conditions and report findings back to the city. There are also some laws that have limited spatial impact. These allow workers to establish their own trip parameters, including distance and whether they choose to traverse certain bridges and tunnels, without being penalized for denying trips which are outside of their parameters. The final spatially-related law requires restaurants to allow delivery workers to use their restrooms while conducting a delivery from that restaurant.134 Because it has just gone into effect, it is too soon to study the impacts of this groundbreaking legislation. Groups like the Worker’s Justice Project and Los Deliveristas Unidos have been working hard to disseminate and translate these laws for the 65,000 cyclists across the city. One thing is clear so

134 See Appendix A: Data Tables, Labor Laws
far: these laws are attempting to allow app-based food delivery cyclists to regain choice in their labor as independent contractors.

This legislation is a huge turning point for gig economy workers in New York City. It signals the city’s willingness to regulate a disruptive force. It shows that New York has no issue with stepping in to protect its workers from unfair pay and lack of basic support. There is still a long way to go with creating non-exploitative working conditions through policy. Other issues such as the right to organize and health insurance are currently out of reach. The point is that policy is working on addressing structural injustices of labor in New York City. Transportation planners are still required, however, to regulate the disruption of the gig economy in physical space through the design of streets for intended users. It is notable that policy is able to regulate access to certain spaces, like restaurant bathrooms, and allow workers to limit lengthy distances on a given trip. Contradiction in space is created by the intersection of physical transportation infrastructure design and policy that regulates access to infrastructure. For example, the Hudson River Greenway bike path is one of the safest protected bike paths in the city. It also allows for convenient and quick connections between uptown and downtown neighborhoods. Yet e-bikes are banned from the bike path, despite preference by delivery cyclists who use it because it is both safe and efficient for their purposes.\(^{135}\) Policy has limits on physical space regulation because design intervention can do more to resolve issues. Could widening the bike path, or creating an additional lane for e-bikes resolve concerns about safety? Policy is limiting in that it can only include or exclude certain behaviors from space; design can physically change space to accommodate disruption. Policy’s strength in addressing structural injustice for food delivery cyclists’ exploitative labor conditions is in returning agency in individual choice to these workers and enabling certain rights to space. But the design accommodation of adequate, physical infrastructure that guarantees workers’ safety is where policy needs planners’ help to think spatially about labor protections.

This part of the story is about the physical infrastructure that would contribute to delivery cyclists’ just labor conditions. Delivery cyclists are vocal about needing more secure bike parking, more lighting in dark spaces, more protected bike lanes, among other physical design

\(^{135}\) Colon, “City Hall Remains Silent.”
elements. It could be argued that some of these features might benefit all cyclists. But the ways in which their absence impacts delivery cyclists in dangerous, unjust, and unfair ways is different from the impacts that other types of cyclists might experience. As I heard from one delivery cyclist in an interview, other types of cyclists can take the time to find adequate bike parking at the end of a journey, while delivery cyclists do not have that much flexibility. Every second counts on the job. The reason why policy alone does not suffice in accomplishing gig worker protections is that delivery cyclists still get hurt on the street even if they are guaranteed a living wage. Their e-bikes are stolen from them regardless of e-bike legality or formal judicial processes to retrieve such property. Even a lack of physical infrastructure is dangerous for delivery cyclists and the general public: fires sparked by overnight charging of cheap, low-quality lithium-ion batteries to power e-bikes are an increasing occurrence. The design of public e-bike battery charging infrastructure distributed throughout delivery cyclists’ most common working neighborhoods is a spatial design example that could save lives. But this lack of physical infrastructure is not something that policymakers can deal with alone; they need planners to come in and determine where charging stations are needed, how to fund them, how to design them, and how they are implemented and coordinated within physical public space. One planner describes the necessity of the relationship between policy work and spatial planning to achieve safer streets in the gig economy world: “[Policymakers] are pushing for cutting edge policy, at the same time we’re pushing for cutting edge design work.”

Government Coordination Challenges Limit Justice

One of my arguments is to call for transportation planners’ application of a labor justice framework as part of their responsibility to respond to the influence of gig work on urban space. As I discussed in the previous finding, policymakers are to some extent planners’ partners in this work. The labor justice theory of political responsibility asks what New York City’s planners and policymakers have as a shared responsibility to address the conditions of gig economy workers on the streets. In conversations with these stakeholders and in reviewing official transportation planning documents, it is evident that the city’s planners and policymakers

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136 Los Deliveristas Unidos, “Los Deliveristas Demand.”
137 Delivery Cyclist A, Delivery Cyclist Interview.
138 Cuba, “Deliveristas Face Yet Another Deadly Threat — Exploding Cheap E-Bike Batteries.”
139 Planner C and Planner D, Planner Interview.
recognize their shared responsibility to create safer streets. Safe streets for all, then, is the just outcome they are pursuing. As the previous finding suggests, establishing fair and safe conditions for app-based food delivery cyclists requires both policy and planning solutions. However, the challenges of government coordination limit transportation planners’ ability to achieve justice for delivery cyclists. Part of this deals with dismantling structural injustices embedded into labor and bicycling laws, as many of these laws do not fall under transportation planners’ jurisdiction. Many of these are legal constraints, but even spatially, not all public street space is in municipal transportation planners’ control. As one planner told me, the challenges of government coordination matters in planning for the gig economy because the disruption brought on by the gig economy is constantly being met with “archaic laws that we have to upgrade and update to reflect how we can better manage our streets.”

This is the part of the story where contradiction meets disruption. The gig economy has forced itself into various markets. Food delivery is one of the markets that has been on the rise even before the pandemic. The pandemic, the emergence of new technology, and the gig economy’s tendency to expand into whatever market is the next big opportunity create many disruptions for transportation planning in New York. For transportation planners to address much of this disruption, they need the help of other agencies or departments. Transportation planners shared that one of their biggest challenges in implementation is managing bureaucratic processes. Managing projects that require permissions and buy-in from other agencies, the City Council, and sometimes even the state legislature, slows the work of planners. The barriers of dealing with legal institutions at multiple scales of government and time-consuming bureaucratic processes make it especially challenging for transportation planners to keep up with disruption of the ever-evolving gig economy.

One example of the challenges of planning for disruption deals with the vehicles that delivery cyclists use. For many years, regulating e-bikes has been a debate in the New York State legislature. Confusing legislation was finally passed by the state allowing municipalities to

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140 See Appendix A: Data Tables, Semi-Structured Interviews; NYC DOT Transportation Plans
141 See Appendix A: Data Tables, Bicycle Laws; Labor Laws
142 Planner B, Planner Interview.
determine e-bike legality themselves; in 2018, New York City allowed pedal-assist e-bikes to operate. Pedal assist e-bikes are the electric bikes that Citibike operates in its fleet; delivery cyclists prefer to operate the throttle type of e-bike. An essential tool of delivery cyclists’ work, all classes of e-bikes – including the throttle type – were finally made legal by New York City in November 2020. Since being legalized, e-bikes can formally be planned for; the two most recent transportation plans discuss the use of e-bikes and how NYC DOT is considering integrating them into planning initiatives. Now that e-bikes are finally legal on city streets, however, a technological shift may be coming that could change the way transportation planners consider gig economy challenges once again. In interviews, transportation planners discussed observations in trends that delivery workers may be moving from their throttle e-bikes to mopeds, which are faster vehicles. From the planners’ perspectives, the technological change in vehicle type is related to the fast-paced nature of change in the gig economy. Planners’ ability to keep up with planning for changes such as vehicle type hinges on legislation for vehicle types to first be legal. Once this hurdle is achieved, the planning work can begin.

Planning for gig economy disruption requires policymakers and planners to recognize that their shared responsibility to create safe and fair infrastructure for delivery cyclists is time-sensitive work. It is possible that the gig economy may necessitate a restructuring of planning and policymaking processes to become aligned with disruption; this could be a question to pursue in a subsequent research study. The point is that seeing this challenge through the lens of political responsibility offers opportunities for overcoming challenges once they have been revealed. This may include finding ways to restructure processes to keep up with needs more effectively. Physical infrastructure work can move slowly, and is hindered even further by a lengthy bureaucratic process in which it is easy to lose sight of the ultimate objective: safety for the transportation mode or user being planned for. As one planner expressed, it is as if the world is moving too fast for physical infrastructure planning under the gig economy.

143 NYC DOT, “Electric Bicycles & More.”
144 New York City Department of Transportation, “Green Wave”; New York City Department of Transportation, “Delivering New York.”
145 Planner B, Planner Interview; Planner E, Planner Interview.
146 Planner B, Planner Interview.
Chapter 4: Local Findings for Larger Questions

Gig Work Creates Conflicting Needs

Gig economy literature, public narratives, and interviews with policymakers and planners all suggest that gig work will endure. In these same discussions, it has become apparent that regulating the gig economy carries with it conflicting priorities between the actors involved – the consumer, the restaurant, the city, the general public, delivery cyclists, and of course, the app companies. Managing these priorities in a way that promotes justice requires seeing the priorities through the political responsibility point about mutual implication. How do each of these actors contribute to labor injustice for delivery cyclists? Applying the idea of political responsibility as mutual implication shows that gig work creates conflicting needs for various users over the same finite space. If actors could more accurately map their own mutual implication in the system, perhaps they might be able to better advocate for justice for working cyclists, or be more accepting and understanding of any regulation that might help these workers.

A reviewer once asked me: Do residents of the Upper West Side need their tamales quickly? I interpreted this question to mean, should public, physical infrastructure really support and benefit the private sector? Especially considering questions regarding who physical infrastructure is intended for, there is a certain discomfort in claiming that planners should be planning infrastructure that will allow delivery cyclists to be both safe and efficient at their jobs. The discomfort rests in knowing that in the end, the public infrastructure has a way of accommodating private interests. This is where I ask planners to return to the labor justice theory. This is where I ask planners to remember that the social compact changes in the face of disruption. This is where I am reminded of the way in which the changing political economy of the gig economy allows me to say yes to public infrastructure for private gain – as long as the workers are given their fair and safe conditions. Change in the political economy requires looking at how actors are staking claims to territories that they do not wish to lose to gig economy urbanism.

A community board on Manhattan’s Upper West Side neighborhood illustrates the conflicting needs between restaurants, residents, consumers, apps, delivery workers, and the general public. The board became locally notorious in spring 2021 for multiple meetings in which a majority of board members professed claims against allowing delivery cyclists to use restaurant bathrooms
or ride e-bikes within the neighborhood’s protected bike lanes.147 The argument rested in assumptions about which party faces the most grievous injustices. To many on the board, it was restaurants who were already burdened from the pandemic, whom they felt should not have to be forced to clean the bathrooms that delivery cyclists used. Furthermore, these board members saw e-bikes as an unsafe vehicle for protected bike lanes; they proposed e-bikes be banned from this space but did not suggest how to keep e-bike riders safe from motor vehicle traffic otherwise.

The conditions of delivery cyclists are made more precarious by banning e-bikes from bike lanes and denying bathroom access. These are solutions intended to exclude one party from another’s territory. The mutual implication problem here is that these board members and restaurant owners benefit from the existence of delivery cyclists to fulfill an essential job in the very same space they wish to ban these workers from. Controlling their access to finite space only pushes these workers into a further realm of injustice. Ken Coughlin, the transportation committee member on the community board who proposed bathroom access as well as creating a designated lane for e-bikes, captures the sentiments of the actors concerned about finite spatial control when they voted his proposals down:

> My understanding was that the reason for the resolution’s ban on any type of e-bike is the perceived conflicts between different users in the existing bike lane — and, indeed, that is an issue. So the solution to me is not to just ban electric bikes from the bike lane and make them go play in traffic — that’s not safer for anyone, including pedestrians and motorists. The solution, to me, was to create more lanes.148

Policymakers and planners know how important it is to manage conflicting needs of various stakeholders. They are aware of the challenges of doing so in their work. Both groups of interviewees expressed that dealing with limited roadway space requires accepting tradeoffs. In several of these conversations, I heard about the needs to not only protect delivery cyclists and other road users, a finding which I will document in more detail in the next section, but

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147 Kuntzman, “Supposedly Progressive Upper West Side Offers No Relief to Deliveristas”; Kuntzman, “Upper West Side Panel Sees E-Bikes as the Threat — But de Blasio Disagrees.”

148 Kuntzman, “Upper West Side Panel Sees E-Bikes as the Threat — But de Blasio Disagrees.”
balancing conflicting priorities between restaurants, apps, and the general public were top of mind. In discussing how regulatory changes must be balanced, a policymaker told me that while they sought labor justice for delivery cyclists, it was not their goal to punish app companies or other actors involved. What does this mean for political responsibility as mutual implication? As they explained:

This is the biggest responsibility [of government] to make sure no one is being taken advantage of. To make sure the policies are set in place to protect those involved but also to make sure those involved understand the policy and don’t punish anyone. We’re not here to punish, we’re here to make sure everyone has dignified treatment.149

This is the essence of recognizing mutual implication of other actors and balancing justice with other needs. Seeing mutual implication is about seeing the spaces where regulation and design can occur to create justice for delivery cyclists while balancing the needs of other important stakeholders who the government cannot justify ignoring.

“Safe Streets Are for Everyone”

Adequate infrastructure is for whom? According to the majority of policymaker and planner interviewees, safe streets are for everyone.150 This is easy to understand from the political responsibility position on the distribution of infrastructure as a public good. Government policymakers and transportation planners have a broad responsibility to a greater public, not to a single group. Here is where the data points to a contradictory riddle for how to direct that responsibility to the most vulnerable. The narrative that safe streets are for everyone ignores the disproportionate risks faced by delivery cyclists on the road; in 2021 alone, eleven of the thirteen cyclists killed in traffic crashes were delivery cyclists.151 As Geller’s “The Four Types of Cyclists” reviews, this is one contradiction that exists in transportation planning: is it more important to protect people already on the road (perceived as Geller’s “Strong and Fearless”), or create infrastructure for people who could potentially be on the road (perceived as “Interested but

149 Policymaker A, Policymaker Interview.
150 Appendix A: Data Tables, Semi-Structured Interviews
151 Appendix A: Data Tables, Local News Media
Concerned”)? The labor justice theory asks transportation planners to be critical about this question as a responsibility to ensure the safety of everyone. If there are people on the road who are already dying, is there not a responsibility to ensure that group is safe before creating safe infrastructure for future users? Political responsibility reminds planners and policymakers of their responsibility to all city dwellers in a just vision of the city. Part of this just vision requires constantly asking who is already being served by certain planning actions and who needs to be better served.

Notably, the most apparent tension for transportation planners is a tension between efficiency and safety. If the gig economy operates on the ability to fulfill as many on-demand services as quickly as possible, what does this mean for the safe traversal of urban street space? In interviews with transportation planners and policymakers, I heard a recurring narrative of safe streets for all. Some planners shared a methodology of planning for the most vulnerable road users – children and the elderly – with the idea that this would capture everyone else in between, including delivery cyclists.\footnote{Planer C and Planner D, Planner Interview.} This methodology is useful, but it may require adaptation to the way in which the gig political economy is forcing new changes and uses at the street level. Similar to calling for an adaptation of some of the definitions in Geller’s “Four Types of Cyclists,” particularly regarding who really counts as “Strong and Fearless,” I find a contradiction in the way in which vulnerable road users are categorized and discussed. With an emphasis on safety for all, the data suggests that app-based food delivery cyclists are disproportionately harmed on the city’s streets as compared to other cyclists.

One may assume that app-based food delivery cyclists are competent, experienced cyclists. I heard this from planners in conversations, who claimed that by observing delivery cyclists using car lanes in the absence of a bike lane, these cyclists were confident, which would place them in the “Strong and Fearless” category. But this assumption does not hold true for all workers who have found jobs that require biking as part of the labor. Documentation of serious injury and deaths of delivery cyclists is abundant in local news media. The abundance of news media centering the challenges for delivery cyclists makes it difficult to focus on a single story, but the case of Liem Nhan illustrates this contradiction well. On one summer day in 2019, Nhan began
his first day as a food delivery cyclist. That day would soon become his last; Nhan was killed by a box truck while on the job. The *Essential but Unprotected* survey findings back up the notion that app-based food delivery cyclists are not necessarily the most experienced cyclists. The survey highlights that many turn to app-based food delivery for work because, for a variety of individual circumstances, it is one of few options to make a living. The tragic case of Nhan demonstrates a need for transportation planners to remember that those who bike for labor have separate needs and conditions to be planned for than those who choose to bike for transportation or recreation purposes. The labor justice theory of political responsibility asks for reflection on who requires infrastructure as a public good, and to redefine this category as needed.

App-based food delivery cyclists are beginning to be planned for. They are mentioned in several NYC DOT planning documents, given a line or a photo caption. There is even one outreach report summary, *Do You Deliver?* that focuses on delivery cyclists as a specific user group. But these planning documents tend to focus on bicycle infrastructure for one broader user group. Any mention of food delivery cyclists, additionally, is really targeted at an audience of business owners who employ delivery cyclists. These planning documents were generated in the earlier years of the gig economy and the rise of bicycle infrastructure planning in New York more broadly. They set the scene for discussing bicycle infrastructure by broadly tying it to one generic cycling user group. Today it is evident that more specific infrastructure work is needed to address who among that broad group of cyclists is the most vulnerable. What I heard in interviews may present a more current picture of how planning for the most vulnerable might be changing. Transportation planners discussed with me their working relationships with groups like Los Deliveristas Unidos and finding ways to plan and design for delivery cyclists’ unique infrastructure needs. The work is just beginning.

**Informal Infrastructure Awaits Formal Progress**

Informality is a part of delivery cyclists’ current struggle for less exploitative working conditions and safer physical infrastructure. Cyclists organize their own informal infrastructures while being

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153 Ghost Bikes, “Liem Nhan.”
154 Appendix A: Data Tables, NYC DOT Transportation Plans
155 Appendix A: Data Tables; Semi-Structured Interviews
vocal about their needs. At the same time, transportation planners recognize that the gig economy disrupts the way in which existing street space is used. The labor justice theory of political responsibility discusses the necessity of responsibility as a forward-looking perspective. Planning in general is a forward-looking discipline. As an aspiring transportation planner, I look to app-based food delivery cyclists as navigators of the space of labor that intersects with the space of transportation infrastructure. It is not up to me to determine what these groups need – they are already so articulate about their infrastructure needs, as I have mentioned. Rather, it is up to me to negotiate on their behalf within the formal structures of planning. It is up to me – and up to other planners – to ask how I can support the infrastructural needs that are clearly outlined, defined, and practiced informally by those whom I claim to serve.

App-based food delivery cyclists navigate the potential, forward-looking future scenarios in their self-produced informal infrastructures. It now falls upon transportation planners like me to take these future scenarios – as a political responsibility – and negotiate the future through their eyes. It is my political responsibility to imagine the future of the city with the gig economy’s growing influence on labor and urban space. These alternative future scenarios have so much to prove: that gig workers can be protected and gig work can thrive in the city at the same time. That working cyclists can be the most vulnerable and the most visible. That the city can design for labor and for transportation. For efficiency and for safety.

There is much that transportation planners are aware needs to be done and can do to match physical improvements to the gig political economy. As I have mentioned, the speed at which disruption has occurred in recent years has made it difficult for planners to keep up. If the gig economy is here to stay, where is transportation planning headed? This is a pressing question for New York City’s planners and policymakers, and one which does not yet have a clear answer. The delivery cyclists, however, cannot wait for formal systems to catch up to their exploitative and dangerous everyday conditions; they must organize however they can in order to fill in the gaps of planning.
Delivery cyclists have sought creative informal solutions to their real and ongoing dangers. News media articles that recount the working routines of delivery cyclists discuss the ways in which they create and maintain their own informal infrastructures. As one journalist observes:

For years, delivery workers in New York have improvised solutions like the bridge patrol to make their jobs feasible. These methods have been remarkably successful, undergirding the illusion of limitless and frictionless delivery. But every hack that made their working conditions tolerable only encouraged the apps and restaurants to ask more of them, until the job evolved into something uniquely intense, dangerous, and precarious.156

Physical infrastructure is one informal system operating underground for delivery cyclists. From secure bike parking to e-bike battery charging to maps of public restrooms in public spaces, there are informal networks of basic workplace needs created and shared by delivery cyclists with one another. Communication infrastructure is another organizing force used to disseminate information about these other informal networks. These organized communication systems allow delivery cyclists to find temporary ways to create safer conditions in spaces that remain unsafe for them. Facebook and WhatsApp are platforms that delivery cyclists rely on to report robberies and other details in real time for their fellow workers. Multiple Facebook groups exist for this purpose. WhatsApp is where the founding of Los Deliveristas Unidos, the local labor union, also began. Communications infrastructure has since been vital to delivery cyclists’ ability to protect themselves from dangers on the streets and to organize for their labor rights. Rallies and protests have been made possible by these platforms. What is remarkable about this communications network is the way in which it contradicts what works best for the app companies; non-organized, independent contractor labor is a benefit to companies seeking to keep labor costs down. The fact that the independent contractor delivery cyclists are finding one another, establishing a sophisticated network of communications that thousands of workers can access even in the absence of a traditional workplace, and organizing with one another on labor issues they would like to see improved speaks to the power of technology in general to disrupt. In the

156 Dzieza, “Revolt of the Delivery Workers.”
same way technology is being used in the gig economy to disrupt labor and markets, that technology is also used to reorganize labor to advance workers’ less exploitative agendas.

