DEPARTMENT OF LABOR AND INDUSTRY

Transportation Network Company Driver Earnings Analysis and Pay Standard Options

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Prepared for the Minnesota Department of Labor and Industry by[1]

James Parrott, The New School

Michael Reich, University of California, Berkeley

Minnesota Department of Labor and Industry
443 Lafayette Road N.
St. Paul, MN 55155
Phone: 651-284-5005
Email: dli.communications@state.mn.us
Web: dli.mn.gov

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[1] The authors are grateful to DLI for technical assistance and suggestions. They also acknowledge contributions by other Center for New York City Affairs at The New School staff assisting with this report including Xingxing Yang (analyzing the company data), Lina Moe (assisting with the development and launch of the driver survey), and Apurva Mehrotra (analyzing the vehicle fleet, American Community Survey data, and the driver survey). The authors are responsible for the contents.

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Preface

As required by Executive Order 23-07, issued by Minnesota Governor Tim Walz, this report details the findings of "a study to obtain and analyze data and information related to the working conditions of transportation network company (TNC) drivers in Minnesota and how potential changes may impact access and cost for riders." Because of the urgency and complexity of the analysis needed, the Department of Labor and Industry (DLI) contracted with James Parrott of The New School and Michael Reich of the University of California, Berkeley, to complete the study.

This report offers a range of pay standard options to calculate a minimum compensation for TNC drivers that costs out basic expenses and comprehensive benefits. The analysis used Minnesota TNC trip data from 2022 (a data set of more than 18 million rides), a TNC driver survey, and Minnesota expenses and benefits data to determine a range of options for a pay standard. The study focuses on committed drivers, because those are the drivers who are most reliant on these earnings as their primary source of income, and they provide the majority of TNC trips.

The driver earnings analysis and pay standard options build on the consensus recommendations advanced by the Committee on the Compensation, Wellbeing, and Fair Treatment of Transportation Network Company Drivers in its December 2023 report to Governor Walz. Taken together, the policy recommendations and pay standard options meet the charge of the executive order to "promote fairness and transparency for TNC drivers," and ensure state policies "be informed by research, Minnesota-specific data, discussions, and stakeholder input."

By Nicole Blissenbach, Commissioner, Department of Labor and Industry

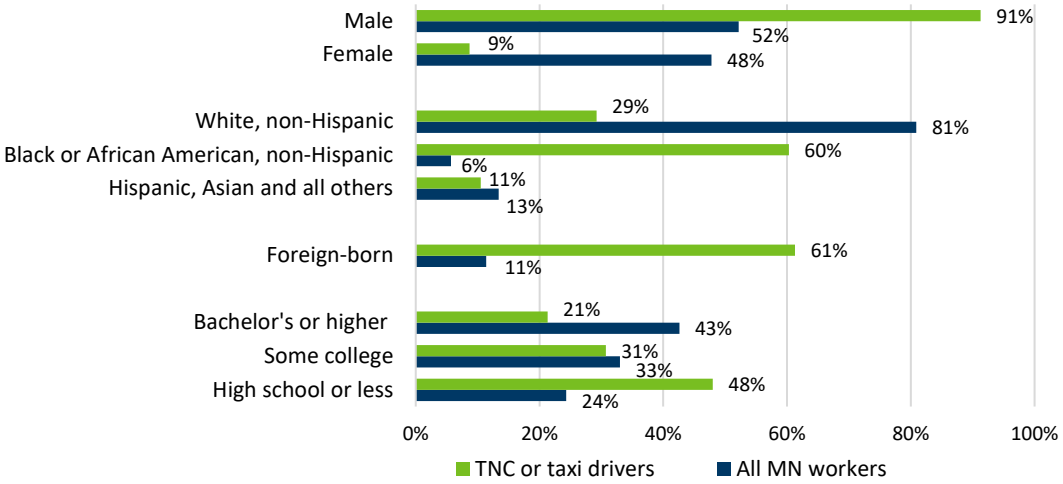
Executive summary

This study analyzed extensive data provided by Uber and Lyft about more than 18 million Minnesota transportation network company (TNC) trips and driver earnings for all of 2022, and the results of a survey completed by 1,827 Minnesota drivers.

Demographics of TNC drivers

Census data and the driver survey indicate the majority of Minnesota TNC drivers are male immigrants and predominantly Black or African American non-Hispanic workers with less than a four-year college degree; many live in low-income households (up to 200% of the federal poverty level) and, relative to all Minnesota workers, are disproportionately reliant on public assistance.

Minnesota TNC and taxi driver demographics



Source: U.S. Bureau of the Census, American Community Survey, 2017-21

The anonymized company data indicate a third of all drivers provided more than two-thirds (69 percent) of all trips. Nearly half (45 percent) of those driving for Uber and Lyft are relatively casual drivers averaging fewer than 10 hours per week and providing only 11 percent of all trips. The focus here is on the committed, non-casual driver since they are more likely to rely on TNC driving as a primary source of income and provide the majority of trips.

Time period definitions

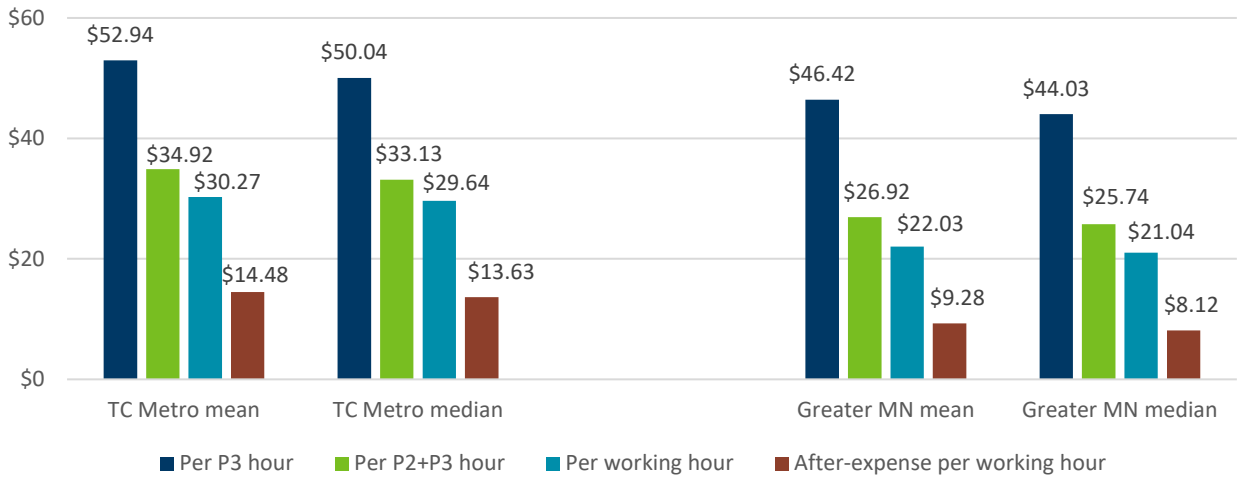
Analyses of TNC data require consistent definitions of the three periods of time involved in a TNC driver's work. Period 1 or "P1" is the time drivers are logged into the app and waiting to accept a ride; period 2 or "P2" is the time drivers are enroute to pick up a passenger; period 3 or "P3" is the time when a driver is transporting a passenger from the pickup location to the drop off location. For purposes of this report, the sum of P1, P2 and P3 equals the driver's total working hours. Driver earnings per working hour, as analyzed here, eliminated any

time overlap between the two companies for a given driver. While about one-fourth of Minnesota TNC drivers use both apps to arrange rides, the data show that drivers rarely have both apps on at the same time. Only 0.5 percent of trips, or one in every 200 trips, involved cross-company overlap in P1 and P2 times.

Drivers' earnings

The analysis of company data indicates that gross hourly earnings per passenger time (P3) for drivers in the seven-county Twin Cities metro area averaged $52.94 in 2022. But drivers had a passenger in the car only 58 percent of the time they were logged into the app and available for a dispatch. As a result, average gross hourly earnings per working hour (P1 + P2 + P3) are 42 percent smaller: $30.27. After factoring in expenses for total miles driven during working time, average net hourly earnings were even smaller: $14.48 (or 27 percent, of gross hourly earnings based on passenger time).

Hourly earnings comparison of Twin Cities metro and Greater Minnesota drivers for P3 time, P2 + P3 time, working time, and after-expense working time



Those amounts are averages; some drivers earn less, some earn more. Median earnings for all Twin Cities metro area drivers were $50.04 on a gross passenger time (P3) basis, $29.64 on a gross working hours basis (P1+P2+P3), and $13.63 on a net, after-expense working hours basis. Twenty-five percent of drivers had net, after-expense hourly earnings of $10.54 or less, and 25 percent of drivers had net after-expense hourly earnings of $17.51 or more.

Earnings of Greater Minnesota drivers working outside the Twin Cities metro area are somewhat lower for each of these hourly measures. Greater Minnesota trips are typically shorter in both time and distance and Greater Minnesota drivers have passengers in their cars for a smaller part of each working hour, 46 percent compared to 58 percent for Twin Cities drivers.

For all Greater Minnesota drivers, gross hourly pay for passenger time (P3) averaged $46.42, gross hourly working time (P1 + P2 + P3) pay averaged $22.03 and net after-expense pay averaged $9.28 per working hour.

These amounts ranged from $5.20 to $8.25 less per hour compared to Twin Cities metro area drivers. Median pay was correspondingly lower than the average, with median net, hourly after-expense pay of $8.12, 25 percent of drivers earn $6.26 or less per hour and 25 percent of drivers take home $10.97 or more.

Pay standard options

The TNC pay standard options include two components: a per minute component to compensate for the driver's time, and a per mile component to compensate for vehicle and other necessary expenses, and as explained below, to cover the cost of possible common workplace benefits. This report provides a number of options for a minimum pay standard for Minnesota TNC drivers. The options include a "base" per mile option that accounts for vehicle and other necessary expenses and a "comprehensive" per mile option that accounts for base expenses plus several common workplace benefits; the cost of each benefit is computed as the incremental cost per mile. Furthermore, the pay standard options provide different rates based on geography that reflect the different minimum wages in Minneapolis/St. Paul and Greater Minnesota.

Since the applicable minimum wage is different outside of Minneapolis and St. Paul, this report presents minimum compensation standards for the seven-county Twin Cities metro area and Greater Minnesota, the counties outside of the seven-county Twin Cities metro area. In 2022, 95 percent of all Minnesota TNC trips occurred in the Twin Cities metro area and 5 percent in Greater Minnesota.

The Minnesota per minute rate is designed to compensate drivers at the equivalent of the minimum wage, plus the employer share of federal Social Security and Medicare payroll tax: ($15.57 Minneapolis minimum wage plus $1.28 in payroll tax in the Twin Cities metro area, and $10.85 state minimum wage plus $0.89 in payroll tax for the Greater Minnesota counties). The Minnesota base per mile rate provides for the 63.8 cents per mile cost of acquiring, operating, and maintaining a vehicle based on Minnesota-specific costs from early 2024.

Minnesota-specific vehicle expenses reflected in the base per mile rate

Expense category	Specific expenditure	Annual	Per mile
Per mile costs based on 35,000 miles per year			
Licensing, vehicle registration fees and tax		**$243**	**$0.0069**
Operating costs	Vehicle acquisition	$10,044	$0.2870
	Gas	$3,815	$0.1090
	Vehicle maintenance	$3,434	$0.0981
	Insurance	$2,664	$0.0761
	Cellphone	$1,440	$0.0411
	Vehicle cleaning	$700	$0.0200
	Subtotal	**$22,097**	**$0.6313**
Total vehicle and operating expenses		**$22,339**	**$0.6383**

The respective per minute and per mile pay standard components are applied to the time and distance of a TNC passenger trip; that is, the pay rates are pegged to the passenger (P3) time and miles. In order to pay drivers for the entirety of their on-app time and for all the miles they drive during on-app time, the per minute and per mile

rates are scaled up. Scaling up the per minute pay rate involves dividing by the P3 share of on-app time; scaling up the per mile expense rate involves dividing by the P3 share of total miles driven during all three of the time segments for each trip. Driver compensation standards in New York City and Seattle used similar scaling factors, based on local conditions.

The scaled-up 2024 base compensation rates for the Twin Cities metro area are 48.7 cents per minute and 89.0 cents per mile. For Greater Minnesota, base compensation rates are 42.7 cents per minute and $1.116 per mile. Since benefits are commonly part of an overall compensation package for employees, the report provides estimates on a per mile basis of the cost of paid leave, health insurance, retirement savings and unemployment insurance.

Twin Cities metro per mile rates and expense options

Vehicle and operating expenses	P3 share of miles	Vehicle and operating expenses scaled for P3 share of miles	Base per mile rate
$0.6383	0.717	$0.890	**$0.890**

	Benefit component	Benefit cost	Base rate plus benefit cost
ESST	Earned sick and safe time	$0.030	$0.920
PL	Paid leave—includes ESST	$0.101	$0.991
HI	Health insurance	$0.137	$1.027
RS	Retirement savings	$0.073	$0.963
UI	Unemployment insurance	$0.007	$0.897
Comprehensive per mile rate (incl. PL + HI + RS + UI)		**$0.317**	**$1.207**

Greater Minnesota per mile rates and expense options

Vehicle and operating expenses	P3 share of miles	Vehicle and operating expenses scaled for P3 share of miles	Base per mile rate
$0.6383	0.572	$1.116	**$1.116**

	Benefit component	Benefit cost	Base rate plus benefit cost
ESST	Earned sick and safe time	$0.026	$1.142
PL	Paid leave—includes ESST	$0.088	$1.204
HI	Health insurance	$0.120	$1.235
RS	Retirement savings	$0.064	$1.179
UI	Unemployment insurance	$0.006	$1.122
Comprehensive per mile rate (incl. PL + HI + RS + UI)		**$0.277**	**$1.393**

The following chart summarizes the base and comprehensive pay standard options for P3 time (the per minute rates are the same for each area's base and comprehensive options, only the per mile components differ).

