

SUPREME COURT OF THE STATE OF NEW YORK  
NEW YORK COUNTY

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OMAHA LLC and VULCAN CARS LLC,	:	
	:	Index No. _____
Petitioners,	:	
	:	
v.	:	Motion Seq. No. ____
	:	
NEW YORK CITY TAXI AND LIMOUSINE	:	<b>EXPERT AFFIDAVIT OF</b>
COMMISSION and MEERA JOSHI, in her	:	<b>DR. RAY MUNDY</b>
official capacity as Chair, Commissioner, and	:	
Chief Executive Officer of the New York City	:	
Taxi and Limousine Commission,	:	
	:	
Respondents.	:	

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I, Ray A. Mundy, Ph.D., do hereby declare as follows:

1. I am an individual over the age of eighteen years old residing in Columbus, Ohio.

I am Director Emeritus of the Center for Transportation Studies of the University of Missouri-St. Louis, and Professor Emeritus of the University of Tennessee, Knoxville. I have personal knowledge of the matters set forth in this affidavit and, if called as a witness, I could and would testify competently thereto.

2. I have been retained by Juno USA L.P. (“Juno”) to provide this expert affidavit concerning the ride-hail industry in the United States, and in particular the above-captioned matter. I base my opinions on my more than 40 years of experience in the transportation industry, the studies referenced below, my education and experience, and on the thoughts and impressions of hundreds of ground transportation drivers I have interviewed throughout the course of my research.

3. I charge \$350 per hour for research time and \$4,000 per day for attending depositions and/or testifying at trial.

**I. Education and Qualifications**

4. I received my B.A. in General Business from Bowling Green State University in 1966, my M.B.A. in Management from Bowling Green State University in 1967 with a minor in Statistics, and my Ph.D. in Transportation and Logistics from Pennsylvania State University in 1973 with a minor in Marketing, Management, and Social Psychology.

5. I was the Barriger Endowed Professor at the Center for Transportation Studies of the University of Missouri-St. Louis from 2000 until 2018. Prior to that, I was the Taylor Distinguished Professor of Logistics and Transportation at the University of Tennessee. I also taught at Bowling Green State University, Eastern Michigan University, Lycoming College and Pennsylvania State University. Currently, I teach courses in Domestic Transportation and Supply Chain Management for both the graduate and undergraduate levels at the University of Missouri-St. Louis. Over the years, I have also taught courses with Executive in Residence, Introduction to Business, Introduction to Logistics, Introduction to Transportation, Management, Marketing, National Transportation Policy, Organizational Development, Organizational Theory, Personnel, Process Management, Production, Statistics, Traffic Management and Urban Transportation. A true and correct copy of my curriculum vitae is attached hereto as Exhibit A, which details my education, academic experience, instructional responsibilities, publications, scholarly research, honors, grants, awards, work in review and development, presentations, reports and service activities.

6. I have conducted a full range of economic, regulatory, managerial and physical studies specifically aimed at the private sector transportation industry, including taxicabs. I have completed numerous private sector transportation industry analyses for the U.S. and Canadian

airports and private sector transportation industry operators at over thirty-five U.S. and Canadian airports or cities.

7. My major areas of service and studies are in the following types of analyses:

- Analysis of administrative/regulatory options available to managing private sector transportation industry: Analysis of federal, state, and local transportation legislation as it applies to a specific airport or city. State and local laws, regulations, and ordinances are not uniform and often must be altered to initiate new types of private sector transportation industry services such as ride-hailing and other forms of app based transportation services.
- Evaluating current operations: Analysis of the current performance of existing private sector transportation industry operations, their economic conditions, administrative procedures, and regulatory environment. Studies include all forms of private sector transportation industry vehicles including taxi, sedan (black car), van, limousine, minibus, and bus in all forms of operating modes - demand responsive, door-to-door shared-ride and premium ride, and line haul.
- Simulation of vehicles necessary to serve demand: Analysis of passenger demand, number, and operational configuration of vehicles necessary to service that demand in whatever waiting time the airport administration would set as contract specifications.
- Development of remote private sector transportation industry terminals: Analysis of effects that the evolution of remote airport private sector

transportation industry terminals would have on airport revenues, traffic congestion, curb utilization, and parking.

