

Analysis of High Volume For-Hire Vehicle Data for New York City. Selected Months, 2019–2022

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Developed for the New York Taxi Workers Alliance

Summary

In 2018, New York City became one of the first cities to regulate the economics of app-based for-hire vehicles like Uber and Lyft, by establishing a minimum rate for drivers and a cap on the number of licenses for for-hire vehicles. The minimum per trip standard gave drivers an estimated gross hourly earnings of at least \$27.86 per hour, before expenses, for an estimated net income of \$17.22 per hour.

To better understand driver pay and passenger fares in relation to the TLC's minimum rates, we analyzed publicly available data from the New York City Taxi & Limousine Commission's High Volume For-Hire Vehicle (HVFHV) trip database. We focused on HVFHV rides taken in February 2019, October 2019, April 2020, and April 2022 for non-Wheelchair Accessible Vehicles and were limited to rides beginning and ending in New York City. We analyzed approximately 50 million rides. We explored the passenger fares and driver pay and the commission fee companies are exacting from the fares per trip.

Based on the HVFHV data, we found the following:

- Median driver pay per trip in February 2019 was \$10.99, compared to \$12.22 for passenger fares in the same month. In April 2022, the median driver pay and passenger fare were \$14.41 and \$18.39, respectively. The increase in base passenger fare has outpaced the increase in driver pay. From February 2019 to April 2022, median driver pay increased by 31% compared to an increase of 50% for median passenger fare.

- Since 2019, ride-hail companies have taken a higher percentage of the passenger fare. In February 2019 (when TLC first implemented the driver pay rules), companies took 9% of passenger fare compared to 20.7% in April 2022.
- There was wide variation in what percent the company took of the passenger fare. In February 2019, the company took 30% or more of the fare on about 9% of the rides. In April 2022, the company took a 30% or more cut of the passenger fare for 29% of all rides.

Recommendations

As shown by the growing number of rides and increases in both passenger fares and driver pay, the industry has recovered from the pandemic. But there are still additional support and resources needed to ensure that drivers are receiving the full benefits of their work.

Based on our analysis of the data, we recommend:

1. A cap on the amount that companies can take from the passenger fare.
2. Transparency around the company commission—the difference between the passenger fare and driver pay—ensuring that drivers and passengers know the fare, driver pay and company commission.
3. Any increase in the passenger fare should have a proportional increase in the driver pay.
4. Ensuring compliance and enforcement of all minimum rate underpayments.
5. Increase transparency and provide drivers full access to their trip data.

New York is unique in providing researchers with ride data from HVFHV companies but there are gaps in the analysis due to data limitations.

To help researchers better assess the industry, we request:

1. Access to de-identified driver data to allow us to assess hours, pay and income by driver.
2. Ride data differentiated by type of ride such as standard ride, Uber X, Uber XL, Uber Black, etc.
3. Breakdown of additional elements of driver pay beyond basic time and distance rates, such as “boosts,” “surges,” and other incentive payments, wait time, and long pick up premiums (additional payment to a point of pick up).
4. Breakdown of additional charges imposed beyond the basic cost of a ride, such as premiums for extra services such as car seats, advanced reservation charges, and other surcharges.
5. Breakdown of driver pay for out-of-town trips, identifying the portion of pay and miles and minutes beyond the city limits.
6. Regularly released HVFHV data summaries to allow the general public access to this information.

Introduction

Transportation network companies—also known as ride-hailing, ridesharing, or app-based for-hire vehicle companies—first entered New York in the early 2010s, with Uber launching in 2011, Via in 2012, Lyft in 2014, and Juno in 2016.¹ Within a few years, New York became one of the most important markets for ride-hailing globally, being one of five metro areas that collectively account for nearly a quarter of Uber’s ride-hail bookings.² From 2011 to 2015, the number of for-hire vehicles (FHV) in New York grew more than 60% or to over 63,000.³ By 2018, the number had climbed to 80,000.⁴

In 2018, New York City became one of the first cities to regulate the number of for-hire vehicles, after years of unrestricted growth.⁵ The New York City Council passed a package of bills aimed at establishing a minimum rate, capping the number of licenses for for-hire vehicles, and mitigating environmental impacts and traffic congestion. Effective in February 2019, the (TLC) established a minimum per trip standard which gave drivers an estimated gross hourly earnings of at least \$27.86 per

hour, before expenses, for an estimated net income of \$17.22 per hour.⁶ This policy aimed to protect drivers from being paid less than the minimum rate amount, and to ensure compensation for all hours worked and driving expenses.⁷ Importantly, the rules provided a per-trip pay standard, that assumes a sufficient amount of work to meet the hourly standard; however, the rules do not require minimum hourly pay (i.e., a minimum wage) if a driver does not meet the hourly earnings target.

