

An Earnings Standard for New York City’s Independent Contractor App-dispatched FHV Drivers: Economic Analysis and Policy Assessment

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Abstract

The City’s Taxi and Limousine Commission implemented a \$17.22 after-expense per hour minimum driver pay standard for app-dispatched FHV drivers on February 1, 2019. The pay standard—the first in the nation for app drivers—was developed in response to the low earnings that resulted from the industry’s rapid expansion over the past five years. Prior to the standard, 72 percent of all trips paid drivers less than \$17.22 per hour, and 96 percent of all drivers had one or more trips per week paying less than the minimum. The pay standard formula incentivizes companies to make more efficient use of drivers’ time, reducing the time spent cruising while waiting for the next dispatch. In August 2018, the City of New York enacted a one-year moratorium on new non-wheelchair accessible FHVs while a study is undertaken to analyze the effects of the industry’s rapid growth on congestion, safety, and taxi and FHV driver income. Based on the study, the TLC will adopt a FHV growth management policy. The City Council is also considering related issues, including the financial situation of taxi medallion owner-drivers and the provision of health insurance for taxi and FHV drivers.²

1. Introduction

Four app-based companies—Uber, Lyft, Via, and Gett/Juno—have expanded rapidly in New York City since 2012. The app-based industry includes about 85,000 vehicles (as of the end of 2018), dwarfing the city’s 12,000 medallion (Yellow) taxi fleet.³ App-based drivers now

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² This presentation draws from two recent reports I co-authored that were prepared for the NYC Taxi and Limousine Commission. James A. Parrott and Michael Reich, *An Earnings Standard for New York City’s App-based Drivers: Economic Analysis and Policy Assessment*, July 2, 2018. <http://www.centrernyc.org/an-earnings-standard>; and James A. Parrott, Michael Reich, Jason Rochford, and Xingxing Yang, *The New York City App-based Driver Pay Standard: Revised Estimates for the New Pay Requirement*, January 2019. <https://bit.ly/2wMxN6t>

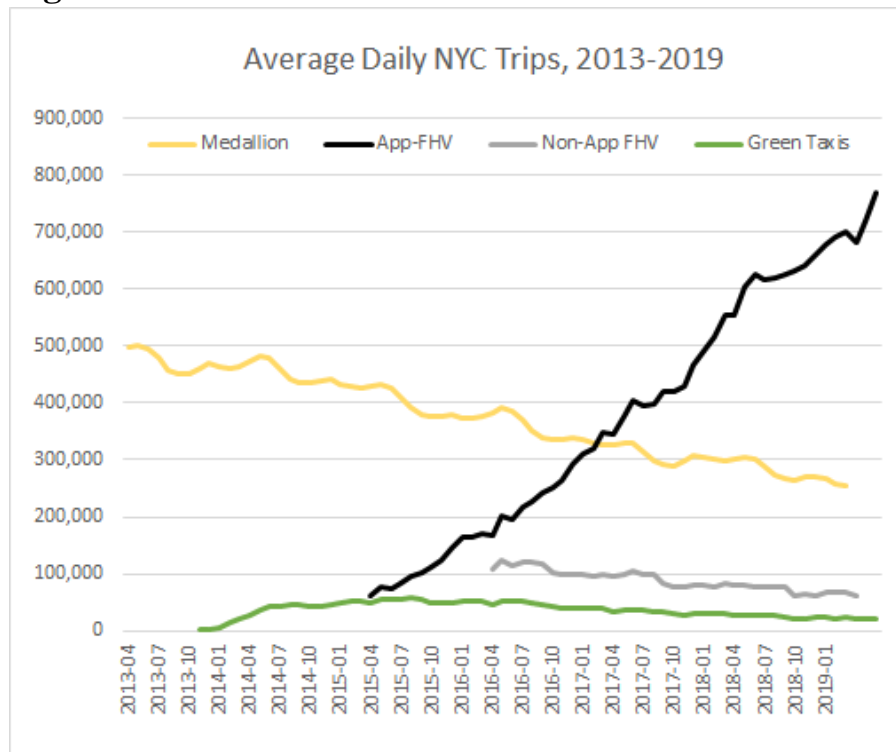
³ The number of medallion taxis in service peaked at around 13,500 in 2014.

complete over 20 million trips in the city each month, two-and-a-half times the number of medallion trips.