- Curb prioritization and concession fees: Analysis of appropriate fees to charge various private sector transportation industry providers given industry and local regulatory practices and how these services should be offered and marketed on the airport curb.

8. I maintain a comprehensive specific knowledge of the city and airport private sector transportation industry through my position as Director Emeritus of the Center for Transportation Studies at the University of Missouri-St. Louis and through my affiliation as Executive Director for the Airport Ground Transportation Association (“AGTA”). In this capacity, I conduct two national conferences each year, one dedicated to the administration and regulation of airport private sector transportation and a second on managerial aspects of the private sector transportation serving airports.

9. I publish the monthly AGTA Newsletter, *Insights*, which summarizes and provides opinions on the current newspaper articles, academic and technical studies, and major industry trends.

10. I have published articles on taxicab simulation, remote airport private sector transportation industry terminals, and management of the airport private sector transportation industry. My most recent book regarding taxis was published in 2010, Taxi! Urban Economies and the Social and Transport Impacts of the Taxicab. James Cooper, Ray Mundy and John Nelson (2010) Ashgate Publishing.

11. My most recent publication regarding taxis and ride-hailing was in March 2018. This was a U.S. Department of Transportation research report entitled “*Why TNCs Will Be*

*Regulated Like Taxis, Historically Speaking*” <https://intrans.iastate.edu/research/completed/why-tncs-will-be-regulated-like-taxis/>.

12. Listed below is a true and correct summary of the related projects I have undertaken within the past 20 years regarding the regulated ground transportation industry.

Copies are available from the cities or airports.

- Testifying expert, *Metro. Taxicab Bd. of Trade v. City of New York*, 633 F. Supp. 2d 83 (S.D.N.Y. 2009) (testified as a transportation and logistics specialist and discussed the history of lease caps in New York City and how tying lease caps to the use of hybrid vehicles would affect the purchasing decisions of Fleet Owners).
- Seattle, Washington (2013) City/County Taxi/FHV Demand Study
- Houston, Texas (2013) City Taxi Study
- Austin, Texas (2012) City Taxi Study
- San Antonio, Texas, (2011) City Taxi Study
- Saskatoon, Saskatchewan, Canada (2010) City Taxi Study
- Regina, Saskatchewan, Canada (2010)
- Winnipeg, Manitoba, Canada (2009) City Taxi Study
- Anaheim, Calif. (2009) – City Taxi Study
- San Diego, California – Expert Witness, Taxi Driver Classification
- Winnipeg, Canada (2009) – City Taxi Study
- LAX Taxi Dispatch System (2008)
- Denver, Colorado (2008) – City Taxi Study
- Anchorage, Alaska (2008) – City Referendum on Taxi Deregulation Study

- Coachella Valley (Palm Springs) (2007) – Area Wide Taxi Study
- City of Hampton, Va. (2007) - City Taxi Study
- Salt Lake City (2005 - 2009) - City Taxi Study
- Miami-Dade County Taxi Study (2006) - City Taxi Study
- San Francisco Int'l Airport (2006) – Analysis of Airport Taxi Incentives
- Ft. Meyers – Exclusive Airport Taxi Concession (2006)
- Hillsborough County – Expert Witness, Taxi/Limo Suit (2005)
- Taxi Seminar Series – TLPA 2004 - 2005 – Developer & Director
  - Maintenance
  - Marketing
  - Technology
- City of Dallas (2003) - City Taxi Study
- Indianapolis Airport (2003) – Analysis of Taxi Operations
- Raleigh/Durham Airport (2002) – Analysis of Taxi Operations
- City of Orlando (2001) - City Taxi Study
- DFW Airport (2000) – Analysis of Curb Placement for Taxis
- City of Portland, Maine (1999)- Airport Taxi Analysis
- MSP Airport (1999) – Airport Taxi Analysis

## **II. The For-Hire Vehicle (“FHV”) Industry**

13. During the multitude of studies I have conducted, I have interviewed hundreds if not over one thousand independent contractor drivers in the ground transportation industry.

These interviews have led me to conclude that there are several driver “market segments” that an

independent contract driver chooses to serve, and that there is considerable skill and experiential knowledge that drivers bring to being an independent contractor, leading to significant differences in driver behavior and a range in daily income. I have also observed that independent contractor drivers choose many different ways to serve these various markets, making it difficult to determine what an “average” driver does because it varies greatly.