In this brief, we analyzed driver earnings and passenger fares for selected months in 2019-2022. We compared expected driver pay based on trip miles and trip minutes to actual driver pay. We also analyzed the commission fee companies are exacting from the fares.

About the data

For this report, we analyzed data from the New York City Taxi & Limousine Commission's High Volume For-Hire Vehicle (HVFHV) trip database. It includes trip information for each licensed FHV business that dispatches more than 10,000 FHV trips in New York City per day, including Juno, Uber, Via, and Lyft.⁸ To assess differences over time since the driver pay standard was enacted, we focused on HVFHV rides taken in February 2019, October 2019, April 2020, and April 2022.

The data included length and distance of the ride, base fare charged to the passenger, driver earnings, as well as information on whether the vehicles were wheelchair accessible.

For this analysis, we excluded rides where driver pay rates and passenger fares were less than or equal to \$0.01. We also excluded rides listed as below 0 miles or 0 seconds long, rides that were longer than 5 hours, and rides with the now defunct companies, Via and Juno.

Since the driver pay rates vary for wheelchair accessible vehicles (WAV) and non-WAV trips, as well as trips outside of New York City, we excluded rides in wheelchair accessible vehicles (WAV trips), as well as rides that had some section (pick-up or drop-off) outside of New York City. Given that shared rides were not allowed in 2020 and 2021 due to the COVID-19 pandemic, we only analyzed non-shared rides in 2019 to create consistency between the 2019, 2020 and 2022 datasets. This was significant as a large proportion of rides in 2019 were shared.

Overall, we excluded 30.5% of observations in February 2019, 21.1% of observations in October 2019, 5.7% of observations in April 2020, and 4.5% of observations in April 2022. Altogether, we analyzed around 50 million rides.

Table 1: FHV rides included and excluded in analysis

Month	Number of rides in database	Number of rides excluded from analysis	Proportion of all rides that were excluded	Number of analyzed rides
February 2019	20,159,102	6,150,461	30.5%	14,008,641
October 2019	21,162,290	4,466,714	21.1%	16,695,576
April 2020	4,312,909	245,490	5.7%	4,067,419
April 2022	17,752,561	798,084	4.5%	16,954,477

How the pay standard works

The pay standard consists of three components: 1) time, ensuring drivers are compensated for all the time they spend driving; 2) distance, ensuring driving expenses incurred are covered; and 3) utilization, which represents the share of time drivers spend with passengers.⁹

The current rates (effective March 1, 2022), which take the utilization rate into account, are \$1.161 per mile and \$0.529 per minute.¹⁰ We used these rates in the following formula to calculate driver minimum pay per trip:

$$\begin{aligned} \text{Driver pay per trip} &= (\text{minimum rate per mile} * \text{trip miles}) \\ &+ (\text{minimum rate per minute} * \text{trip minutes}) \end{aligned}$$

To illustrate, in September 2022, a driver with a non-wheelchair accessible vehicle should gross at least \$24.58 for a 30 minute, 7.5 mile ride.

Table 2: Example of calculation of driver pay

(Rate per mile	*	trip miles)	+	(rate per minute	*	trip minutes)	=	Driver Pay
(\$1.161	*	7.5 miles)	+	(\$0.529	*	30 minutes)		
			+			\$15.87	=	\$24.58
		\$8.71						

For each of the months analyzed, we used the formula described above to calculate the expected driver pay per trip. Since the driver pay rates have increased since the policy was enacted in early 2019, we adjusted our calculations using the following non-wheelchair accessible vehicle (non-WAV) rates:

Table 3: Minimum pay rates for non-WAV trips 2019-2022

Time period	Minimum rate per mile	Minimum rate per minute
February 1, 2019 –January 31, 2020 ¹¹	\$1.088	\$0.495
February 1, 2020–February 28, 2022 ¹²	\$1.103	\$0.502
March 1, 2022–Present	\$1.161	\$0.529

There were various limitations in the data and our analysis. Since the data are de-identified, meaning there are no markers to identify individual drivers, we were unable to calculate the number of trips each driver makes or total earnings per day or per hour. We were also unable to identify whether rides were taken in standard service, or other levels of service involving larger or luxury vehicles such as Uber X, Uber XL, Uber Black, etc. These rides command different rates and drivers are paid depending on the kind of ride they offer.