Physical and communications infrastructures come together in one instance in which delivery cyclists have found a creative solution to protect themselves, despite asking for help from the city. The case of the Willis Avenue Bridge is the best illustration of the delivery cyclists’ ability to fill gaps in formal infrastructure planning, implementation, design, and enforcement needs. The bridge, which connects Harlem to the Bronx, is a crossing frequented by delivery cyclists returning home after a day’s work in Manhattan. It has also become a site targeted by armed thieves for the cyclists’ valuable e-bikes. In June of 2021, delivery cyclists raised concerns to the police precincts located on either side of the bridge. They presented a list of demands for their safety, including asking for the precincts’ protection in bridge crossings, installing better lighting and cameras on the bridge, closing stairs in the middle of the bridge where thieves tend to hide, and calling for enforcement against illegal mopeds on the bridge.157 While waiting for a response from the city on how their safety concerns will be resolved, delivery cyclists have been keeping watch over the bridge and their fellow working cyclists as they travel over it. They have organized their own system of forming groups to travel over the bridge together to keep one another safe.158

Why should these informal infrastructure matter to transportation planners? As previous findings show, it has been difficult for transportation planners to keep pace with the rapid changes of the gig economy. Delivery cyclists are taking informal action now because they do not have time to waste. Taking matters into their own hands, however imperfect the solutions, is a matter of survival. It is also an opportunity for planners to imagine what a future of just app-based food delivery infrastructure looks like. Planners can learn about the specific challenges and needs already identified by delivery cyclists from the informal systems that require more formal support, such as permanent infrastructure and funding. Interviewees discussed some community engagement and work being done with larger organizations, such as Los Deliveristas Unidos and the Worker’s Justice Project in order to get delivery cyclists’ perspectives on planning issues. At

157 Frimpong, “Deliveristas March to Demand Protection on the Willis Avenue Bridge and Beyond.”
158 Flores, “How Facebook Became a Lifeline for Immigrant Bike Messengers.”
the same time, these cyclists are nearly absent in the city’s current transportation planning documents. I heard from some planners that completing small, tactile projects is useful for building political momentum and creating small change.\textsuperscript{159} Perhaps the momentum generated by the informal structures of delivery cyclists now will see their future needs embedded into formal planning processes, into the city’s future planning documents. While these informal infrastructures are born of necessity for working cyclists, formalizing them through city regulation and planning processes is a challenge. That does not mean it cannot be done, as the social compact of what infrastructure is provided as a public good has changed in the past. It can change now, too. This is political responsibility as a future of better app-based food delivery.

**Reading Between the Data**

The limitations I mentioned in Chapter 2 reveal their own takeaways from this data analysis. Availability of data was largely dependent on the timing of this research study. For one, the global pandemic inserted its own complications regarding travel and availability of persons to speak with a graduate student on her research rather than attend to more urgent matters of public health concerns. Another issue of timing is the passage of the series of bills by the City Council in September 2021, many of which came into effect in January and April 2022. The Worker’s Justice Project and Los Deliveristas Unidos have since had an extraordinarily busy job. They have been working to ensure delivery cyclists across the city, all 65,000 of them, understand the legislation. It is no surprise then that I was unable to reach delivery cyclists at these organizations.

The efforts of these groups have left me contemplating the gaps in the data analysis for this case study. So much of this work is in progress; the Worker’s Justice Project and Los Deliveristas Unidos are continuing to fight for delivery workers’ demands. At the same time, the City Council is considering the passage of even more bills to protect gig workers, while NYC DOT is beginning to develop planning initiatives to address different cycling infrastructure needs. The Worker’s Justice Project and Los Deliveristas Unidos, for example, have stressed that the laws that were passed in September 2021 are merely the beginning of addressing gig worker struggles.

\textsuperscript{159} Appendix A: Data Tables, Semi-Structured Interviews; NYC DOT Transportation Plans
This is to say, there is work that is ongoing that is impossible to include in my data analysis for this thesis, but I write about it here to reflect on what actions are ongoing.

What the data has made evident is that policy work is already doing everything possible to address exploitation. Based on the application of the labor justice theory to my data, I am not convinced that policy work can solve the problems of the built environment in this age of the gig political economy. Planning for the gig economy requires a recognition of a new political economy, a reconceptualization of street use and street user. In recognizing the ways in which street uses and users are changing due to the proliferation of on-demand third-party services, transportation planners may understand how who they are planning for and in what ways prompts reflection. Delivery workers are gaining many of the rights they have been organizing for over the past two years. It is through the narratives around policy, however, that the gap around planning begins to emerge. The policy largely discusses labor based protections. There is little mention of improving, through the physical design and planning of space, the bicycle infrastructure, public spaces, and streets that these cyclists depend upon as part of the essential food delivery infrastructure. Because the work of delivery cyclists in organizing for their own needs is ongoing, transportation planners may use the labor justice framework of political responsibility to find ways to address delivery cyclists’ ongoing planning needs.

New questions emerge from these findings. These questions are important implications for the future of transportation planning for the gig political economy. I share these additional questions in the subsequent chapter. Perhaps in considering these more specific questions, planners may gain actionable takeaways from this work. I hope these questions encourage further study in transportation planning work, in New York City in particular, and wherever else they may resonate.
CHAPTER 5
Gig Implications for Transportation Planners

“These politicians are intervening without asking workers or communicating with us on how to fix things. They have visibility and are moving their own way, but where does that leave the workers?”

- Sergio Ajche, delivery worker

“The City and State each have a role to play to ensure greater protections – really, basic rights – for a workforce that keeps the city running, during and beyond times of crisis.”

- Jo-Ann Yoo, Asian American Federation

“This city can set an example for how we treat the hard-working men and women who deliver your food through storms, during a pandemic and through all circumstances, with basic respect and dignity.”

- Hildalyn Colón Hernández, Worker’s Justice Project

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160 Velasquez and Aponte, “DoorDash Pledge of NYC Bathroom Access and Safety Boosts.”
161 Hallum, “Stringer to de Blasio.”
162 Sequeira, “The Stories of NYC Food Couriers.”
CHAPTER 5:
GIG IMPLICATIONS FOR TRANSPORTATION PLANNERS

New Questions as Reflection and Action
Many questions arise from the findings. Some, inspired by the labor justice theory of political responsibility, are broader thoughts for transportation planners to bring justice into their work. Others, as inspired by this case study, are specific to New York City. The labor justice theory led me to these new questions through this case study’s findings. To discuss, I reiterate the adapted labor justice theory of political responsibility. 1) This labor justice theory is concerned with the ways in which all actors involved in app-based food delivery are mutually implicated in creating the baseline conditions – or constraints – of delivery cyclists. 2) Recognizing the structural injustices of labor in New York demonstrates the ways in which such structures are compounded to create a larger gig worker labor justice issue. 3) Scenario planning for the future of gig work can allow transportation planners to reimagine the street based on a fair and just vision for gig workers. 4) Distributing infrastructure under the gig political economy is a public good. 5) There is a shared role between policymakers and planners to address injustice in the gig economy.

In this concluding chapter, I introduce six new questions that could not be answered within the scope of this research project. I encourage other researchers and transportation planners to study these questions. I welcome imagination and contemplation on the beautiful, bright, just future that could be. I call for a moment to imagine without constraint. I invite reflection. Forget why constructing protected travel lanes for e-bikes might be politically impossible. Forget municipal budgets. Forget finite street space. Forget conflicting stakeholder priorities. For a moment, imagine the just street. Then, come back to the constraints of reality and plan for it. Dreaming of a better world is a free exercise. It is an exercise that planners already do in their work. I hope these new questions inspire new dreams for a just future for app-based food delivery cyclists and others made vulnerable by the gig political economy.

What is a “safe street” in the new political economy of the gig economy?
The gig political economy planners must now plan for requires a redefinition of what a safe street is. A theme I found in the data analysis is a tension between planning for safety and
planning for efficiency – two very important tasks for transportation infrastructure to fulfill. These needs are not going away with the gig economy. The gig economy relies on consumers to buy into expectations for increasingly rapid, on-demand services. In the meantime, streets are filling with a variety of users – from micro-mobility to freight, from commuters to workers – while the physical street space itself is limited. Understanding what “safe” looks like for gig economy streets is necessary to uncover. Does this require looking at new metrics? New users? New uses? Perhaps the answer is yes to all of the above, but there are certainly other considerations involved in this question. A precise definition of a safe street may point to who experiences harm the most under that definition.

Are safety and efficiency in tension in transportation planning for the gig economy? Is negotiating this tension a design or a policy problem?

Calls to plan for both safety and efficiency in transportation plans reflect a need to ensure that goods and services are accessible and available to city residents while everyday road users are safe in all kinds of travel. This is a tension that may likely exist in transportation planning for any political economy in which goods and services rely on being transported from sites of production to consumption. There is especially a tension in the gig political economy, because the market incentivizes fulfilling deliveries as quickly as possible. Conversations with transportation planners and policymakers show that safety and efficiency are priorities for a city like New York, but that even the city is unsure of the balance. Interviews and transportation planning documents showed me that both design and policy may address the tension of safe and efficient streets. To what extent will each matter? Transportation planners could take the lead on this question by imagining the roles of physical infrastructure and new policy to respond to this tension.

In what ways can the transportation planning process stay ahead of disruption brought on by trends in the gig economy?

The practice of planning is done to envision a particular future. Planning is capable of responding to disruption because that is the planner’s job. But what happens when disruption occurs too quickly to keep up with existing processes? Perhaps the process needs to change. I

163 Appendix A: Data Tables, Semi-Structured Interviews; NYC DOT Transportation Plans
heard from transportation planners that keeping up with the disruptive ways in which the gig economy operates is difficult for achieving goals like safety and efficiency for all who traverse New York City’s streets. A gig economy world demands planners’ ability to respond to and implement change faster. This is especially important in considering the new definition of the safe street and how to achieve it.

*If delivery cyclists already know their needs, what is the responsibility of transportation planners to address or support these needs?*

App-based food delivery cyclists are vocal about what they need to improve their working conditions and physical environments. They discuss their own unsafe, unfair experiences extensively in local news media.¹⁶⁴ I also heard from policymakers and planners who are communicating with the delivery cyclists’ organizations to hear their needs. But while delivery cyclists await formal systems to catch up, they continue to face danger. I noted several ways in which these workers have organized themselves to temporarily solve their own planning problems. These solutions are not perfect, but they are necessary for survival. I have been taught in planning curriculum to hear from the community I am planning for in order to respond to their needs. When I see how the delivery cyclists are capable of filling in the gaps themselves, my first question is not to ask what they need, but rather, how can I support what they already know they need? Perhaps the groups of cyclists crossing the Willis Avenue Bridge is the best way to deter thieves until the bridge can be redesigned. Do I provide funding for this bridge crossing patrol, create a schedule, hire special cyclists who perform this as full-time, paid work? The point is to not assume that whatever solution I propose is better, but to engage my institutional support.

*Does the gig economy require a redefinition of vulnerable road users? Should exploitative working situations be a condition of vulnerability?*

The first question asks transportation planners to redefine who is vulnerable as a road user. In reconceptualizing vulnerability, how do the tools to create safe streets change? Exploitative working conditions are part of what make delivery cyclists vulnerable on the streets. These conditions are a product of gig economy labor practices. Because exploitation is a condition that causes delivery cyclists to have a lack of choice in their cycling behaviors, should exploitation be

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¹⁶⁴ Appendix A: Data Tables, Local News Media
a condition of vulnerability? As essential status is conditional, so too is assigning vulnerability. I heard from transportation planners that the vulnerable currently planned for are children and the elderly. I do not dispute that this should remain the case. But I do propose that the gig economy imposes new conditions that creates new vulnerabilities that are just as important to achieving the safest street for everyone.

*Whose lives are worth planning for?*

This final question relates redefining vulnerability to labor justice. An important distinction, which I have already discussed, is that app-based food delivery cyclists are not always delivery cyclists by choice. They are not always the most experienced cyclists on the road. It is incorrect to assume that they share the same characteristics as bike messengers, for example, a much more experienced group of cyclists with a culture of cycling confidence.\(^\text{165}\) App-based food delivery cyclists do this work because it is available to them. I do not deny that there are app-based food delivery cyclists who do the work because they are experienced and confident riders – and some may still fit this characterization. But an argument that I have referenced throughout this work is that delivery cyclists behave on their bikes in certain ways because of the pressures of their labor. Their labor exploitation is a condition of vulnerability in the gig economy. With non-exploitative labor conditions, cyclists would not have to put their lives at risk on the road by biking in motor vehicle travel lanes instead of bike lanes, or biking through intersections against red lights. With guaranteed hourly wages, with assurance that they are protected, with the promise that apps cannot retaliate against their speed, food delivery workers would have the autonomy to bike and use the street in ways that are safer for everyone. Policy can do some of this work. Planning can do the rest.

**Negotiating Justice**

I am about to become a practicing transportation planner. What has this research study helped me understand about the field that I am entering? There is so much exciting, important work to be done. There are so many to whom I am responsible for creating just streets. From a transportation cyclist to a transportation planner, political responsibility outlines my responsibility as a negotiator of infrastructure as a public good. The Infrastructure Investment

and Jobs Act includes equity as a consideration in transportation infrastructure projects.\textsuperscript{166} What else is equity but a recognition that working cyclists are disproportionately harmed on the streets that all cyclists use? What else is equity but working to redefine and understand vulnerability as the political economy evolves? Is my responsibility to future potential cyclists by designing for mode shift, or is my responsibility to those who are cycling now – and suffering from it? Political responsibility and planning are forward-thinking. I envision a future of public infrastructure for the safety and fairness of gig workers using the streets to execute their tasks while other street users flourish. Perhaps it is not safety and efficiency for all street users. Perhaps it is safety and fairness.

The labor justice theory of political responsibility is more than a case study application. It is the way I intend to negotiate tensions in transportation planning to create just outcomes for the most vulnerable. Political responsibility is my guide. For mutual implication, I will document other parties involved in the exploitation of vulnerable road users, seeking to understand the ways in which actions taken by some impact others, even unknowingly. For mapping structural injustice, I will be cognizant of the existing structures – legal, institutional, economic, and social – which inhibit the most vulnerable party’s ability to fully engage in the benefits of infrastructure as a public good. For a future of better app-based food delivery – or a future of treating all essential workers with dignity – I will negotiate the perspectives of workers to imagine infrastructure that could support a world in which everyone is protected in their labor. For distributing infrastructure as a public good, I will constantly reflect on the ways in which the political economy of the infrastructure for which I am responsible is changing, including its funding, planning, design, and implementation processes. For the shared responsibility of planners and policymakers, I will find the barriers to implementing infrastructure as a public good to support the most vulnerable workers on the road. I will find creative ways to work within or redesign the processes of government to see justice deployed. Safely and fairly.

\textsuperscript{166} White House Briefing Room, “Bipartisan Infrastructure Investment and Jobs Act.”
Chapter 5: Gig Implications for Transportation Planners

Tomorrow the Future We Plan For, Today the Struggle

This conclusion marks a place to imagine what comes next. The case study of app-based food delivery cyclists offers transportation planners an opportunity to apply the labor justice theory of political responsibility to their work. The labor justice theory is only possible because of a reframing of cycling to include labor, thereby reframing the street as a workplace. In this thesis, I have argued for the recognition of app-based food delivery cyclists as essential workers – they are maintainers of the city who find creative ways to maintain their own informal infrastructures to keep themselves safe and secure. They deserve labor with dignity. They are fighting for it; transportation planners have a role – a responsibility – to plan physical space that protects workers. The second argument is that biking is labor and the street is a workplace. App-based food delivery cyclists are a part of the changing political economy of the street under the growing influence of the gig economy, thereby altering the street’s use and users. If biking is labor, then the third argument calls for a labor justice theory of political responsibility. This theory is the answer to my research question. It is the response that transportation planners can assume to create safe and fair infrastructure for gig workers under the gig political economy.

I conclude with this: political responsibility reminds planners that responsibility by definition is forward-looking. It is about imagining, then creating, a just future for app-based food delivery cyclists and for other workers who use public infrastructure as their workplace. I intend to go into the world of transportation planning with this framework of labor justice to guide my efforts to reduce harm on our roadways. I invite my future colleagues to do the same. This case study was intended to explore the opportunities to imagine a just future under which the gig economy can flourish while its workforce cycles on with dignity. We may struggle with the barriers that constrain that future. It may be difficult to see beyond the institutional challenges of unraveling structural injustice. But the just future we plan for tomorrow is our responsibility today.

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167 Appendix B: Poetry Methodology, “The Future”
Acknowledgements

To the cyclists, policymakers, and planners who graciously spoke with me on issues of app-based food delivery in New York City, thank you for taking the time to share your thoughts.

To the essential workers and maintainers of our world. In the past, now, and forever. I see you. Thank you.

To my ancestors who are bound in the American practices of infrastructure building and maintenance. Building so one day I could study and theorize how to make visible your work for future generations. Thank you.

To my advisor, Dr. Abby Spinak, for the unceasing inspiration and support. For reminding me that research is a creative act. For teaching me the meaning of infrastructure and maintenance. For grounding my work now as a researcher and my future perspective as a planner. Thank you.

To the Transportation Titans. My support system at the GSD and beyond. Thank you.

To Brian, for the endless conversations we had while I worked through the arguments. You know this thesis almost better than I do. Thank you.

To my parents for instilling within me a practice of love for all others - through this practice of love I see my responsibility to practice justice. Thank you. I love you.
Bibliography


Biking is Labor

Planner B. Planner Interview, February 25, 2022.
Planner E. Planner Interview, April 8, 2022.
Policymaker A. Policymaker Interview, February 15, 2022.
Appendix A: Data Tables

Appendix A consists of the data tables I used to organize my analysis of the sources I used for this research study. There is a data table for each of the following:

- Semi-Structured Interviews
- Cornell ILR-WJP Delivery Cyclist Survey
- NYC Bicycle Laws
- NYC Labor Laws
- App Company Policies
- NYC DOT Transportation Plans
- Local News Media

Page references:
- Semi-Structured Interviews: 103
- Cornell ILR-WJP Delivery Cyclist Survey: 107
- NYC Bicycle Laws: 115
- NYC Labor Laws: 117
- App Company Policies: 122
- NYC DOT Transportation Plans: 124
- Local News Media: 128
## Semi-Structured Interviews

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<tr>
<th>Code</th>
<th>Questions Asked</th>
<th>Key Takeaways</th>
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<tbody>
<tr>
<td><strong>Interviews Conducted by Me</strong></td>
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<tr>
<td><strong>Delivery Cyclists</strong></td>
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</tr>
<tr>
<td>Delivery Cyclist A</td>
<td>1. Can you tell me about a typical day delivering food?</td>
<td>The work is flexible, but comes with many pressures – there is pressure to deliver food quickly but also in good condition.</td>
</tr>
<tr>
<td></td>
<td>2. Can you describe the process of completing a single food delivery assignment?</td>
<td>The app has a lot of control over how and when the work is performed, how and when payment occurs, and whether workers have access to work at all due to the ratings system or flow of order assignments.</td>
</tr>
<tr>
<td></td>
<td>3. What are the most challenging parts about the process of delivering food?</td>
<td>There are infrastructure and planning needs for delivery cyclists that are not accounted for in NYC’s public space, such as more bike parking, safer bike infrastructure, and safe, accessible public bathrooms.</td>
</tr>
<tr>
<td></td>
<td>4. What would make your job of delivering food by bicycle easier?</td>
<td></td>
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<td></td>
<td>5. Who do you think should be providing for what you say would help improve the conditions of delivering food by bicycle? Why?</td>
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<td><strong>NYC Council Policymakers</strong></td>
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<tr>
<td>Policymaker A</td>
<td>1. [If involved in last year’s food delivery policies] Can you describe your working relationships with the app-based food delivery worker community?</td>
<td>Government responsibility to protect the dignity of workers</td>
</tr>
<tr>
<td></td>
<td>2. Can you describe the challenges and opportunities that you see with app-based food delivery in New York City?</td>
<td>Gig economy is not new but the way cities are looking at it is new</td>
</tr>
<tr>
<td>Policymaker B</td>
<td>3. What do you view as the City’s responsibility to address these challenges and opportunities?</td>
<td>Rapid momentum in the movement but still many workers who need to be engaged and brought to the table</td>
</tr>
<tr>
<td></td>
<td>4. What are your goals in creating a policy that involves app-based food delivery cyclists or the larger gig economy?</td>
<td>Emphasis on gig work as flexible and accessible jobs for people who lost jobs during the pandemic and as a way to support the whole city’s economy, especially restaurants.</td>
</tr>
<tr>
<td></td>
<td>5. How do app-based food delivery cyclists or the gig economy fall into the City’s considerations for future policy?</td>
<td>The entire street and all users’ needs must be considered from an infrastructure and planning perspective. All users on the street need safe conditions; delivery cyclists are part of creating the unsafe conditions as people who bike inappropriately and break the law.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Generally sees the gig economy as a good thing because it has enabled an option for employment and supports local businesses, but it requires the city to think about different kinds of regulation and infrastructure (such as broadband) that it hasn’t had to before, and this actually requires cross-departmental collaboration in planning for new infrastructures and coordinating with the state government for new policies. Gig economy is here to stay and everyone is adapting to its services, including having everything delivered.</td>
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### Semi-Structured Interviews (Continued)