14. The taxicab and ride-hailing business in the United States is vital to this country’s commerce and mobility. Passengers rely on the industry around the clock for transportation to major transit stations, child care centers, places of work, airports, train and bus terminals, medical centers, grocery stores, hotels and resorts, restaurants, theaters, theme parks, and military bases.

15. In order to properly serve the public’s needs, most ride-hailing companies utilize independent contractor drivers. The vast majority of ride-hailing drivers nationwide are independent contractors. I estimate over 90% of ride-hail drivers in the United States are independent contractors. It is the norm.

16. In New York City, ride-hailing companies are regulated by the New York City Taxi and Limousine Commission (the “TLC”).

17. Nationally, most taxi and ride-hailing drivers choose to work as independent contractors rather than employees because they can make more money and, in effect, operate their own small businesses. This independence allows each driver to develop and implement a business plan specifically tailored to each driver’s needs, goals, personal and familial obligations and expectations. There is no reason to think, as the authors of the study upon which the TLC

has relied in support of its rule conclude without any basis,<sup>1</sup> that the market in New York City is not substantially the same.

18. Flexibility in independent contractor drivers' schedules is a primary attraction to the job. For example, some drivers want to be able to take their children to school, which would be difficult with a typical 9:00 a.m. to 5:00 p.m. job. Others want a schedule that varies by day of the week in order to achieve whatever personal objectives a driver might have, or allow them to work additional jobs.

19. Another significant advantage for an independent contractor is workplace autonomy. There are many drivers who want to take fares whenever they want and run personal errands whenever they want.

20. Working part time for a ride-hailing vehicle also allows employment for a second flexible income, as there are no specific time-sensitive demands for drivers operating as independent contractors that could interfere with other employment.

21. For many independent contractors, there is also the opportunity to take advantage of self-employment tax laws that permit the depreciation of equipment, deduction of all related business expenses, additional retirement options, and greater flexibility to plan for the future financially.

22. Beyond offering drivers this kind of flexibility, the nature of the ride-hailing industry encourages the use of independent contractors. Ride-hailing services must be available at all times of day and night to accommodate their rider base. Thus, the independent contractor

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<sup>1</sup> (*An Earnings Standard for New York City's App-Based: Economic Analysis and Policy Assessment*, <http://www.centernyc.org/an-earnings-standard/>) (hereinafter, the "Reich Report").

system is a business model that serves the community well, as drivers who choose to drive at certain hours can connect with the riders who have a demand for their services at those times.

23. The independent contractor model also works well in the ride-hailing industry because independent contractor drivers in the taxi and ride-hailing industry have “personals,” defined as trips made off the meter or app. These are trips that are the result of the driver developing a business relationship with a rider because of an excellent level of service, where the rider contacts the driver directly for future rides, as opposed to using the app.

24. In addition, ride-hail drivers receive tips from riders for providing excellent service. In recognition of this economic reality, ride-hailing apps recently have added a tip option so that riders can pay tips through the app, as opposed to paying in cash. Notably, from its inception, Juno has offered this option to riders to allow drivers to reap the rewards of providing exceptional service.

25. Further, having independent contractors generally is more efficient than having employees. For example, independent contractors—the vast majority of whom own or lease their own vehicles—can go directly from home to pick up their first client without having to check in at a base. This is more efficient for the driver, who does not have to spend time that he could be transporting a passenger and making money traveling to check in first with his employer.

26. From my numerous studies, driver incomes are widely different depending upon the skill and actions of the drivers. Those who drive more efficiently and provide better service invariably earn more money than those who drive less frequently, spend less time on trips or provide inadequate service.

27. In New York City, each independent contractor driver for ride-hailing companies decides how to operate his own business. Drivers employ a variety of tactics to attract passengers and grow their business. Drivers may utilize the company's dispatch or app system, cultivate and maintain relationships with regular customers, and pick up passengers through their ride-hailing app(s) for arranged calls. Further, they may take advantage of the predictable flow of business originating at the airport, receive referrals from other drivers, and cultivate relationships with third parties such as hotel managers and doormen who refer passengers and provide information regarding events likely to result in a high volume of business. The percentage of a driver's total business and profitability attributable to each method of attracting business usually varies from driver to driver, day to day, and over time within each driver's own career.