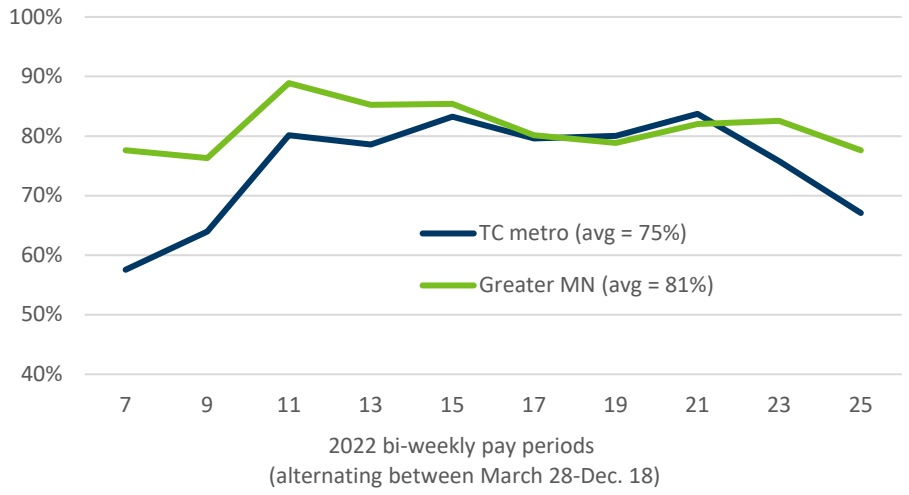
Rate range options

	Twin Cities metro		Greater Minnesota	
	Base	**Comprehensive**	**Base**	**Comprehensive**
P3 per minute	$0.487	$0.487	$0.427	$0.427
P3 per mile	$0.890	$1.207	$1.117	$1.393

Applying the 2024 base rate pay standard per minute and per mile rates to the hours worked and miles driven during 2022 indicates that average pay per trip for Twin Cities drivers would rise by about 10 percent under the base pay standard, and by about 17 percent on average for Greater Minnesota drivers. (On a P3 hourly basis, the base pay standard would equal $57.91 for Twin Cities drivers and $54.31 for Greater Minnesota drivers.) Under the comprehensive pay standard, average pay per trip would rise by about 29 percent for Twin Cities drivers and by about 32 percent for Greater Minnesota drivers.

Based on analysis of 10 two-week periods in 2022, 75 to 80 percent of drivers were paid less than the base 2024 TNC pay standard option. However, the number of drivers relative to trip demand and payment practices used by the companies may have changed since 2022.

Many drivers—75 to 80 percent—were paid less than the base pay standard option



Impact and conclusion

The effect of a minimum pay standard on Minnesota drivers will depend on the specifics of the policy that is chosen. A pay standard that incorporates vehicle and necessary expenses and benefits into the per mile rate will increase driver compensation, which could lead to an increase in the supply of drivers. Some existing drivers

may choose to drive more; more drivers may be attracted to drive for a TNC. This should lead to lower recruitment and retention costs for the TNCs. The reduced turnover and more experienced driver workforce should also improve the safety and quality of rideshare services.

Although the companies could raise fares in response to a pay standard, they have considerable latitude on the size of the increase. If the companies raise fares, passenger demand for rides might fall enough to lower the aggregate earnings of drivers. Lacking data about fares paid by passengers and about commissions and fees paid to the TNCs, it was not possible to analyze how Minnesota passengers have responded to fare increases nor how TNC commissions may have increased or decreased. But the companies are unlikely to raise prices to levels that would significantly reduce consumer demand and commissions.

If the balance between driver supply and consumer demand changes significantly from 2022 levels, the pay standard rates may need adjustments. Any adjustments should be informed by ongoing analyses of trip, driver earnings and passenger fare data.

The completion of this report fulfills the obligation set forth in Executive Order 23-07 for the Minnesota Department of Labor and Industry to commission a study to analyze Minnesota-specific data and research to inform Minnesota policies that advance the fair compensation of TNC drivers.

1. Introduction

In May 2023, Minnesota Governor Tim Walz issued Executive Order 23-07 directing the commissioner of the Department of Labor and Industry (DLI) to "commission and oversee a *study* to obtain and analyze data and information related to the working conditions of transportation network company (TNC) drivers in Minnesota and how potential changes may impact access and cost for riders. [emphasis added]"[2] In addition, the executive order established a Committee on the Compensation, Wellbeing and Fair Treatment of Transportation Network Company Drivers that met over the course of six months to engage, collect and analyze data and information related to the working conditions of TNC drivers, and to draft recommendations related to compensation and fair treatment of TNC drivers. The committee comprised 15 members, including TNC representatives, TNC drivers, drivers' representatives, local and state government leaders, and other relevant stakeholders.

The following report builds on the consensus recommendations advanced by the TNC committee in its Dec. 30, 2023, report.[3]

Executive Order 23-07 states "the benefits of TNCs include convenience, increasing transportation access for low-income communities and individuals with disabilities, safety, and reliable quality," yet "because drivers are typically classified as independent contractors, drivers are not afforded the same workplace protections as typical employees, including the protection of wage and hour laws." The work of the TNC committee and the purpose of this study are designed to promote that "Minnesota should advance laws that promote fairness and transparency for TNC drivers, and those policies should be informed by research, Minnesota-specific data, discussions, and stakeholder input."

This study draws on: extensive data provided by Uber and Lyft, the two dominant TNCs in the state, covering all Minnesota trips and driver earnings in 2022; data on vehicles authorized to allow TNC pickups at the Minneapolis-St. Paul International Airport (MSP) collected by the Metropolitan Airports Commission (MAC); the results of an online survey from more than 1,800 TNC drivers licensed by MAC; and other Minnesota-specific data.

This report proceeds as follows:

- Section 2 describes trends in TNC trip activity in Minnesota.
- Section 3 reviews Census Bureau data about the characteristics of Minnesota TNC and taxi drivers and summarizes the results of the online driver survey.
- Section 4 describes the 2022 trip and earnings data provided by the TNCs. This section also discusses adjustments to the data for the relatively small proportion of trip activity that overlaps between the two companies and presents the analysis of TNC driver earnings in 2022.

[2] Governor Tim Walz, Executive Order 23-07, Establishing the Governor's Committee on the Compensation, Wellbeing, and Fair Treatment of Transportation Network Company Drivers, signed May 25, 2023. mn.gov/governor/assets/EO%2023-07%20TNC_tcm1055-579270.pdf

[3] Recommendations for the Compensation, Wellbeing and Fair Treatment of Transportation Network Company Drivers ("TNC Committee Report"), Minnesota Department of Labor and Industry, Dec. 30, 2023. dli.mn.gov/sites/default/files/pdf/TNC_EO_23_07_final_committeee_report_123023.pdf

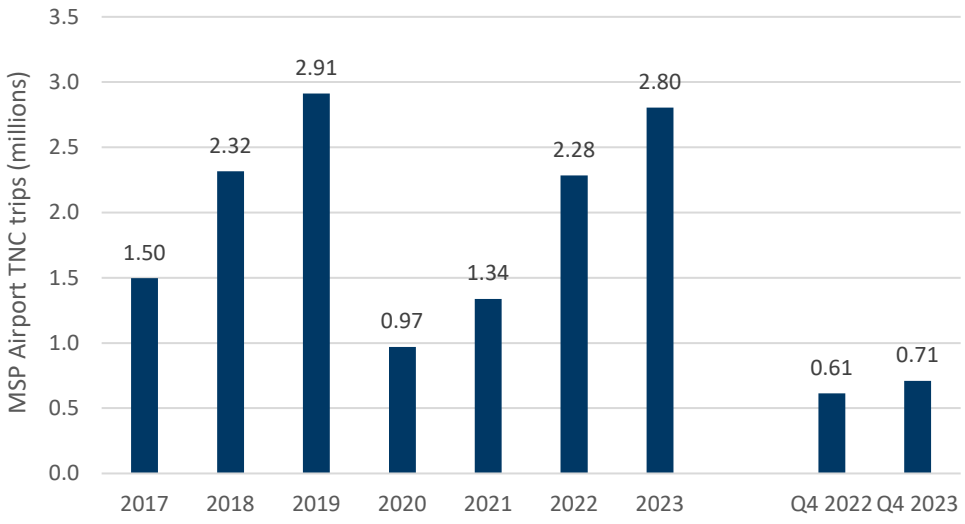
- Section 5 describes the methodology used to build a Minnesota-specific expense model that accounts for the costs drivers incur in acquiring, maintaining and operating a vehicle used to provide TNC passenger services.
- Section 6 explains the Twin Cities metro area and Greater Minnesota driver pay standard options, including the per minute and per mile components. The determination of these components is discussed and estimates are provided for the cost of various benefit components for further consideration. Comparisons are made with existing pay standards in New York City, Seattle, and Washington state.
- Section 7 compares the Minnesota pay standard options to 2022 driver earnings.
- Section 8 compares the methodology informing this study to the 2018 New York City and 2020 Seattle driver pay studies, a 2020 Seattle study conducted for the major TNC companies by Cornell University researchers, and a 2023 study commissioned by the city of Chicago.
- Section 9 analyzes the impact of a pay standard on drivers, passengers and the TNCs.
- Section 10 provides a summary and conclusion.

2. Minnesota TNC trip trends

Rebound in airport trips

MAC provided DLI with data from 2017 to 2023 about TNC pickups and drop-offs at MSP Airport. As Exhibit 1 shows, TNC airport trips have steadily rebounded from pandemic restrictions in 2020 and 2021. By 2023, the number of airport trips was close to the 2019 level of 2.9 million airport trips.

Exhibit 1
Annual TNC trip volume (in millions) at MSP Airport, 2017-23



Source: Metropolitan Airports Commission

Statewide trips in 2022 and 2023

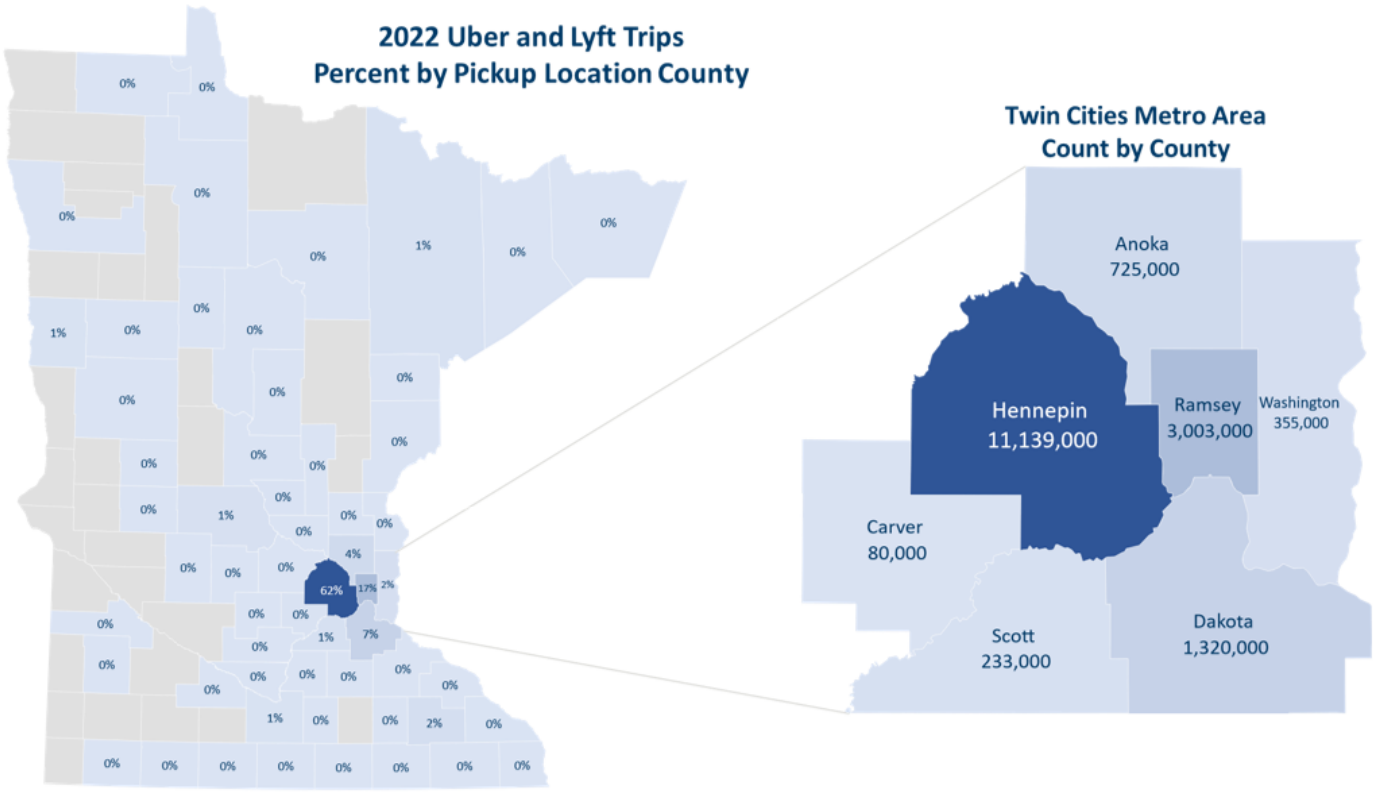
Uber and Lyft provided DLI with data about the 18 million trips that originated in Minnesota in calendar-year 2022. The data show that airport trips accounted for about one in every eight statewide TNC trips (12.7 percent) in 2022. Assuming statewide TNC trips grew in line with the 2022 to 2023 increase in the number of MSP Airport trips in the MAC data, the number of statewide TNC trips increased from 18 million trips in 2022 to 22 million TNC trips in 2023, or an increase of about 22 percent. At an average of about 2.37 trips per working hour, and 10.75 miles per trip, Minnesota TNC drivers logged an estimated 9.3 million working hours and 237 million miles in 2023.[4]

Geographic distribution of TNC trips

Ninety-five percent of all trips in 2022 originated in the seven-county Twin Cities metro area, which consists of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties. Hennepin County, a sprawling urban, suburban and rural county, of 607 square miles, home to Minneapolis—the state's largest city—and the Minneapolis-St Paul Airport, accounted for 11.1 million trips, two thirds of all metro area trips and 62 percent of all statewide trips. See Exhibit 2. Ramsey County, a compact 107 square miles, and home to St. Paul, the state capital, accounts for the second highest number of TNC trips, with nearly 17 percent of the state total. Outside the Twin Cities metro area, Olmsted County (home to Rochester) accounts for two percent of all trips, and four other counties each had one percent: St. Louis County (Duluth), Stearns County (St. Cloud), Blue Earth County (Mankato), and Clay County (Moorhead). This report refers to the counties outside of the Twin Cities metro area as "Greater Minnesota."