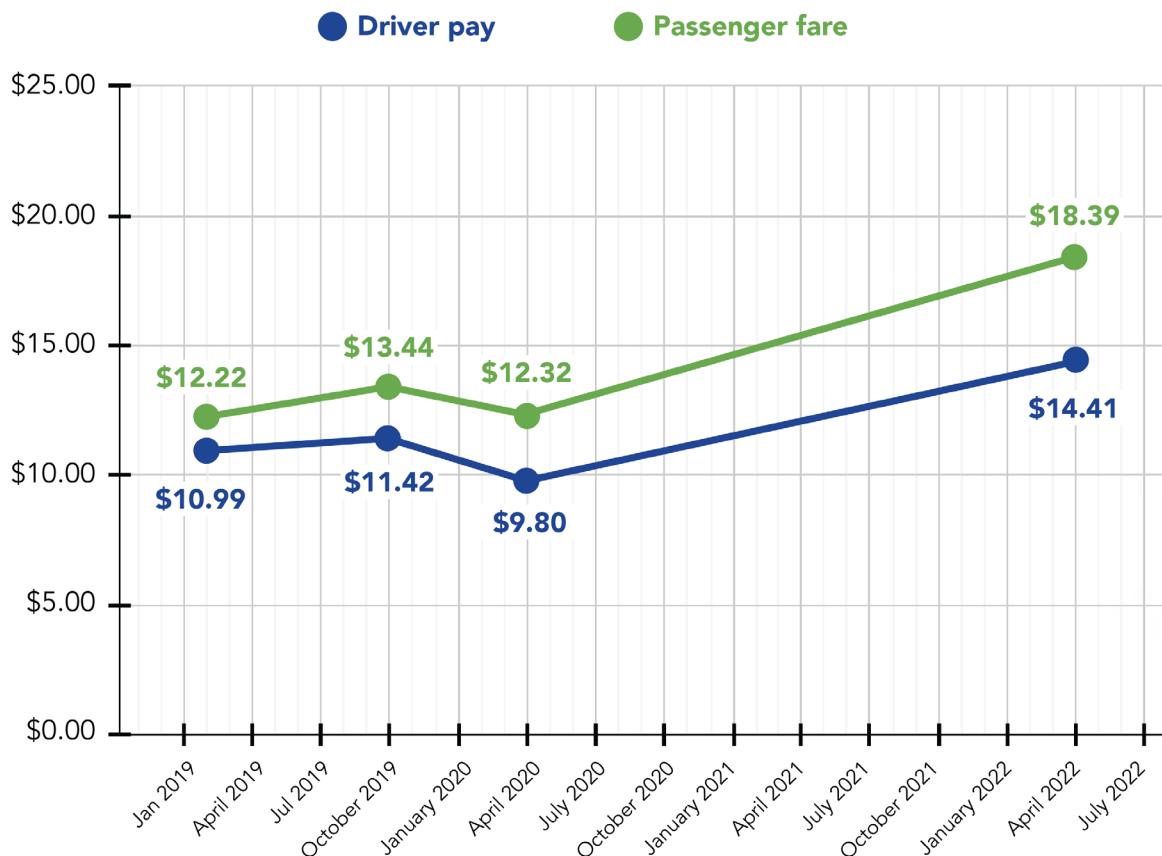
Key findings

Driver Pay and Passenger Fare

We compared driver pay and base passenger pay per ride. Our analysis excluded tax, tips, surcharges, tolls, and other fees. The TLC data did not break down driver pay any further to show the amount of pay given pursuant to the pay rates, as opposed to any other payments such as bonuses, "boost," or surge payments.

Median driver pay per trip in February 2019 was \$10.99, compared to \$12.22 for the base passenger fare for the same month. Notably, median driver pay and median passenger fare both decreased in April 2020 at the onset of the COVID-19 pandemic, but rebounded since, as shown in the totals for April 2022. Overall, the data showed that the increase in base passenger fare outpaced the increase in driver pay. From February 2019 to April 2022, median driver pay had increased by 31% compared to an increase of 50% for median passenger fare.