28. In my experience, the extent of control exerted by taxi and ride-hailing companies over drivers varies widely. For ride-hail companies like Juno that do not impose any requirements on drivers to accept a certain percentage of trips or a certain number of trips per hour, drivers are generally free to accept or reject fares, free to work when and where they choose, free to take breaks or personal time whenever they wish, all while leaving their app turned on just in case there may be an opportunity to provide a ride. These drivers are also free to use the vehicles for personal business, and are otherwise completely autonomous in the operation of their mini-businesses.

### **III. The TLC's Utilization Rule**

29. Within this affidavit, I refer to the TLC's issuance of a mandated minimum driver pay for high-volume ride hailing companies within New York City as the "Rule." And, while no one can fault the City of New York and the TLC for wanting all commercial drivers of taxi,

limousine, black cars, and ride-hailing to earn a decent income, it is my opinion that even with its recent revisions, this Rule will not do so, and in fact, will have negative and potentially disastrous consequences for the ride-hailing industry and for the drivers the Rule seeks to protect.

30. The TLC’s Rule establishes a minimum payment formula based on a complicated formula premised on each base’s “utilization rate,” which is calculated by dividing the amount of time its drivers spend transporting passengers (“trips”) by the total time drivers are logged into their company app.

31. The Rule also differs depending on whether the vehicle dispatched is a wheelchair-accessible vehicle (“WAV”) or a non-wheelchair-accessible vehicle (“non-WAV”).

32. As stated in the issuance of this Rule and its recent revisions, it is to have two main components as set forth below:

**Non-WAV Formula**

$$\frac{(\$0.631 \times \text{Trip Miles})}{\text{Company Utilization Rate}} + \frac{(\$0.287 \times \text{Trip Minutes})}{\text{Company Utilization Rate}} + \text{Shared Ride Bonus} = \text{Gross Per Trip Driver Pay}$$

**WAV Formula**

$$\frac{(\$0.818 \times \text{Trip Miles})}{\text{Company Utilization Rate}} + \frac{(\$ 0.287 \times \text{Trip Minutes})}{\text{Company Utilization Rate}} + \text{Shared Ride Bonus} = \text{Gross Per Trip Driver Pay}$$

33. The first component is calculated by multiplying the number of miles traveled by the mandated minimum wage rate of \$0.631, then dividing by the company’s “utilization rate” (or, for the first twelve months of the Rule’s enactment, the industry-wide utilization rate of 58%). The second component is calculated by multiplying the trip minutes by the mandated wage rate of \$0.287 cents per minute, then dividing by the company’s utilization rate (or the industry-wide rate for the first twelve months).

34. In addition, the formula includes an extra “shared ride bonus” in an amount to be determined by the TLC when the driver is transporting multiple riders who are traveling to different locations, but “sharing” the ride.

35. It should be noted that the minimum wage rate per mile ultimately stipulated by the TLC is 9% more than the per-mile rate recommended in the original research study report.

36. Recent revisions to this Rule attempt to account for the so-called “idle time” of multi-app user drivers by using log-on/off data from each company app that a driver is party to for determining how much break or idle time an individual driver is having each day. “In the instances of overlapping time, we (TLC) split the time evenly between each company.”

37. The Rule goes on to further explain that the TLC will now calculate idle time separately for each app company. When a driver is taking a trip with one ride-hailing company, this time would not be counted as idle time for other ride hailing apps the driver may have on during this trip time.

#### **IV. The Problems with the Utilization-Based Rule**

38. First and foremost, in my more than four decades of working in the field of transportation regulation at the federal, state, and local levels, I have never seen or heard of a regulatory board attempting to set minimum hourly wages for workers in the regulated industry, let alone with such a sweeping and apparently arbitrary rule. With little or no justification for changes, the Rule minimum rate-making parameters have substantially changed prior to being required by the ride-hailing industry.

39. Worker wages are typically under the umbrella of federal, state, or local labor agencies. Thus, the attempt to set hourly wages through minimum rate making within a transportation regulatory board, within the United States, is entirely new and uncharted territory.

40. That being said, I have examined the Rule and its revisions, the Reich Report purportedly supporting the Rule, and reviewed numerous articles regarding this Rule, and I have reached the general conclusion and opinion that the Rule was hastily drawn; relies on faulty data and assumptions; has undergone substantial changes from the original recommendations, may be harmful to drivers; and would be very expensive to New Yorkers in the form of significantly increased fares for ride-hailing trips and yellow taxi trips if this same utilization economic theory is applied to taxis also as the report suggests. Below, I provide several observations and opinions to support my overall and general conclusions.