[4] See the box entitled "TNC time periods" in Section 4 for a definition of working hours.

Exhibit 2
Trips by pickup location county

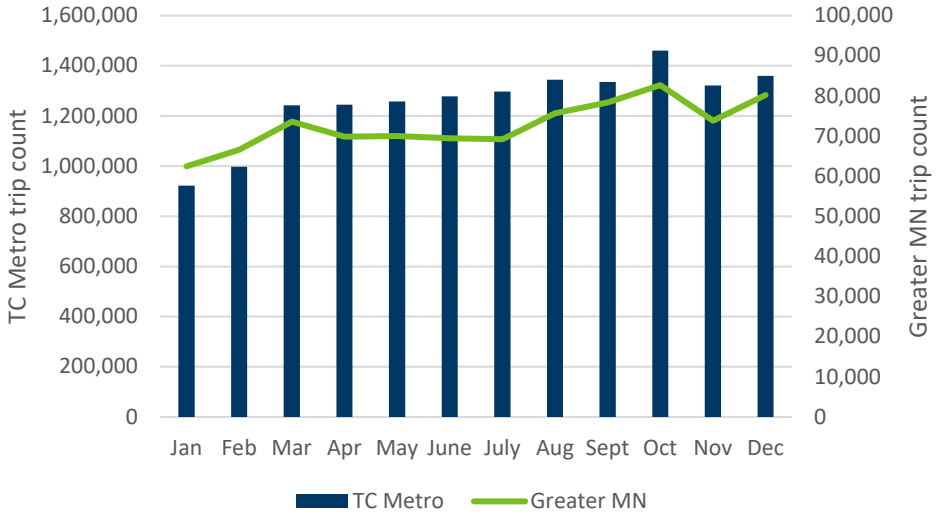


The number of TNC trips rose steadily over the course of 2022. As Exhibit 3 shows, between the first and the fourth quarter of 2022, TNC trips grew 31 percent in the Twin Cities metro area and 17 percent in the remainder of the state. Total Minnesota TNC trips in 2022 peaked in October, with 1.46 million trips in the metro area and 83,000 in Greater Minnesota. October of each year is typically also the peak month for MSP Airport TNC pickups, with trip activity averaging about 20 percent higher per month during the summer and fall months of May through October, than during the winter and spring months of November through April.[5]

[5] Metropolitan Airports Commission, Minneapolis/St. Paul airport trip data.

Exhibit 3

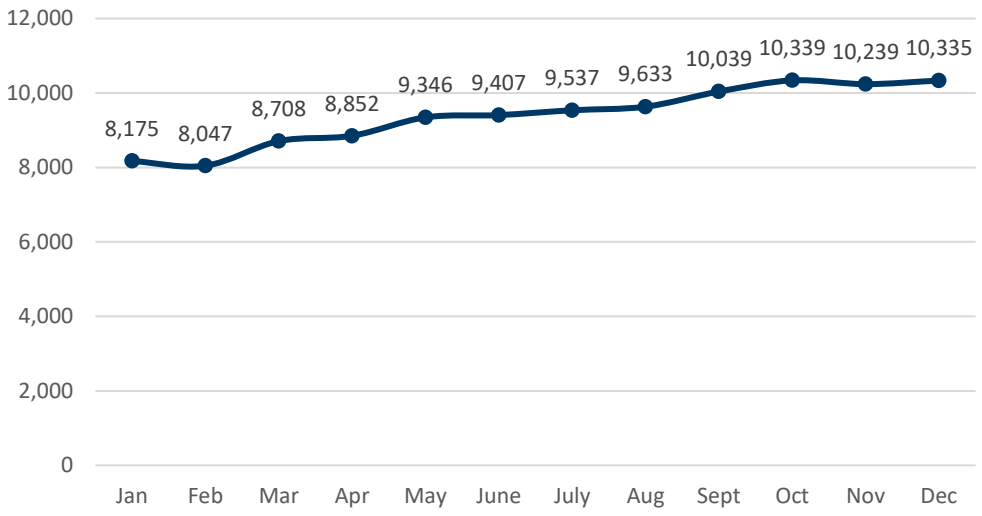
Twin Cities metro trips accounted for 95 percent of the statewide total in 2022.



The Uber and Lyft data indicate that the number of TNC drivers rose about 25 percent between the first quarter and the fourth quarter of 2022, to just over 10,300 at year's end (Exhibit 3). The average number of trips per month per committed driver declined slightly between the months of March to May (266) and October to December (258). (Data are not available to determine changes in the number of trips per driver since the end of 2022.)

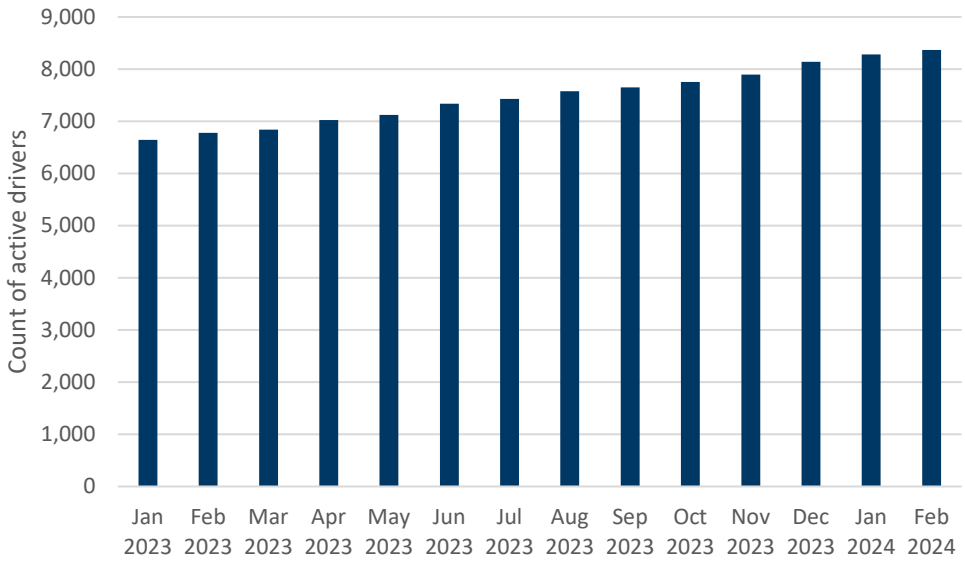
Exhibit 4

The number of active Minnesota drivers rose over the course of 2022 by about 25 percent.



As Exhibit 5 shows, the number of TNC drivers licensed to pick up passengers at MSP rose by 24 percent between January-February of 2023 and January-February of 2024. This increase suggests that the total number of Minnesota statewide TNC drivers may have been 12,000 or more at the beginning of 2024, or an increase of about 25 percent. Since the number of MAC-licensed TNC drivers rose considerably more over the past year than the 16 percent growth in airport trips between the last quarter of 2022 and the last quarter of 2023, it is possible that the number of trips per driver is lower than it was at the end of 2022.

Exhibit 5
The number of active TNC drivers licensed by the Metropolitan Airports Commission rose by 24 percent from early (January-February) 2023 to early (January-February) 2024



3. Minnesota TNC drivers

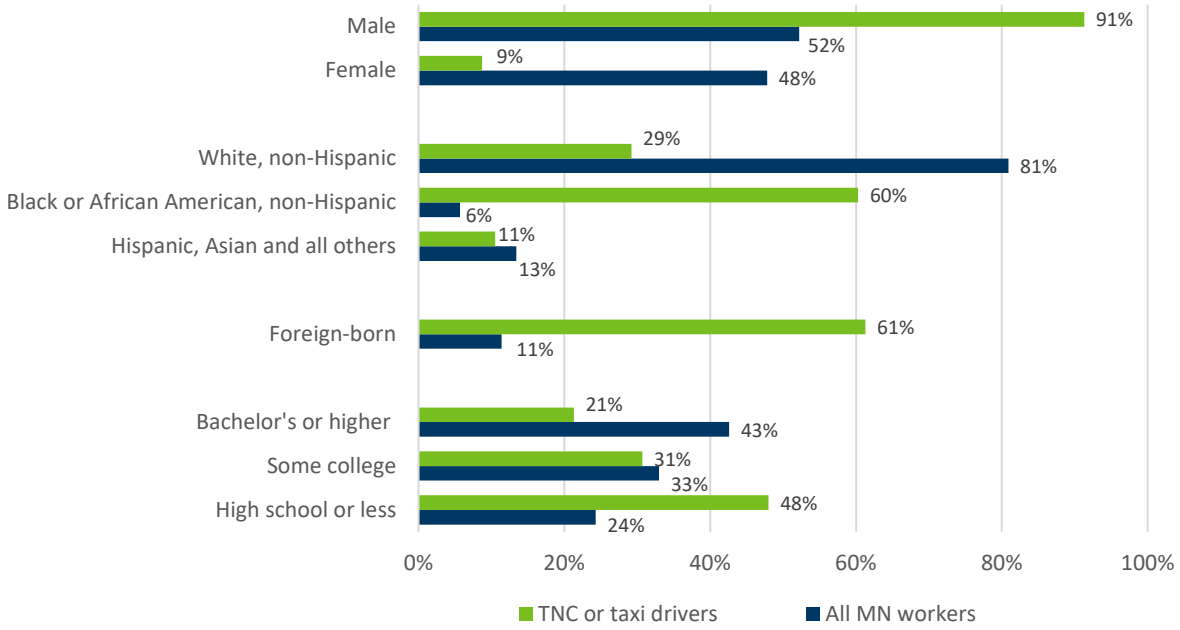
Driver demographics

Exhibit 6 presents American Community Survey (ACS) demographic data about taxi drivers and chauffeurs, which includes rideshare drivers. The ACS data refer only to an individual's primary occupation; TNC drivers are far more numerous in this occupation than taxi drivers. Exhibit 6 also compares these drivers to all Minnesota workers. Census data and the driver survey indicate that, compared to all Minnesota workers: the majority of Minnesota TNC drivers are male immigrants and Black or African American with less than four-year college degrees; many live in low-income households (up to 200 percent of the federal poverty level); and are disproportionately reliant on public assistance.

Additional analysis of the ACS data indicates a slightly higher percent of drivers are over age 55 than are all Minnesota workers; a slightly lower percentage are 18 to 24 years of age. See Appendix Exhibit 2. About 64 percent of drivers are in the prime working age range of 25 to 54, the same as the overall state workforce.

Minnesota TNC and taxi drivers are likely to be immigrants from Africa (specifically Somalia, Nigeria, Kenya, Ethiopia and Liberia).