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<tr>
<th>Code</th>
<th>Questions Asked</th>
<th>Key Takeaways</th>
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| Policymaker C |                                                                                 | Very passionate, very personal feeling about this work as a human rights/labor rights issue. People in own district are cyclists, they are immigrants, they are the ones affected.  
City is limited from policy side in its scale (conflict in powers/jurisdiction). The city can only do so much, it requires policy changes at the state level, too.  
City can regulate, inspect, test its policies and make sure that apps are compliant; everyone has a role to play in protecting workers. |
| NYC DOT     |                                                                                 | Consider all road users when planning for safe streets.  
Goal to make it easier for delivery operators to have curb access and do work efficiently and safely.  
Planning for finite space is a concern, many uses could be considered for different parts of the street and sometimes needs are in conflict.  
NYC DOT is addressing cargo bike needs as a specific infrastructure, there’s a larger conversation to be had about the infrastructure needed to make the street an adequate workplace for delivery operators. |
| Planner A   | 1. Can you briefly give me an overview of the bicycle planning process?          |                                                                                                                                             |
|             | 2. What stakeholders do you engage with and how in bicycle planning? Do you define different categories of cyclists? |                                                                                                                                             |
|             | 3. What are the challenges and opportunities related to transportation planning for app-based food delivery cycling and the broader gig economy? |                                                                                                                                             |
|             | 4. What do you see as the City’s responsibility to address these challenges and opportunities? |                                                                                                                                             |
| Planner B   | 5. How do app-based food delivery cyclists and the broader gig economy fall into the City’s transportation planning goals? | It’s the responsibility of NYC DOT to make streets safe for everyone, including delivery cyclists, but the DOT is constantly trying to catch up with disruption. My own thought based on this conversation: The world is moving too fast for physical infrastructure planning.  
Delivery cyclists benefit from any infrastructure that prioritizes non-car driver road users’ safety.  
Barriers of legal institutions at multiple scales of government and time-consuming bureaucratic processes prevent NYC DOT from keeping up with the gig economy and other disruption.  
A question that came up in conversation: what do safe streets look like in a world in which the gig economy and similar services are prioritized to be as efficient as possible? |
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<tr>
<td>Planner C and Planner D</td>
<td>The bike unit engages delivery cyclists through their advocacy groups and finds creative ways to collect data on delivery cyclists’ use of infrastructure and infrastructure needs. The bike unit uses a methodology of designing for the most vulnerable road users in order to capture the needs of everyone.</td>
<td>The bike unit does planning, design, implementation, and communication of physical bike infrastructure; this work meets typical planning barriers, such as with community and political support, as well as policy barriers, such as with implementing speed cameras or removing parking spaces.</td>
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<td></td>
<td></td>
<td>The current bike unit goal is to build out the bike network in places in which bike infrastructure does not yet exist or is underdeveloped – a transportation equity issue.</td>
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<td></td>
<td></td>
<td>There is also a recognition to keep up with the surge of the bike demand since the pandemic, including addressing the street space dedicated to bikes and balancing this need with the other roadway users (cars, bus lanes).</td>
</tr>
<tr>
<td>Planner E</td>
<td></td>
<td>There is a focus on safety education, policy for better labor conditions, and understanding new technology and other gig economy disruptions to do physical planning work in response.</td>
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<tr>
<td></td>
<td></td>
<td>There are barriers to formalizing some of the informal infrastructures that support delivery cyclists.</td>
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<td></td>
<td></td>
<td>Future gig economy labor issues may be resolved through policy, but space reclamation work can help too.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What it means to protect the public good is something to think about for the future of planning for the gig economy. Shift from being reactive to proactive.</td>
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<tr>
<td>Interviews Conducted by</td>
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<td></td>
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<td>Others, Reviewed by Me</td>
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## Semi-Structured Interviews (Continued)

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<th>Code</th>
<th>Questions Asked</th>
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<tr>
<td>Hildalyn Colon Hernandez and Ligia Guallpa; 2 deliveryistas calling in to ask questions during The Brian Lehrer Show</td>
<td>N/A</td>
<td>Interview takes place following passage of city council bills, emphasis on collaborating with city council members as sponsors for these bills; emphasis on delivery workers as essential workers; gig economy has changed how gig workers do their jobs and get paid (workers have all responsibilities and no protections); goal with the legislation is to regulate the gig economy, allow for basic rights to be met; allow workers to have more choices; importantly, Hildalyn mentions this is only the beginning, what still needs to be addressed is safety and accidents</td>
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## Cornell ILR-WJP Delivery Cyclist Survey

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<tr>
<td>&quot;Couriers complain that the app’s algorithmic management affects not only their pay but also their ability to get work.&quot;</td>
<td>7</td>
<td>App function</td>
</tr>
<tr>
<td>&quot;For the apps’ algorithms, getting expelled from a shift counts as a missed shift, which negatively impacts the worker’s ability to sign up for future shifts and can result in their deactivation from the app. Instead, workers report that they must work multiple apps each week to maintain their active status with each of the apps.&quot;</td>
<td>18</td>
<td>App function</td>
</tr>
<tr>
<td>&quot;Workers are given priority in signing up for shifts depending on how much they have worked in the past 30 days, their order acceptance rate, and their customer review ratings.&quot;</td>
<td>18</td>
<td>App function</td>
</tr>
<tr>
<td>&quot;Of surveyed workers whose accidents required medical care, 75 percent of responses for how they paid for care indicated they used their own personal funds, as they lacked health insurance.&quot;</td>
<td>38</td>
<td>Benefits</td>
</tr>
<tr>
<td>&quot;...the hourly net pay, with tips included, is around $12.21.&quot;</td>
<td>7</td>
<td>Compensation</td>
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<tr>
<td>&quot;...tips...represent on average 44 percent of couriers' earnings...&quot;</td>
<td>7</td>
<td>Compensation</td>
</tr>
<tr>
<td>&quot;Excluding tips... the average net pay of app-based delivery workers amounts to $7.87, and the median net pay amounts to $7.94.&quot;</td>
<td>7</td>
<td>Compensation</td>
</tr>
<tr>
<td>&quot;Around forty-two percent of workers who participated in the WJP-Cornell study reported experiencing non-payment or underpayment of tips, late payments, or non-payment of entire week’s earnings.&quot;</td>
<td>7</td>
<td>Compensation</td>
</tr>
<tr>
<td>&quot;The median reported delivery workers’ revenues net of expenses was $2,345 a month, including tips. This comes to $10.47-$14.66 an hour depending on the number of hours worked.&quot;</td>
<td>7</td>
<td>Compensation</td>
</tr>
<tr>
<td>&quot;Given that most couriers work 6 days or more, the hourly net pay, with tips included, is around $12.21.&quot;</td>
<td>27</td>
<td>Compensation</td>
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</table>

Including tips, delivery workers make on average $2,380.24 net of expenses, which comes to $12.40 an hour assuming a 40-hour work week. The median monthly pay, net of expenses, and including tips, is $2,345.00, amounting to $12.21/hour assuming a 40-hour work week.

Excluding tips, workers earn an average monthly pay, net of expenses, of $1,511.33, amounting to $7.87/hour assuming a 40-hour work week. The median monthly earnings, net of expenses and without tips, amount to $1,524.00, or a $7.94/hour wage assuming a 40-hour work week.

"Thirty-eight percent of survey respondents reported having payment problems with the apps. The two biggest issues were missing tips and not being paid what was indicated on the app."

"Many also reported missing payment for a delivery they completed. Of those who attempted to resolve the payment issue, most (72 percent) did not get any resolution."

276 respondents indicate that they have never had a problem with receiving pay; 80 say the app did not give them their tips; another 60 say that the apps paid them less than what was indicated on the app; 47 were not paid for a delivery they made; 10 reported being paid late; and 15 say other with respect to having a problem with the apps regarding payment

"...the hourly net pay, with tips included, is around $12.21."       | 7           | Compensation |
| "...tips...represent on average 44 percent of couriers' earnings..."  | 7           | Compensation |
| "Excluding tips... the average net pay of app-based delivery workers amounts to $7.87, and the median net pay amounts to $7.94." | 7           | Compensation |
| "Around forty-two percent of workers who participated in the WJP-Cornell study reported experiencing non-payment or underpayment of tips, late payments, or non-payment of entire week’s earnings." | 7           | Compensation |
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**Cornell ILR-WJP Delivery Cyclist Survey (Continued)**

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<tr>
<th>Data</th>
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<tr>
<td>“They simply did not pay me, they told me I committed fraud. The number I used to call said did not match up with my account. It was just excuse after excuse. Then after 2 months my email/account from the app was deleted. On top of that I had to pay taxes on that money that I never received” - survey respondent interview quote</td>
<td>30</td>
<td>Compensation</td>
</tr>
<tr>
<td>In response to the question &quot;If you did something about the pay issue, was it resolved in your favor?&quot; 86 responded &quot;yes&quot; while 218 said &quot;no&quot;</td>
<td>30</td>
<td>Compensation</td>
</tr>
<tr>
<td>434 survey respondents indicate they did not receive extra pay from apps due to the pandemic; only 8 respondents indicated yes</td>
<td>39</td>
<td>Compensation</td>
</tr>
<tr>
<td>“Estimated delivery workers’ revenues net of expenses are at $2,345 per month, including tips.”</td>
<td>7</td>
<td>Compensation</td>
</tr>
<tr>
<td>&quot;These time and distance estimates may not always be accurate. If DoorDash believes an order should be quick, but there are delays in preparing the food at the restaurant, which the app did not anticipate, the worker is not compensated for the waiting time. The amount the apps pay per mile, minute, and other factors change from day to day. There is no fixed rate.”</td>
<td>26</td>
<td>Compensation, App function</td>
</tr>
<tr>
<td>&quot;When asked what their biggest issues were working the apps the number one response by a very wide margin was low pay, followed by crime, traffic accidents, not enough work, and lack of health insurance. Many also mentioned issues with a lack of transparency in how the apps function and evaluate the couriers’ work.&quot;</td>
<td>25</td>
<td>Compensation; Safety; Workforce Treatment; Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;Payment on the apps is often confusing for workers. Of the four major apps in New York City, DoorDash, UberEats, and GrubHub pay workers a portion of the delivery order, while only Relay offers workers an hourly rate. For the apps that pay drivers a portion of the order their earnings are based on the company’s base pay rate plus promotions and tips.”</td>
<td>26</td>
<td>Compensation; Workforce Treatment</td>
</tr>
<tr>
<td>&quot;The base pay is based on estimated delivery time, distance, and the “desirability” of the order.”</td>
<td></td>
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<tr>
<td>&quot;Promotions are algorithmic management tools that the apps use as incentives to direct delivery workers when and where to work. 17 The incentives primarily take two forms: surge pricing and quests. Surge pricing temporarily boosts pay during bad weather or in certain neighborhoods to encourage drivers to cover an understaffed area. Quests, which can be daily or weekly, are bonuses that are only triggered if the worker achieves a target.”</td>
<td>26</td>
<td>Competition, App function</td>
</tr>
<tr>
<td>&quot;If a customer is dissatisfied because an order was delayed, he/she may decide to remove the tip.”</td>
<td>26</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>&quot;The apps also lack transparency in how they administer discipline and punishment. This issue affects most workers, as 68 percent of surveyed food couriers reported facing discipline or punishment by their apps. Many delivery workers reported going to turn on their app to work for the day only to find they had been deactivated (or fired). Often no explanation is given, and workers spend hours trying to get a hold of someone at the company to explain the situation. There is no formal appeals process. The workers can only send the app a message challenging the situation. Little language assistance is provided by the companies in this process even when they offer the app in multiple languages.”</td>
<td>31</td>
<td>Employment Relations or Control</td>
</tr>
</tbody>
</table>
### Cornell ILR-WJP Delivery Cyclist Survey (Continued)

<table>
<thead>
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<tr>
<td>“[when there is an issue] …if we keep texting Relay they begin to block us.” - survey respondent interview quote</td>
<td>31</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>“It’s very hard for me to get any explanation from them. First, they don’t pick up your phone. They don’t reply to your emails. They have standard email they send to anyone you ask them [why they deactivated your account], they have a [pre-set] email that they send to you as a reply. [Something like] you did something that’s a breach of contract…” - survey respondent interview quote</td>
<td>31</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>&quot;As one worker explained, customers will even complain about an order hoping to get free food only to result in their firing: ‘…you risk getting a deactivation for a customer reporting that they didn’t get the food (they call it “fraud”), and unless you’re wearing a camera that shows that you left the food, you’re out.’” - survey respondent interview quote</td>
<td>32</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>About 250 respondents report discipline/punishment by having their scores lowered; just over 100 report having their accounts deactivated; just over 50 report having their accounts suspended; another 50 report having their hours cut; about 20 have had another type of punishment. In response to the question &quot;why were you punished?&quot; nearly 200 say for bad reviews/problems with customers; nearly 100 say for not accepting orders; just less than 50 say other; about 30 say they don't know; about 25 say for delays; and less than 25 say for food missing or claimed not having been delivered</td>
<td>33</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>&quot;If something happens while we travel [the apps] aren't liable.” - Survey Respondent Interview Quote</td>
<td>38</td>
<td>Employment Relations or Control</td>
</tr>
<tr>
<td>&quot;[E-]bikes often cost delivery workers $1,000-$2,000 to purchase.&quot; A majority of delivery workers indicated using a pedal-assist e-bike for making deliveries (about 225 respondents); about 125 indicated using a throttle e-bike; just over 50 reported using a regular bicycle; a slightly lower number reported using a motor scooter; less than 50 each indicated using a car, walking, or using a rental bike such as CitiBike. &quot;E-bikes cost them around $1,000-$2,200 which many workers buy on payment plans with high interest rates... Not wanting to drain the battery on their e-bikes delivery, the workers would rent a spot at garages in the central city (about $100 a month). Other expenses include safety equipment, battery charging, and safety tools, paying tickets.&quot;</td>
<td>19</td>
<td>Essential Equipment</td>
</tr>
<tr>
<td>The average monthly expenses total $338.99. They include cell phone plans at $78.65; maintenance at $138.84; garage at $93.03; bike payments at $367.59; Metrocards at $103.25; and other at $103.25. The median monthly expenses total $280. They include cell phone plans at $70.00; maintenance at $120; garage at $100; bike payments at $100; Metrocards at $125; and other at $125. &quot;...nearly all surveyed workers reported having to buy their own safety equipment during the pandemic.&quot;</td>
<td>27</td>
<td>Essential Equipment</td>
</tr>
<tr>
<td>&quot;As of June 2021, the top three platforms in the industry were Doordash with 35 percent of the NYC market, Grubhub also with 35 percent, and UberEATS with about 30 percent.&quot;</td>
<td>15</td>
<td>Gig Economy Industry Characteristics</td>
</tr>
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**Cornell ILR-WJP Delivery Cyclist Survey (Continued)**

<table>
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<tbody>
<tr>
<td>&quot;Over the past five years, revenues of the food-delivery apps have grown by more than 200 percent&quot;</td>
<td>15 Gig Economy Industry Characteristics</td>
</tr>
<tr>
<td>About over 250 respondents indicated using Doordash/Caviar the most for delivery work; just over 200 indicated using UberEats/Postmates the most; over 150 indicated using GrubHub/Seamless the most; just over 100 indicated Relay; less than 50 indicated Instacart or Other.</td>
<td>18 Gig Economy Industry Characteristics</td>
</tr>
<tr>
<td>&quot;77 percent of responses were that most of the orders came from major fast-food chains. The most common chains were McDonalds, Burger King, Chipotle Popeyes, Papa Johns, Domino's, and Shake Shack.&quot;</td>
<td>19 Gig Economy Industry Characteristics</td>
</tr>
<tr>
<td>&quot;...app delivery workers reported increasingly being given non-restaurant deliveries from groceries, pharmacies, liquor stores, and other establishments [during the pandemic].&quot;</td>
<td>19 Gig Economy Industry Characteristics</td>
</tr>
<tr>
<td>1342 responses (77%) indicated that most orders come from fast food chains; 324 responses (19%) were from non-fast food restaurant chains; 79 responses (5%) were from grocery, pharmacy, or other</td>
<td>19 Gig Economy Industry Characteristics</td>
</tr>
<tr>
<td>&quot;The vast majority of couriers reported working for one of the dominant apps: DoorDash, UberEATS, GrubHub, or Relay. DoorDash was the largest employer in our survey. Some reported working for smaller apps that cater to different immigrant communities in the city and are often in the delivery person’s primary language. Most food couriers work multiple apps as they cannot always get on a given app, and according to their statements in focus groups and interviews, working for one app does not generate enough income to make a living.&quot;</td>
<td>18 Gig Economy Industry Characteristics; Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;...most couriers work six days or more per week, and more than six hours on any day of the week...&quot;</td>
<td>7 Hours</td>
</tr>
<tr>
<td>&quot;About two thirds of survey respondents reported that they regularly work at least six days per week.&quot;</td>
<td>7 Hours</td>
</tr>
<tr>
<td>&quot;The vast majority (81%) work 5 or more days and most (64%) work 6 or 7 days a week.&quot;</td>
<td>17 Hours</td>
</tr>
<tr>
<td>33% of workers work 7 days/week; 31% work 6 days/week; 17% work 5 days; 5% work 4 days; 4% work 3 days; 2% work 2 days; 6% work 1 day</td>
<td>26 Hours</td>
</tr>
<tr>
<td>&quot;Apps tend to calculate workers’ pay based on “active time,” or the amount of time spent completing an order instead of the amount of time a worker is logged on to the app.&quot;</td>
<td>27 Hours</td>
</tr>
<tr>
<td>&quot;66 percent of delivery workers are connected to the apps and available to do deliveries for more than six hours on any day of the week.&quot;</td>
<td>29 Hours</td>
</tr>
<tr>
<td>&quot;Most respondents reported typically making 15 deliveries a day or about 90 a week. The middle quartile ranges were 10-20 a day and 50-125 a week. Most food couriers work within these bounds.&quot;</td>
<td>29 Hours</td>
</tr>
<tr>
<td>&quot;We found 71 percent of delivery workers typically wait 15 minutes or more to get their next order. Then given the lack of delivery zones, they report almost half of orders take over a half hour to complete. Given this uncertainty, food couriers explained that they often think in terms of hitting a goal number of deliveries each day. This means some days they hit their goal in 8 hours and other days they must work 12 hours.&quot;</td>
<td>7 and 17 Independent contractor</td>
</tr>
<tr>
<td>&quot;...85 percent said this was their main and only job.&quot; and &quot;Most couriers reported that this is their main and only job.&quot;</td>
<td>7 and 17 Independent contractor</td>
</tr>
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</table>
## Cornell ILR-WJP Delivery Cyclist Survey (Continued)

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<tbody>
<tr>
<td>Over 400 respondents indicated delivering for apps are their main and only job; less than 50 respondents each indicated that they deliver and perform other work.</td>
<td>18</td>
<td>Independent contractor</td>
</tr>
</tbody>
</table>
| "Most couriers reported that they worked in Manhattan below 59th Street... or in the Upper West Side. Outside of Manhattan the most common areas for food delivery work are Brooklyn (Downtown, Park Slope, and Williamsburg) and the Bronx. Those who work in Queens typically work the waterfront from Astoria to Long Island City, and others cover areas in Northern and Eastern Queens... This can stress the existing bicycle infrastructure (lanes, bike parking, etc.) in these neighborhoods."
|                                                                      | 19          | Infrastructure and Planning |
| "Fifty four percent of the WJP-Cornell survey participants reported having experienced bike theft, and about 30 percent of these said that they were physically assaulted during the robbery."
|                                                                      | 8           | Safety |
| "Over half of survey respondents had their bike stolen while working, and almost one out of three of these workers were physically assaulted during the theft."
|                                                                      | 33          | Safety |
| "Around half of survey respondents did not report bike robberies to the police, and the 28 percent respondents who went to the police said that officers did not file a report."
|                                                                      | 33          | Safety |
| 278 respondents, or 54%, indicate having their bike being stolen; 237 or 46% report no bike theft. | 33          | Safety |
| Of those who have had their bike stolen, 82 respondents or 20% say they were physically assaulted or attacked violently; 194 or 70% report no. | 33          | Safety |
| Of those who have had their bike stolen, 130 or 48% did nothing; 120 or 44% reported to the police; 18 or 7% reported to the app; 3 or 1% did other. | 33          | Safety |
| For those who filed with the police, 81 or 65% reported a report was filed but the problem remained unresolved; 22 or 18% say they ignored the situation and never filed a report; 13 or 10% say the police took notes but did not file a report; 2 or 2% say the police helped and they got their bike back; 7 or 6% say other. | 33          | Safety |
| "Food delivery in New York City is a dangerous job. Workers spend hours each day weaving through New York City’s infamous traffic dodging cars and pedestrians. Climate change has made incidents of extreme heat and erratic storms a consistent problem. Trucks pour out noxious fumes and kick up dirt and road salt which batters the workers. Many of these health and safety issues, though, are made worse by the platforms’ policies and by the need for greater bike safety infrastructure in the City."
|                                                                      | 36          | Safety |
| "Only 55 delivery workers surveyed under this study reported having been told by the apps to take the City’s commercial bicyclist safety course."
|                                                                      | 37          | Safety |
| "Only 18 percent of surveyed workers reported receiving the safety equipment, which businesses that use bicycles for commercial purposes are required to provide. Businesses like restaurants or delivery companies that use bicycle workers as employees, are required in New York City to provide reflective vests, helmets, a bell, lights, reflectors on the wheels, good breaks, and a business ID card."
|                                                                      | 37          | Safety |
| 270 survey respondents report they did not receive any required training from the apps; 102 respondents report they received training in how to protect themselves from COVID-19 while doing deliveries; 92 indicated they had training on how to do deliveries; 55 reported having a NYC safety on the road course; 44 say the apps send videos or messages for training; and 6 report other. | 37          | Safety |
# Cornell ILR-WJP Delivery Cyclist Survey (Continued)