Figure 1: Median driver pay and passenger fare per trip



Company Share of the Passenger Fare

We combined all the rides for each of the selected months to calculate the total pay across all rides and all the base passenger fares. Since 2019, the difference between total driver pay and total passenger fare grew—ride-hailing companies were taking a higher percentage of the passenger fare. In February 2019, the first month in which TLC's pay rules were in effect, companies took 9% of the base passenger fare. This percentage increased over time; it more than doubled by April 2020 to 21.4%. Most recently, in April 2022, ride-hailing companies were taking 20.7% overall.

Table 4: Driver pay and base passenger fare monthly totals and percent difference

	Total driver pay across all rides	Total passenger fare across all rides	% difference how much drivers were paid vs. how much passengers paid
February 2019	\$210,670,750	\$231,589,273	9.0%
October 2019	\$251,517,057	\$299,588,560	16.1%
April 2020	\$50,232,511	\$63,935,580	21.4%
April 2022	\$303,407,665	\$382,455,149	20.7%

*Not including taxes, additional fees, congestion, and shared rides

We also analyzed the difference between driver pay and passenger fare for individual rides. We can roughly think of this as the percent of passenger fare that the ride-hailing companies take. We calculate the difference using the following formula:

$$\begin{aligned} \text{\% difference between driver pay and passenger fare} &= \\ (\text{passenger fare} - \text{driver pay}) / \text{passenger fare} \end{aligned}$$

For example, if a passenger paid \$16.21 for a ride, and the driver was paid \$11.10, the percent difference is 32%.

There was wide variation in what percent the company takes of the passenger fare. In February 2019, the company was taking 30% or more of the fare on about a tenth of the rides. In April 2022, the company had taken a 30% or more cut of the passenger on nearly a third of rides.