Exhibit 6
Minnesota TNC and taxi driver demographics



Source: U.S. Bureau of the Census, American Community Survey, 2017-21

ACS data on driver earnings

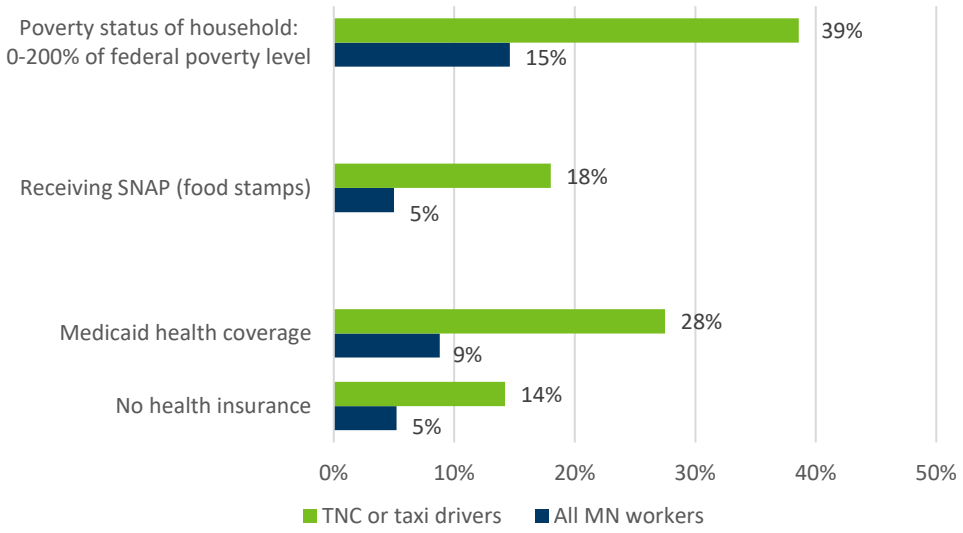
The Census Bureau's American Community Survey (ACS) data also indicate that the earnings of Minnesota TNC and taxi drivers are relatively low and insufficient to attain economic security without reliance on public subsidies. Among the predominant cohort of Minnesota drivers—male, immigrant workers without a four-year college degree—median annual earnings were $26,000 in transportation occupations in 2021, according to the ACS. This amount was lower than in four of the six occupational categories that account for two-thirds of Minnesota workers in this workforce cohort.[6]

As Exhibit 7 shows, TNC and taxi drivers are more than two-and-a-half times as likely as the average Minnesota worker (39 percent to 15 percent) to have household earnings that fall below 200 percent of the federal poverty line ($12,880 for a single person household in 2021; $26,500 for a four-person household.) Drivers are also much more likely than all workers to receive Supplemental Nutrition Assistance Program (SNAP) benefits—by 18

[6] Median pay was lower in food preparation and serving occupations at $23,600, but higher in transportation occupations in production ($35,300), construction ($31,900), office and administrative support ($29,500), and in building grounds and maintenance ($27,600). Center for New York City Affairs analysis of the 2017-2021 5-year sample, American Community Survey.

percent to 5 percent. Drivers are also about three times as likely as all Minnesota workers to rely on Medicaid health coverage (28 percent to 9 percent) or to have no health insurance (14 percent to 5 percent).

Exhibit 7
Minnesota TNC and taxi drivers compared to all workers on measures of economic well-being



Source: U.S. Bureau of the Census, American Community Survey, 2017-2021

Minnesota TNC driver survey

To inform this study, in December 2023 the Department of Labor and Industry emailed a survey to nearly 8,000 drivers licensed with the Metropolitan Airport Commission (MAC). The survey was available in four languages in addition to English: Amharic, Oromo, Somali and Spanish. The 7,676 invitations that were successfully delivered to the email addresses on the MAC list elicited 1,827 valid responses, a 24 percent response rate.

Appendix Exhibit 8 includes tabulations for each survey question. The survey included a series of basic demographic questions. The distribution of responses closely tracked the gender, race or ethnicity, age and country of birth characteristics for Minnesota TNC and taxi drivers in the ACS data, shown in Appendix Exhibit 1. For example, 60 percent of the drivers in the ACS data are Black or African American and 63 percent of survey respondents self-identified as Black or African American. Fifty-eight percent of survey respondents were 35 to 54 years in age, nearly identical to the 56 percent share in the ACS data. The foreign-born share of survey respondents was somewhat higher than in the ACS data (74 percent vs. 61 percent).

Survey highlights

- While the vast majority (94 percent) of drivers completed the survey in English, 45 percent of drivers reported that English was not the primary language spoken at home.
- Ninety-three percent of survey respondents were men, 58 percent were between the ages of 35 and 54, and 63 percent were born in Africa.

- The age, gender and place of birth of the survey respondents largely matched Census data for Minnesota TNC and taxi drivers. Census data show Minnesota drivers tend to be middle-aged, immigrant men—largely from Africa—who do not have education beyond a high school degree.
- According to the survey results, a typical TNC driver in Minnesota drives full-time or near full-time to provide their sole or primary source of income. Immigrant drivers are especially likely to drive full-time and for driving to be their sole source of income.
- Most drivers (90 percent) own the vehicle they use as a TNC driver, and nearly 60 percent purchased a vehicle for the sole purpose of being a TNC driver.
- Drivers spend significant amounts of time waiting for passenger requests and driving to pick up passengers. In many, but not most cases, drivers receive passenger requests while they are already with a passenger. Drivers who spend longer waiting for passenger requests tend to drive more hours.

The driver workforce

Previous studies in New York City and Seattle have found TNC drivers generally fall into one of three groups.[7] Casual drivers, who work fewer than 10 hours per week, make up the largest of the three groups of drivers, but they perform a small proportion of all trips. Committed drivers, who work between 10 and 20 hours per week and highly committed drivers, who work more than 20 hours per week, constitute a smaller portion of all drivers, but they perform a large majority of all trips.

The data provided by the companies reveals a similar pattern for Minnesota. Nearly half (45 percent) of all drivers in the company data are casual drivers who typically work fewer than 10 hours a week. These drivers provided only 11 percent of all trips. In contrast, the same data indicate 33 percent of drivers work 20 or more weekly hours. These drivers provided 69 percent of all trips in 2022.

Survey respondents in Minnesota were disproportionately highly committed drivers, 86 percent reported they had been driving for one year or longer; as Exhibit 8 shows, 49 percent typically worked 32 hours or more per week and 21 percent worked 20 to 32 hours per week. Casual drivers were under-represented in the survey data, accounting for only 16 percent of survey respondents.

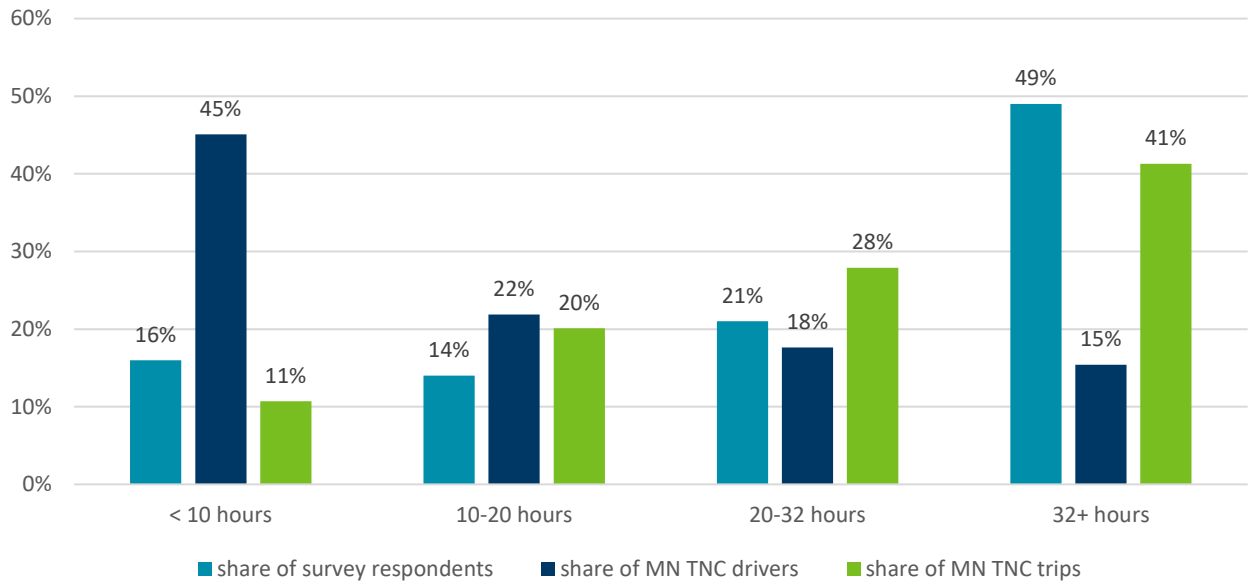
These differences are not surprising. More committed drivers are more invested in improving the economic conditions of drivers and are therefore more likely to complete the survey.

A driver pay standard should ensure the well-being of those drivers whose earnings are most reliant on driving and who perform the bulk of Minnesota trips. Therefore, the earnings analysis in the next section excludes trip activity performed by the large number of casual drivers who drive fewer than 10 hours per week and account for only 11 percent of all statewide trips.[8] The Minnesota analysis focuses on the committed and highly

[7] James A. Parrott and Michael Reich, *An Earnings Standard for New York City's App-based Drivers: Economic Analysis and Policy Assessment*, Report for the New York City Taxi and Limousine Commission, Center for New York City Affairs, July 2018; James A. Parrott, and Michael Reich, *A Minimum Compensation Standard for Seattle TNC Drivers*, Report for the City of Seattle, Center for New York City Affairs, July 2020.
[8] The Crowe study of TNC drivers for Chicago also excluded casual drivers from their earnings analysis for the same reason. See Section 8.

committed drivers who work 10 or more hours per week. They comprise 55 percent of all drivers and collectively provide nearly nine out of every 10 TNC trips.

Exhibit 8
While many TNC drivers are "casual," working fewer than 10 hours a week, they only provide a small share (11 percent) of all trips



4. Trips and earnings

Elements of the company-provided earnings data

Uber and Lyft provided DLI with data about all completed trips originating in Minnesota in 2022. Data were provided at the trip level with a unique driver identifier, pickup and drop off county, pickup duration and distance, trip duration and distance, timestamps rounded down to three minutes for trip acceptance date and time, and trip start and end date and time.[9] The data included P1 minutes (see the box, TNC time periods) measured only as the time since the most recent rejected offer preceding the current trip. Thus, reported P1 minutes excluded any P1 waiting time for the driver that preceded the time of a rejected offer. This feature of the data is discussed further below. The data also excluded any P1 driver waiting time that was not followed by a trip, for example, driver waiting time at the end of a shift.

[9] When drivers worked for both companies, the companies coordinated to assign drivers a unique driver identifier to protect the anonymity of the driver but allow for the identification of overlapping P1 and P2 times.

TNC time periods[10]

Driver time periods are divided into three segments: period 1 (P1) time is when a driver is logged into the TNC app but has not yet accepted a ride offer, sometimes referred to as "driver waiting time." Period 2 (P2) is when a driver has accepted a ride and is on their way to pick up a passenger, also referred to as "dispatch time." Period 3 (P3) is when a driver is transporting a passenger from the pickup location to the drop-off location, also called "trip time" or "passenger time." P1, P2 and P3 miles reflect the distances traveled during each respective period. This analysis refers to the sum of P1 + P2 + P3 times as total driver working time.

The companies also provided data about driver earnings and tips from passengers. Promotions and bonuses not tied to specific trips were prorated for the affected trips, such as, if a $120 bonus was paid for 30 completed trips, $4 would be added to each of the 30 contributing trips. The companies did not separately identify the dollar amounts of promotions and bonuses. A recent report on Massachusetts TNC activity that utilized data from a third-party provider indicated that various forms of incentive pay averaged about 30 percent of gross driver pay (excluding tips.)[11] The companies did not provide any data about fares paid by passengers or company commissions.[12]

Since the data provided by the companies also excluded P1 miles, P1 miles were approximated by assuming an average P1 speed of half the P2 speed and multiplying by P1 minutes (divided by 60). (With the P2 and P3 data, the researchers could compute average speed during P2 and P3 segments for each trip.)

Appendix Exhibit 3 describes the steps taken to "clean" the data before analysis. For example, researchers excluded trip records with missing data elements and trips with extreme values, such as trip times fewer than one minute or trips that implied vehicle speeds greater than 80 miles per hour. Such data cleaning steps removed about one percent of trips from each monthly file.

Adjustments for multi-app drivers, overlapping trip time and distance

In any month in 2022, about one-quarter of Minnesota TNC drivers provided at least one trip for both companies. These drivers are referred to as "multi-app" drivers; drivers who in any month provided trips for just one of the companies are referred to as "single-app" drivers.

When the trip data indicated overlapping P1 and P2 times across the companies, the researchers adjusted the trip data to eliminate cross-company overlapping times. To determine where there was overlap, the researchers first needed to compensate for the rounding of the P2 and P3 time stamps in the data provided by the companies. The researchers first imputed P1 starting time as the P2 starting time stamp minus the reported P1 time; they then imputed a modified P3 starting and ending time using the reported P2 and P3 times. The researchers then grouped all trips by driver and sorted trips by trip accepted time. Then, for each trip, they

[10] Adapted from page 11 of the Recommendations for the Compensation, Wellbeing and Fair Treatment of Transportation Network Company Drivers ("TNC Committee Report"), Minnesota Department of Labor and Industry, Dec. 30, 2023. dli.mn.gov/sites/default/files/pdf/TNC_EO_23_07_final_committeee_report_123023.pdf

[11] Drivers Demand Justice and Big Lake Data, *The real economics of ridehail work, What it's like to work for Uber and Lyft in Massachusetts*, October 2023.

[12] Commissions are the percentage of the fare (less tolls) that the companies retain.

compared the starting time of the P1 and P2 segments to the ending time of the preceding trip (imputed P3 end time). Overlap exists if the previous trip ends after the starting time of a P1 or P2 segment for the succeeding trip. When overlap was found, the researchers reduced the P1 and/or P2 times for the succeeding trip to eliminate overlapping times. The researchers also adjusted P1 and P2 miles proportionate to the reduction in the time segment. The subsequent earnings and working time analyses reflect these adjustments to eliminate overlapping time and miles.