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<tbody>
<tr>
<td>82% of survey respondents indicate they did not receive protective gear like helmets, vests, or PPE (masks, gloves) from the app</td>
<td>37</td>
<td>Safety</td>
</tr>
<tr>
<td>&quot;About half of the surveyed delivery workers reported having been in either an accident or a crash while working. The most common accident is being hit by someone opening a car door, followed by crashing because of an issue with the road, being hit by a car or truck, or being pushed off the road by a car or truck.&quot;</td>
<td>38</td>
<td>Safety; Infrastructure and Planning</td>
</tr>
<tr>
<td>&quot;Many survey respondents also noted their accident was due to someone being parked in the bike lane.&quot;</td>
<td>38</td>
<td>Safety; Infrastructure and Planning</td>
</tr>
<tr>
<td>&quot;They don’t care for our safety. I had an accident once and instead of asking for my well-being they asked if I had delivered the food. They care for the food, not the [worker]. We could get shot, assaulted, and they wouldn’t care” - Survey Respondent Interview Quote</td>
<td>38</td>
<td>Safety; Workforce Treatment</td>
</tr>
<tr>
<td>&quot;Forty-nine percent of survey respondents reported having been in an accident or crash while doing a delivery. Of these workers, 75 percent said they paid for the medical care with their own personal funds.&quot;</td>
<td>8</td>
<td>Safety; Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;DoorDash, GrubHub, and Relay require workers to sign up and schedule shifts in advance to ensure they can work.&quot;</td>
<td>18</td>
<td>Work requirements</td>
</tr>
<tr>
<td>&quot;App delivery workers are predominantly people of color and immigrants...&quot;</td>
<td>8</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;...the approximate number [of app-based food delivery workers] is at 65,000.&quot;</td>
<td>17</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;The most reported other jobs were other kinds of restaurant work (including doing delivery directly for a restaurant), construction, and being a student.</td>
<td>17</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>95% of respondents reported being male; 4% reported female; 1% reported other or preferred not to say</td>
<td>23</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;Fifty-nine percent of respondents reported being under 30 years old. This compares to a median age of 40 for the New York City Work force.&quot;</td>
<td>23</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>About 30 respondents indicated they are 19 years old or less; nearly 250 respondents indicated an age range of 20-29; just under 150 reported being in the 30-39 age range; less than 50 said they were 40-49; a small number reported being in the 50-59 or 60+ age ranges</td>
<td>23</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;Overall drivers reported over 25 different first languages... the city's language access programs tend to be in Spanish or Mandarin not Kiche or Fuzhounese.&quot;</td>
<td>23</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>Just over 140 respondents indicated latino/a ethnicity (any race); nearly 60 reported being South Asian; 40 respondents indicated they are Black or African American; just under 40 reported being Asian; nearly 10 reported being East-Asian; the categories of other, Native American, and White (not Latino/a) had very small numbers of respondents</td>
<td>23</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;Overall, 40 percent of respondents said they are supporting a child or family member with their income.”                                                                 24</td>
<td>Workforce Characteristics</td>
<td></td>
</tr>
<tr>
<td>&quot;Of those who said they are supporting children under 18 years old, 37 percent were supporting 2 kids and 28 percent were supporting 3 or more minors.&quot;</td>
<td>24</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>Just under 60 respondents indicate working for apps for 1-3 months; nearly 80 respondents for 3-6 months; nearly 140 for 6 months-1 year (coinciding with COVID-19 lockdown); just over 100 for 1-2 years; just over 80 for 2-4 years; and nearly 60 respondents report having worked for the apps for more than five years</td>
<td>24</td>
<td>Workforce Characteristics</td>
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<tr>
<td>Over 200 respondents report they started working for the apps due to losing a job because a business closed during the pandemic; another nearly 200 respondents say delivery work was the only job available to them; just over 125 report they lost a job prior to the pandemic; about 75 report that the restaurant/business they worked for moved deliveries to an app; and less than 25 each indicated either other or for the flexibility of the work.</td>
<td>25</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;While many participants in our study turned to food delivery work because they lost their jobs due to COVID-19, we also found that many needed to do so because they lacked access to government assistance. As immigrants, many participants were either not eligible for or believed they were not eligible for State or Federal assistance.&quot;</td>
<td>38</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>313 respondents reported not receiving help from the government during the pandemic; 127 report receiving a government stimulus check; 44 indicate they received the extra $600 per week of unemployment insurance; and 11 report unemployment insurance benefits for independent contractors</td>
<td>39</td>
<td>Workforce Characteristics</td>
</tr>
<tr>
<td>&quot;There is a lack of respect for delivery drivers [on the part of] company and clients. The company doesn’t take time to take care of us. You can report incidents with clients [only to see] our ratings [go] down despite the report&quot; - survey respondent interview quote</td>
<td>32</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;... we tell customers that there is a 30-minute wait time, and they respond with ‘that’s your problem, if you want to cancel the order do so,’ which will bring down my rating” - survey respondent interview quote</td>
<td>32</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;When asked if they had been mistreated or humiliated while working for the apps, the surveyed delivery workers reported 509 incidents.&quot;</td>
<td>34</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;The most common source of the mistreatment or discrimination was employees of the restaurants or customers receiving the orders... most workers believed it was discrimination due to their immigration status, or relatedly, their race, ethnicity, or language.&quot;</td>
<td>34</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;Many also reported that the harassment was due to people thinking it is okay to treat delivery workers this way or because of anger over a delayed order (often due to no fault of the delivery person, but to the fault of the restaurant because of delays in completing the order or failures of the apps’ systems).”</td>
<td>34</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;As one respondent explained, his account with the app was deactivated for standing up to a restaurant employee on a delayed order, &quot;They closed [my] account …. due to a discussion with the restaurant because I asked [the restaurant employee] why [the food] wasn’t ready, and she wouldn’t let me wait inside and she cursed at me. I defended myself.” This type of incident was common, but delivery workers reported fear of complaining as they argue the apps always take the side of the customers or restaurant. Delivery workers feel that if they do not just accept the harassment the customer might complain about them, and they will lose their ability to earn a living. Additionally, women workers are exposed to sexual harassment on the part of customers.”</td>
<td>34</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>During the last 12 months while working for the apps, 207 respondents indicate being mistreated by someone who works at a restaurant; 169 say by a customer; 49 report mistreatment by someone who works for the app company; 43 say people they have encountered on the street; 34 say the police; and 7 indicate other.&quot;</td>
<td>35</td>
<td>Workforce Treatment</td>
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## Cornell ILR-WJP Delivery Cyclist Survey (Continued)

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<tr>
<td>In considering the reasons for the mistreatment, 198 respondents report it's because they are an immigrant; 93 say it's for the type of work they do; 91 say it's because the food was delayed; 83 report that it's due to their native language; 59 indicate it's for their race/ethnicity; 23 say other; 16 say gender/gender identity; 7 report it's their education level; and 6 report their religion.</td>
<td>35</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;Racist comments are hurtful...people don’t tip or [they] rate [me] badly because I am black...Black people are criminalized as a collective&quot; - Survey Respondent Interview</td>
<td>36</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;As women we are sexualized and these [apps] don’t understand...One time I had a customer ask for their food to be delivered to the 30th floor and as he opens the door, he begins to ask for my [phone] number and make [suggestive] comments.&quot; - Survey Respondent Interview Quote</td>
<td>36</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;A customer threw water in my face, and when I reported it, the app says that when I am in a dangerous situation to leave... If we are injured, [the app] says that they are not responsible if we decide to deliver to the person [directly] and not [just] ‘leave it at the door’.... ‘nobody ordered you to go upstairs [to their apartment door],’ they say&quot; - Survey Respondent Interview Quote</td>
<td>36</td>
<td>Workforce Treatment</td>
</tr>
<tr>
<td>&quot;Eighty-three percent of our survey participants reported that they have been denied use of a bathroom at restaurants.&quot;</td>
<td>8</td>
<td>Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;About the use of public bathrooms elsewhere, 30 percent of respondents said they never had access...&quot;</td>
<td>8</td>
<td>Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;...53 percent said they had access only sometimes.&quot;</td>
<td>8</td>
<td>Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;Most food couriers (83 percent) report being denied access to a bathroom at a restaurant where they have gone to pick up an order. Additionally, there are not enough public restrooms easily available for delivery workers. We found 34 percent of food couriers said they never can find public restrooms, 61 percent said sometimes, and only 4 percent said they can always find a public restroom.&quot;</td>
<td>36</td>
<td>Workplace Needs or Support</td>
</tr>
<tr>
<td>&quot;Some apps, such as GrubHub, require workers to sign up to cover a specific region of the city, called “zones”. For example, if a courier signs up to work Downtown Brooklyn they cannot work in Manhattan. They must request to change regions and are then typically placed on a waiting list to get access to a different zone.&quot;</td>
<td>18</td>
<td>Delivery geography / space of work</td>
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## NYC Bicycle Laws

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<tr>
<th>Law</th>
<th>Text</th>
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<tbody>
<tr>
<td><strong>New York City Traffic Rules and Regulations (Title 34, Chapter 4)</strong></td>
<td>A &quot;bicycle&quot; means every two- or three-wheeled device upon which a person or persons may ride, propelled by human power through a belt, a chain or gears, with such wheels in a tandem or trike, except that it shall not include a device having solid tires and intended for use only on a sidewalk by pre-teenage children. For the purposes of these rules the term bicycle includes a pedal-assist bicycle as defined in this section. A &quot;pedal-assist bicycle&quot; means a bicycle equipped with fully operable pedals and an electric motor of less than seven hundred fifty watts (one horsepower) whereby such electric motor engages only when the operator is pedaling and the rate of speed of the bicycle is less than twenty miles per hour, and disengages or ceases to function when (i) the operator applies the brakes, (ii) the operator stops pedaling, or (iii) the bicycle achieves a speed of twenty miles per hour. A pedal-assist bicycle shall not be equipped with any throttle capacity or have any additional motorized equipment affixed to it.</td>
</tr>
<tr>
<td>§ 4-02 (a) - Compliance with and Effect of Traffic Rules</td>
<td>The provisions of N.Y.C. Traffic Rules are applicable to bicycles and their operators.</td>
</tr>
<tr>
<td>§ 4-07 (c)(3) - Restrictions on crossing sidewalks</td>
<td>No driving bikes on sidewalks unless sign allows or wheels are less than 26 inches in diameter and rider is twelve years or younger. See also Administrative Code §19-176.</td>
</tr>
<tr>
<td>§ 4-08 (c)(9) - Stopping, standing and parking prohibited in specified places</td>
<td>No parking, standing or stopping vehicles within designated bike lanes.</td>
</tr>
<tr>
<td>§ 4-12 (a) - Driver’s hand on steering device</td>
<td>Cyclist must have hand on steering device or handlebars when operating a bicycle.</td>
</tr>
<tr>
<td>§ 4-12 (b) - Reporting accidents by drivers of other than motor vehicles</td>
<td>Cyclist involved in accident resulting in death or injury to person or damage to property must stop and give name, address, and information concerning liability insurance coverage to the other party. If any person sustains injuries in an accident and requires assistance or transportation, he or she shall be transported to the nearest police station unless already supplied to a police officer on the scene.</td>
</tr>
<tr>
<td>§ 4-12 (c)(1) - Use of Roadways</td>
<td>Bicycles are prohibited on expressways, drives, highways, interstate routes, bridges and throughways, unless authorized by sign.</td>
</tr>
<tr>
<td><strong>New York City Administrative Code</strong></td>
<td>(This is a long section so I will only copy/paste the laws relevant to delivery cyclists for their use of special equipment and distinct behaviors, i.e. use of e-bikes and biking outside of bike lanes)</td>
</tr>
<tr>
<td>§ 4-12 (p) - Bicycles</td>
<td>Bicycle riders must use bike path/lane, if provided, except under the following situations: When preparing for a turn at an intersection or into a private road or driveway. When reasonably necessary to avoid conditions (including but not limited to, fixed or moving objects, motor vehicles, bicycles, pedestrians, pushcarts, animals, surface hazards) that make it unsafe to continue within such bicycle path or lane. Bicyclists may use either side of a 40-foot wide one-way roadway. Pedal-assist bicycles:</td>
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<td></td>
<td>- No person shall operate or park a pedal-assist bicycle on any public highway in the city of New York unless such bicycle has permanently affixed in a prominent location on the electric motor of the bicycle or elsewhere on the bicycle a legible original label of the manufacturer of the bicycle and/or of the electric motor containing the maximum motor-assisted speed and motor wattage of the bicycle.</td>
</tr>
<tr>
<td></td>
<td>- All pedal-assist bicycles and their operators must comply with the provisions of Article 34 of the New York State Vehicle and Traffic Law relating to the operation of bicycles, except as provided in section 4-02(e) of these rules.</td>
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<td></td>
<td>- A pedal-assist bicycle that has been modified in any of the following ways shall not be considered a pedal-assist bicycle and may not be operated or parked on any public highway:</td>
</tr>
<tr>
<td></td>
<td>1. Any modification that increases the output of such bicycle to seven hundred fifty watts or greater;</td>
</tr>
<tr>
<td></td>
<td>2. Any modification that prevents the motor from disengaging when (i) the operator applies the brakes, (ii) the operator stops pedaling, or (iii) the bicycle achieves a speed of twenty miles per hour; or</td>
</tr>
<tr>
<td></td>
<td>3. Any modification that accelerates the speed of the pedal-assist bicycle motor by means other than pedaling.</td>
</tr>
<tr>
<td>§ 4-14 (c) - Restricted areas of parks</td>
<td>No person shall ride a bicycle in any park, except in places designated for bike riding; but persons may push bikes in single file to and from such places, except on beaches and boardwalks.</td>
</tr>
</tbody>
</table>
## NYC Bicycle Laws (Continued)

<table>
<thead>
<tr>
<th>Law</th>
<th>Text</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 10-157 - Bicycles used for commercial purposes</td>
<td>Business must be identified on the bike by name and identification number. Operator must wear upper body apparel with business’ name and operator’s identification number on the back. Business must provide operator with a helmet according to A.N.S.I. or Snell standards. Business must provide at its own expense or ensure that each bicycle is equipped with a lamp, bell or other device capable of giving an audible signal from a distance of at least 100 feet (but not use of siren or whistle), brakes, reflective tires or alternately a reflect reflector mounted on the spokes of each wheel. Operator must wear a helmet provided by business. Operator must complete a bicycle safety course prior to making deliveries or otherwise operating a bicycle on behalf of a business. Operator must carry and produce on demand a numbered ID card with operator’s photo, name, and business’ name, address and phone number. Business must maintain roster of its bicycle operators that includes the name, home address, start date, discharge date (if applicable), identification number and date of completion of the bicycle safety course.</td>
<td>Equipment</td>
</tr>
<tr>
<td>§ 19-176 - Bicycles operation on sidewalks prohibited</td>
<td>Bicycles ridden on sidewalks may be confiscated and riders may be subject to legal sanctions. See also N.Y.C. Traffic Rules and Regulations §4-07 (c).</td>
<td>Bike space</td>
</tr>
<tr>
<td>§ 19-195.1 – Bicyclist rights and duties at intersection</td>
<td>A person operating a bicycle while crossing an intersection shall follow pedestrian control signals except where otherwise indicated by traffic control devices, and provided that such person shall yield to pedestrians in the crosswalk.</td>
<td>Bike behavior</td>
</tr>
</tbody>
</table>

### New York State Vehicle and Traffic Law

<table>
<thead>
<tr>
<th>Law</th>
<th>Text</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 102-a – Definition of Bicycle Lane</td>
<td>A portion of the roadway which has been designated by stripping, signing and pavement markings for the preferential or exclusive use of bicycles.</td>
<td>Bike space, infrastructure and planning</td>
</tr>
<tr>
<td>§ 102-b – Definition of Bicycle Path</td>
<td>A path physically separated from motorized vehicle traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way and which is intended for the use of bicycles.</td>
<td>Bike space, infrastructure and planning</td>
</tr>
<tr>
<td>§ 375(24-a) - Equipment</td>
<td>Rider cannot wear more than one earphone attached to radio, tape player or other audio device while riding.</td>
<td>Bike behavior</td>
</tr>
<tr>
<td>§ 1231 - Traffic Laws Applicable to Persons Riding Bicycles</td>
<td>Bicyclists are granted all rights and subject to all duties applicable to operator of vehicle except where not applicable.</td>
<td>Policy</td>
</tr>
<tr>
<td>§ 1232 - Riding on bicycles</td>
<td>Must ride on a permanent seat. Feet must be on pedals. Bike must carry only number of persons for which it is designed and equipped.</td>
<td>Equipment, bike behavior</td>
</tr>
<tr>
<td>§ 1233 - Clinging to vehicles</td>
<td>No attaching bike or person to another vehicle being operated on the roadway.</td>
<td>Bike behavior</td>
</tr>
<tr>
<td>§ 1234 - Riding on roadways, shoulders, bicycle lanes and bicycle paths</td>
<td>Must ride bicycle on the right side of the roadway (some conditions and exceptions apply; see also N.Y.C. Traffic Rules and Regulations Section 4-12 above); No more than two abreast.</td>
<td>Bike space</td>
</tr>
<tr>
<td>§ 1235 - Carrying articles</td>
<td>Rider must keep at least one hand on handlebars when carrying packages.</td>
<td>Bike behavior</td>
</tr>
<tr>
<td>§ 1236 - Lamps and other equipment</td>
<td>White headlight and red taillight must be used from dusk to dawn; Bell or other audible signal (not whistle) required; Working brakes required; Reflective tires and/or other reflective devices required.</td>
<td>Equipment</td>
</tr>
<tr>
<td>§ 1237 - Hand and arm signals</td>
<td>Bicyclists are required to use hand signals to turn left and right and to stop or decrease speed; Rider can use either hand to signal a right turn.</td>
<td>Bike behavior</td>
</tr>
<tr>
<td>§ 1238 - Helmets and carrying children</td>
<td>A child under age one is not permitted to ride on a bicycle. A child one or more years of age but less than five years of age must wear an approved helmet and be carried in a properly affixed child carrier. A child five or more years of age but less than fourteen years of age must wear an approved helmet.</td>
<td>Bike behavior, equipment</td>
</tr>
</tbody>
</table>
## Appendix A: Data Tables

### NYC Labor Laws

<table>
<thead>
<tr>
<th>Law</th>
<th>What the Law Does</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NYC LABOR LAWS THAT ARE SPECIFIC TO APP-BASED FOOD DELIVERY WORKERS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Local Law 118 of 2021; Limitations on distance and route for food delivery workers; to amend three local laws for the year 2021</strong></td>
<td>Summary: &quot;This bill would amend language in Int. 2289-A regarding distance limits, to provide that a worker may set a minimum distance per trip from a food service establishment where such worker will pick up food, beverages, or other goods, that such worker will travel on trips. The bill would also amend the effective dates of Int. 2288-A and Int. 2294-A to provide that such local laws would take effect on the same date as Int. 2290-A. In addition, the bill would provide that a study regarding the working conditions of food delivery workers may take effects immediately.&quot;</td>
<td>Law Effective Date: April 22, 2022</td>
<td>Council Members Braum and Kallas</td>
<td>Delivery geography / space of work</td>
</tr>
<tr>
<td>§ 1. Amended § 20-1521</td>
<td>Third-party food delivery and third-party courier services now required to all food delivery workers ability to specify max trip distance and that workers will not accept trips through tunnels or over bridges chosen by the worker</td>
<td>Law Effective Date: April 22, 2022</td>
<td></td>
<td>Equipment</td>
</tr>
<tr>
<td>§ 2. Amended section 3 of number 2288-A</td>
<td>Relates to &quot;providing food delivery workers with insulated food delivery bags and denying, suspending, revoking or refusing to renew a license for a third party food delivery service.&quot; Establishes working conditions provisions for third-party service workers; requires third-party food delivery services to permit workers to set their own distance and route limits</td>
<td>Law Effective Date: April 22, 2022</td>
<td></td>
<td>Uneven compensation</td>
</tr>
<tr>
<td>§ 3. Amended section 2 of number 2294-A</td>
<td>Relates to &quot;relating to minimum per trip payments to third-party food delivery service and courier service workers.&quot; Establishes working conditions provisions for third-party service workers; requires third-party food delivery services to permit workers to set their own distance and route limits</td>
<td>Law Effective Date: April 22, 2022</td>
<td></td>
<td>Uneven compensation</td>
</tr>
<tr>
<td>§ 4. Amended section 2 of number 2296-A</td>
<td>Relates to &quot;standards for payment of food delivery workers.&quot; Establishes working conditions provisions for third-party service workers; requires third-party food delivery services to permit workers to set their own distance and route limits</td>
<td>Law Effective Date: April 22, 2022</td>
<td></td>
<td>Responsibility</td>
</tr>
<tr>
<td>§ 5. a</td>
<td>Department of Consumer and Worker Protection to conduct a study of food delivery cyclists' working conditions, including pay and methods of payment, total income earned, expenses of workers, equipment required to work, hours, trip mileage, mode of travel, safety conditions, among other topics</td>
<td>Law Effective Date: Immediately</td>
<td></td>
<td>Responsibility</td>
</tr>
<tr>
<td>§ 5. b</td>
<td>Department of Consumer and Worker Protection may obtain data, documents, or other info from third-party food delivery and third-party courier services relating to workers such as worker identifiers, work availability times, transportation mode, how trips are offered or assigned, data maintained by the service relating to trips, compensation, gratuities, cancelled and completed trips info, policies covering workers, contact info for workers, setting of fees</td>
<td>Law Effective Date: Immediately</td>
<td></td>
<td>Responsibility</td>
</tr>
<tr>
<td>§ 6</td>
<td>Section five takes effect immediately but may expired and be repealed when the rest of the law takes effect</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NYC Administrative Code, Subchapter 3c: Third-Party Food Delivery Services