**A. The TLC Does Not Understand, And Has Not Sufficiently Analyzed, the “Utilization Rates” Used In Its Minimum Pay Formula**

41. That the Rule was hastily drawn is evident from the use of “utilization rates” in the minimum pay formula. The most obvious error was the generalization of incomes from drivers using a single app when most ride-hail drivers make themselves available to take trips from multiple apps at any given time. In the case of Juno, I understand that the majority of its drivers make themselves available to more than one app while driving. The original TLC’s model of total driver incomes was therefore significantly under-valuing the incomes of drivers who utilize more than one app.

42. While other ride-hail companies may remove drivers from their app for not accepting enough offered rides, Juno does not. Thus, it is highly likely that a driver on the Juno app would leave this app on at all times, thereby penalizing Juno through a lower utilization rate.

43. The TLC’s Rule also ignores the fact that the number of rider requests received by various apps and the total time a driver is available for trips may change daily, weekly, etc.

44. Ride-hail drivers also typically have their apps on while running personal errands, such as dropping kids off for school, shopping, meal breaks, appointments, etc. Can these companies be expected to incorporate this time as working for them but idle time?

45. Even with driver log-on and log-off data, there may be no practical way for the TLC to actually determine the total time any given driver who makes himself available on multiple apps spends driving for each, yet the TLC wishes to apply the Rule as if there were.

46. The Rule also fails to take into consideration driver income from numerous other app and non-app sources, income from non-app FHVs, personals, bonuses from the app companies, and other financial incentives these ride-hailing companies offer their drivers.

47. As one example, Quest is an incentive Uber offers that pays a bonus for completing a certain number of UberX rides or UberEats deliveries. Boost is an incentive that guarantees specific price multipliers in specific areas at specific times. These promotions are available to drivers and vary over time but can be substantial. One Boost for UberEats drivers was \$50 for completing 20 trips, so a driver was making an extra \$2.50 per trip if reaching this goal. Uber drivers can log on as UberX/UberEats drivers, so how is idle wait time to be calculated in this situation?

48. All ride-hail drivers can also drive for other food and package delivery apps and may have these apps turned on at the same time their passenger app is turned on. So, is idle or wait time to be spread among these app accounts also?

49. The TLC's Rule does not address, let alone answer, these important questions.

50. My major observation here is that neither the Reich Report nor the TLC has incorporated these multiple apps, non-passenger delivery apps and app company bonuses or incentives into the development of their theoretical utilization rate based Rule.

51. The Rule's utilization rate formula will have major consequences for Juno, which has a lower "utilization rate" (as the TLC defined it) and thus the Rule will require it to pay its drivers more than its competitors must pay their drivers. But the TLC did not conduct any analysis as to *why* Juno has a lower utilization rate, which may be affected by any number of factors (many of which may be beyond its control entirely). These factors must include its drivers' actual *acceptance rates* – a concept that goes unaddressed in the Rule or Reich Report.

52. The Reich Report authors seem to assume, with no substantiation, that a lower utilization rate is due to lack of dispatches from the Juno app. But one more plausible explanation would be that drivers prefer to work for Juno because they can turn down a Juno trip while they are servicing customers from other apps, thereby optimizing utilization of their time.

53. Juno may also have a lower utilization rate because its drivers have other part-time jobs they are working around, and therefore appreciate the flexibility that Juno offers. Juno could also have a different utilization rate due to the fact that it is a local ride-hailing app and its larger competitors serve a nationwide market, including visitors to New York City who already have their apps on their cell phones.

54. The point is that neither the TLC nor the authors of the Reich Report analyzed these critical questions regarding "utilization rates," including why Juno may have a different utilization rate as the TLC calculates it. It just might be, and likely is, based on numerous other factors totally outside its control. Implementation of the Rule thus arbitrarily penalizes Juno for having a lower utilization rate – perhaps even to the point of driving it from the market.

55. It is interesting that the authors of the Reich Report provide no examples of how utilization rates have been applied in other similar or even dissimilar industries either here or elsewhere. In other words, the whole concept of using utilization rates (and company-specific

utilization rates at that) as a basis for determining base hourly wage rates in an industry that uses independent contractors is purely speculative and experimental.