Frequency of a driver's trips overlapping across the two companies

In the company-provided data, about a quarter of drivers provided trips for both companies in any given month. In the driver survey discussed in the previous section (Section 3), 62 percent of survey respondents indicated they drove for both companies. However, the data suggest few drivers have both apps on at any given time. Only 2.8 percent of all trips in 2022 involved a driver providing trips for both companies within a shift.[13] An even smaller share of all trips, 0.5 percent of the total (1 in 200), involve cross-company overlap in P1 or P2 times.[14]

Low average P1 times

As shown later in this section (Exhibit 14), the P1 (driver waiting time) share of driver working time was 12.8 percent in the Twin Cities metro area and 20.1 percent in the Greater Minnesota counties outside of the Twin Cities. This percentage differs from earlier studies; for example, the Parrott and Reich Seattle TNC report found the P1 share of time to be about 38 percent in Seattle.[15] A transportation engineering firm engaged by Uber and Lyft, Fehr & Peers, found that the P1 share of miles (which roughly approximates the P1 share of time) ranged from 30 to 38 percent for six U.S. metropolitan areas.[16] However, both of those reports reflect pre-pandemic conditions in 2018 or 2019. Many drivers left the industry during the worst of the pandemic. In the post-pandemic period, the companies have often encountered difficulty recruiting drivers back or recruiting new drivers to their platforms.[17]

The companies have responded by increasing the use of "forward dispatch." Forward dispatch occurs when a driver who is in the middle of a trip receives an offer for the next trip. If the driver accepts the trip offer, he or she begins the P2 time for the next trip as soon as they complete the current trip. In these circumstances, P1 time is eliminated entirely. Researchers determined 40 percent of all Minnesota trips in 2022 had a P1 time of zero, indicating a considerable use of forward dispatch.

For trips that do not involve forward dispatch, the companies measured P1 as the elapsed time since the most recent rejected offer. In recent years, the companies have begun indicating to drivers the likely time, distance and driver earnings of trip offers. The companies have also provided drivers with the option of accepting or

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[13] Researchers identified the start of a driver's shift as the endpoint of a gap between the imputed P1 starting time of a trip and the P3 ending time of the preceding trip that is greater than two hours.
[14] Drivers working on both apps at some point in a month are more common in the Twin Cities metro area than in the rest of the state. For example, in January 2022, 28 percent of all Minneapolis/St. Paul metro drivers were multi-app, nearly twice the 15 percent for the rest of the state.
[15] See Exhibit 30 in James A. Parrott, and Michael Reich, *A Minimum Compensation Standard for Seattle TNC Drivers*, Report for the City of Seattle, Center for New York City Affairs, July 2020.
[16] Fehr & Peers, *Estimated TNC Share of VMT in Six US Metropolitan Regions (Revision 1)*, Aug. 6, 2019, Figure 3.
[17] Tim Bradshaw and Dave Lee, "Is Uber's driver shortage finally over?" *Financial Times*, Oct. 5, 2022.

rejecting those offers. Thus, the company data about Minnesota trips show a high share of short positive P1 times. In January 2022, for example, 31 percent of all trips had reported P1 times of fewer than 2.5 minutes (with an average of about 50 seconds). This amount is in addition to 39 percent of the trips in January 2022 with zero P1 values (indicating forward dispatch).

Driver availability on short notice is a key feature of the TNC business model. Thus, actual P1 time and the miles driven during P1 time are factored into the existing TNC pay standards in New York City and Seattle, and by the state of Washington. The modified P1 data DLI received impacts the ability to conduct this analysis. Drivers reject trips for a variety of reasons. Results from the Minnesota driver survey show the primary reason drivers reject trips are offers they consider not economically viable. See the "Forward dispatch and trip rejections" box below.

Forward dispatch and trip rejections are each common

Two-thirds of Minnesota TNC driver survey respondents reported they receive trip offers while they still have a passenger in the car more than 10 percent of the time, with 19 percent indicating forward dispatch offers on 40 percent or more of their trips. As noted in the text, about 40 percent of all trips have a zero P1 time indicating an accepted forward dispatch offer. In response to Question 8 on the driver survey regarding trip offer rejections (which may occur with or without a passenger in the car), 23 percent report that they reject 20 percent or more of trip offers, and another 28 percent report they reject offers from 5 to 20 percent of the time. By overwhelming numbers (83 percent), drivers indicate they reject trip offers because they will not earn enough for that trip to make it worthwhile or because the trip would take them to an area where it would be hard to get another trip offer.

In light of the truncated P1 times reported by the companies, the researchers adjusted short positive P1 times reported in the company data that were fewer than 2.5 minutes in order to gauge the impact such adjustments would have on driver earnings. They used high and low adjustment assumptions and then took the mid-point of that range to adjust short positive P1 times. Appendix Exhibit 3 explains this exercise in detail.[18]

Adjusting the short P1 times would increase driver earnings under the base pay standard in the Twin Cities metro area by 3.3 percent and by 2.3 percent for drivers in Greater Minnesota. The reason for the earnings difference is that shortening P1 times reduces trip time and distance (shorter P1 times imply less distance traveled during P1), and that reduction increases the P3 shares of time and distance and reduces the scaling up factor applied to the per minute and per mile payment rates.

In the following earnings analysis, which informs the values used in the pay standard discussion in Section 6, the researchers rely on the P1 data submitted by Uber and Lyft without adjustment. Because adjusting the P1 times had a limited impact on the overall average P1 times and resulting shares of total working time (and miles), the analysis here continues with the unadjusted P1 data.

[18] The adjustment method was based on an analysis of P1 times that were less likely to be affected by rejected trip offers. Appendix Exhibit 3 shows that such an adjustment has a limited impact on the overall average P1 times and resulting shares of total working time (and miles).

Earnings

After data cleaning and the elimination of overlapping P1 and P2 times, overall earnings for each committed driver (those whose average weekly hours were 10 or more) were analyzed for each month during 2022.

Earnings are shown separately for drivers in the Twin Cities seven-county metro area and the Greater Minnesota counties outside of the metro area. Earnings, exclusive of tips, are first shown on a gross basis, and then on an after-expense (net) basis—after subtracting an expense amount based on a driver's total miles multiplied by the applicable IRS business mileage rate.[19] Section 5 discusses a Minnesota-specific expense method for 2024 costs that is included in the minimum compensation standard options. For 2022, the applicable IRS rates are used in this earnings analysis to highlight the difference between gross pay and after-expense pay. This report did not estimate Minnesota-specific expenses for 2022.

Tips are not included in driver earnings. Promotions and bonuses received by drivers are reflected in the company data on an allocated basis. Although not indicated in the data descriptions provided with the company data, news reports indicate the companies added a 55 cent per trip fuel surcharge to passenger fares. Uber's surcharge was in place from March 16, 2022, through Jan. 3, 2023, and Lyft's fuel surcharge was effective March 16, 2022, through Sept. 30, 2022.[20] The company data shown in Exhibit 9 presumably includes fuel surcharges provided to drivers.

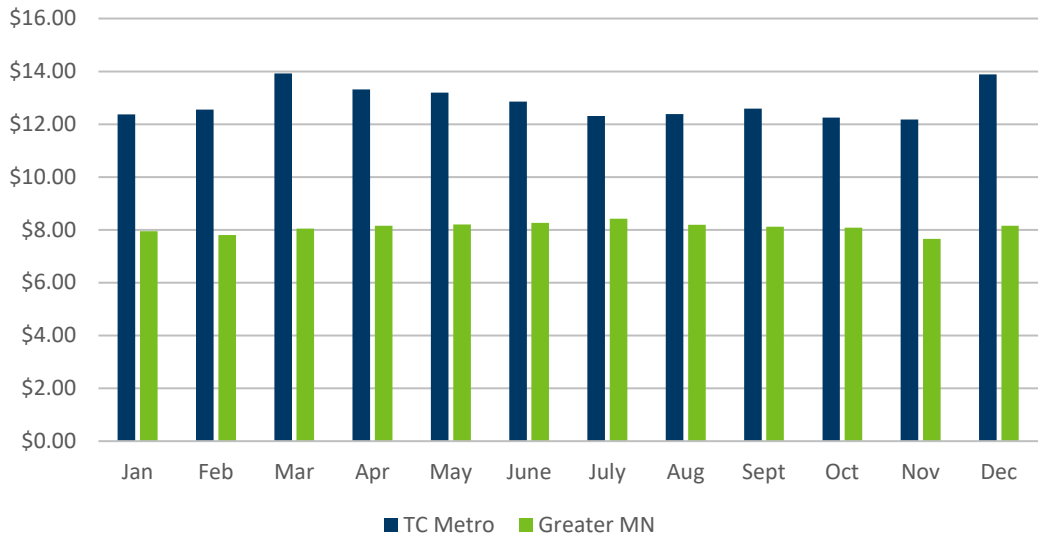
Exhibit 9 shows gross driver earnings (without tips) for each month during 2022, with trips originating in the Twin Cities metro area shown separately from Greater Minnesota. Pay rates are significantly and consistently different for the two areas. There is no discernible earnings trend during the 12 months of 2022, other than the introduction of the fuel surcharge in March that boosted metro earnings (although the impact eroded after three or four months). Thus, the earnings analysis presented in Section 6uses annual average earnings and average trip time and miles to determine the Minnesota compensation standards..

[19] Since gas and vehicle (new and used) prices were rising rapidly in early 2022, the IRS adopted a rare midyear rate adjustment. For the first six months of 2022 the IRS business mileage rate was 58.5 cents per mile, and for the second half of the year, the rate rose to 62.5 cents. For 2023, the IRS rate rose to 65.5 cents, and in 2024, it is 67 cents.

[20] Pete Grieve, "Amazon, Uber and Other Companies Are Dropping Fuel Surcharges After Gas Prices Plunge," *Money*, Jan. 26, 2023.

Exhibit 9

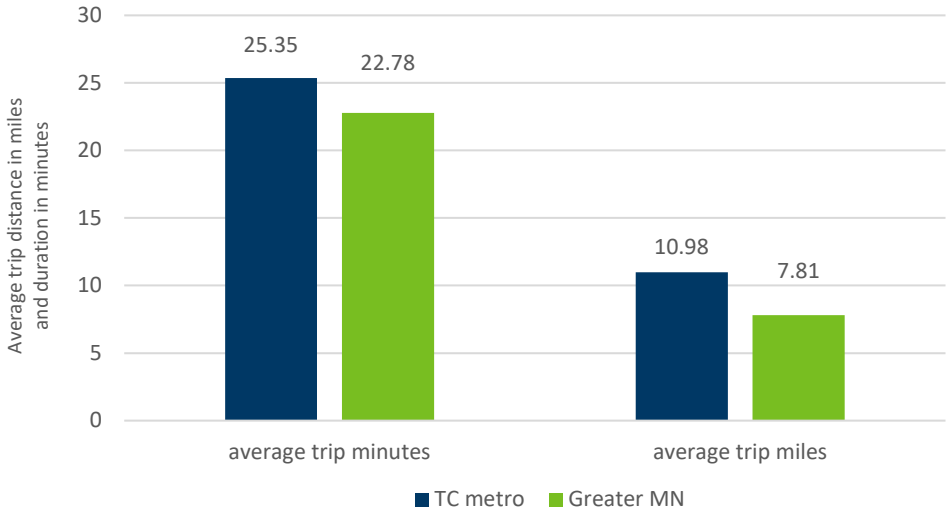
TNC gross earnings per trip are higher in the Twin Cities metro than in Greater Minnesota



Gross trip earnings are higher in the metro area than in Greater Minnesota in part because metro trips average about 11 percent longer in time and are 40 percent longer in miles. See Exhibit 10.

Exhibit 10

Average 2022 Twin Cities metro area and Greater Minnesota trip duration and distance



For the earnings analysis, the researchers analyzed average pay for committed drivers for all the trips they provided in 2022. Exhibits 11 and 12 show the distribution of hourly earnings (mean—25th percentile—median—75th percentile) for four measures: passenger time (P3); engaged time (P2 + P3); all working time (P1 + P2 + P3)

or time with the app on; and for all working time after expenses. Since Twin Cities metro drivers had a passenger in their car about 58 percent of their working time in 2022, their average hourly pay for all working hours is considerably less than for just their P3 time: average gross earnings per working hour were $30.27 compared to $52.94 per P3 hour (Exhibit 11). Median values are slightly lower.

After subtracting estimated expenses from gross earnings, the after-expense earnings per working hour falls by half or more. Thus, for the median Twin Cities metro area driver in the exact middle of the pay distribution, after-expense pay per working hour was $13.63; the average after-expense earnings across all drivers was $14.48 per working hour. (As noted previously, expenses were estimated based on the IRS business mileage rates for 2022 since the researchers did not develop detailed Minnesota expense estimates for 2022.)