<table>
<thead>
<tr>
<th>Law</th>
<th>What the Law Does</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 20-563.1 License</td>
<td>&quot;It shall be unlawful for any person to operate a third-party food delivery service without first having obtained a license.&quot; License is valid for 2 years. Must include third-party delivery platforms that the applicant plans to use.</td>
<td>Law Effective Date: January 24, 2022</td>
<td>Council Members Rivera, the Public Advocate Williams, Menezes, Chin, Louis, Ayala, Lander, Rosenthal, Van Bramer, Reynoso, Gjonaj, Barron, Brunner, Kallos and Genaro</td>
<td>App function</td>
</tr>
<tr>
<td>§ 20-563.2 Inspection of license and certain restrictions on third-party food delivery service conduct</td>
<td>Requires third-party food delivery services to disclose the amount of gratuity given to a food delivery worker for each delivery and how gratuities are to be distributed to that worker. The third-party delivery service must also disclose the aggregate amount of compensation and gratuities earned by the worker the following day.</td>
<td>Law Effective Date: January 24, 2022</td>
<td></td>
<td>Uneven Compensation</td>
</tr>
<tr>
<td>§ 20-563.3 Fee caps</td>
<td>Unlawful for third-party delivery services to charge restaurants fees totaling more than certain percentages of each online order. The specific fee percentages are described in the legislative text according to their circumstances. Every two years, beginning in 2023, the commissioner must submit a report on fee caps to the Council and mayor.</td>
<td>Law Effective Date: January 24, 2022</td>
<td></td>
<td>App function</td>
</tr>
<tr>
<td>§ 20-563.10 Enforcement, civil penalties and restitution</td>
<td>Violations for third-party food delivery services are accrued on a daily basis for each day a violation was committed; fines can range from max $500-$1,000</td>
<td>Law Effective Date: January 24, 2022</td>
<td></td>
<td>Responsibility, Justice</td>
</tr>
</tbody>
</table>
### NYC Labor Laws (Continued)

<table>
<thead>
<tr>
<th>Law</th>
<th>What the Law Does</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Law 116 of 2021: Establishing standards for payment of food delivery workers</td>
<td>&quot;The bill would prohibit food delivery apps and couriers from charging delivery workers for the payment of their wages. It would also require the food apps and couriers pay their delivery workers for their work at least once per week.&quot;</td>
<td>Law Effective Date: April 22, 2022</td>
<td>Council Members Menchaca, Rivera, Louis, Ayala, Lander, Van Bramer, Rosenthal, Reynoso, Brannan, Barron, Negrete, Kallos and the Public Advocate Williams</td>
<td>Uneven Compensation, App Function</td>
</tr>
<tr>
<td>§1. Amended § 20-1523 Payments to workers</td>
<td>Third-party food delivery or courier services cannot charge food delivery workers fees for the use of any form of payment to pay the worker and that payment for work performed must be paid &quot;no less frequently than once a week.&quot;</td>
<td></td>
<td></td>
<td>Uneven Compensation, App Function</td>
</tr>
<tr>
<td>Local Law 115 of 2021: Establishing minimum per-trip payments to third-party food delivery service and third-party courier service workers</td>
<td>&quot;This bill would require the Department of Consumer and Worker Protection to study the working conditions of third-party food delivery workers, including income, expenses, required equipment, hours worked and safety. Following the study, the Department would be required to promulgate rules establishing the minimum per-trip payments that must be made to third party food delivery service workers by January 1, 2023.&quot;</td>
<td>Law Effective Date: April 22, 2022</td>
<td>Council Members Lander, Menchaca, Chiu, Ayala, Van Bramer, Rosenthal, Reynoso, Rivera, Gjonaj, Barron, Kallos and the Public Advocate Williams</td>
<td>Responsibility</td>
</tr>
<tr>
<td>§1. Amended § 20-1522 Minimum payment a. 1.</td>
<td>Department to study working conditions of app-based food delivery workers</td>
<td></td>
<td>Responsibility</td>
<td></td>
</tr>
<tr>
<td>Section 2 Department may request data, documents, or other information from third-party food delivery or courier services</td>
<td></td>
<td>App function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 3</td>
<td>The department will determine a minimum payment made to food delivery workers by the third-party services by January 1, 2023, taking into account the factors studied in the report</td>
<td>Uneven Compensation, Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Minimum payments do not include tips; third-party services must disclose and pay food delivery workers their gratuities from consumers</td>
<td></td>
<td>Uneven Compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The department may announce an update to the minimum payment beginning annually in February 1, 2028</td>
<td></td>
<td>Uneven Compensation, Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The department must submit reports to the mayor and Council every 2 years beginning September 30, 2024 on the minimum payment standard and any amendments, and its effects on the food delivery worker and greater industry</td>
<td></td>
<td>Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Law 114 of 2021: Establishing general provisions related to working conditions for third-party service workers and requiring that third-party food delivery services permit delivery workers to set limitations on distance and route for deliveries</td>
<td>&quot;This bill would require food delivery applications and couriers to provide delivery workers with the opportunity to set: (i) a maximum distance per trip they will travel; and (ii) that the worker will not accept trips over bridges or tunnels. Applications and couriers would be obligated to allow workers to change parameters at any time. Applications or couriers could not offer a worker trips inconsistent with the parameters or penalize a worker for their parameters. The following information would be provided before a trip: * address where the food, beverage or other goods must be picked up; * estimated time and distance per trip; * any gratuity; and * compensation to be paid, excluding gratuity. In addition, the bill would set forth various definitions, obligations on the Department of Consumer and Worker Protection, applications and couriers; and enforcement options, including those available to the City and to workers, that would apply to all laws relating to food delivery workers.&quot;</td>
<td>Law Effective Date: April 22, 2022</td>
<td>Council Members Brannan, Menchaca, Chiu, Rivera, Louis, Ayala, Lander, Van Bramer, Rosenthal, Reynoso and Kallos</td>
<td>Responsibility</td>
</tr>
<tr>
<td>§ 20-1502 Outreach and education</td>
<td>Commissioner to conduct outreach and education about this law to food delivery workers and third-party food delivery and courier services</td>
<td></td>
<td>Responsibility</td>
<td></td>
</tr>
<tr>
<td>§ 20-1503 Reporting</td>
<td>Department required to annually report on the number of violations and complaints related to this law</td>
<td></td>
<td>Responsibility</td>
<td></td>
</tr>
<tr>
<td>§ 20-1504 Retaliation</td>
<td>Food delivery workers cannot be penalized or deterred from exercising rights covered by this law (including threats, intimidation, harassment, discipline, denial of work opportunities, downgrade of worker's rating, or other negative consequences)</td>
<td></td>
<td>Justice</td>
<td></td>
</tr>
<tr>
<td>§ 20-1505 Notice of rights a.</td>
<td>Commissioner to publish and provide notice for third-party services to provide information to delivery workers on their rights covered in this law</td>
<td>Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. This information to be provided electronically in English or any language spoken as the primary language by at least 3% of the workers</td>
<td></td>
<td>Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 20-1506 Recordkeeping a. Third-party services must document compliance with this law and make records accessible to the department</td>
<td>Responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Failure to document/maintain documents and records is a violation of this law</td>
<td>Responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 20-1507 Administrative enforcement a.</td>
<td>Commissioner to enforce this law</td>
<td>Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 1. Anyone alleging violation can file a complaint within 2 years of knowledge of violation</td>
<td>Responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NYC Labor Laws (Continued)

<table>
<thead>
<tr>
<th>Law</th>
<th>What the Law Does</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 20-1508 Remedies for workers</td>
<td>a. Food delivery workers entitled to relief</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Relief includes compensatory damages</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>2. An order directing compliance with this law</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>$500 for each violation not involving denial of work; $2,500 for each violation involving denial of work; and any other equitable relief</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>b. Relief is per worker and per instance for each violation</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td>§ 20-1509 Civil penalties</td>
<td>a. Third-party services liable to pay penalties for violations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Penalties are per worker and per instance for each violation</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td>§ 20-1510 Enforcement by the corporation counsel</td>
<td>Corporation counsel may initiate proceeding for an assessment of any violation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 20-1511 Private cause of action</td>
<td>a. Any person alleging violation may bring a civil action</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>b. Court may order relief and reasonable attorney's fees</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>c. Civil action must commence within 2 years of knowledge of violation</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td></td>
<td>d. Must serve notice of violation</td>
<td></td>
<td></td>
<td>Justice</td>
</tr>
<tr>
<td>§ 20-1521 Delivery distance and route</td>
<td>a. Third-party services required to specify max distance per trip from a location selected by the worker, that the worker will not accept trips requiring travel over bridges or through tunnels specified by such worker</td>
<td></td>
<td>Delivery geography / space of work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Delivery workers are allowed to change their parameters at any time</td>
<td></td>
<td>Delivery geography / space of work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. A third-party service cannot offer a worker any trip inconsistent with the parameters set by the worker and cannot penalize them</td>
<td></td>
<td>Delivery geography / space of work, App function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. When offering a trip to a worker, third-party services must disclose the address for pick-up, the estimated time and distance of the trip, the amount of gratuity, if any, and the compensation excluding gratuity</td>
<td></td>
<td>Uneven compensation, delivery geography / space of work, App function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. These requirements apply to trips originating and ending in the city, or involve picking up food from an establishment located in the city</td>
<td></td>
<td>Delivery geography / space of work</td>
<td></td>
</tr>
</tbody>
</table>

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**Local Law 113 of 2021: Requiring third-party food delivery services and third-party courier services to provide food delivery workers with insulated food delivery bags, and authorizing the Commissioner of the Department of Consumer and Worker Protection to deny, suspend, revoke, Commissioner may deny, refuse, or revoke license if applicant has committed two or more violations in the preceding two years or has made a false statement or concealed facts**

<table>
<thead>
<tr>
<th>Law</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 20-1524 Insulated food delivery bags</td>
<td>1. Third-party services must provide an insulated food delivery bag to each food delivery worker after having made 6 deliveries, bags provided at the service's own expense and not at the worker's expense</td>
<td></td>
<td>Equipment</td>
</tr>
<tr>
<td></td>
<td>2. This does not mean that delivering food using an insulated bag is a requirement made by this law</td>
<td></td>
<td>Policy barriers</td>
</tr>
</tbody>
</table>

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**Law Effective Date: April 22, 2022**
### Appendix A: Data Tables

**NYC Labor Laws (Continued)**

<table>
<thead>
<tr>
<th>Law</th>
<th>What the Law Does</th>
<th>Date</th>
<th>Authors</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Law 115 of 2021; Agreements between third-party food delivery services, and food service, establishments and the provision of toilet facility access to food delivery workers.</td>
<td>&quot;This bill would require that food delivery applications include a provision in contracts with restaurants requiring them to make their toilet facilities available for delivery workers’ use, as long as the delivery worker seeks to access the facilities while picking up a food or beverage order for delivery.&quot;</td>
<td>Law Effective Date: January 24, 2022</td>
<td>Workplace needs</td>
<td></td>
</tr>
<tr>
<td>§ 2. Subdivision b of section 20-563.6 amended for part b.</td>
<td>Includes a provision requiring that a toilet facility be available for use of food delivery workers on the establishment's premises where they are picking up that establishment's food or beverage for consumer delivery, with some exceptions given health and safety concerns.</td>
<td>Law Effective Date: January 24, 2022</td>
<td>Workplace needs</td>
<td></td>
</tr>
<tr>
<td>Local Law 110 of 2021; Disclosure of gratuity notices for food delivery workers.</td>
<td>§ 2. Section 20-563.2 amended. 1. Third-party service must disclose the proportion or fixed amount of gratuity to the food delivery worker as how gratuities are distributed to the worker.</td>
<td>Law Effective Date: January 24, 2022</td>
<td>Uneven compensation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>§ 2. A food delivery worker is to be notified if a customer pays gratuity and if the customer decides to remove gratuity and why if a reason is given, a change of payment of gratuity will be credited to the worker’s account and they will be notified of the change.</td>
<td></td>
<td>Uneven compensation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>§ 3. Food delivery workers must be notified the following day of work by the third-party service of the aggregate amount of compensation and gratuities earned.</td>
<td></td>
<td>Uneven compensation</td>
<td></td>
</tr>
<tr>
<td>§ 3. Subdivision a of section 20-563.8 amended. a.</td>
<td>§ 3. Third-party delivery services must be licensed and maintain a record for a period of at least three years of the following:</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A roster of food service establishments listed on the third-party service's website</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Written agreements with food service establishments</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Records itemizing fees charged by the third-party service to the food service establishment</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Records prescribed by Commissioner rule</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Records demonstrating compliance with this law</td>
<td></td>
<td>Responsibility / accountability</td>
<td></td>
</tr>
</tbody>
</table>

### NYC LABOR LAWS - GENERAL PROTECTIONS FOR ALL WORKERS

**NYC Workers’ Bill of Rights**

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Acknowledgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid Safe and Sick Leave</td>
<td>Working in NYC for more than 80 hours/year entitles workers to earn up to 40 hours of safe and sick leave for yourself or to help a family member</td>
</tr>
<tr>
<td>Sick leave can be used for care and treatment</td>
<td>Benefits</td>
</tr>
<tr>
<td>Safe leave can be used to seek help or take safety measures for act or threat of domestic violence, unwanted sexual contact, stalking, or human trafficking</td>
<td>Benefits</td>
</tr>
<tr>
<td>Workers working for an employer which has five or more employees have a right to paid safe and sick leave</td>
<td>Benefits</td>
</tr>
<tr>
<td>It is illegal for employers to retaliate against use of safe or sick leave</td>
<td>Benefits</td>
</tr>
<tr>
<td>Federal law allows for additional unpaid time from work, such as 12 weeks annually for employees with 50+ employees to care for themselves, a family member, or to bond with a new child (paid family leave allowed by NYC beginning 2018)</td>
<td>Accountability</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Benefits</th>
<th>Acknowledgment</th>
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</thead>
<tbody>
<tr>
<td>Right to Organize</td>
<td>Employees may decide to be represented by a union and/or join with coworkers in a range of activities regarding work issues, employers cannot threaten, discriminate, or retaliate</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>Employees must be paid for every hour worked, including work before/after a scheduled shift and time spent traveling during the workday</td>
</tr>
<tr>
<td>As of 12/31/18, fast food minimum wage is $15/hour</td>
<td>Uneven compensation</td>
</tr>
<tr>
<td>As of 12/31/19, all other employers must pay a $15/hour minimum wage</td>
<td>Uneven compensation</td>
</tr>
<tr>
<td>Law</td>
<td>What the Law Does</td>
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<td>--------------------------</td>
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<tr>
<td>Overtime</td>
<td>Employers must pay 1.5 times the regular rate of pay for time worked over 40 hours</td>
</tr>
<tr>
<td>Discrimination-free Workplace</td>
<td>Discrimination prohibited on the basis of a worker's age, citizenship status, color, disability, sex, gender, gender identity, partnership or marital status, national origin, pregnancy, race, religion/creed, sexual orientation, arrest or conviction record, caregiver status, consumer credit history, unemployment status, status as victim of domestic violence, stalking, and sex offenses, retaliation for opposing discriminatory practices, genetics, familial status, and military status</td>
</tr>
<tr>
<td>Pay for Work Done as an Independent Contractor</td>
<td>Contracts worth more than $800 must be in writing, including all agreements totaling $800 in a 120-day period. The contract must explain the work to be performed, the pay, and the date to be paid.</td>
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<tr>
<td></td>
<td>The hiring party must pay the independent contractor for all completed work on or before the date in the contract, or within 30 days of work completed if no date is in the hiring contract</td>
</tr>
<tr>
<td>Safety and Healthy Workplace</td>
<td>The workplace must be free of health and safety hazards</td>
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<td></td>
<td>Workers have the right to receive information and training about job hazards</td>
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<tr>
<td>Tipped Workers</td>
<td>Workers may be eligible for compensation to cover wages and medical treatment if an on-the-job injury occurs</td>
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<td></td>
<td>Employers must give workers advanced notice of claiming tip credit</td>
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<td></td>
<td>Employers cannot take any part of workers' tips</td>
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<td>Digital Platform</td>
<td>Parent Company</td>
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<tr>
<td>Grubhub/Seamless</td>
<td>Just Eat Takeaway</td>
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<tr>
<td>UberEats</td>
<td>Uber Technologies Inc.</td>
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<tr>
<td>DoorDash</td>
<td>DoorDash</td>
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<tr>
<td>Digital Platform</td>
<td>Parent Company</td>
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<tr>
<td>Relay Delivery</td>
<td>Brooklyn, NYC</td>
</tr>
<tr>
<td>Plan Name</td>
<td>Date</td>
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<tr>
<td>-----------------------------------------</td>
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<tr>
<td>Sustainable Streets: Strategic Plan for</td>
<td>2008</td>
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<tr>
<td>the New York City Department of Transportation</td>
<td></td>
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<tr>
<td>Sustainable Streets 2009 Progress Report</td>
<td>2009</td>
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<tr>
<td>Plan Name</td>
<td>Date</td>
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<tr>
<td>Sustainable Streets: 2013 and Beyond</td>
<td>2013</td>
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<tr>
<td>Plan Name</td>
<td>Date</td>
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<tr>
<td>Do You Deliver? Commercial Bicyclist Outreach Summary Report</td>
<td>2013</td>
</tr>
<tr>
<td>Strategic Plan 2016: Safe, Green, Smart, Equitable</td>
<td>2016</td>
</tr>
<tr>
<td>Strategic Plan 2017: Progress Report</td>
<td>2017</td>
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</table>