App car service growth has been rapid—the number of trips rose by 122 percent in 2016, 72 percent in 2017, and 47 percent in 2018. The average number of daily trips by app services was about 100,000 in June 2015, around the time New York City leaders first raised the idea of a cap on app service growth. That suggestion was resoundingly thwarted by an aggressive Uber public relations campaign. By March of this year, the number of average daily app service trips had soared to nearly 800,000.

As Figure 1 illustrates, the growth in app services has taken considerable market share from medallion taxis, but they have also tremendously added to the combined number of daily taxi and app service trips. The effects on congestion in the Manhattan central business district are inescapable, but the app services have also spread to almost every neighborhood in the city. The combined number of taxi plus app trips doubled between March 2015 and March of 2019 when the average number of trips topped one million.⁴ See Figure 1.

Figure 1



Source: NYC Taxi and Limousine Commission, data through March 2019.

⁴ Data from the NYC Taxi and Limousine Commission website. Green taxis are street-hail taxis restricted to areas within New York City outside of Manhattan below East 96th Street and West 110th Street. For Hire Vehicles (FHV) cannot accept street hails and are dispatched through an app, phone, radio or computer. Non-app FHVs include liveries, black cars, and luxury limousines.

The industry provides more jobs (on a full-time equivalent basis) than many prominent industries, including commercial banking, hotels, and publishing. Uber alone would be the largest for-profit private employer in New York City—if Uber drivers were classified as employees rather than independent contractors.

This rapid growth has generated substantial benefits—including increased convenience for riders and the extension of transportation services to neighborhoods in the outer boroughs that are not well-served by mass transit. The industry has also generated high returns for its pre-IPO investors and created many new jobs for drivers. But it has also created several problems, including increased competition for the traditional yellow taxi sector and its drivers, downward pressure on FHV driver earnings, and their rapid growth has contributed to worsening congestion in midtown Manhattan. Growth of the app-dispatched FHV services has also diverted passengers from mass transit, reducing revenues at a time when the system needs more investment to modernize antiquated equipment and improve service quality.

As app service growth soared, congestion worsened, FHV driver pay dropped, and the pressure on the yellow taxi sector and all drivers became so intense that eight drivers committed suicide in the span of roughly a year from late 2017 to late 2018.

These developments resulted in significant regulatory interest on the part of the NYC Taxi and Limousine Commission (TLC) in establishing a minimum driver pay standard, and in renewed interest in City Hall in pausing the rapid growth in the number of cars on the streets to allow time for a comprehensive analysis of the impact on congestion and related issues.

The app-dispatch driver pay standard implemented this past February was the first in the nation and affects over 85,000 independent contractor drivers. The app-dispatch industry is by far the largest segment of the online platform “gig economy.” The New York City TLC pay standard will be closely watched for its implications for the app industry in other major cities and generally for lessons regarding establishing worker protections in the “gig economy.”

2. The app-dispatch business model

In the app-based FHV industry, the drivers are independent contractors, not employees.⁵ The

⁵ Status as independent contractors has been challenged by drivers represented by the New York Taxi Workers Alliance. In its SEC Form S-1 Registration Statement filed prior to its recent Initial Public Offering, Uber noted that if it were required to classify its drivers as employees rather than independent contractors it would “incur significant additional expenses for compensating Drivers, potentially including expenses associated with the application of wage and hour laws (including minimum wage, overtime, and meal and rest period requirements), employee benefits, social security contributions, taxes, and penalties. Further, any such reclassification would require us to fundamentally change our business model, and consequently have an adverse effect on our business and financial condition.” Uber Technologies, Inc. *SEC Form S-1 Registration Statement*, April 11, 2019, p. 28.

companies set the fares and the number of new drivers using their apps. The drivers set their own schedules and total number of work hours and are paid a share of the revenue generated by their passenger trips. However, driver payment has not always been a fixed proportion of the passenger fare, and depended on various company policies, such as promotions for drivers and riders, treatment of shared rides, and route-based pricing. Since the February implementation of the driver pay standard, the standard also affects the amount of driver pay.