Exhibit 11
Hourly earnings for Twin Cities metro area drivers

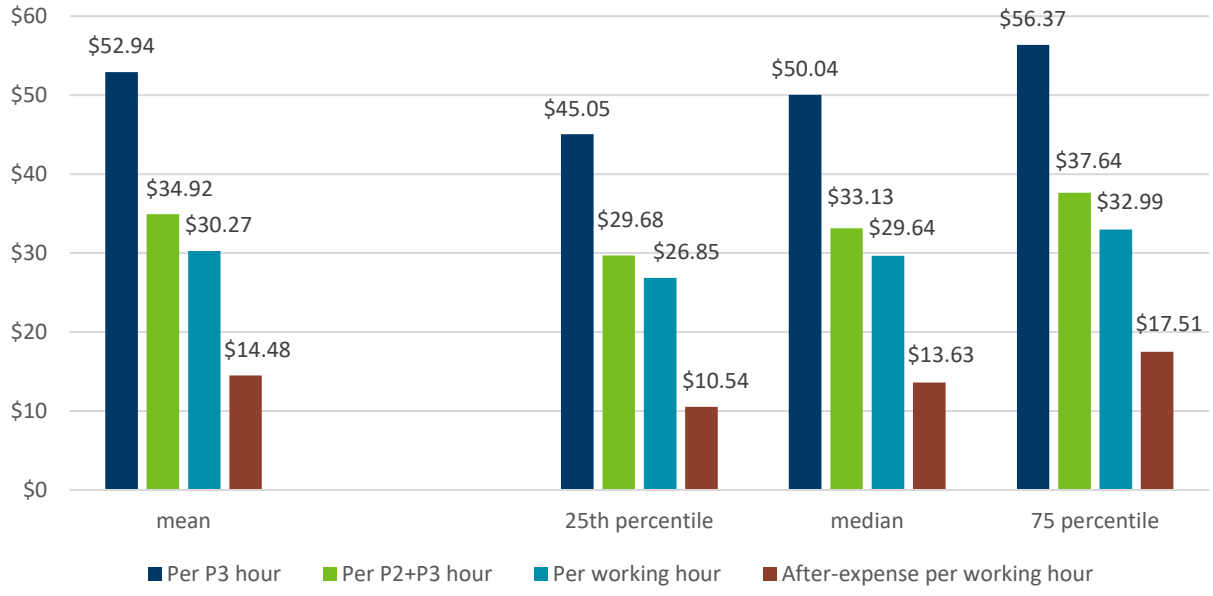
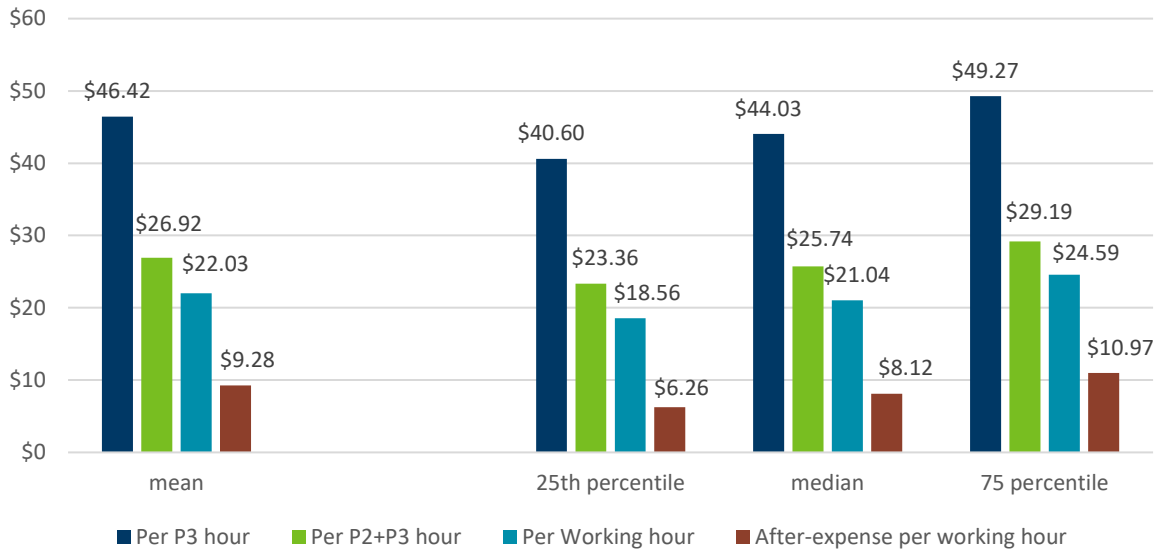


Exhibit 12 shows hourly earnings for the same four measures included in Exhibit 11, but for Greater Minnesota drivers for 2022. Earnings for Greater Minnesota drivers are consistently less than for Twin Cities metro drivers: about $8.60 less on a median working hour basis; and about $5.50 less on an after-expense working hour basis ($8.12 versus $13.63).

Exhibit 12

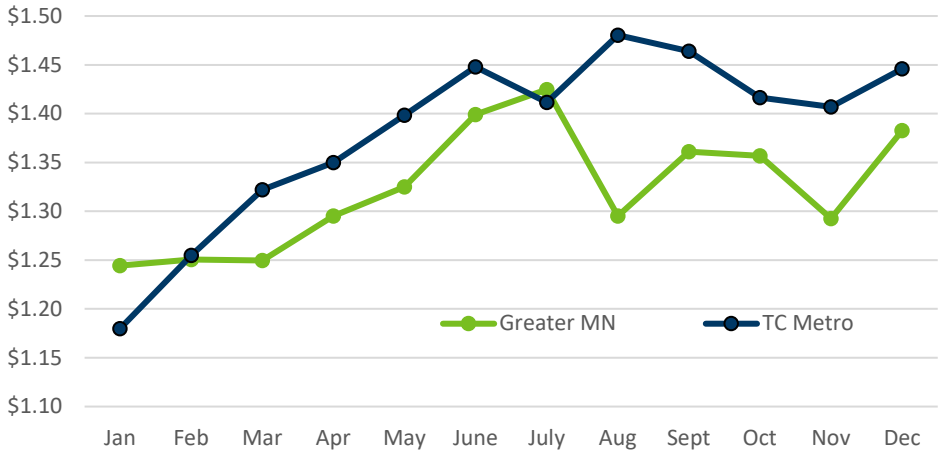
Hourly earnings for Greater Minnesota drivers



Drivers received tips on about one-third of all Minnesota trips in 2022. When passengers did tip during the months of May and November (typical months six months apart), tips averaged about $4.40. Passengers in Greater Minnesota tip considerably better than do Twin Cities metro area passengers when tips are compared to driver earnings: the dollar amount of tips averaged 10.7 percent relative to driver pay in the Twin Cities metro area and 16.4 percent in Greater Minnesota. Exhibit 13 indicates tips averaged across all 2022 trips (whether tipped or not).

Exhibit 13

Average tips per trip, Twin Cities metro and Greater Minnesota drivers



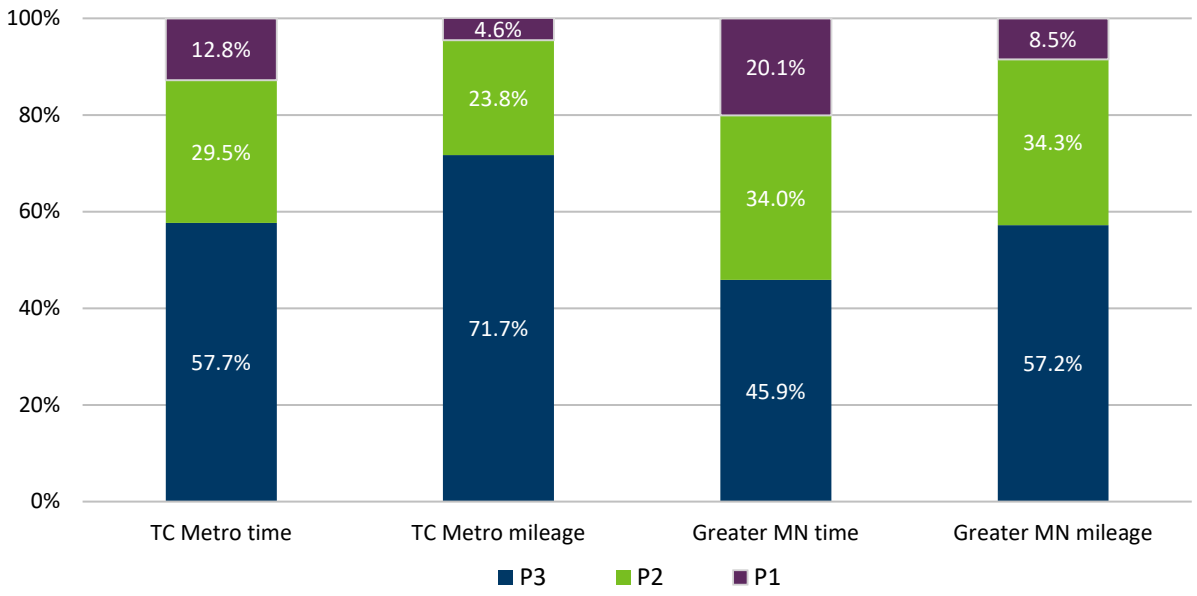
P1, P2 and P3 time and mileage shares determine scaling factors

Exhibit 14 shows the shares of working or on-app time and total miles for each of the P1, P2 and P3 trip segments. As discussed previously, the P1 shares are low in Minnesota compared to previous TNC studies.

The increased use of forward dispatching constitutes the primary factor that reduces average P1 time. For both the Twin Cities metro area and Greater Minnesota, the P1 share of miles is less than half the P1 time share. Recall that since the companies did not provide data on P1 miles, the researchers estimated it by assuming the average speed during P1 was half of P2 average speed.

The researchers computed the values in Exhibit 14 from the company-provided data, with adjustments only to eliminate overlapping time across the two companies. P3 values were used to compute the Minnesota pay standard options discussed in Section 6.

Exhibit 14
In the Twin Cities metro area, drivers had passengers in their cars during 57.7 percent of working time, and 71.7 percent of trip miles

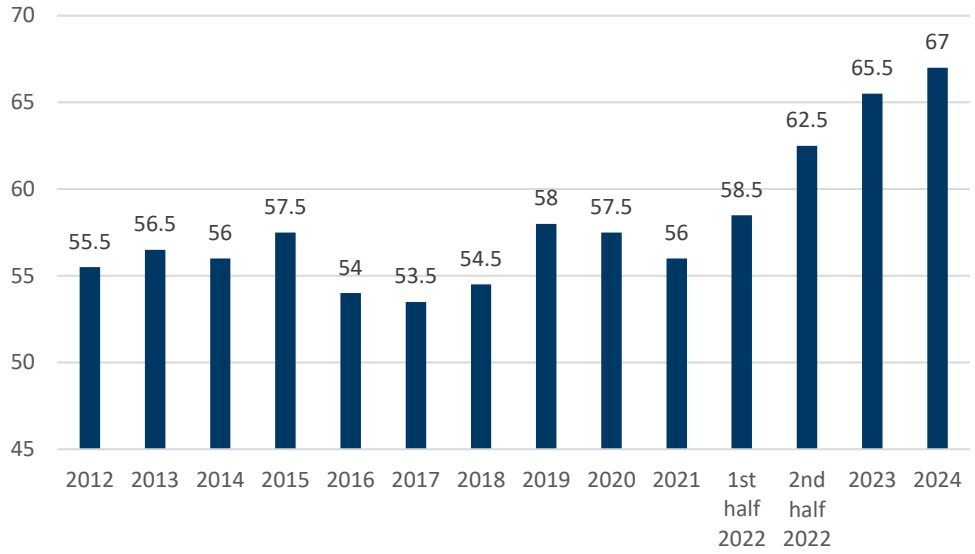


5. Minnesota-specific expense model

TNC drivers bear the entire responsibility for providing, maintaining and operating the vehicles they use to deliver TNC passenger services. To estimate the *net* earnings of TNC drivers, all expenses incurred in providing TNC services must be accounted for, including vehicle-related expenses such as licensing and vehicle registration, and the costs of a smart phone and data plan. The researchers estimated total TNC-related expenses on an annual basis and per mile. These estimates draw from a number of sources: the Minnesota TNC driver survey, administrative information on licensing and related costs, and standard industry sources on used vehicle prices and financing costs.

The U.S. Internal Revenue Service (IRS) annually updates a study of the fixed and variable costs of operating an automobile. The IRS uses these costs to calculate the deductible costs of operating a vehicle for business purposes. The IRS has determined the standard mileage rate for the business use of a vehicle is 67 cents per mile for 2024, 1.5 cents higher than in 2023. In the wake of the rapid increase in fuel and new and used vehicle costs in early 2022, the IRS made a rare mid-year adjustment, increasing the business mileage rate for the second half of 2022. See Exhibit 15.

Exhibit 15
The IRS business mileage rates have risen steadily since 2021, with a 67 cents per mile rate for 2024



When TNC drivers file their federal income tax returns, they can use the IRS standard mileage rate (or their own receipts) to deduct vehicle expenses from their gross earnings from TNC driving. They use these amounts to determine the net business income amount on which they owe income taxes.[21] Deducting vehicle expenses to

[21] irs.gov/newsroom/irs-issues-standard-mileage-rates-for-2020.

determine net business income means drivers are not paying income tax on their reimbursable vehicle expenses incurred while providing TNC services. Thus, reimbursement for the driver's outlay for vehicle expenses is not a form of income for drivers.

The IRS mileage rate provides a useful benchmark. However, this analysis develops an estimate of vehicle expenses for Minnesota that builds on local conditions specific to the Minnesota TNC industry.

The annual cost of a driver's license, vehicle registration, license plates and related fees and taxes were compiled from the website of the Minnesota Department of Public Safety's Driver and Vehicle Services Division and checked with personnel in that office. These annualized costs totaled $243 and include the $25 fee for registering with the Metropolitan Airports Commission (MAC) to provide TNC trips originating from MSP Airport. The airport fee is the only TNC-specific cost in Minnesota.