Figure 2: Proportion of Passenger Fare that the Company Takes, February 2019

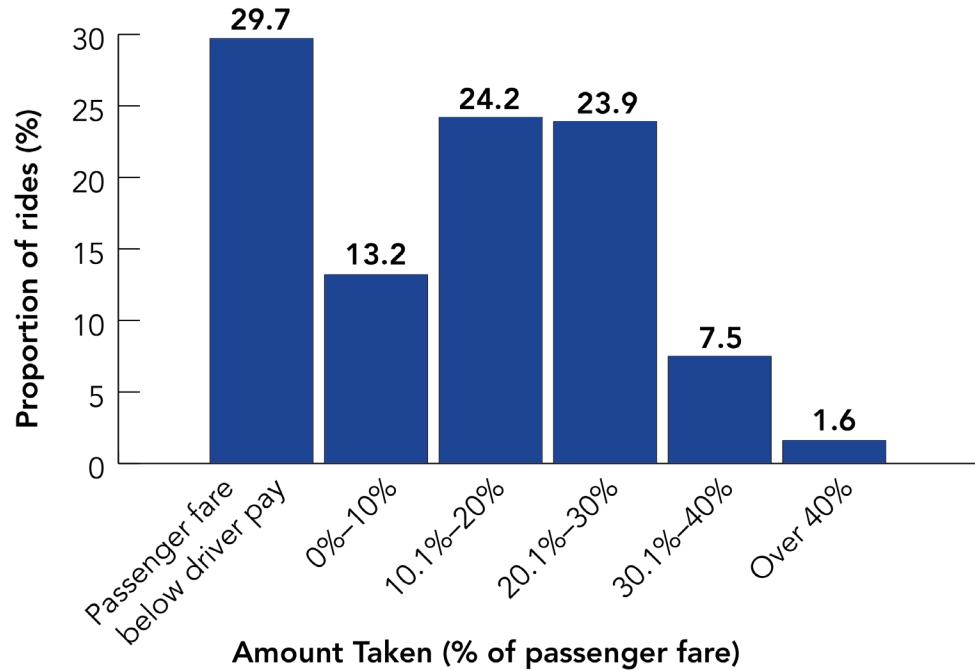


Figure 3: Proportion of Passenger Fare that the Company Takes, October 2019

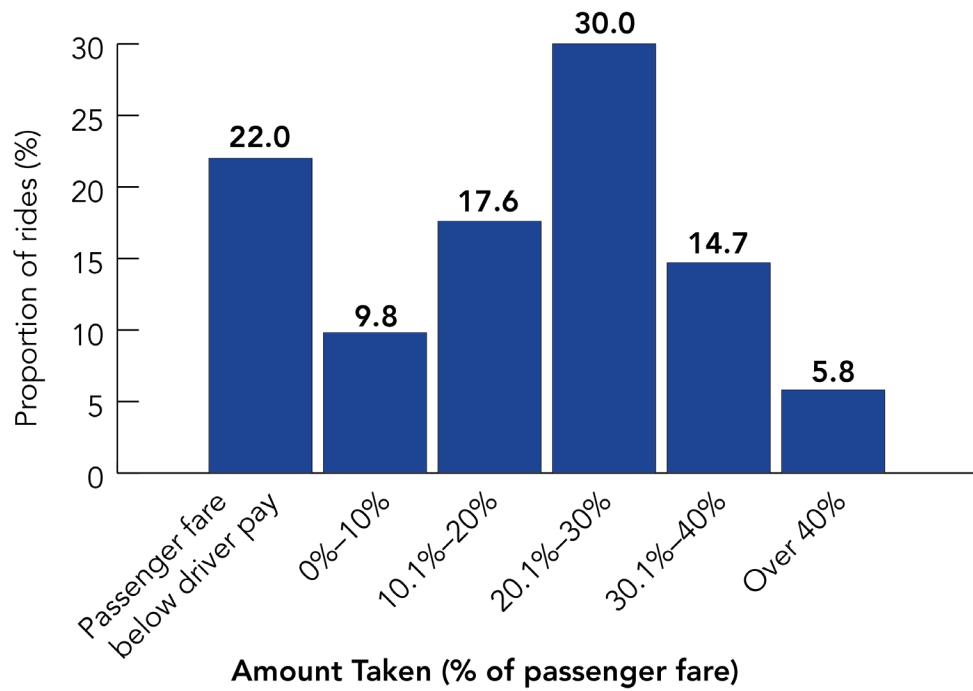


Figure 4: Proportion of Passenger Fare that the Company Takes April 2020

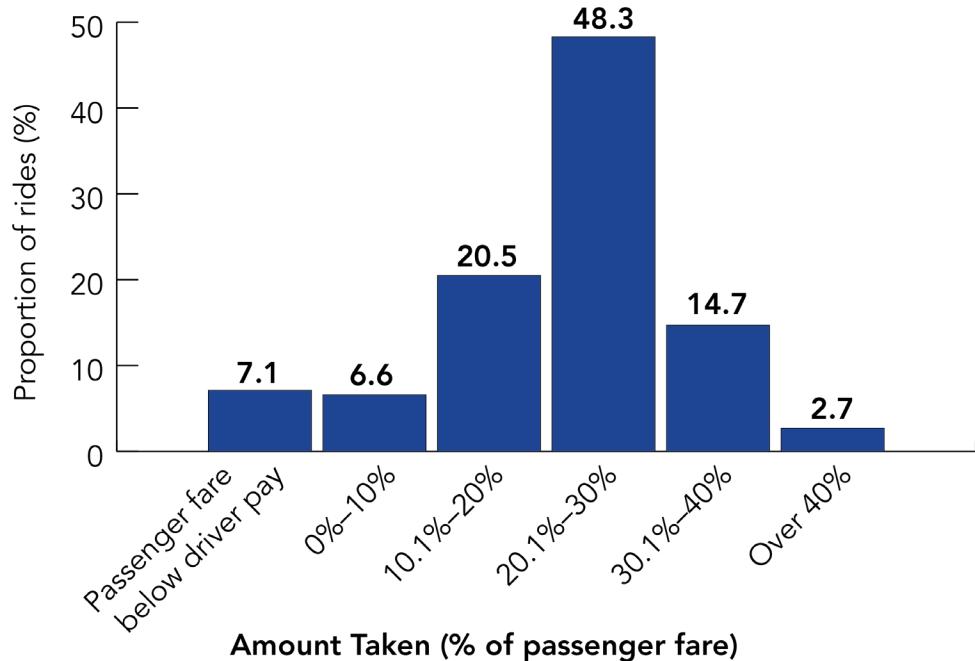
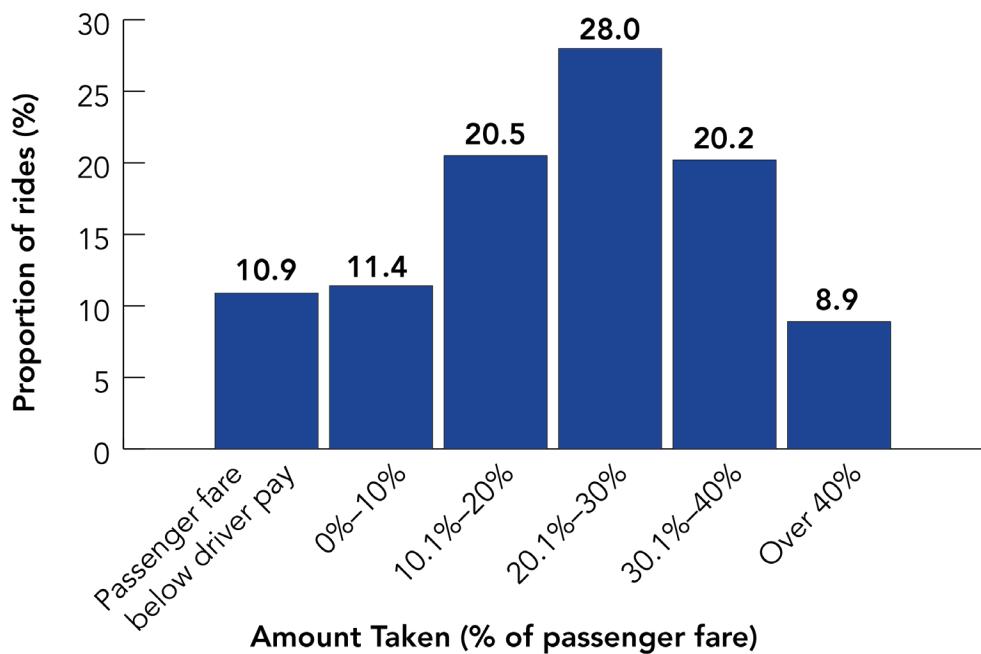