Drivers, not the companies, provide the bulk of capital investment. The drivers supply the vehicles and pay for all their driving-related costs (vehicle licensing, insurance, maintenance and repairs, and fuel) that we conservatively estimated at \$22,000 annually for the weighted average of vehicles in use in 2018.⁶ For a car driven 35,000 miles a year, that works out to 63.1 cents per mile.⁷

Sixty percent of app-based drivers are full-time workers who undertook risky capital investments in the vehicles they acquired to drive in this industry. These drivers, 90 percent of whom are immigrants and most lacking a college education, have difficulty obtaining better-paying jobs elsewhere in the New York economy. Nearly 90 percent of non-four-year college degree immigrant males ages 25-44 working in New York City hold blue collar, lower-paying white collar, or service jobs in 2016 with median annual earnings between \$25,000 and \$28,000. Once they have committed to acquiring a vehicle, they face high exit costs if they discover that it is difficult to cover all their expenses and net a reasonable amount of after-expense earnings. TLC data indicate that over one-quarter of new app drivers leave within their first year, rising to 35 percent by the end of two years.⁸

Nearly one-fifth of New York City FHV and taxi drivers receive Supplemental Nutritional Assistance Program aid (food stamps), compared to about 10 percent of the overall local workforce. One in six had no health insurance coverage, and 40 percent were covered by Medicaid.⁹

Prior to the pay standard, the variability in hours of existing drivers and the steady recruitment of new drivers allowed the companies to play the dominant role in determining driver pay. The companies compete with each other primarily by minimizing passengers' wait times and by keeping fares low, particularly for price-sensitive customers. They compete also by expanding their geographic coverage with more vehicles to service a larger customer base, especially in areas of New York City that are under-served by mass transit and yellow taxis. To achieve quick

⁶ See Parrott, Reich, Rochford and Yang, 2019, pp. 1-4.

⁷ That is fairly close to the 58 cents per mile 2019 Internal Revenue Service business mileage allowance. New York City FHV's are required to have commercial auto insurance and there are about \$1,500 in driver and vehicle licensing, registration and related costs annually.

⁸ See Parrott and Reich, 2018, section 2. Media reports cite much higher driver attrition rates in other cities for Uber and Lyft drivers.

⁹ Ibid.

response times, the companies have typically required many idle drivers to be available at any given moment and at many locations.

This app-dispatch business model created a gap between the drivers' desires to maximize their earnings—by maximizing trips per working hour—and the companies' desire to minimize response times. In other words, before the pay standard, the app business model relied on keeping driver utilization low, which then kept drivers' hourly pay low as well.

The companies receive a commission on every trip that varies from 20-30 percent (sometimes more.) Given relatively moderate corporate overhead costs (maintaining the app, driver recruitment costs, credit card and bank fees, and advertising, legal and lobbying costs) relative to the revenues generated, we estimated that for 2017 and 2018 the net profits received by Uber and Lyft (which together accounted for nearly 90 percent of the market) were considerable.¹⁰

3. Analysis of driver net earnings under the current regime

Utilizing extensive TLC administrative data on all app drivers for four study weeks between September 2016 and October 2017, we determined that, on a per-trip basis, drivers received less than \$17.22 an hour for 72 percent of all trips after covering expenses that we estimated at \$0.63 per mile. Ninety-six percent of all drivers had at least one trip that paid less than the \$17.22 minimum during the mid-October 2017 study week. As indicated in Figure 2 below, we estimated that the median after-expense hourly earnings for app drivers in mid-October 2017 was \$13.70.

Figure 2

Summary Per-Trip Earnings Analysis Results *

Expense factor: 63.1 cents per mile

	Uber	Lyft	Juno	Via	Combined
All trips					
# of trips	2,162,597	628,460	245,131	18,268	3,054,456
Mean gross hourly pay	\$ 23.10	\$ 23.54	\$ 25.27	\$ 31.64	\$ 23.42
Median gross hourly pay	\$ 21.85	\$ 22.58	\$ 23.34	\$ 31.12	\$ 22.18
Mean after-expense hourly pay	\$ 14.67	\$ 14.72	\$ 16.88	\$ 22.94	\$ 14.90
Median after-expense hourly pay	\$ 13.56	\$ 13.78	\$ 14.24	\$ 22.48	\$ 13.70
Trips below \$17.22 minimum					
# of trips below minimum	1,587,482	463,866	171,169	1,672	2,224,189
% of trips below minimum	73.4%	73.8%	69.8%	9.2%	72.8%
Mean gross hourly pay	\$ 19.85	\$ 20.48	\$ 21.84	\$ 19.37	\$ 20.14
Mean after-expense hourly pay	\$ 11.08	\$ 11.59	\$ 13.12	\$ 10.75	\$ 11.34
Utilization rate	58%	58%	50%	70%	

* Based on 4th study week, Oct. 16-22, 2017

¹⁰ Parrott and Reich, 2018, pp. 44-45. Uber and Lyft spend heavily on lobbying.

To raise all below-minimum trips up to the minimum standard level would entail a 20.7 percent increase in weekly aggregate gross pay for all drivers.