MAC provided DLI with a list of airport-registered TNC drivers with information about the make, model and year of their vehicles. This analysis grouped the data about 8,012 vehicles into eight common vehicle categories (for example, compact SUV and medium sedan) and four vintage year groups (2016, 2018, 2020 and 2022). Researchers used online sources to estimate Twin Cities metro area used car prices in those 32 vintage-vehicle categories and then estimated the annual payments for a driver financing the purchase of a vehicle. This method resulted in an average vehicle cost of $26,154 and a monthly loan payment of $837 or a little over $10,000 a year. While the driver survey included a question about monthly car payments, nearly a third of respondents did not provide a value for that question, possibly because their vehicle was fully paid for. The average amount for those renting or leasing exceeded the $837 figure estimated for financing the purchase of a late model used car.

While the companies provide liability insurance coverage, TNC drivers also purchase their own liability and personal injury protection insurance as required by state law. Some drivers add collision and comprehensive coverage for their vehicle, particularly for newer models with higher values. Survey responses were used to estimate insurance and maintenance costs included in Exhibit 16. As a check, online sources were consulted to corroborate those estimates. Detailed vehicle information described above was used to determine average gas mileage ratings for combined city and highway, using U.S. Department of Energy data and estimated annual fuel costs and data about average Minnesota retail regular gasoline costs for July through December 2023. This method resulted in a weighted average mileage rating of 31.5 miles per gallon and average fuel costs of $3.43 per gallon.

The expense model also included the estimated cost of a large format smart phone and unlimited data plan needed by a TNC driver, and an allowance for periodic internal and external vehicle cleaning since customer-provided driver ratings inquire about vehicle cleanliness.

Exhibit 16

Minnesota TNC vehicle and operating expenses

Expense category	Specific expenditure	Annual	Per mile
Per mile costs based on 35,000 miles per year			
Licensing, vehicle registration fees and tax		**$243**	**$0.0069**
Operating costs	Vehicle acquisition	$10,044	$0.2870
	Gas	$3,815	$0.1090
	Vehicle maintenance	$3,434	$0.0981
	Insurance	$2,664	$0.0761
	Cellphone	$1,440	$0.0411
	Vehicle cleaning	$700	$0.0200
	Subtotal	**$22,097**	**$0.6313**
Total vehicle and operating expenses		**$22,339**	**$0.6383**
Amount for casual drivers			**$0.4941**

Since most Minnesota TNC trips are provided by committed drivers, the researchers amortize annualized vehicle expenses over 35,000 annual miles. This is roughly the number of miles a full-time driver would travel based on 35 hours a week times 50 weeks a year times an average speed of 20 miles per hour. As Exhibit 16 indicates, factoring in all of the itemized, Minnesota-specific components, annual vehicle and related costs spread over 35,000 annual miles comes to 63.83 cents per mile. This per mile factor is equally appropriate for a driver logging 15,000 or 20,000 annual miles as it is for a full-time driver logging 35,000 miles.

The 63.83 cents per mile factor estimated for Minnesota TNC drivers is nearly five percent below the 67 cents per mile business mileage factor for 2024 used by the IRS. The Minnesota rate is lower because vehicle acquisition costs were based entirely on used vehicles, as provided by the model years in the airport data set. The airport data indicate that 46 percent of vehicles were model year 2020 or more recent; 54 percent were older than the 2020 model year.

If one assumes the expenses of “casual” drivers exclude “fixed” costs, such as insurance, license and taxes, cell phone and cleaning costs, then vehicle expenses would total 49.4 cents per mile.

Uber and Lyft both provide personal transportation services for Minnesota passengers who use wheelchairs. The TNC committee’s driver compensation recommendations called for a higher compensation amount to be paid to drivers operating a wheelchair accessible vehicle (WAV) since the cost of a used minivan with a wheelchair ramp installed can range $25,000 to $30,000 more than a similar vehicle without a wheelchair ramp. Appendix Exhibit 4 provides an estimate of total driver expenses for a WAV and explains the methodology. Appendix Exhibit 5 includes the higher per mile expense rates associated with the higher WAV costs for the Twin Cities metro area and Greater Minnesota.

6. Minnesota pay standard options

The TNC committee established by Executive Order 23-07 reached consensus on a total of 24 recommendations in five topic areas: pay transparency; minimum compensation; deactivation and due process; driver support; and insurance.[22] The following consensus recommendations identify features for a minimum compensation standard, but do not comprise the total set of recommendations in this topic area.

- Minimum compensation paid in a per minute, per mile format.
- At a minimum, compensation should be $5 for any transportation of a rider by a driver.
- The minimum compensation guarantees a level of compensation for drivers that cannot be reduced in an earnings period not to exceed 14 calendar days. In no way does the established minimum compensation prohibit drivers from earning a higher level of compensation.
- Higher minimum compensation paid to drivers operating a wheelchair accessible vehicle.
- Tips are the property of the driver and must not be counted toward required minimum compensation.
- Beginning Jan. 1, 2025, and each Jan. 1 thereafter, the minimum compensation amounts must be adjusted annually by the same process as the statewide minimum wage under Minnesota Statutes, section 177.24, subdivision 1.
- The legislation establishing the minimum compensation standard should include an enforcement mechanism and responsible state entity for minimum compensation requirements.

TNC minimum compensation standards have been implemented to date in New York City, in Seattle, and in the remainder of Washington state. Each of these compensation standards include a per mile component to reimburse drivers for vehicle acquisition and operating costs and a per minute component to pay drivers at least the independent contractor-equivalent of the applicable minimum wage (for example, including federal FICA payroll tax). In addition, these existing standards include payments for certain benefits, as discussed below.

Pay standard time and distance components, the scaling factor and pay standard options

The format of the pay standard options includes per minute and per mile components applied to the time and distance of a TNC passenger trip; that is, the pay rates are pegged to the P3 (passenger) share of time and miles. In order to pay the drivers for the entirety of their on-app time and for all the miles they drive during on-app time, P3 time and miles are scaled up. Scaling up the per minute pay rate involves dividing by the P3 share of on-app time; and scaling up the per mile expense rate involves dividing by the P3 share of total miles driven during all three time segments for each trip.[23]

The Minnesota TNC pay standard options include two components, a per minute component to compensate for the driver's time, and a per mile component to compensate for vehicle expenses, and as explained below, to

[22] Recommendations for the Compensation, Wellbeing and Fair Treatment of Transportation Network Company Drivers ("TNC Committee Report"), Minnesota Department of Labor and Industry, Dec. 30, 2023. pp. 5-8
dli.mn.gov/sites/default/files/pdf/TNC_EO_23_07_final_committeee_report_123023.pdf
[23] The New York City and Seattle compensation standards were determined using similar scaling up calculations.

cover the cost of various benefits. A key feature of this analysis is the range of options calculated for a minimum pay standard for TNC drivers in Minnesota. Instead of focusing on a particular amount, the analysis presents a "base" per mile option that accounts for vehicle expenses, and a "comprehensive" per mile option that accounts for vehicle expenses plus several common workplace benefits with the cost of each itemized to show the incremental cost on a per mile basis. Furthermore, the pay standard options provide different rates based on geography that reflect the different minimum wages in the Twin Cities metro area and Greater Minnesota.

The Minnesota per minute rate is designed to compensate drivers at the equivalent of the minimum wage, including an amount for the employer share of federal Social Security and Medicare payroll tax: (Minneapolis minimum wage of $15.57 was used for the Twin Cities metro area, and the state minimum wage of $10.85 was used for Greater Minnesota). The derivation of the per minute rate for the Twin Cities is as follows: the employer share of federal Social Security and Medicare payroll taxes is added to the $15.57 hourly minimum wage; that sum of $16.85 is scaled up for the .577 P3 time share from Exhibit 14 to equal $29.21 per hour; finally, converting to a per minute basis equals $0.487. The derivation for Greater Minnesota is: the state's $10.85 minimum wage plus $0.89 in employer payroll taxes equals $11.74; scaled up by the .459 P3 time share yields $25.60 per hour, and $0.427 per minute.

As discussed in Section 5, the Minnesota base per mile rate provides for the 63.83 cents per mile cost of acquiring, operating, and maintaining a vehicle based on Minnesota-specific costs from early 2024. (This is before scaling for the P3 share of miles; the comprehensive per mile rate is discussed below.)

Estimated benefits and costs

The *Employer Cost of Employee Compensation* series from the U.S. Bureau of Labor Statistics (BLS) estimates the costs of various benefits. Exhibit 17 shows the national average compensation costs for selected benefits for private industry transportation workers, specified as workers in the transportation occupation in the transportation industry. For the four quarters through the third quarter of 2023 (the most recent for which data are available), average wages for transportation workers were $24.16, and average benefits were 47 percent of that, or $11.36. Thus, total hourly compensation for U.S. transportation workers through the third quarter of 2023 averaged $35.52.

Exhibit 17

BLS benefit costs relative to hourly wage for U.S. private transportation workers

Benefit costs relative to hourly wage	100.0%
Total benefits	47.0%
Selected benefit components	
Legally required benefits	12.5%
Social Security and Medicare	8.0%
Federal unemployment insurance	0.1%
State unemployment insurance	0.5%
Paid leave (vacation, holiday, sick, personal)	9.3%
Supplemental pay (overtime, bonuses)	4.9%
Insurance	13.6%
Health insurance	12.6%
Short-term disability insurance	0.3%
Retirement and savings costs	6.7%

Note: Average cost for four quarters up through the third quarter of 2023.
Source: BLS, Employer Cost of Employee Compensation.

Exhibit 18 provides estimates of the costs of various benefits for drivers in the Twin Cities metro area, using BLS cost shares relative to wages and translated into a per mile basis. Appendix Exhibit 6 explains the calculations in detail. Exhibit 19 provides estimates of the costs of various benefits for drivers in Greater Minnesota (see Appendix Exhibit 7 for details about the estimation of the benefit components). The benefits listed are the same for both geographic areas: earned sick and safe time (ESST); paid leave (which includes ESST); health insurance; retirement savings and unemployment insurance. The "comprehensive benefits" shown in the last row of Exhibit 18 and the last row of Exhibit 19 includes all of these benefits, with ESST netted out since it is included in paid leave.

The benefit costs are different for the two areas for two reasons: different minimum wage levels, and different factors that are used to scale the per mile expense costs. The state minimum wage of $10.85 per hour provides the basis for the Greater Minnesota pay standard; the P3 share of miles outside the metro area is .572, compared to 0.717 in the metro area (P3 shares based on the 2022 company data). The lower statewide minimum wage reduces the mileage rate, since the benefit costs are determined as a percentage of the wage. However, the lower P3 mileage share more than offsets the effect of the lower minimum wage, resulting in a greater scaling-up effect for these counties. The lower (P3) mileage share for these counties makes the per mile expense component $1.116, compared to $0.89 for the Twin Cities metro area. With the comprehensive benefits factor added to the mileage component, the per mile rate would be $1.207 for the Twin Cities metro area and $1.393 for Greater Minnesota.

Exhibit 18

Twin Cities metro per mile rates and expense options

Vehicle and operating expenses	P3 share of miles	Vehicle and operating expenses scaled for P3 share of miles	Base per mile rate
$0.6383	0.717	$0.890*	**$0.890**

	Benefit component	per hour wage ($15.57) **	annual (1750 hrs.)	per mile (35,000 annual)	Benefit cost	Base rate plus benefit cost
ESST	Earned Sick and Safe Time	$0.427	$747	$0.0214	$0.030	**$0.920**
PL	Paid leave--includes ESST	$1.448	$2,534	$0.0724	$0.101	**$0.991**
HI	Health insurance	$1.962	$3,433	$0.0981	$0.137	**$1.027**
RS	Retirement savings	$1.043	$1,826	$0.0522	$0.073	**$0.963**
UI	Unemployment insurance	$0.093	$163	$0.0047	$0.007	**$0.897**
Comprehensive per mile rate (incl. PL + HI + RS + UI) ***		$4.546	$7,956	$0.2273	$0.317	**$1.207**

* $0.890 = $0.6383 divided by 0.717.

** Per hour wage for metro area used to estimate benefit cost = Minneapolis 2024 $15.57 minimum wage.

*** Comprehensive benefits includes: paid leave, health insurance, retirement savings and unemployment insurance.

Note: Cost of ESST based on Minnesota law taking effect Jan. 1, 2026; other benefit costs estimated using BLS national average compensation costs for transportation workers relative to average hourly wage. Costs estimated based on 1,750 annual hours and amortized on a per mile basis assuming 35,000 annual miles. BLS, Employer Costs of Employee Compensation, Dec. 15, 2023.

Exhibit 19

Greater Minnesota per mile rates and expense options

Vehicle and operating expenses	P3 share of miles	Vehicle and operating expenses scaled for P3 share of miles	Base per mile rate
$0.6383	0.572	$1.116*	**$1.116**

	Benefit component	per hour wage ($10.85) **	annual (1750 hrs.)	per mile (35,000 annual)	Benefit cost	Base rate plus benefit cost
ESST	Earned Sick and Safe Time	$0.298	$521	$0.0149	$0.026	$1.142
PL	Paid leave--includes ESST	$1.009	$1,766	$0.0505	$0.088	$1.204
HI	Health insurance	$1.367	$2,392	$0.0684	$0.120	$1.235
RS	Retirement savings	$0.727	$1,272	$0.0363	$0.064	$1.179
UI	Unemployment insurance	$0.065	$114	$0.0033	$0.006	$1.122
	Comprehensive per mile rate (incl. PL + HI + RS + UI) ***	$3.168	$5,544	$0.1584	$0.277	**$1.393**

* $1.116 = $0.6383 divided by 0.572.