Figure 5: Difference between passenger fare and driver pay, April 2022



Although the median difference between the actual driver pay and the minimum rate is positive—and while we do not know if that's because of the class of trips such as Uber Black—we did find trips where drivers are still being underpaid below the pay rates, a violation of the rules.

Recommendations

New York's regulatory scheme for ridehail drivers is one of the few in the country to provide a wage floor and earnings protections for drivers. The data show that the industry continues to grow and thrive even as pay and fares increase. But additional support and resources are still needed to ensure that drivers are receiving the full benefits of their work.

Based on our analysis of the data, we make the following recommendations:

1. The data show the wide variation in the amount that companies take from the passenger fare. A cap on the amount the companies can take from the fare will ensure that drivers benefit from any fare increases.
2. We also recommend transparency around the company commission—the difference between the passenger fare and driver pay—ensuring that drivers and passengers know the fare, driver pay and company commission.
3. The passenger fare and driver pay continue to fluctuate and don't increase in tandem. We recommend that any increase in the passenger fare should have a proportional increase in the driver pay.
4. The TLC should ensure compliance and enforcement of any minimum rate underpayments.

New York is unique in providing researchers with ride data from HVFHV companies. It allows researchers and stakeholders to be able to probe and assess the data and the impact of ride-hailing on the city. There are some gaps in the analysis which could be addressed by providing additional access to the data.

Based on our work with the data, we make the additional research recommendations:

1. The TLC should provide more detailed information about trips in the HVFHV database. It would be useful to be able to calculate overall driver earnings per driver, though keeping the driver information de-identified. This would allow us to assess hours, pay and income by drivers.
2. We need to be able to differentiate between standard rides and rides provided in classes of services that are provided in larger or luxury vehicles such as, for example, Uber X, Uber XL, Uber Black, etc. These rides are paid differently, and they impact the kind of earnings drivers receive. Not being able to disaggregate these data by type of rides limits our assessment of fares earned.
3. TLC should collect data on additional charges not currently reported. First, the data should include a breakdown of additional charges imposed beyond the basic cost of a ride, such as premiums for extra services such as car seats, advanced reservation charges, and other surcharges. Second, it should include a breakdown of additional elements of driver pay beyond basic time and distance rates, such as "boosts," "surges," and other incentive payments, wait time, and long pick up premiums (additional payment for driving to a pick up location). Lastly, we need data on the driver pay for out-of-town trips, identifying the portion of pay and miles and minutes beyond the city limits.
4. It would be important to track and release any follow up and resolutions that occurred in response to the underpayments.
5. The TLC should release data summaries on a regular basis. The data are in large spreadsheets that are not accessible to those without more advanced skills in database management. Similar to other government data websites, having regular updates and summaries will allow stakeholders to understand the industry comprehensively.

Acknowledgements

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Endnotes

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