**B. The TLC Relies On Incomplete and Flawed Driver Income Data To Support Its Rule**

56. It is also obvious that neither the Reich Report nor the TLC has an understanding of how ride-hailing drivers actually operate in New York City. It is clear that there has been insufficient research and data collection on the possible wide variation of how drivers conduct their app-based ride-hailing and delivery business and total pay drivers receive from company incentives and tips. Not taking these into consideration, in my opinion, makes the Rule arbitrary.

57. For example, the authors of the Reich Report appear to have generated many of their assumptions about the New York City ride-hailing industry hours of work from a study conducted by the TLC to which only 3.75% of ride-hailing app drivers responded. Reich Report p. 23 n. 20.<sup>2</sup> This is a convenience sample, and a small one at that. Statisticians often make the point that it is incorrect to generalize this type of sample to a broader population, and neither the Reich Report nor the TLC provides any support for doing so.

58. Further, there is nothing in the study that breaks down driver profiles (if they can even be gleaned from the data gathered), according to the companies for which they work, nor does it account in any way for differences in driver populations or business models among those companies. The result is a sweeping Rule that is based entirely on incomplete, anecdotal evidence that simply does not account for or reflect the realities of the ride-hailing industry in New York City.

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<sup>2</sup> The authors state that only 8,200 FHV drivers responded to the survey (representing 5.5% of all such FHV drivers in New York City), and that only 3,000 app drivers responded. This constitutes just 3.75% of the 80,000 app drivers in New York City. Reich Report p.69.

59. Furthermore, earlier in the report, on page 24, the authors state that, “[a]bout 7.5 percent of app drivers in October 2017 carried passengers whose trips were dispatched from non-app companies.” These trips and their revenues, however, were never added to the authors’ estimates of current driver incomes. The authors further state, “[t]hus, the working hours data in the TLC earnings files understate the length of the work week for some app drivers.” These admissions are shocking considering that the Reich Report’s data is what the TLC relied upon in drafting the Rule.

60. The Reich Report authors also assume that the average ride-hail driver sits idly by, waiting on the next trip from his app. They assume that a driver’s time for use in the denominator of the utilization rate was the total time signed into the app – meaning the time from when the driver gets their first customer to the time they drop off their last customer (or, if they do not have a customer, the time they turn off the app). In reality, these one-app drivers could and would be doing a multitude of other personal and commercial tasks, such as trips for non-app based FHV’s or a number of other industries that, for instance, require the use of a personal car, offer part-time work, and operate through cell phone or internet assignments throughout the day.

61. Using this limited data to discern a company’s utilization rate, based purely on assumptions and approximations, does not provide an accurate picture of how drivers in the ride-hail industry work and, in my opinion, does not and cannot justify the Rule.

62. The Reich Report authors also state on page 38, “[s]ince our methods to estimate driver pay on an hourly basis are not perfect and there is variability in earnings from week to week, the TLC may need to adjust the formula after a reasonable implementation and evaluation period.” That statement suggests the authors were not at all sure about how the Rule was going

to work, but the TLC should go ahead and implement the Rule—which would affect 72,000 drivers—based purely on these non-industry experts’ economic theories and see what happens.

63. The Rule also fails to account for the already-changing regulatory landscape in the FHV industry. In developing the Rule, utilization rates were derived prior to the FHV moratorium on new vehicles (effective August 14, 2018). In an environment where no new FHV licenses are being issued to new vehicles, utilization rates might differ significantly.

64. The haste with which the TLC adopted the Rule, and then quickly revised it, should raise additional questions. The city-wide mandate for all workers, including contract workers, to be paid no less than \$15 per hour does not come into place until 2020. So, what is the rush to implement the Rule when, as discussed below, even the authors of the Reich Report admit it has many flaws due to the limited data made available to them?

**C. The Reich Report Does Not Reflect the Realities of the Ride-Hail Industry**

65. In addition to the flaws outlined above, the Reich Report was authored by economists with apparently little in-depth industry knowledge. Indeed, the study suffers from additional serious infirmities, many of which the authors themselves acknowledge.