For all affected drivers with at least one trip paying below the minimum, we estimated that the pay standard would entail an average 24.7 percent increase in mean gross hourly pay from \$22.35 before the pay standard to \$27.86 after the pay standard.¹¹

4. Proposed FHV driver pay standard

The driver pay standard formula enacted by the TLC in December 2018 that took effect this past February 1 combines an expense component and a time component. The standard was initially set at \$17.22 hourly rate as the independent contractor equivalent of \$15.00 (the state minimum wage applicable in New York City as of December 31, 2018 for employers with 11 or more employees), plus 90 cents for a moderate amount of paid time off. Independent contractors must pay the employer share of federal payroll taxes (7.65 percent). This payroll tax rate applied to \$17.22 equals \$1.32, which when subtracted from \$17.22 yields \$15.90 (\$15 plus 90 cents for paid time off.) The paid time off factor was derived by multiplying six percent times \$15.00.¹² The paid time off rate of six percent is the average cost of paid time off relative to wages for workers in transportation occupations nationwide, according to the Bureau of Labor Statistics.¹³

The expense component was estimated at \$0.631 per mile and is intended to allow the typical driver to cover all the costs of acquiring and operating a vehicle (as well as the cost of licensing and training).¹⁴ The \$0.287 per minute factor is intended to compensate drivers for their time at \$17.22 an hour (\$0.287 is \$17.22 divided by 60 minutes). See Figure 3.

Both the expense and time components are divided by utilization because drivers are working even when they do not have a passenger in their car. Driver working time is measured by the time they are logged on to a company's app, and therefore available to carry passengers. Their work time includes the time they are using their vehicle, and incurring expenses for doing so, even when they are cruising while waiting for a dispatch or heading toward a pickup location after having accepted a ride request or returning from a drop-off location.

¹¹ See Parrott, Reich, Rochford and Yang, 2019, pp. 5-6.

¹² The amount of the pay standard will be adjusted annually based on the change in the New York metropolitan area Consumer Price Index, with the first adjustment scheduled to occur on January 1, 2020. [The New York State minimum wage statute does not provide for indexation.]

¹³ Bureau of Labor Statistics, *Employer Costs for Employee Compensation*, December 2017, released March 20, 2018.

¹⁴ An expense factor of \$0.803 per mile was estimated for wheelchair-accessible vehicles since these vehicles must be modified to provide for a wheelchair lift.

Figure 3**The Driver Pay Standard Applied to a Typical Trip**

A typical FHV trip might be 7.5 miles in distance and 30 minutes in time.

Here is how the driver minimum pay standard (not the passenger fare) would be calculated under the proposal pay standard (assuming an industry-wide average utilization of 58%):

$$\frac{(.631 * 7.5 \text{ miles})}{.58 \text{ utilization}} + \frac{(\$0.287 * 30 \text{ minutes})}{.58 \text{ utilization}} = \$23.00$$

Note: this is the minimum pay standard (for a non-shared ride), not the passenger fare. The company and the driver can always agree that driver pay for any trip should be higher.

The driver pay standard ensures that the driver can cover vehicle expenses as well as get paid at least the independent contractor equivalent of \$15.00 an hour. Both the per mile and the per minute pay standard components are indexed by the New York metropolitan area Consumer Price Index beginning January 1, 2020.

The pay formula is thus constructed to compensate drivers for work-related time and expense when a passenger is not in the vehicle. It does so by dividing the expense and time components by company-specific utilization rates—as measured for each company by the TLC for some baseline period.¹⁵ In the case of the time factor, the utilization rate adjusts for the portion of each hour that a passenger is not in the vehicle. For the expense factor, the utilization factor adjusts for the expenses associated with pickup, cruising, and other non-passenger vehicle uses during the work shift.

This part of the policy in effect incentivizes each company to raise its company-wide utilization rate, that is, by increasing the average number of trips per driver hour. For 2017 and 2018, the TLC determined that the average company-specific utilization rates were those indicated in the last row of Figure 2.

Since the utilization rate appears in the denominator, a higher company utilization rate lowers the company's costs for the expense and time components. At the same time, company policies that increase utilization rates will also benefit the drivers. They will be able to provide more rides in any given hour, thereby earning more on an hourly basis, even though their pay for each trip might be lower. Increases in driver utilization rates represent an improvement in industry efficiency. With greater efficiency, the policy better aligns the interests of the drivers with that of the companies and both sides benefit.

¹⁵ However, because of concerns raised by some of the companies, the TLC agreed to utilize the industry-wide 58 percent utilization factor for the first year and then switching to company-specific utilization factors after that.

