Automated Decision Task Force Testimony
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Good evening. My name is Sarah Kaufman, and I am the Associate Director of the Rudin Center for Transportation at NYU. Thank you for inviting me. Tonight I will discuss Automated Decision Systems as they pertain to transportation.

At the NYU Rudin Center, we are heavy consumers of public data, looking at how people move around the city: how they change their travel patterns when a subway station re-opens or how they travel to a new job center. In my previous role at the Metropolitan Transportation Authority, I helped open the data to the public and worked to distribute real time train tracking. More recently, I have worked with the city in opening and organizing data, advising the Taxi and Limousine Commission on its data standards.

I am pleased that New York City is considering how to incorporate Automated Decision-making Systems in municipal government.

Transportation is often the first step to implementing new intelligent technologies, as the impacts are tangible and often instantaneously realized. Thus, the timing for this discussion is right on time.

This committee, in the evaluation of Local Law 49, should consider how artificial intelligence and data sharing can be used in the transportation sector, and to ensure that the results are beneficial to the people of New York City.

In the realm of transportation, Local Law 49 is key to three specific areas: data collection, detection of people and objects and records retention.

Transportation planners collect huge amounts of data to process and optimize the movements of large numbers of people. In planning for efficiency, the data often travels multiple ways, between transportation planners, private mobility providers and enforcement agencies. In these data exchanges, the sharing of movement data, often geolocated and in real time, can easily identify individuals. Data is collected at transit turnstiles, rideshare hails, Citi Bike rentals, mobile parking payments, EZ Pass payments, and soon, congestion pricing gantries.

Although data collection from these sources can help to streamline mobility in New York City, it can also have unintended consequences. Data can identify where people live, work, play, worship and their personal contacts.

For example, license plate readers in most United States cities are managed by a private contractor, Vigilant Solutions, which shares its data with U.S. Immigration

and Customs Enforcement. In turn, ICE uses this data to track persons of interest in real time, which is neither the goal of license plate reader technologies nor communicated to individuals paying tolls. This data exhaust stream leads to inequitable treatment of individuals, particularly malignant to those whose citizenship is in question.

When using artificial intelligence to streamline mobility, it is essential to consider the nuanced data collection, sharing and privacy concerns, particularly for protected categories of residents, as defined in Local Law 49. When the City employs a data management firm, the data privacy mechanism must be called into question. In addition, City procurement requirements may prevent the agency from choosing a company with beneficial data packages; they often must select the lowest bidder, which is in that position because of its sales of personal data. Thus, New York City must consider upholding of data privacy as key criteria when evaluating a company for City services.

Secondly, the detection of people and objects is a growing area in the transportation industry.

As vehicles become increasingly connected and autonomous, New York City must regulate how these cars communicate and make decisions in relation to each other, the infrastructure and people around them. The City is already building autonomous decision-making infrastructure, including traffic light prioritization for emergency vehicles and automated enforcement of bus lanes. In the future, the City will build out rules for how autonomous cars must behave and interact,

particularly in collision paths. However, these vehicles are being designed and trained by the private sector without accounting for the entirety of a city population. In one consequence recently uncovered, autonomous vehicles in testing have been shown to fail at detecting people with dark skin. If New York City is not directly involved in establishing these vehicles' intelligence, the bias of programming will emerge during collisions.

Furthermore, I urge the City to develop a procedure for addressing instances in which automated infrastructure has disproportionately impacted or harmed an individual, report the situation, and correct the ADS for future instances. For example, if it has been found that a person has been impacted for reasons of identity, and was algorithmically maligned, the ADS leadership must remain transparent about the causes and effects. Going forward, the algorithm should be adjusted to account for the lessons learned in this instance.

Finally, Local Law 49 addresses the feasibility of archiving decision-making data. Autonomous infrastructure and vehicles produce an inordinate amount of data; current estimates are that each vehicle will produce approximately four terabytes of data every hour, according to the autonomous vehicle intelligence company Aptiv. The data is used to process the environment for functions like parallel parking, pedestrian detection, and collision avoidance. If every traffic signal, city-owned vehicle and public bus is automated, archiving this volume of data will be infeasible. I encourage the City to pre-define a reasonable period of time for autonomous vehicles records retention until contested events based on the data can be evaluated.

Overall, Local Law 49 fundamentally fits New York City's mobility goals. I encourage the Automated Decisions Task Force to consider the impacts related to mobility, especially in the key areas of data collection and privacy, detection of people, and records retention.

Thank you for your time and attention.