NYC DOT Transportation Plans (Continued)
<table>
<thead>
<tr>
<th>Plan Name</th>
<th>Date</th>
<th>Type of Document</th>
<th>Intended Audience</th>
<th>Who is planned for?</th>
<th>Objectives of the plan - what is the intended outcome?</th>
<th>General Bicycle Planning Discussion</th>
<th>General Delivery Planning Discussion</th>
<th>Delivery Cycling Discussion</th>
<th>Notes on Responsibility to Provide Adequate Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Wave: A Plan for Cycling in New York City</td>
<td>July 2019</td>
<td>Plan</td>
<td>General NYC public - for bicycle transportation and those who may interact with cyclists on the road (mainly trucks and drivers)</td>
<td>Current bicyclists and would-be bicyclists in New York City</td>
<td>Discussion of growth of the bike network, CitiBike expansion, increase in ridership, and new legislation for pedal-assist e-bikes (page 4); safety discussed from a data perspective, higher percentage of cyclist deaths occurring where absence of bike infrastructure (page 5); bicycle commuting (page 6); initiatives for protected bike lanes, encouraging cycling, better designs, targeted enforcement for drivers, enforcement for trucks, policy for driver and cyclist behaviors, policy for e-bikes, and Vision Zero and other street safety education (page 8); comprehensive bike lane plan determined by &quot;vision zero trends, safety needs, stakeholder outreach, mobility and cycling studies... CitiBike and land use data&quot; (page 10) - no mention of who bikes and why; notable initiative to &quot;discontinue... practice of installing cycling immediately following where a fatal crash has occurred&quot; (page 17); infographic describes &quot;appropriate&quot; cycling behavior (page 24)</td>
<td>Discussion on reducing conflicts between trucks and cyclists (page 17)</td>
<td>E-bike legislation is discussed from the perspective of NYC DOT needing to understand &quot;how these newer forms of micro-mobility can safely fit onto our streets&quot; without mention of delivery cycling (page 4)</td>
<td>Page 5 of this report documents statistics for cyclists killed or severely injured (KSI) - in the introduction of this report, NYC DOT makes it clear that they have a responsibility to address this recent increase in deaths. Some of these statistics - such as &quot;nearly 90% of fatalities happened on streets without bike lanes&quot; (page 5) - may illustrate the case for government's responsibility to provide adequate infrastructure. This can be tied to the NYC DOT's mission statement. One initiative example on page 9 supports the idea that NYC DOT is responsible for providing infrastructure in response to disruption: &quot;neighborhoods that have high ridership [the disruptive factor] but lack adequate bicycle infrastructure... DOT will install 20 lane miles in these districts&quot; (page 9).</td>
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<tr>
<td>Additional NYC DOT plans reviewed as relevant</td>
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<td>Delivering New York: A Smart Truck Management Plan for New York City</td>
<td>May 2021</td>
<td>Plan</td>
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<tr>
<td>New York Is Confiscating Delivery Bikes, Hurting Immigrants, And Helping No One</td>
<td>Ellie Auzioliti</td>
<td>Fast Company</td>
<td>March 2018</td>
<td>Unfair targeting on immigrant workers by the city; the e-bike double standard, article emphasizes immigrant delivery workers' reliance on the e-bike to help them make a living. The e-bike is an essential tool to the essential workers. NYC policy is not clear enough; bikes are legal to own but illegal to operate. Delivery apps silent to the policy. Public sees e-bikes as threats.</td>
<td>Essential Equipment; Workforce Treatment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>NY’s War On E-Bikes Takes Toll On Immigrant Delivery Workers</td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>April 2018</td>
<td>City’s narrative is that e-bikes are reckless and need to be regulated. Delivery workers are impacted by not being able to work when their bikes are seized. Double standard of who is allowed to use e-bikes: Citi Bike users can now use electric bikes but delivery workers are still targeted for their e-bikes. New policy coming soon for electric scooters, too. It appears electric mobility is fine for transportation uses and users, but there’s a double standard when it comes to immigrant delivery workers using e-bikes for work.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>Why Are E-Bikes Legal For Citi Bike Users And Not Immigrant Delivery Workers?</td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>August 2018</td>
<td>City legislation intends to impose fines on restaurants, but delivery workers continue to be burdened with the fines for riding e-bikes. Residents on UES and UWS complain about e-bikes.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>Push to Legalize E-Bikes and E-Scooters in New York City Sets Up City Hall Clash</td>
<td>J. David Goodman</td>
<td>The New York Times</td>
<td>October 2018</td>
<td>City Council set to legalize e-bikes, which the Mayor’s administration still sees as a danger to the general public, yet fails to acknowledge how they are essential to delivery cyclists. Multiple actors and their perspectives are discussed in this article, such as companies who use e-bikes and e-scooters for mobility sharing transportation needs, the city council, the mayor’s office, and delivery cyclists.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>City food delivery workers on e-bikes could see legal relief soon</td>
<td>Vincent Barone</td>
<td>AMNY</td>
<td>January 2019</td>
<td>Discussion of legislation that could legalize e-bikes. City council members voice their solidarity with the “hazels” of food delivery. The city administration - Mayor and DOT Commissioner - see throttle e-bikes as a danger for their unregulated and reckless nature.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>NYPD Tells Officers: Stop Fining E-Bike Delivery Cyclists</td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>January 2019</td>
<td>A new NYPD directive requires officers to interview the cyclist using a throttle e-bike or scooter and to determine if they’re using the bike/scooter for work purposes. If so, they have to find the address of their employer and respond to the business to issue a fine. Cyclists aren’t supposed to be fined, but they are anyway, NYPD has trouble tracking down employers (my note: I wonder if this is because of the nature of gig work not being tied to a restaurant but to an app). Advocates for delivery cyclists say fining and confiscating e-bikes distracts from real safety problems.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>Working Cyclists Make Use Of Their Own — And Demand More Safety</td>
<td>Julianne Cuba</td>
<td>Streetsblog NYC</td>
<td>March 2019</td>
<td>A delivery worker was killed by a motorist at a site where other cyclists express feeling unsafe. Cyclists interviewed express fear for their safety and lives but bike anyway because they need to. Public officials on the scene describe a need for street redesign so people aren’t killed.</td>
<td>Safety</td>
<td>Non-existent infrastructure is deadly</td>
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<tr>
<td>More Fury Over de Blasio Ticket Blitzes After Cyclists are Killed</td>
<td>Julianne Cuba, Streetsblog NYC</td>
<td>March 2019</td>
<td>Following the death of a delivery cyclist, police responded by ticketing cyclists for inappropriate cycling behavior in the area, which is a tactic the NYPD is known for. Advocates say the ticketing of cyclists does little to address the problem of unsafe streets; the mayor says enforcement is still necessary in cases where someone's behavior puts other people in danger. NYC DOT is evaluating the area to see if Vision Zero strategies can be applied to prevent further crashes.</td>
<td>Safety</td>
<td>Non-existent infrastructure required by vulnerable workers poses a threat to the city and general public</td>
<td></td>
</tr>
<tr>
<td>Short Film Shows NYC War On E-Bikes Through, The Eyes Of Chinese</td>
<td>Elizabeth Kim (WNYC)</td>
<td>April 2019</td>
<td>Jing Wang created a short film called &quot;A Winter with Delivery Workers&quot; to capture the impacts of the city's policies and enforcement measures against e-bikes on the human workers who complete the deliveries.</td>
<td>Workforce Treatment</td>
<td>There is an unseen human cost to city infrastructure policies and enforcement</td>
<td></td>
</tr>
<tr>
<td>Deliver Cyclists Have One of the Most Dangerous Jobs, But No One Is</td>
<td>Julianne Cuba, Streetsblog NYC</td>
<td>May 2019</td>
<td>This article is an interview with a delivery cyclist. The end of the article suggests the cyclists' personal perspective of the public narrative. After the death of a delivery cyclist, police were again ticketing cyclists and victim-blamed the cyclist who was killed for not using the bike lanes properly. The city continued to see these deaths as tragedies but felt that their policy agenda centered around Vision Zero was working.</td>
<td>Safety</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
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</tr>
<tr>
<td>E-Bikes and E-Scooters Head Toward Full Legalization, With A Manhattan-</td>
<td>Stephen Nesbitt and WNYC Staff</td>
<td>June 2019</td>
<td>E-bikes and e-scooters are to be legalized in New York state, with an exception of still being illegal in Manhattan. Safety concerns are cited by public officials on the use of e-bikes and e-scooters, while the companies who operate shared mobility services see this as an important step forward. One mention of delivery cyclists relates the legislation's potential impact of reducing fines issued to e-bike riders of delivery workers. (Note: the authors seem more concerned with their language about transportation policy, the Manhattan exemption doesn't take into account the fact that Manhattan is a huge part of the delivery market, or that deliveries can be between boroughs)</td>
<td>Essential Equipment</td>
<td>Transportation uses and more supersedes workers' needs</td>
<td></td>
</tr>
<tr>
<td>My Frantic Life as a Cab-Dodging, Tip-Chasing Good App Deliveryman</td>
<td>Andy Newman, The New York Times</td>
<td>July 2019</td>
<td>The author details, using video clips to illustrate a general frantic, fast-paced energy, what it was like working as a delivery cyclist for a few days. He expresses the difficulty in having to make certain choices, including accepting orders, where to bike, how to bike, and so on. The author relates his experience to the larger gig economy's practices of on-demand services and exploitative practices on workers. The dangers of the job on the street and the lack of labor protections are also discussed.</td>
<td>Workforce Treatment, Workplace Needs or Support, and Safety</td>
<td>Hiding the human side of policy intention and urban space</td>
<td></td>
</tr>
<tr>
<td>Major Bill de Blasio Unveils Green Wave Bike Plan To Keep Cyclists Safe</td>
<td>Jake Offenhartz, Gothamist (WNYC)</td>
<td>July 2019</td>
<td>A new plan for bikes will see more bike infrastructure implemented, interactions redesigned, and more enforcement in response to a recent increase in cyclist deaths. The article summarizes Andy Newman's experience in his own article about being a delivery cyclist for a day. The realities of working for an app - not being told where the delivery is going until the order is accepted, not being told how tips are calculated, among other issues - are reiterated.</td>
<td>Infrastructure and Planning</td>
<td>Non-existent infrastructure is deadly</td>
<td></td>
</tr>
<tr>
<td>The Risky Business of Bringing You Lunch</td>
<td>Azi Paybarh, The New York Times</td>
<td>July 2019</td>
<td>The article summarizes Andy Newman's experience in his own article about being a delivery cyclist for a day. The realities of working for an app - not being told where the delivery is going until the order is accepted, not being told how tips are calculated, among other issues - are reiterated.</td>
<td>Workforce Treatment</td>
<td>Hiding the human side of food delivery from the consumer also hides the harms workers endure</td>
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<tbody>
<tr>
<td>Will gig workers finally get labor protections?</td>
<td>Annie McDonough</td>
<td>City &amp; State NY</td>
<td>September 2019</td>
<td>The article argues that gig work is &quot;invariable&quot; and not going away. Union leaders and policymakers are calling for labor policies that keep up with the gig economy's growth.</td>
<td>Workforce Treatment</td>
<td>State intervention in gig economy worker exploitation is needed</td>
</tr>
<tr>
<td>Why Are E-Bikes Legal For Amazon, But Not Immigrant Delivery Cyclists?</td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>December 2019</td>
<td>Various companies are having no trouble using pedal-assist e-bikes and scooters (Amazon, UPS, DHL, Citi Bike, Revel, and others) yet throttle e-bikes used by delivery cyclists are still illegal. This sets a dangerous standard for who can use bikes and for what purposes. Food delivery workers are excluded from legislation about bikes that acknowledges how bikes are essential to their work.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>2019 Was An Extremely Deadly Year For NYC Cyclists, Here Are Their Stories</td>
<td>Emma Whitford</td>
<td>Gothamist (WNYC)</td>
<td>December 2019</td>
<td>The lives of the 29 cyclists killed in NYC in 2019 are reflected on and honored in this article, accompanied with a call by advocates for safer cycling conditions for all. Working cyclists are discussed alongside those biking for recreation and transportation.</td>
<td>Safety</td>
<td>Non-existent infrastructure is deadly</td>
</tr>
<tr>
<td>They Once Were Attacked for Their Cash, Now It's Their E-Bikes.</td>
<td>Sarah Maclin Nir and Jeffrey E. Singer</td>
<td>The New York Times</td>
<td>January 2020</td>
<td>Delivery workers are targets for e-bike theft. Workers fear going to the police for immigration status or because their e-bikes are illegal and could be fine/confiscated. The theft of e-bikes is increasing and a new concern for cyclists. Workers are communicating with one another to work on this issue themselves.</td>
<td>Safety</td>
<td>Non-existent infrastructure is deadly</td>
</tr>
<tr>
<td>De Blasio's E-Bike Crackdown Mainly Hurts Delivery Workers, Not Employers</td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>January 2020</td>
<td>Delivery cyclists were disproportionately penalized for riding e-bikes, compared to businesses, which were intended by city policy to be responsible for paying fines.</td>
<td>Essential Equipment</td>
<td>Delivery cyclists are vulnerable but blamed by institutional actors for their behaviors contributing to their own outcomes</td>
</tr>
<tr>
<td>It's persecution! New York City delivery workers fight electric bike ban</td>
<td>Lauren Artzici</td>
<td>The Guardian</td>
<td>February 2020</td>
<td>Delivery cyclists are working together with the city council to pass a bill legalizing their e-bikes; state says e-bikes are legal but it's up to municipalities to determine how to regulate them. NYPD's rules for confiscating e-bikes is continuing and complicated for all actors involved.</td>
<td>Essential Equipment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>It took a pandemic to halt NY's unfair crackdown on delivery workers' e-bikes</td>
<td>Dan Albert</td>
<td>Fast Company</td>
<td>March 2020</td>
<td>City officials, including the mayoral administration, recognize the necessary practice of using e-bikes in order for delivery workers to deliver food and other supplies on near-empty streets during the pandemic. Notably, the article discusses how the e-bike ban predated e-bikes in NYC and were intended to target a different type of vehicle. The connection is made in this article between policy and its inequitable, &quot;racist&quot; application on targeting delivery cyclists, however unintentional that is.</td>
<td>Essential Equipment and Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>Food delivery workers are coronavirus first responders - here's how you can repay us</td>
<td>Wilfred Chua</td>
<td>NBC News</td>
<td>March 2020</td>
<td>This is written from the perspective of a delivery cyclist, detailing how these delivery cyclists are essential workers supporting NYC yet also how they don't receive support from the public, the apps, or the city.</td>
<td>Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td>The Delivery Workers Who Risk Their Health to Bring You Food</td>
<td>Kimiko de Freytas-Tamara and Jeffrey E. Singer</td>
<td>The New York Times</td>
<td>March 2020</td>
<td>The article details the ways in which app-based food delivery workers are essential to sustaining NYC during the pandemic as other frontline workers, such as nurses. The article discusses the ways in which this creates additional risk on top of already inadequate working conditions, and also contributes to an inequitable burden placed on delivery cyclists whose risk increases as people who must go out in order to make a living during a pandemic.</td>
<td>Workforce Treatment and Safety</td>
<td>Delivery workers are essential to sustain the city through crisis and Delivery workers carry a disproportionate burden as essential workers who are largely immigrants and people of color</td>
</tr>
<tr>
<td>NYC suspends e-bike crackdown with move to takeout, delivery-only</td>
<td>David Meyer</td>
<td>New York Post</td>
<td>March 2020</td>
<td>Policy is suspended related to enforcing against the use of e-bikes, as the city now sees the importance of such equipment during a crisis such as the pandemic, in which food delivery is necessary to support the delivery cyclists.</td>
<td>Essential Equipment</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>De Blasio签字Crackdown On E-Bikes, As Delivery Cyclists Complain Of Over-Enforcement</td>
<td>Jake Offenhartz (WNBC)</td>
<td>Gothamist</td>
<td>March 2020</td>
<td>Enforcement of e-bikes is suspended for the “duration of the crisis,” with crisis referring to the COVID-19 pandemic.</td>
<td>Essential Equipment and Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis and Political priorities after delivery workers’ conditions in a way that makes visible double standards of use and by whom</td>
</tr>
<tr>
<td>The NYPD is Suing On A Huge Supply Of Stolen E-Bikes That Could Be Used To Commit Crime</td>
<td>Jake Offenhartz (WNBC)</td>
<td>Gothamist</td>
<td>March 2020</td>
<td>Mayoral administration has shifted the narrative from e-bikes are dangerous to delivery cyclists are frontline workers who need these bikes to support the city while it’s in the pandemic; NYPD is keeping confiscated e-bikes that other officials and advocates have called to be returned to workers.</td>
<td>Essential Equipment, Workforce Treatment, and Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis and Political priorities after delivery workers’ conditions in a way that makes visible double standards of use and by whom</td>
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<tr>
<td>NYC Council bill could regulate gig worker debate</td>
<td>Annie McDonough</td>
<td>City &amp; State NY</td>
<td>April 2020</td>
<td>NYC Council working on legislation that would extend sick leave to gig workers and a call for NY's to reclassify gig workers as employees. The bill would consider any gig worker as a true independent contractor, they would have to be free from the control of the employer, work outside the usual course of business, and be engaged in an independently established business. Employee classification would only be for paid sick leave, and not for any other purposes.</td>
<td>Essential status is conditional</td>
<td>Essential status is conditional</td>
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<tr>
<td>Hero of the Day: Bike courier back in the saddle after coronavirus tragedy</td>
<td>David Meyer</td>
<td>New York Post</td>
<td>May 2020</td>
<td>The article describes a delivery worker's covid illness and recent deaths of family members. He is back at work despite his illness and the deaths; the article frames him as a hero for this commitment to his job.</td>
<td>Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>DoorDash says it is ‘prepared to provide support’ for Caviar workers arrested in NYC during curfew</td>
<td>Nick Statt</td>
<td>The Verge</td>
<td>June 2020</td>
<td>A Caviar food delivery worker was arrested for being out past the city's curfew; however, delivery workers are exempt from the curfew because they are officially deemed “essential.” App companies are looking to support these workers amid the curfews that are happening across several US cities. The mayor publicly denounced the arrest and made it clear that delivery workers were exempt from the curfew in NYC. The mayor used the word “essential” to refer to delivery cyclists.</td>
<td>Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis and Essential status is conditional and Political priorities after delivery workers’ conditions in a way that makes visible double standards of use and by whom</td>
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<tr>
<td>NYPD Arrests Delivery Courier After Curfew Feuding Discontinue Over Police Aggression</td>
<td>Erlka Adams and Serena Dai</td>
<td>East New York</td>
<td>June 2020</td>
<td>The article follows the same story of the Caviar delivery cyclist who was arrested for being out after curfew. There has been contention around how delivery workers could identify they were essential. This instance has exacerbated tensions between delivery workers as immigrants and undocumented immigrants and people of color and NYPD.</td>
<td>Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>Bicycle delivery man arrested for breaking curfew while making deliveries</td>
<td>Craig McCarthy and Vincent Barone</td>
<td>New York Post</td>
<td>June 2020</td>
<td>NYPD claimed that the Caviar delivery worker was not delivering at the time of his arrest and being out after curfew; however, Caviar says its records show that he was doing deliveries the night that the incident took place. NYPD has changed its story between this article and the previous articles reporting on the same incident.</td>
<td>Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>Killed Cyclist Was a Delivery Worker Who Sent Money Back Home to His Mother in Mexico</td>
<td>Steven Vago</td>
<td>Streetsblog NYC</td>
<td>June 2020</td>
<td>A delivery cyclist was killed by a car while on his day off from delivering food. The article describes how the coronavirus has only added to the risks of food delivery cycling.</td>
<td>Safety</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>NYC Council set to legalize electric bikes and scooters</td>
<td>Nolan Hicks and David Meyer</td>
<td>New York Post</td>
<td>June 2020</td>
<td>Three bills are about to be passed in the city council that would permit e-bikes with electric motors that can travel up to 25 MPH. Quoted council members refer to how this will relieve a fear of having bikers confronted and being fined for delivery cyclists. The word essential is used to refer to delivery workers.</td>
<td>Essential Equipment</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td>Cyclist delivering pizza killed in hit-and-run collision on Upper East Side</td>
<td>Jorge Fitz-Gibbon</td>
<td>New York Post</td>
<td>November 2020</td>
<td>A delivery cyclist was killed in a hit-and-run crash while making a delivery.</td>
<td>Safety</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
</tr>
<tr>
<td>Food Delivery Apps Are Becoming. Their Workers Are Often Struggling.</td>
<td>Kumiho de Freytas-Tamura</td>
<td>The New York Times</td>
<td>November 2020</td>
<td>The article profiles delivery workers, calling them essential workers during the pandemic, but recognizing the precarious nature of their labor conditions and reasons for seeking out gig work in the first place. The narrative from the food delivery apps is that this is a flexible way to make money and that the pay is good. The narrative from delivery cyclist is quite the opposite.</td>
<td>Workforce Characteristics, Gig Economy Industry Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td>DoorDash Pledge of NYC Bathroom Access and Safety Boosts for Delivery Workers Gets Skeptical Reception</td>
<td>Josefa Velasquez and Claudia Iriarri Aponte</td>
<td>The City</td>
<td>December 2020</td>
<td>The narrative from the apps is that they are listening to the concerns of delivery workers, but the reality is that they haven't engaged with any workers from NYC directly. LDU is working on voicing their own concerns that are still not being addressed by the apps, such as bathroom access and pay. There's also a question by the delivery worker narrative of how policy can and should be used to enforce anything the apps are trying to do to improve conditions.</td>
<td>Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td>NYC Food Delivery Workers Hand to Demand Better Treatment, Will New York Listen to Let Deliveree United?</td>
<td>Claudia Iriarri Aponte and Josefa Velasquez</td>
<td>The City</td>
<td>December 2020</td>
<td>The article details the establishment of LDU, a collective of Indigenous Guatemalan and Mexican app-based food delivery cyclists, and how they have organized to gain better labor protections and safer working conditions. The COVID-19 pandemic exacerbated the issues they had already been facing, and more of a “final straw.” They discuss their demands from apps, from city government, and from the police for better protections.</td>
<td>Workforce Treatment, Workplace Needs Support</td>
<td>Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td>DoorDash Delivery Workers Would Need to Toll for Two Days to Buy a Single Share of Their $60 Billion Company</td>
<td>Josefa Velasquez and Claudia Iriarri Aponte</td>
<td>The City</td>
<td>December 2020</td>
<td>DoorDash is now a public company, but if its independent contractors wanted a share they'd have to work for two days - the article highlights the inequities between the billion dollar company and the low wages and tough conditions faced by the workers. There is emphasis in the article from delivery workers saying that the company is only profitable because of the work they're doing on the ground, but not getting much compensation for.</td>
<td>Gig Economy Industry Characteristics and Workforce Treatment</td>
<td>Labor conditions are precarious Labor demands dignity and accountability Gig companies' profits and gig workers' needs are in tension</td>
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<tr>
<td>Delivery workers are struggling to survive the pandemic</td>
<td>Amir Khulafy</td>
<td>The Counter</td>
<td>January 2021</td>
<td>The article is from the perspective of delivery workers who describe how gig work is precarious.</td>
<td>Workforce Treatment</td>
<td>Labor conditions are precarious Labor demands dignity and accountability</td>
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<tr>
<td>Community Rallying Around 'Deliveryistas' Who Lost Everything in a Benchburst Smoke House Fire</td>
<td>Claudia Iriarri Aponte</td>
<td>The City</td>
<td>January 2021</td>
<td>Delivery workers discuss the differences between delivering before the proliferation of apps versus now. Their narrative questions whether they are really independent contractors when the apps exert a lot of control over them. They speak of the lack of dignity in the current structure of employment and how the apps treat them.</td>
<td>Workforce Treatment</td>
<td>Labor conditions are precarious Labor demands dignity and accountability Gig companies' profits and gig workers' needs are in tension</td>
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<tr>
<td>POST-MORTEM: Cyclist Victim Kept In 2020 Were Low-Income, Essential Workers</td>
<td>Julienne Cuba</td>
<td>Streetblog NYC</td>
<td>January 2021</td>
<td>Article links cyclist deaths to neighborhoods with less safe cycling infrastructure and low incomes; the argument is that as essential workers, the city has failed to protect working cyclists because of the distribution or lack of infrastructure in certain neighborhoods.</td>
<td>Infrastructure and Planning and Workforce Characteristics</td>
<td>Non-existent infrastructure is deadly Streets are deadly for working cyclists Political priorities alter delivery workers' conditions in a way that makes visible double standards of use and by whom</td>
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<tr>
<td>Workers on the Edge: Will we keep ordering takeout?</td>
<td>Jody Rosen</td>
<td>The New York Times</td>
<td>February 2021</td>
<td>Food delivery cyclists made more money and were more safe (due to decreases in traffic levels) at the beginning of the pandemic. The article highlights how changes in people's remote work and dining out patterns is affecting delivery cyclists by seeing their working conditions back to more perilous levels (with traffic) as well as less deliveries and therefore less pay.</td>
<td>Hours, Compensation and Safety</td>
<td>Labor conditions are precarious Streets are deadly for working cyclists</td>
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<tr>
<td>Reversing Course, Cuomo Approves Immigrant Vaccine Access for Food Delivery and Restaurant Workers</td>
<td>Josefa Velasquez and Claudia Iriarri Aponte</td>
<td>The City</td>
<td>February 2021</td>
<td>Due to the limited supply of COVID vaccines distributed to NYS, food industry workers - which includes delivery cyclists - were originally not eligible in the first round of vaccines for essential workers. However, the governor determined they could be included as more doses were coming to NYS. The article emphasizes how delivery cyclists are frontline, essential workers supporting the restaurant industry and the city as a whole during a time of crisis.</td>
<td>Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis Essential status is conditional</td>
</tr>
<tr>
<td>Pizza delivery worker critically injured in Manhattan crash</td>
<td>Amanda Woods and Tina Moore</td>
<td>New York Post</td>
<td>February 2021</td>
<td>A delivery cyclist was in critical condition after being hit by a car. It is unclear whether the cyclist was not making deliveries at the time. The driver was arrested and charged.</td>
<td>Safety</td>
<td>Streets are deadly for working cyclists</td>
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<tr>
<td>Food delivery couriers, street vendors launch hunger strike in NYC, demanding more relief for undocumented workers</td>
<td>Jessica Fu</td>
<td>The Counter</td>
<td>March 2021</td>
<td>Hunger strikers, including delivery cyclists, are striking to call on NYS legislators to assist residents regardless of immigration status in receiving stimulus payments and other COVID relief measures. Many of these immigrant, essential workers (in any industry) have faced lost income and business due to the pandemic, yet aren’t eligible for assistance or haven’t been. The burdens of the pandemic are falling disproportionately on this group. NYS legislators are in the process of passing a law that would provide cash assistance to those who haven’t qualified under other relief programs.</td>
<td>Workforce Treatment</td>
<td>Essential status is conditional</td>
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<tr>
<td>City Hall remains silent on e-Bike ban, Greenway</td>
<td>Dave Colon</td>
<td>Streetsblog</td>
<td>NYC</td>
<td>E-bikes have been banned on the Hudson River Greenway, despite e-bikes having been legalized in NYS and this route being an important one for delivery cyclists to safely traverse from neighborhood to neighborhood without riding in traffic. Delivery cyclist advocates feel this is a double standard for who gets access to the greenway, transportation advocates feel this is a double standard for all types of transportation cyclists from the perspective that you wouldn’t ban a car for using a road just because it can exceed a speed limit (read: they’re talking about transportation uses).</td>
<td>Infrastructure and Planning and Essential Equipment</td>
<td>Delivery workers carry a disproportionate burden as essential workers who are largely immigrants and people of color</td>
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<tr>
<td>Fired by Call for Wider Bike Lanes on Second Avenue and Beyond</td>
<td>Julianne Cuba</td>
<td>Streetsblog</td>
<td>NYC</td>
<td>There are calls from many perspectives to widen the protected bike lane on Second Ave and widen bike lanes across the city. The argument is that there is an inequitable distribution between the amount of space given to cyclists vs. cars when you determine the number of cyclists and cars each moving through an intersection. Cars outnumber cyclists 2:1 and yet have disproportionately more space. The increase of cyclists on bike paths contributes to safety concerns for all bike users, including delivery cyclists. Local politicians agree with widening the Second Avenue Bike Lanes as safer, updated infrastructure.</td>
<td>Infrastructure and Planning</td>
<td>Political priorities alter delivery workers' conditions in a way that makes visible due to standards of use and by whom</td>
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<tr>
<td>Pandemic-Scarred Restaurants And Gig Workers Fight Back Against The Delivery Apps</td>
<td>Beth Fertig</td>
<td>Gothamist (WNYC)</td>
<td>March 2021</td>
<td>Restaurants in NYC were seeing their revenue decreasing due to high charges from food delivery app companies. Restaurants feel taken advantage of by third-party apps. The apps saw large increases in revenue during the pandemic, while restaurants took hits. Delivery jobs were one of the only sectors in NYC that saw a increase during the pandemic. There is acknowledgement of the national conversation about how gig workers should be classified, as well as a local discussion of how delivery cyclists are treated by apps and restaurants.</td>
<td>Gig Economy Industry Characteristics and Workforce Treatment</td>
<td>Gig economy work is a lifeline during crisis</td>
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<td>Stringer to de Blasio: mandate these protections for delivery workers on the frontline</td>
<td>Mark Hallum</td>
<td>AMNY</td>
<td>March 2021</td>
<td>In a letter to the mayor, Comptroller Scott Stringer called for the recognition of app-based food delivery workers as essential, frontline workers in need of the city’s protection. The letter enumerates recommendations related to issues such as pay transparency, access to restroom facilities, and the expansion of bicycle infrastructure for increased cycling safety, among others.</td>
<td>Workforce Treatment and Safety</td>
<td>Gig companies’ profits, restaurants’ profits and needs, and gig workers’ needs are in tension</td>
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<tr>
<td>The Dangerous Job of Making Deliveries in NYC</td>
<td>Julianna Kim</td>
<td>The New York Times</td>
<td>March 2021</td>
<td>Delivery workers are facing increased e-bike theft during the pandemic. Many see going to the police as high-risk than coming up with the money to buy a new e-bike. The article discusses LDU's demands for better working conditions, including places to rest, bathroom access, hazard pay, and higher wages. They are exposing themselves to COVID on a daily basis yet don’t have healthcare.</td>
<td>Safety and Workplace Needs or Support</td>
<td>Labor conditions are precarious Streets are dangerous for working cyclists</td>
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<tr>
<td>‘My Turn to Get Robbed’: Delivery Workers Are Targets in the Pandemic</td>
<td>Edgar Sandoval</td>
<td>The New York Times</td>
<td>March 2021</td>
<td>E-bikes, which are essential to delivery cyclists, have seen a doubled increase in thefts from 2019 to 2020. Armed robberies of these bikes are common. Robbers sometimes place orders to lure cyclists to locations where they can rob them. Cyclists interviewed discuss a need for better lighting on streets. Many do not go to the police, although some do. There’s policy conversation in this article around delivery cyclists as essential workers who risk their lives to deliver to people who need to stay home.</td>
<td>Safety and Essential Equipment</td>
<td>Delivery workers are essential to sustain the city through crisis Streets are dangerous for working cyclists</td>
</tr>
<tr>
<td>Supposedly Progressive Upper West Side Offers No Relief to Deliveries</td>
<td>Gersh Kuntzman</td>
<td>Streetsblog NYC</td>
<td>April 2021</td>
<td>A Manhattan CB 7 board member proposed a non-binding resolution for restaurants to allow delivery cyclists to use their restrooms. The proposal was met with hostility from a majority of the other board members, who were unable to explicitly state their reasons for why restaurants should not be forced to allow delivery workers to use their bathrooms. These members felt it was the responsibility of the apps and the city to provide restrooms for delivery workers. A minority of members in support of the proposal described how this was a matter of dignity and respect for workers and a human rights issue. The proposal was tabled.</td>
<td>Workforce, Treatment, Workplace Needs or Support, and Infrastructure and Planning</td>
<td>Political priorities alter delivery workers' conditions in a way that makes visible double standards of use and by whom Public opinion positions delivery cyclists against restaurant owners</td>
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<td>Struggling Food Delivery Workers' Secret Weapon: Support From a Powerful Union</td>
<td>Claudia Iriarzuy Aponte</td>
<td>The City</td>
<td>April 2021</td>
<td>LDU was joined in a rally by the city's largest union of service workers, SEIU 32BJ. This is a potentially game-changing labor rally for LDU. While gig workers cannot join a union shop, SEIU has been working with LDU behind the scenes on legislative, legal, and advocacy support. Demands from the rally include a living wage, recognition as employees, access to bathrooms and safe waiting areas, and law enforcement protection against robberies. Many also cite a need for more, better protected bike lanes. Workers who had died that year were honored at the rally.</td>
<td>Workforce Treatment, Gig Economy Industry Characteristics, Workplace Needs or Support, Compensation, Safety, and Infrastructure and Planning</td>
<td>Labor conditions are precarious Labor demands dignity and accountability Streets are dangerous for working cyclists</td>
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<td>TransAlt (Not The City) Is Bringing Secure Bike Parking to the Port Authority Bus Terminal</td>
<td>Dave Colon</td>
<td>Streetsblog NYC</td>
<td>April 2021</td>
<td>The article discusses the need for secure bike parking, which is largely non-existent in the city, and how non-city groups are attempting to fill the secure bike parking void (Qonce and TAA). The city is committed to installing more bike parking over the next 2 years, but this is not secure bike parking.</td>
<td>Infrastructure and Planning</td>
<td>Responsibility falls on the city government to complete gaps in the bike infrastructure Existing bike infrastructure is inadequate for cyclists</td>
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<td>RELIEF! Council Bill Would Let Delivery Riders Use Restaurant Bathrooms</td>
<td>Dave Colon</td>
<td>Streetsblog NYC</td>
<td>April 2021</td>
<td>Council Member Rivera has introduced a bill in the City Council requiring restaurants to allow delivery cyclists to use their bathrooms, with a few exceptions.</td>
<td>Workplace Needs or Support, Infrastructure and Planning, and Workforce Treatment</td>
<td>Labor demands dignity and accountability Delivery workers are essential to sustain the city through crisis</td>
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<tr>
<td><strong>NYCD: E-Cyclist Struck and Killed Elderly Man Stepping into UWS Bike Lane Between Cars</strong></td>
<td>Julianne Cuba</td>
<td>Streetblog NYC</td>
<td>April 2021</td>
<td>Using one specific instance of an e-bike rider (unclear if rider was a delivery cyclist) who killed a pedestrian who stepped into the bike lane from between two cars, the article discusses the need for better infrastructure that prioritizes the safety of pedestrians and cyclists over cars. The article points to safer and better bike infrastructure being able to prevent instances such as this collision. The focus is largely on transportation but acknowledges delivery cyclists as e-bike users in bike lanes.</td>
<td>Safety and Infrastructure and Planning</td>
<td>Existing bike infrastructure is inadequate for cyclists Streets are deadly</td>
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<tr>
<td><strong>The Labor Battle for the Right to Pee</strong></td>
<td>Luis Feliz Leon</td>
<td>The New Republic</td>
<td>April 2021</td>
<td>The article uses the recent debate on the UWS about allowing delivery cyclists to use restroom bathrooms. There is then a discussion of LDU’s founding and demands for better working conditions and treatment. There’s discussion that formally unionizing would be beneficial for gig workers to assert their needs without fear.</td>
<td>Workforce Treatment, Workforce Needs or Support, and Workforce Characteristics</td>
<td>Delivery workers are essential to sustain the city through crisis Essential status is conditional</td>
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<tr>
<td><strong>New Legislation Would Require Restaurants To Let Delivery Cyclists Use Their Restroom</strong></td>
<td>Christopher Robbins</td>
<td>Gothamist (WNYC)</td>
<td>April 2021</td>
<td>The six City Council bills which would allow delivery workers to use bathrooms and have other protections related to compensation, are described. Some app companies voiced their support for the bills.</td>
<td>Workforce Treatment, Workforce Characteristics, Compensation, and Workplace Needs or Support</td>
<td>Delivery workers carry a disproportionate burden as essential workers who are largely immigrants and people of color</td>
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<tr>
<td><strong>OPINION: Stop the Shameful Treatment of Deliveristas</strong></td>
<td>Shabazz Stuart</td>
<td>Streetblog NYC</td>
<td>April 2021</td>
<td>This op-ed discusses the poor treatment of delivery workers in NYC by multiple actors. Stuart calls on the city to take up responsibility to consider alternatives to delivery cyclists conditions that could work better for everyone (design, planning, and legislative challenges and opportunities). Stuart reflects on the essential work performed by delivery cyclists. He reflects on the state of labor generally in this country by connecting the immigrant identity of delivery workers to other types of workers in the United States who are frequently exploited.</td>
<td>Workforce Treatment, Workforce Characteristics, and Infrastructure and Planning</td>
<td>Delivery workers are essential to sustain the city through crisis Essential status is conditional</td>
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<tr>
<td><strong>Bill would force NYC restaurants to let delivery workers use bathroom</strong></td>
<td>David Meyer</td>
<td>New York Post</td>
<td>April 2021</td>
<td>The article describes the six City Council bills that are on the table regarding bathroom access and compensation issues. Notably, the language is more defensive with respect to what is being asked or &quot;forced&quot; upon multiple actors with this legislation. Not necessarily spelling support for delivery cyclists.</td>
<td>Workplace Needs or Support</td>
<td>The city government is taking some responsibility for inadequate and exploitative working conditions</td>
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<td>NYC Food Delivery Worker’s Death Amplifies Concerns For Gig Employees</td>
<td>Tanya Waterfin</td>
<td>Enter New York</td>
<td>April 2021</td>
<td>The recent, unusual robbery of a delivery cyclist, which resulted in his death, is connected to larger issues faced by gig workers with respect to exploitative and dangerous working conditions.</td>
<td>Safety, Workforce, Gig Economy Industry Characteristics, and Workforce Characteristics</td>
<td>Labor conditions are precarious, Streets are dangerous for working cyclists, Delivery workers carry a disproportionate burden as essential workers who are largely immigrant and people of color</td>
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<tr>
<td>In His Own Words: One Deliverista Speaks About Not Being Allowed To Use A Bathroom</td>
<td>Streetblog</td>
<td>NYC</td>
<td>April 2021</td>
<td>A delivery worker speaks with a Streetblog reporter about what it is typically like being denied to use a restaurant’s bathroom during a shift. The worker’s perspective is that their labor is being devalued and the restaurants don’t fully recognize how delivery workers supported their businesses throughout the pandemic.</td>
<td>Workforce Treatment</td>
<td>Labor demands dignity and accountability, Delivery workers are essential to sustain the city through crisis, Gig companies’ profits, restaurants’ profits and needs, and gig workers’ needs are in tension</td>
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<td>E-bikes under fire as accidents, fatalities climb in NYC</td>
<td>Deon Balsamini</td>
<td>New York Post</td>
<td>June 2021</td>
<td>The article interviews people who have recently been hit by an e-bike. Some people explain that they believe these are delivery workers who are out of control, and are calling on the city to regulate e-bikes.</td>
<td>Essential Equipment and Workforce Treatment</td>
<td>The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
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<td>Deliveristas March to Demand Protection on the Willis Avenue Bridge and Beyond</td>
<td>Fiifi Primpung</td>
<td>Streetblog NYC</td>
<td>June 2021</td>
<td>Delivery workers led a march to demand that New York City do a better job protecting them from the up tick in bike robberies, which occur frequently on the Willis Avenue Bridge due to poor lighting and place where it is easy for thieves to hide.</td>
<td>Safety, Infrastructure and Planning, and Workforce Characteristics</td>
<td>Responsibility falls on the city government to complete gaps in the bike infrastructure</td>
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<tr>
<td>OPINION: Making Cycling Accessible for All New Yorkers</td>
<td>Shahram Hashif</td>
<td>Streetblog NYC</td>
<td>June 2021</td>
<td>This op-ed is by a current city council member, who is calling for a more equitable distribution and better support from the city council and NYPD in ensuring safe infrastructure in more immigrant and working-class neighborhoods.</td>
<td>Infrastructure and Planning</td>
<td>Responsibility falls on the city government to complete gaps in the bike infrastructure, Existing bike infrastructure is inadequate for cyclists, Streets are dangerous for working cyclists</td>
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<tr>
<td>De Blasio’s Pandemic Heroes Parade Could Use a Clear Invite List ‘Honorees’ List</td>
<td>Jose Martinez and Claudia Frizzary Aponte</td>
<td>The City</td>
<td>June 2021</td>
<td>In a parade organized by city hall for “essential workers,” delivery workers were not included in the initial invitation to be recognized in the parade.</td>
<td>Workforce Characteristics and Workforce Treatment</td>
<td>Delivery workers are essential to sustain the city through crisis, Essential status is conditional</td>
</tr>
<tr>
<td>OPINION: What I Learned Delivering for DoorDash</td>
<td>Richard Robbins</td>
<td>Streetblog NYC</td>
<td>June 2021</td>
<td>The author reflects on how delivery cyclists’ working conditions and existing bike infrastructure and laws forces them to behave “inappropriately” as cyclists. The author delivered for DoorDash himself to try to understand the pressures faced by delivery workers.</td>
<td>Characteristics, Gig Economy Industry Characteristics, Compensation, and Safety</td>
<td>Labor conditions are precarious, Labor demands dignity and accountability</td>
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### Local News Media (Continued)