66. For instance, on page 38 of their report, the authors state, “The TLC will have to determine the best way to account for multi-platform drivers—those who drive for more than one app company and who may be logged into more than one app at a time.” This makes clear that the Reich Report *had not* determined how to account for these drivers, even though they constituted the vast majority of drivers in the ride-hailing industry.

67. For this reason, the Reich Report authors made gross assumptions about the actual driving time of the single-app driver. The authors admit: “Imputed driver working time: We estimate or impute a driver’s working time during the course of a week by dividing total trip time

on that app from the earnings file by the average utilization for that company. We use imputed driver working time to estimate hourly earnings for each driver on a given platform. We need to use imputed working time since there are many multi-platform drivers and we do not have log-on and log-off information. A multi-platform driver may switch back and forth among apps for trips during the course of a work shift.” Reich Report p. 21 (emphasis added). It is obvious that the Reich Report assumed drivers switch off their other apps while providing trips for another ride-hail company.

68. The authors also express disdain that current ride-hail practices necessarily create **excess capacity** in the marketplace, but they fail to realize that many industries must have excess capacity in order to meet a fluctuating demand at different times of the day. For instance, many retail stores and restaurants have personnel doing nothing a part of the day, but they are needed at peak customer times. There is nothing abnormal about periods of excess capacity (or the opposite) at various times during the day, week, etc.

69. The final statement about the validity of the report’s findings by the authors themselves appears within their summary on page 62: “All forecasts are inevitably uncertain . . . . But based on our own study of the industry and on the research literature on app-dispatch services, we believe we have provided a reasonable assessment of the most salient factors. In any event, given the importance of the TLC policy proposal to drivers, the industry, and the riding public, we recommend that the TLC conduct ongoing and careful monitoring of the effects of the policy.”

70. In other words, the Reich Report authors instruct the TLC to trust their economic theories of this industry’s 72,000 drivers, and urge the TLC to try this wage floor experiment on the largest labor force in the City of New York, to be adjusted “as you go.” Their statement

about having considered “the most salient factors” also begs the question of how the authors, with little to no experience in the ride-hailing industry, could base their findings on a tiny fraction of a non-representative sample of drivers in the ride-hail industry. With limited work directly in the industry, one needs to ask if these labor economists were qualified to determine what those factors are.

71. Indeed, “adjust as you go” seems to be the process TLC employed more generally with the Rule, as it originally revised the rule (less than a week before voting on it) by increasing the driver mileage cost per mile from .580 per mile to .631 cents per mile – or an 8.6% increase in just four months after the study was released.

72. From the above observations and opinions, it is obvious that the Rule was developed hastily, using limited available data, and applying overly broad (and often incorrect) assumptions. It is clear that, at a minimum, the TLC should have collected more data and used a more step-by-step approach in applying the formulas and theories advanced in the Reich Report before using 72,000 workers in this economic wage floor experiment.

**V. The TLC Has Not Considered the Numerous Negative Effects of Implementation of the Rule**

73. The authors of the Reich Report state that the current ride-hailing market in New York City is an oligopolistic one, with only a few players, yet it is quite possible that implementation of the Rule’s utilization-based wage rates could force smaller competitors like Juno from the market, as they would be penalized under the proposed Rule.

74. The TLC also did not consider that the Rule will drastically change the way that drivers are able to operate in the ride-hail industry. Being an independent contractor means you have the ability to choose how you spend your idle time and the company has the efficiency of

not paying you for being idle. The Rule will incentivize app companies to limit drivers' idle time, restricting the flexibility that is the hallmark of the independent contractor model.

75. Another unintended consequence of implementing the Rule would be to reduce pay (trips) to high earners in order to spread available trips to lower-producing drivers in order to reach or maintain a companywide utilization rate. In order to increase its utilization rate, an app company might be incentivized to stop offering trips to an already highly utilized driver (hoping they will stop using the app when they stop receiving rides, keeping their utilization high) in order to give more rides to a less utilized driver, driving up that driver's utilization rate in order to increase the company's overall utilization rate. This may result in lower quality of service to riders, as more highly utilized drivers are likely to be those who have higher ratings.

76. On the other hand, another possible and even more devastating unintended consequence would be for the major ride-hailing companies to shift more calls to their high-producing drivers and remove the low-producing drivers from the platform altogether, depriving these drivers of opportunities to make money.