5. How will drivers and companies adjust to the pay standard?

In analyzing the likely impact of the pay standard, we modeled the extent to which drivers would change their labor supply, how the companies might respond to higher driver pay, and in turn, how consumers were likely to respond should there be a change in fare policy.

With higher pay per trip, drivers on average will increase their labor supply. But this will vary depending on the hours they usually drive and individual considerations. Drivers currently working very long hours, including the 22 percent of drivers working 50 or more hours each week, are likely to reduce their hours if their effective hourly pay rises. Other full-time drivers and many part-time drivers may respond to the earnings increases per hour by increasing their working hours. Overall, we used an average labor supply elasticity of 0.4.

We also made plausible assumptions about how much companies would increase their utilization of drivers' time. Because of the structure of the pay standard formula, this increase in driver productivity would absorb a large part of the cost of the driver pay increase. The portion of the pay increase not absorbed by increased utilization could be accommodated through a combination of adjustments to passenger fares and company commissions. Considering that services are likely close to a saturation point in core Manhattan, we relied on a consumer elasticity of -1.2 more reflective of demand in the boroughs outside of Manhattan where most household incomes are not as high as in Manhattan. Given likely rider resistance to higher fares, we hypothesized that the companies would reduce commissions to maintain market share. Higher utilization could also have an effect in increasing passenger wait times, but it seemed that wait time increases would be 15-30 seconds at most.

From our modeling that simulated alternative adjustment scenarios, we concluded that the pay increase likely could be absorbed through a combination of utilization increase, commission reduction, modest fare increase, and very slight increase in passenger wait times.

6. Very preliminary results from the first three months of the pay standard

The pay standard took effect February 1, 2019 and based on data received from the companies through the end of April, the TLC reported that driver pay increased by more than \$150 million compared to what it would have been without the pay standard for the first three months. While there was news coverage of increased fares in the immediate wake of the pay standard taking effect, it appears that the largest companies provided extensive fare discounts and that net passenger fares were little changed for this initial period. TLC data indicate that the number of trips continued to increase. It appears that the pay standard is having the desired effect of encouraging the companies to increase utilization and make more efficient use of drivers' time. This was also borne out in testimony from drivers at an April TLC hearing.

In May of this year, both Uber and Lyft announced that they had stopped on-boarding new drivers in New York City. It seems likely that this is partly the result of the pay standard, and partly the result of the cap on new app-dispatch vehicles that was put in place in mid-August of 2018. Increased utilization and limiting the number of new drivers both indicate that the companies are more closely managing their use of drivers—a positive development that should augur well for driver pay.

Since a considerable wave of new vehicle registrations occurred in the two weeks before the effective date of the cap, the number of high-volume FHV's in use and the number of drivers increased about 11 percent in the six months following the cap compared to the prior six months (that's about 1,400 additional cars each month.)

Given the importance of the New York City app-dispatch market to the industry's broader fortunes, the impact of the minimum driver pay standard will be closely watched. And since the app-dispatch car services are such a large part of the online platform economy, New York City's regulation of independent contractor driver pay should hold lessons for "gig economy" worker practices more generally.

7. What's next on the regulatory front?

The City Council legislation establishing the 12-month cap on the number of new FHV's called for a study by the TLC and the City Department of Transportation to analyze the effects of FHV growth on congestion, safety, and medallion taxi and FHV driver income and well-being. The study is intended to inform the development of a TLC FHV growth management policy that would be implemented following the expiration of the one-year pause.

In related developments, the City Council has created a task force to study taxicab medallion values, the TLC has reduced the amount that medallion drivers can be charged for credit card fees, an office of inclusion was established within the TLC to address discrimination by drivers, and financial counseling for FHV and medallion drivers has been expanded.

It is not clear how the taxi and FHV industries will be affected by a congestion pricing plan authorized by New York State in March. Fees that could range as high as \$12-\$14 per car and \$25 per truck for vehicles entering a congestion zone in Manhattan south of 60th beginning in 2021. The congestion fees are intended to generate \$1 billion a year in funding for New York's mass transit system.¹⁶ Beginning February 2, 2019, a \$2.50 MTA surcharge was applied to each taxi trip and \$2.75 for each FHV trip (75 cents for a shared trip) traveling partly or wholly within the core Manhattan area. The MTA surcharge was enacted last year. Drivers have been lobbying to eliminate the surcharge.

¹⁶ Azi Paybarah, "Congestion Pricing: Who Pays and Who Doesn't," *The New York Times*, April 18, 2019.