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| Upper West Side Faced                                             | Gersh Kuntzmann Streetsblog NYC | June 2021  | Manhattan CB7 is demanding e-bikes be banned from protected bike lanes. The mayor disagrees with this approach, CB7 member Ken Coughlin (who had previously brought forth the resolution regarding bathroom access for delivery workers) responded with his own proposal that the city should build better protected bike lanes with separated segments for different speeds, instead of banning e-bikes from bike lanes to begin with. The discussion surrounding congested bike lanes makes many in the bike advocacy world call for expanded bike lanes, not bans on who gets to access bike lanes.                                      | Essential Equipment, Safety, and Infrastructure and Planning | The essential infrastructure required by vulnerable workers poses a threat to the city and general public.  
Political priorities alter delivery workers’ conditions in a way that makes visible double standards of use and by whom |
| In His Own Words: One Deliverista Explains Why Workers Want To Limit Trip Distances | Streetsblog NYC | June 2021  | A delivery worker explains the challenges associated with not being able to deny an order; sometimes cyclists must accept orders and they don’t know how far they’ll have to travel. The cyclist explains this creates an incentive for unsafe, speedy cycling over long distances for a small tip, and that to deny such an order would usually result in retaliation from the app. A new City Council bill is seeking to change this.                                                                  | Gig Economy Industry Characteristics and Workforce Treatment | Labor conditions are precarious.  
Labor demands dignity and accountability.  
Gig companies exert control over their independent workforce |
| Food Delivery Gig Workers Earned Less Than Minimum Wage in NYC, Survey Says | Bao Ong Enter New York | July 2021  | The article reports findings from the Cornell ILR-WIP survey that delivery cyclists made less than minimum wage during the pandemic, after accounting for their equipment expenses. The article also discusses delivery workers’ safety and health concerns.                                                                 | Workforce Characteristics, Essential Equipment, Compensation, and Safety | Gig economy work is a lifeline during crisis.  
Labor conditions are precarious |
| How Facebook became a lifeline for immigrant bike messengers          | Chantal Flores The Verge | July 2021  | Social media is being used by delivery cyclists to organize their demands, voice their concerns, and share information about unsafe conditions. The issue discussed in the article is the unsafe environment occurring on the Willis Avenue Bridge. Facebook pages like Solana’s help cyclists communicate unsafe conditions around the city.                                                                 | Infrastructure and Planning, Workforce Treatment | Labor conditions are precarious.  
Labor demands dignity and accountability.  
Delivery cyclists navigate their own formal/informal infrastructure to organize around better working conditions |
| OPINION: Sorting Out Space for Pedestrians and Cyclists               | Michael King Streetsblog NYC | July 2021  | In a larger discussion about the need for the city to provide better and more space for bike and pedestrian infrastructure, even at the expense of street space for cars, the article reflects on the uses and users of e-bikes. Delivery cyclists require e-bikes to do their jobs and it has been documented that delivery cyclists must break traffic laws in order to earn a living. The article makes suggestions for how the city can direct planning initiatives to better bike/ped infra.                                   | Infrastructure and Planning | Responsibility falls on the city government to complete gaps in the bike infrastructure.  
Existing bike infrastructure is inadequate for cyclists |
| NYC bicycle delivery workers fed the city through pandemic            | Brittany Krystofein and Larry Mederos NY Daily News | July 2021  | Delivery cyclists were one of the few groups of essential workers out in the streets, making sure food and groceries could be brought to homebound NYC residents during the pandemic. Some delivery cyclists will be representing all delivery cyclists in an upcoming parade the city is holding for essential workers.                                                         | Workforce Treatment | Delivery workers are essential to sustain the city through crisis |
| SEE IT: Hit-and-Run Driver Kills Delivery Cyclist on East Houston Street | Gersh Kuntzmann and Henry Beens Shank Streetsblog NYC | July 2021  | A delivery cyclist who was shielding the traffic lines was killed in a hit-and-run collision with a car. At the time, the car was possibly being pursued by an unmarked police car, which stopped to help the cyclist as the car sped away. There is a call for safer street planning to include immigrant voices.                                                                 | Safety, Infrastructure and Planning, Workforce Characteristics | Streets are deadly for working cyclists |
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<tr>
<td>The Truth About E-Bikes</td>
<td>Gersh Kastztman and Julianne Cuba</td>
<td>Streetblog</td>
<td>August 2021</td>
<td>Streetblog conducting their own data analysis to determine how dangerous e-bikes are to other road users. They found that cars and trucks remained more deadly than any other transportation mode. The article discusses a &quot;war on e-bikes&quot; at a local policy level in NYC. There is discussion that e-bikes are preferred by delivery workers for their speed and ability to cover more ground. The public demand for fast delivery is also cited (moral implication?) as a cause of increased, unsafe traffic conditions to consider. Finally, there's discussion of the public's inability to see the delivery worker or even piece together their conditions/situation as independent contractors.</td>
<td>Essential Equipment, Gig Economy Industry Characteristics, and Workforce Treatment</td>
<td>Hiding the human side of food delivery from the consumer also hides the harms workers endure. The essential infrastructure required by vulnerable workers poses a threat to the city and general public</td>
</tr>
<tr>
<td>Revolt of the delivery workers</td>
<td>Josh Dziema</td>
<td>The Verge</td>
<td>September 2021</td>
<td>Current issues faced by delivery workers - from thefts to poor infrastructure to treatment by restaurants, apps, and customers and the city's responses to their problems - are detailed. Delivery workers are largely left on their own to figure out how to defend themselves and demand protections from NYPD, from apps, from customers, etc. The article profiles the emergence of LDU and their work ever since.</td>
<td>Gig Economy Industry Characteristics, Workforce Treatment, Safety, and Infrastructure Planning</td>
<td>Delivery cyclists navigate their own formal/informal infrastructure to organize around better working conditions</td>
</tr>
<tr>
<td>New York Passes Sweeping Bills to Improve Conditions for Delivery Workers</td>
<td>Jeffery C. Mejia</td>
<td>The New York Times</td>
<td>September 2021</td>
<td>The city council has passed six bills related to setting trip parameters for deliveries, requires gratuity disclosures, prevents charging workers to receive their own pay, requires restaurants to let workers use bathrooms, and prohibits apps from charging workers for insulated bags. While these are a step in the right direction, the legislation still falls short because the workers are still classified as independent contractors. This means they don't qualify for unemployment benefits and other safety net labor protections.</td>
<td>Workplace Needs or Support</td>
<td>Labor conditions are precarious</td>
</tr>
<tr>
<td>NYC set to pass groundbreaking food delivery laws securing workers’ minimum pay, bathroom, and more</td>
<td>Josefa Velasquez and Claudia Aponte</td>
<td>The Counter</td>
<td>September 2021</td>
<td>This article recounts the newly won protections for delivery workers in the six bills passed by the City Council. It takes the perspective that city lawmakers are intervening in the gig economy on behalf of gig workers.</td>
<td>Gig Economy Industry Characteristics, Workplace Needs or Support, and Workforce Characteristics</td>
<td>The city government is taking some responsibility for inadequate and exploitive working conditions</td>
</tr>
<tr>
<td>NYC Food Delivery Workers Face Policy Pay and High Risks, Analysis Shows</td>
<td>Josefa Velasquez and Claudia Aponte</td>
<td>The City</td>
<td>September 2021</td>
<td>The Cornell ILR-WIP report has been released, showing the poor working conditions and lack of protections faced by delivery workers. The local policy side of the conversation calls this report affirming, as they are getting ready to pass their 6 related bills. There is a call for state and federal intervention, however, in ensuring more worker protections are given, such as right to organize and recognizing gig workers as employees.</td>
<td>Gig Economy Industry Characteristics, Workplace Needs or Support, and Workforce Characteristics</td>
<td>State intervention in gig economy worker exploitation is needed</td>
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<tr>
<td>Food Delivery Workers, Toiling Through Historic Flooding Call Skinny Wages and Tips 'A Cruel Joke'</td>
<td>Claudia Irizarry Aponte</td>
<td>The City</td>
<td>September 2021</td>
<td>Delivery workers were working during Hurricane Ida, in severe storm conditions. They damaged their e-bikes and risked their lives for very little pay. Workers discuss the many hours worked during the storm, the pay they received, and the pressure from apps and customers that only increased due to the Hurricane. Workers say the event only proves and reiterates their calls to regulate the app companies and earn more worker protections.</td>
<td>Hiding the human side of food delivery from the consumer also hides the harms workers endure</td>
<td>Gig companies' profits, restaurants' profits and needs, and gig workers' needs are in tension</td>
</tr>
<tr>
<td>The Deliverista's Long Journey to Justice</td>
<td>City Staff</td>
<td>The City</td>
<td>September 2021</td>
<td>The article summarizes the recent passage of the City Council bills that will expand protections for delivery workers. The article makes it clear that the deliverista's fight is far from over, however. These bills are the beginning, as they are only delivering on the minimum standards for better labor conditions.</td>
<td>Workplace Needs and Support</td>
<td>State intervention in gig economy worker exploitation is needed</td>
</tr>
<tr>
<td>A Search for the Delivery Worker in a Viral Hurricane Ida Video</td>
<td>Eric Lach</td>
<td>The New Yorker</td>
<td>September 2021</td>
<td>A delivery worker was captured on video navigating the floodwater and rainfall of Hurricane Ida to make a delivery during the storm. The photographer who captured the video wants to find the worker to give him the money that media outlets paid him to license the video. The scene illustrates, in the words of the photographer, an unequal scene, as someone is struggling to make money in dangerous conditions in one of the richest cities in the world.</td>
<td>Workforce Treatment</td>
<td>The city government is taking some responsibility for inadequate and exploitative working conditions</td>
</tr>
<tr>
<td>New York City Passes Landmark New Protections for Food Delivery Workers</td>
<td>Josefa Velasquez and Claudia Irizarry Aponte</td>
<td>The City</td>
<td>September 2021</td>
<td>The article discusses how LDU organized to gain the protections from the recently passed city council bills. There is some discussion of NYS looking to regulate the gig economy. The article looks at the legislation from the legal responsibilities and capabilities of the city and state government.</td>
<td>Workplace Needs and Support</td>
<td>The city government is taking some responsibility for inadequate and exploitative working conditions</td>
</tr>
<tr>
<td>Report: NYC Food Delivery Workers Face Low Pay, High Risks</td>
<td>Ben Yakas</td>
<td>Gothamist (WNYC)</td>
<td>September 2021</td>
<td>A report was recently released by Cornell ILR-WIP on the conditions faced by app-based food delivery workers in NYC. The article summarizes the findings: The City Council has passed the six bills. The policymaking conversation is around essential workers and human rights, with the understanding that these policies are &quot;no-brainers&quot;. The delivery cycling conversation is that these policies are needed and welcome. The apps are engaged in a lawsuit against the city for some previous legislation on pay caps. The article also discusses the plight of delivery workers as represented in the recent Cornell ILR-WIP report.</td>
<td>Workplace Needs and Support</td>
<td>Labor conditions are precarious</td>
</tr>
<tr>
<td>City Council Passes Groundbreaking Package Of Legislation To Help Food Delivery Workers</td>
<td>Ben Yakas</td>
<td>Gothamist (WNYC)</td>
<td>September 2021</td>
<td>Senator Chuck Schumer went on a ride with the deliveristas to experience what it's like making a delivery and hear their concerns related to working conditions. He expressed how there are essential workers, immigrants, and people in need of better infrastructure that he thinks the city could build with Infrastructure Bill funds.</td>
<td>Workplace Needs and Support</td>
<td>The city government is taking some responsibility for inadequate and exploitative working conditions</td>
</tr>
<tr>
<td>Sen. Chuck Schumer Aims to Deliver Infrastructure Dollars to Help Food Couriers</td>
<td>Claudia Irizarry Aponte</td>
<td>The City</td>
<td>October 2021</td>
<td>Senator Chuck Schumer went on a ride with the deliveristas to experience what it's like making a delivery and hear their concerns related to working conditions. He expressed how there are essential workers, immigrants, and people in need of better infrastructure that he thinks the city could build with Infrastructure Bill funds.</td>
<td>Workplace Needs and Support</td>
<td>The city government is taking some responsibility for inadequate and exploitative working conditions</td>
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<tr>
<td>New York’s ‘deliveristas’ are at the forefront of city’s sustainable</td>
<td>Delmar Edwinsson</td>
<td>The Counter</td>
<td>October 2021</td>
<td>While acknowledging the recent legislation, this article points out that delivery cyclists need to be listened to directly in order to figure out what their infrastructure and policy needs are. Essential workers who are immigrants are discussed as a theme. Many details highlighted in issues in other articles - from e-bike thefts to low wages to dangerous cycling conditions - are discussed in this article, along with the Cornell ILR-WJP report findings. There are multiple sides of the conversation related to transportation infrastructure. Cyclists interviewed say the new laws are only a start, and that physical infrastructure is also needed. The article suggests that delivery cyclists can help reimagine what that infrastructure looks like.</td>
<td>Infrastructure and Planning Needs or Support</td>
<td>Delivery cyclists know their needs best and must be involved in planning and policy changes</td>
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<tr>
<td>Man Stabbed To Death &amp; Robbed Of E-Bike In Manhattan While Food Delivery</td>
<td>David Cruz</td>
<td>Gothamist (WNYC)</td>
<td>October 2021</td>
<td>A delivery cyclist was stabbed while on the job and robbed of his e-bike. He was pronounced dead upon arriving at the hospital. A rise in deaths related to e-bike robberies is mentioned. He had a Grabhubs delivery bag with him.</td>
<td>Safety</td>
<td>Streets are deadly for working cyclists</td>
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<tr>
<td>Worker reported being slashed, robbed inside Manhattan elevator</td>
<td>Patrick Reilly</td>
<td>New York Post</td>
<td>November 2021</td>
<td>A delivery worker, while making a delivery, was slashed by two men in an elevator in the building where he was making the delivery. The attackers stole cash from him and left. The worker is expected to recover.</td>
<td>Safety</td>
<td>Streets and other points in the delivery trip are dangerous for working cyclists</td>
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<td>Queen’s DA Declines to Prosecute Driver Who Killed Delivery Man</td>
<td>Julianne Cuba</td>
<td>Streetsblog NYC</td>
<td>November 2021</td>
<td>The Queens DA has decided not to prosecute a driver who killed a delivery cyclist while he was on the job in the spring. Her office conducted an investigation and does not believe that there is evidence upon which to base a criminal prosecution. Advocates argue that the DA not only failed the killed delivery worker but all delivery workers by this decision.</td>
<td>Safety (but also responsibility of the govt?)</td>
<td>Streets are deadly for working cyclists</td>
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<tr>
<td>Ordering food on an app is easy, Delivering it could mean injury and</td>
<td>Bobby Allyn</td>
<td>NPR</td>
<td>November 2021</td>
<td>Ordering food on an app is easy and frictionless for the customer, but it means that the delivery workers who bring the food become subject to a host of potential harms. Delivery apps can’t do much to protect against harms. The city council bills are welcome but they don’t address security and safety for being on the street. The e-bikes suddenly went from illegal to essential infrastructure due to the pandemic. This article covers many narrative shifts from pre-pandemic to during the pandemic. Many actors are implicated in how they place pressure on cyclists.</td>
<td>Safety, Infrastructure Planning, and Worker Treatment</td>
<td>Hiding the human side of food delivery from the consumer also hides the harms workers endure</td>
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<tr>
<td>The stories of NYC food couriers and their fight for autonomy, improved</td>
<td>Robbie Seacrew</td>
<td>Bronx Times</td>
<td>November 2021</td>
<td>In an interview with a delivery cyclist, the article details the precarious nature of working as a delivery worker during a pandemic and unsafe streets. The lack of healthcare, a guaranteed minimum wage, and unsafe working conditions are mentioned.</td>
<td>Safety, Gov’t responsibility, Compensation, Workplace Needs or Support</td>
<td>The city government is taking some responsibility for inadequate and exploitative working condition</td>
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<tr>
<td>Working conditions are precarious</td>
<td>Erika Adams</td>
<td>Enter New York</td>
<td>November 2021</td>
<td>The article reports new legislation (not yet passed as of article publication) that would require delivery apps to cover costs related to worker accidents on the job.</td>
<td>Safety and Workplace Needs or Support</td>
<td>Streets are dangerous for working cyclists</td>
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<tr>
<td>NYC law would force delivery apps to cover costs of delivery accidents</td>
<td>Lisa Fleischer</td>
<td>New York Post</td>
<td>November 2021</td>
<td>The City Council is looking into a bill that would require apps to pay workers' out of pocket costs related to accidents on the job. The city cannot do anything with insurance because this is a state level regulatory matter. The city government is taking some responsibility for inadequate and exploitative working conditions.</td>
<td>Workplace Needs or Support</td>
<td>Intervention from other levels of government are required to eliminate exploitation</td>
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<tr>
<td>NYPD Seizes Illegal Mopeds, Then Disseminates Misinformation, Lies, and Anti-Cycling Propaganda</td>
<td>Gersh Kustzman</td>
<td>Streetsblog</td>
<td>November 2021</td>
<td>The NYPD is accused in the article by Streetsblog, advocates for micromobility, and the WJP of seizing mopeds and e-bikes and spreading misinformation about these devices to the public. Essential Equipment. Institutional actors can do better to support delivery cyclists.</td>
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<td>Schumer: NYSS Will Get An Effing Lot Of Money!</td>
<td>Dave Colon</td>
<td>Streetsblog</td>
<td>November 2021</td>
<td>This article more generally discusses bike infrastructure and planning. It does not refer to delivery cyclists, but it is important to talk about how there is no excuse to not expand planning definitions to delivery cyclists' safety and infrastructure needs. Infrastructure and Planning. All levels of government can contribute and have a role in improving delivery cyclists' working conditions and physical infrastructure.</td>
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<td>Two men killed by delivery truck on Upper East Side, police say</td>
<td>Tim Moore, Elizabeth Ross, Craig McCarthy, Jorge Fitz-Gibbon</td>
<td>NY Post</td>
<td>December 2021</td>
<td>A delivery cyclist died at the scene after being struck by a truck on the UES. Streets are deadly for working cyclists. Safety. The city government is taking some responsibility for inadequate and exploitative working conditions. Intervention from other levels of government are required to eliminate exploitation.</td>
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<td>Improvements for NYC's Delivery Workers' Safety and Working Conditions to Start in January</td>
<td>Sophia Chang (WNYC)</td>
<td>Gothamist</td>
<td>December 2021</td>
<td>The laws passed in September 2021 in the City Council will go into effect in January. Part of the conversation in this article is about how these laws are just the beginning of regulating an emerging industry. Another part of the article discusses how the workers just want to be treated fairly and with respect, including being paid by customers. Workforce Treatment. The city government is taking some responsibility for inadequate and exploitative working conditions. Intervention from other levels of government are required to eliminate exploitation.</td>
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<tr>
<td>DoorDash joins 15-minute or Less Grocery Delivery Biz, Biking Workers' Lives, Advocates Say</td>
<td>Julianne C Cuba</td>
<td>Streetsblog</td>
<td>December 2021</td>
<td>DoorDash is joining a line of other gig economy apps which promise to delivery groceries to a customer's door in 15 minutes. For DoorDash, its grocery delivery workers will be paid $15/hour, a contrast from how the restaurant delivery workers are paid. Workers will also be provided with e-bikes and other equipment. But the company is also bating workers with more money for going faster, which has resulted in food delivery worker advocates being critical of DoorDash's practices related to safety of their workers on the street. Workforce Treatment, New Gig Markets, Compensation, Safety. Gig companies and workers needs are in tension.</td>
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Appendix B: Poetry Methodology