77. Either of the above scenarios would create a pattern of app companies shifting their cars from low density areas to high density areas where the trips are short but frequent. Accordingly, in high-density areas, such as Manhattan, this practice would cause even more traffic congestion.

78. The Reich Report authors offer their own conclusions as to how drivers, the companies, and the public will react to implementation of the Rule. Based on their assumptions, the TLC speculates that drivers will earn an additional \$9,600, that fares will rise modestly – probably in the 5% range, and that ride-hailing companies will absorb the additional per trip

wage hikes. These originally assumed outcomes are largely incorrect. Not all drivers can be maintained as companies shed low-producing drivers to protect a high utilization rate.

79. The Rule also totally ignores the effect of the recently-enacted limits placed by the TLC on ride-hail companies to restrict the number of FHV vehicles. The Reich Report did not even consider the effects of such legislation for the simple reason that these limits were put in place after the authors had concluded their study.

80. In addition, the Reich Report—including the revised report published on January 12, 2019, after the Rule was approved—make clear just what a monumental undertaking the TLC is about to embark on. To ensure that drivers are paid according to the Rule, the TLC will need to collect and analyze data for millions of rides per week, a feat that is almost immense beyond comprehension. The TLC has not demonstrated that it has the capability to do so.

81. Clearly the TLC should have run sensitivity tests using the utilization rate model on the different wage base rates it would cause for the major ride-hailing companies and, in doing so, be confident that their IT systems were capable of managing the huge amounts of daily information they would be required to perform in order to operationalize the utilization based Rule.

## **VI. Conclusion**

82. In conclusion, my observations and opinions regarding the proposed Rule and its revisions suggest that it needs significantly more thought, research and study prior to, or if ever, it is implemented. There may not be any practical way to aggregate independent contractor driver incomes and time across all apps and non-app FHVs. Additionally, the TLC needs to analyze how a driver spends his/her time before attempting to determine any company's utilization rule.

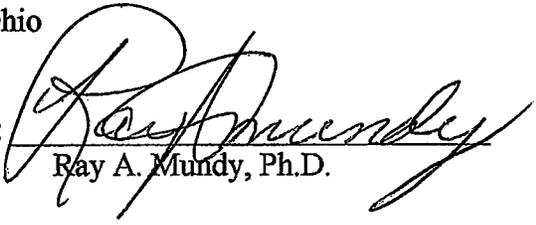
83. The use of a utilization rule is an unproven theory without any practical application of how this should be done in this or even similar situations, and one that is highly questionable. Ride-hail driver daily revenues will vary according to the skill of the driver, the day of the week, surge pricing, markets served and even the season.

84. Finally, the TLC might also give more thought to the fact that the path it is embarking upon is one no other transportation regulatory agency has ever taken – that it will necessarily have to develop minimum pay rules for all other FHV's under its jurisdiction and maintain immense data details on hours worked, payments made, etc. In essence, the TLC is becoming the personnel department for the largest workforce in the City and perhaps the State. The TLC would be setting pay floors, handling complaints, and providing a bundle of additional services for the drivers. It is woefully unequipped to do so at this point, and its attempt to pass a minimum pay Rule hastily and haphazardly developed is likely to have disastrous effects on the ride-hail industry in New York City.

I declare under penalty of perjury under the laws of the state of New York that the foregoing is true and correct.

Executed this 25 day of January, 2019 at Columbus, Ohio

By:

  
Ray A. Mundy, Ph.D.

Acknowledgment

STATE OF OHIO )  
 )  
ss.: )  
County of Franklin )

On January 25<sup>th</sup>, 2019, before me, the undersigned, personally appeared Dr. Ray A. Mundy personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



*Aidan Conway*  
\_\_\_\_\_  
Notary Public, State of Ohio

Printed Name: Aidan Conway

PRINTING SPECIFICATIONS STATEMENT

1. Pursuant to N.Y.C.R.R. § 202.70(g), Rule 17, I hereby certify that the foregoing affidavit was prepared on a computer using Microsoft Word. A proportionally spaced typeface was used as follows:

Name of Typeface: Times New Roman  
Point Size: 12 (Footnotes: 10 point)  
Line Spacing: Double

2. The total number of words in the foregoing affidavit, inclusive of point headings and exclusive of the caption, the signature block and the certificate of compliance is 6,395 words.

Dated: New York, New York  
January 25, 2019

/s/ George A. Zimmerman