Poetry is a language that I use to make sense of complexity. I employed a methodology of writing poetry in order to develop the narrative of this research. Once I had my findings, I wrote poems to see what metaphors and themes arose that would be useful for describing the work. The result is a theme of contradiction, and the following six poems:

The Abstract.................................................................................................................................144
The Reason.................................................................................................................................145
The Study.....................................................................................................................................147
The Theory...................................................................................................................................149
The Findings...............................................................................................................................151
The Future....................................................................................................................................153
The Abstract

How can you abstract
An abstract
Listen to what others say
And latch onto a narrative
Are we not designers?
Is this not mine
To wrestle with?

Let me count the ways
Of extraction how much
Blood and broken families
Are we okay with.
Let me count them
Numbers but not faces
But here I tell you voices
Dreaming of a
World with pink clouds.

I know what is possible
In a world with pink clouds.\textsuperscript{168}
Yesterday all the past.
Tomorrow the future we plan for:
\hspace{1em} Today the struggle.\textsuperscript{169}

The responsibility of the planner
Is to whom? To what
Political economy or body
In the way politics names you
Economy controls you. And the street
Could uplift you – but how?

\textsuperscript{168} Geschwindt, “What Is Possible,” ll. 1–2.
\textsuperscript{169} Auden, “Spain 1937,” ll. 1, 69, 80.
The Reason

Passing cycles of humanity
Will ask why is it who
Seeks justice now. Just for
Compensation alone is one
But the right to life?
Who says to live and
Make a living are the same?

On my own pedals
Scornful are the crowds
Who dig into delivery for dinner
Who claim the street as theirs
To be transported within.

On my own pedals there is
Nothing wrong with where
I go or how I go but
No man is safe from the pressure
Of time. The wheel spins

Effortlessly, dangerously fast.
Are you uncomfortable or I
Or is it the one who
Spins the wheel – working,
Is the gig new world.

Humanity cycles through the
Next gig thing and wonders
Why they can’t have slow,
Quiet strolls along the curb
And their milkshakes cool,
Noodles hot, not

Pooled on 6th Avenue
Next to the one who
Made it all work

Until the box truck
Didn’t see him in the lane
The driver didn’t check their
Shoulder before opening the
Door the thief’s trap open
Waiting to steal the livelihood
Of so many – 65,000 and
Counting I hear. Who must
Sleep. Eat. Recharge. Feed
All of New York on their
Bikes all of the world
On their backs.

All but seven dollars
For that last ride’s hour
Every set of eyes upon
Them every danger against
Them every public looks away.

All the street theirs and none.
The Study

Tell me. Your story
Of these streets as
Your streets that have
Never served you. I want
To hear what you need.
I want to hear who
Is responsible for your damage.
Everyone from curb to sky
Has treaded with you lately
— Tell me why.

To know you deserve safety,
Fairness in your life and living
Is my ethic. To know what
Would keep you safe my goal.
I wish listening were enough
For these planners and lawmakers
App builders and money takers
Even the university complicit
To prove why this matters and
Why it is you who is deserving
Of a sacred procedure.

I will dissect the process.
Tell your story. And again
Through theirs.

Where are all the
Contradictions of law
The constraints that
Chain you as immigrants
As the unemployed
To the gig? What do our
Institutions say about you,
How does our public see you
If it does at all?

Your voice is the only one
I care to hear but
The others amplify your
Newfound visibility your
Grasping of a political stage
To stand on asking for
Your right to live while
Making your living

Your right to make a
Living that will let you live.
In the fairest big city
In the world. Who has
Heard you – and who
Still needs to hear?

I prepare triangulating voices to
Make yours known
For others who will
Follow your fight as their own.
The Theory

Why is it who seeks justice now. Why is it who justice seeks. When I ride my bike I live and continue on the path to make my living. To meet my friend. To enter destinations. When you ride yours you carry the world on your back. The world a spinning wheel. You spin yours so I don’t have to.


When the asphalt is heated by hands ready to lay it. Who is that road for. How did they move it there. Why does it make me so uncomfortable to enjoy a bike ride or evening walk. This is mine and yours but never yours. You’re comfortable. You’re fine

They say. Vulnerable are children and elderly. They say vulnerability is responsibility. They say the streets are for everyone. For you. Die more. The street is yours, who elegantly slides in and out of traffic. Who effortlessly pulls up to the café, collects the order and dashes off. Like the hero they call you.

Like the hero you are praised as posthumously. Stolen from. Battered. By wages and thieves. By contradiction and indignity. Employed by none other. Saved by no one else. The most vulnerable. Responsibility? An announcement:

We are mutually implicated in your unsafe, unfair lives.
   For demanding daily bread faster than it can rise.
   For dangling dollars before you for breaking the law
   To speed uptown and down for our desire.

Contained by structural injustice is your right to bike
   For your living. Your easy access to labor in the face
   Of every constraint. Your constant reprimand and invisibility
   For existing despite the law. The fight that is only yours.

But that dream of a new city! The alternative future
   To whom is vulnerable, left for the roads
   We own. Left to collect your fair fare from
   The giant. Do we let you go alone or armor you?
   There’s armor and there’s a compliant beast.
   There’s a pacified struggle and there’s a
   Gig new world for everyone, fair and bright for you.

That gig new world demands a new public good. A new
   Public gig. A gig public. The infrastructure to support it.
   A city to run it.

And who runs it but you and me? Lawmakers and note takers
Take note of urban planners. Who does justice make the most.

And the theory asks for a gig new world of fair labor and safe streets for all but mostly you. The hero vulnerable. The ones banging on the door demanding justice bells ringing down every avenue. Your voice on every smartphone. Responsibility to a new economy. Tomorrow the gig we plan for. Labor justice today for you.
The Findings

I tell you justice seeks a
Gig new world. If every
Spinning wheel could stop
Could rest. Break before
A next bill is passed.
Why work so hard when
The ink is still wet.

I found something. The voices
Told me maybe
You already knew it. Maybe
You dreamt of pink clouds
Years ago and I only
See them now:
A bright future for you.

Safe life. Saved lives. Fair
Futures secured for delivery
Workers. Essentially dignified.
65,000 of you. Six findings
From me. Let me count them
And quickly. The pressure of
Time. The planner’s responsibility.

Delivery workers are essential
– You know this – to sustain
Maintain retain it. All
Contradiction. Contradiction
Your essential status comes
From politicians, from emergent

Public, political life sees you now.
Those creating crafting, signing policy –
Signing your life into being –
Do everything they can to
Address your gig conditions.
Contradiction. Constrained by legal phrase
There is no condition for space.

If the policy poets cannot
Grant you full justice planners
Can? But challenges.
Contradiction. Democracy to
Justice line is limited
By governors’ coordination –
Planners short of full control.

Our gig new world is here
And will be always.
Conflict contradiction stays.
The restaurant, app, worker,
Consumer, city, public,
Economy, politics in tension. All
Safety and? Safety or? Efficiency.

The street is safe for you.
Not others but you’re
Probably safe. You’re dying
More than they are but
Still you’re likely safer.
Planning for the vulnerable
Maybe workers fit the plans.

The plans for disruption.
The plans playing at catch up.
The plans not yet planned for –
And the worker speaks
The cyclist meets another
They organize their own infrastructure
For pink clouds. Listen

The voices told me maybe
A bright future for you.
You essential. You vulnerable.
You planning to be planned for. You
The face of every struggle signaling
A gig new world.
Silent no more.
The Future

The time is now. The pressure of time falls on me.
This is not my story this is my problem

To solve. For whose lives are worth planning
But the most vulnerable. You vulnerable now.

In the future streets are safe for you. In the
Gig new world big blue skies with pink clouds.

The street itself embedded with questions
And materials fit for the political economy

Of people working, spinning their wheels
Safely, then efficiently. Never efficiency over safety

But efficiency in how many lives saved.
I see this tension. I ask how to loosen

The constraints, pull a thread on policy
On design. Planning for a gig new world

Centering justice. Centering your labor. Centering
A world in which you have jobs but fair

To you. Essential you. Just for you.
And me the negotiator you the navigator

Me the one with your life in my hands
Me ordering food delivered to my door and
Me knowing you will get there without fear.
Me knowing I have a job to work for you.

Me planning for the next gig thing and
Trying to keep up. Trying to swim ahead

Of a strong current. What people want most

Safety and efficiency. How to stay ahead.
How to protect you vulnerable most.

Listening to your stories you are loud
And growing louder. You are here. You know
Today what must be done. You knew
Yesterday all the past. All the fight to get here.

Tomorrow the future I plan for you. I plan
With you. You plan I listen. Today the struggle

That is mine to join you. The climb I have
To make. The wheel I have to spin to

Tell you I have heard your needs. To
Support you. I am finding how without

Putting me first. Putting you first because you
Were there. Been there. Still here. I just arrived

To listen – now, to turn your words into
Pavement. Light. Bright futures for you.

Bright for you vulnerable, new vulnerable.
You proving why the gig new world forces

An every new world of new words new
Propositions to see the line of exploitation

Through to the very surface of the road.
The structural injustice. The physical deaths.

Whose lives are worth planning for?
Today the future we plan for you.