** Per hour wage for Greater Minnesota area used to estimate benefit cost = Minnesota 2024 $10.85 minimum wage.

*** Comprehensive benefits includes: paid leave, health insurance, retirement savings and unemployment insurance.

Note: Cost of ESST based on Minnesota law taking effect Jan. 1, 2026; other benefit costs estimated using BLS national average compensation costs for transportation workers relative to average hourly wage. Costs estimated based on 1,750 annual hours and amortized on a per mile basis assuming 35,000 annual miles. BLS, Employer Costs of Employee Compensation, Dec. 15, 2023.

How Minnesota TNC pay standards would apply to an average 2022 trip

Twin Cities metro area TNC pay standard options

Exhibit 20 illustrates the determination of per trip driver compensation under the metro area base minimum pay standard. The per minute and per mile pay rates are scaled up based on the Twin Cities average P3 share of drivers' time for 2022 of 57.7 percent and the average P3 share of miles for 2022 of 71.7 percent (from Exhibit 14). The per mile vehicle and operating expense factor of 63.83 cents, as developed in Exhibit 16, is used. The scaled-up pay rate based on the $15.57 Minneapolis and St. Paul minimum wage levels (plus 7.65% payroll tax) per P3 minute would be 48.7 cents and the scaled up P3 mileage rate would be $0.89.

For an average 2022 Twin Cities metro area trip of 14.64 P3 minutes and 7.87 P3 miles, the base pay standard option would yield trip earnings of $14.13, ten percent more than the $12.87 average trip earnings in 2022. This estimate includes a factor for the employer payroll tax in the per minute component. On a per P3 hourly earnings basis, the base pay standard option would equal $57.91 for Twin Cities metro area TNC drivers.

Greater Minnesota TNC pay standard options

Exhibit 21 shows similar calculations for trips originating in Greater Minnesota using the Minnesota statewide $10.85 per hour minimum wage. Trip parameters (average time and distance and P3 shares that determine the scaling factors) are considerably different outside of the Twin Cities metro area. Trips tend to be shorter and the P3 shares of minutes and miles are lower as indicated in Exhibit 14. The base pay standard option for Greater Minnesota would result in typical trip earnings of $9.45, 17 percent greater than the $8.07 paid in 2022. This estimate includes a factor for the employer payroll tax in the per minute component as discussed above. On a per P3 hourly earnings basis, the base pay standard would equal $54.31 for Greater Minnesota TNC drivers.

Exhibit 20

Twin Cities metro area TNC pay standards compared to 2022 per trip earnings

2022 average earnings per trip	$12.87
2022 average minutes per trip	25.35
2022 average. miles per trip	10.97
P3 share of minutes	0.577
P3 share of miles	0.717
Minneapolis 2024 minimum wage for large employers	$15.57
Payroll tax	$1.28
Subtotal	$16.85
Scaled by P3 share of minutes *(scale up by dividing by P3 share of minutes)*	$29.21
P3 per minute rate *(hourly figure above divided by 60)*	$0.487
MN per mile vehicle expense factor	$0.638
Scaled by P3 share of miles	$0.890

Per trip earnings under Twin Cities metro base pay standard

Trip components	2022 trip averages	Per minute and per mile rates	Pay components
P3 minutes	14.64	$0.487	$7.126
P3 miles	7.87	$0.890	$7.006
Earnings per trip under Twin Cities metro base pay standard			$14.13
	comparison to 2022 avg trip earnings		$12.87
	ratio of standard to 2022 trip earnings		**1.098**

Per trip earnings under Twin Cities metro pay standard with comprehensive benefits

MN per mile expense combining vehicle & comprehensive benefit costs **$1.207**

Trip components	2022 trip averages	Per minute and per mile rates	Pay components
P3 minutes	14.64	$0.487	$7.126
P3 miles	7.87	$1.207	$9.501
Earnings per trip under Twin Cities metro pay standard with comprehensive benefits			$16.63
	comparison to 2022 avg trip earnings		$12.87
	ratio of standard to 2022 trip earnings		**1.292**

Exhibit 21

Greater Minnesota TNC pay standards compared to 2022 per trip earnings

2022 average earnings per trip	$8.07
2022 average minutes per trip	22.78
2022 average miles per trip	7.82
P3 share of minutes	0.459
P3 share of miles	0.572
Minneapolis 2024 minimum wage for large employers	$10.85
Payroll tax	$0.89
Subtotal	$11.74
Scaled by P3 share of minutes *(scale up by dividing by P3 share of minutes)*	$25.60
P3 per minute rate *(hourly figure above divided by 60)*	$0.427
MN per mile vehicle expense factor	$0.638
Scaled by P3 share of miles	$1.116

Per trip earnings under Greater Minnesota base pay standard

trip components	2022 trip averages	per minute and per mile rates	pay components
P3 minutes	10.45	$0.427	$4.459
P3 miles	4.47	$1.116	$4.988
Earnings per trip under Twin Cities metro base pay standard			$9.45
	comparison to 2022 avg trip earnings		$8.07
	ratio of standard to 2022 trip earnings		**1.171**

Per trip earnings under Greater Minnesota pay standard with comprehensive benefits

MN per mile expense combining vehicle & comprehensive benefit costs	$1.393

trip components	2022 trip averages	per minute and per mile rates	pay components
P3 minutes	10.45	$0.427	$4.459
P3 miles	4.47	$1.393	$6.226
Earnings per trip under Twin Cities metro pay standard with comprehensive benefits			$10.68
	comparison to 2022 avg trip earnings		$8.07
	ratio of standard to 2022 trip earnings		**1.324**

Comparisons of Minnesota TNC base pay standards to other areas

This section compares the previously discussed Minnesota TNC pay standards to minimum TNC driver compensation rates in New York City, Seattle and the rest of Washington state. As Exhibit 22 indicates, minimum wage levels are higher in these other jurisdictions and pay standard rates include other items besides the payroll tax. The New York City TNC pay standard includes a paid time off component; the Seattle standard includes payments for health insurance and rest breaks.[24] The TNC companies provide paid sick time directly to drivers in Seattle and the rest of Washington state. New York City drivers have paid sick time coverage through the recent settlement with the State Attorney General's office, and Uber drivers are able to access regular New York unemployment insurance through an agreement between Uber and the State Labor Department.[25]

The New York City, Seattle and Washington state TNC pay standards are indexed annually by the uncapped change in the Consumer Price Index (CPI). In New York City, in response to the rapid increase in fuel and vehicle costs in 2021 and 2022, the New York City Taxi and Limousine Commission (TLC) used the CPI transportation component to adjust the mileage rate factor to better reflect the increased vehicle expense costs borne by drivers in March of 2023.[26]

Exhibits 23 and 24 provide a direct comparison of the Minnesota base pay standards to the minimum TNC driver compensation rates in New York City, Seattle and the rest of Washington state. Regarding data reporting, the New York City TLC requires the companies to report extensive data on trips and earnings on a biweekly basis.[27]

Exhibit 22
TNC minimum pay standard coverage in other jurisdictions

Jurisdiction	Jan. 1, 2024 minimum wage	Other coverage
New York City	$16.00	Payroll tax and 6% paid time off included in per minute rate
Seattle	$19.97	Payroll tax, health ins. payment and rest break factor included in per mile rate; paid sick time provided by companies
Washington outside of Seattle	$16.28	Paid sick time provided by companies

[24] Separate from the New York City, Seattle and Washington state driver compensation standards, drivers in the three jurisdictions have workers' compensation coverage.
[25] New York State Governor Kathy Hochul, "Governor Hochul Announces Unprecedented Settlement Agreement Between the NYS Department of Labor and Uber," Nov. 2, 2023. governor.ny.gov/news/governor-hochul-announces-unprecedented-settlement-agreement-between-nys-department-labor-and. New York State Attorney General Letitia James, "Attorney General James Secures $328 Million from Uber and Lyft for Taking Earnings from Drivers," Press Release, Nov. 2, 2023. ag.ny.gov/press-release/2023/attorney-general-james-secures-328-million-uber-and-lyft-taking-earnings-drivers. Links to the settlement agreements: ag.ny.gov/sites/default/files/settlements-agreements/uber-lyft-aods.pdf.
[26] New York City Taxi and Limousine Commission, *High-Frequency For-Hire Service Updates, Pay Standards, Adopted March 8, 2023,* nyc.gov/assets/tlc/downloads/pdf/Statment_of_Substantial_Need_310_signed.pdf.
[27] See nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page

Exhibit 23

Comparison of Twin Cities metro area base pay standard to other pay standards

(based on actual 2022 P3 trip time and distance)

P3 time	14.64	P3 time share	57.7%
P3 distance	7.87	P3 distance share	71.7%

	Twin Cities metro TNC base pay standard	**Twin Cities metro TNC pay standard with comprehensive benefits**	**New York City TNC pay standard, effective Mar. 1, 2024**	**Seattle TNC pay standard, Jan. 1, 2024**
P3 per minute rate	$0.487	$0.487	$0.584	$0.660
P3 per mile rate	$0.890	$1.207	$1.360	$1.550
MN trip parameters				
Pay for time	$7.13	$7.13	$8.55	$9.66
Pay for miles	$7.00	$9.50	$10.70	$12.20
Total trip earnings	$14.13	$16.63	$19.25	$21.86
Comparison to base	**100%**	**118%**	**136%**	**155%**

Exhibit 24

Comparison of Greater Minnesota base pay standard to Washington state pay standard

(based on actual 2022 P3 trip time and distance)

P3 time	10.45	P3 time share	45.9%
P3 distance	4.47	P3 distance share	57.2%

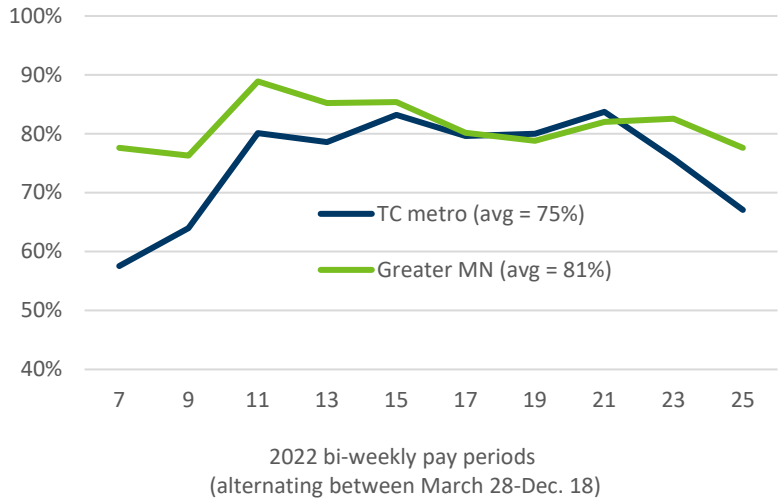
	Greater Minnesota TNC base pay standard	**Greater Minnesota TNC pay standard with comprehensive benefits**	**WA state outside of Seattle TNC pay standard, Jan. 1, 2024**
P3 per minute rate	$0.427	$0.427	$0.380
P3 per mile rate	$1.117	$1.393	$1.310
MN trip parameters			
Pay for time	$4.46	$4.46	$3.97
Pay for miles	$4.99	$6.23	$5.86
Total trip earnings	$9.45	$10.68	$9.83
Comparison to base	**100%**	**113%**	**104%**

7. Minnesota pay standards compared to 2022 driver earnings

Many drivers—75 to 80 percent—were paid less than the base pay standard option

Exhibit 25 shows the percentage of committed and highly committed drivers—those working more than 10 hours per week—who were paid less than the base 2024 minimum compensation pay standard option. Approximately 75 percent of non-casual Twin Cities metro drivers were paid less in 2022 than the base 2024 minimum compensation rate. The corresponding figure for Greater Minnesota drivers is 81 percent. These estimates reflect averages over 10 two-week periods from late March, when the companies instituted a fuel surcharge received by drivers, through mid-December.[28]

Exhibit 25
Percent of committed drivers whose 2022 pay fell below the 2024 base pay standard



Casual drivers working fewer than 10 hours a week would have fared slightly better, with 72 percent of Twin Cities metro area casual drivers paid below the base pay standard option and 79 percent of Greater Minnesota casual drivers paid less than the base pay standard option.

Of course, current conditions may not be the same as in 2022. The number of drivers relative to trip demand and payment practices used by the companies may have changed during the past year.

[28] Alternating two-week periods were analyzed, corresponding to the 7th through the 25th two-week periods during 2022, as indicated in Exhibit 25. Generally, driver pay was lower during the first 6 two-week periods of 2022 than the remainder of the year which is why the first 6 pay periods were excluded.

8. Four other studies of TNC driver pay

To provide comparisons to the current study, this section discusses methodological similarities and differences with four other studies of TNC driver pay.

Parrott and Reich 2018. "An Earnings Standard for New York City App-based Drivers."[29]

Using data provided by Uber and Lyft to the New York City Taxi and Limousine Commission (TLC), Parrott and Reich noted the large number of gig drivers in New York City generated low wait times for consumers but low utilization rates of drivers. A large proportion of drivers acquired cars to drive for income, drove full time and depended on their driver earnings to support their households. This study estimated P3 time and distance shares at 58 percent. Using data from a survey of drivers, a companion updated expense report estimated that driver expenses averaged 63.1 cents per mile over all hours worked (P1+P2+P3).[30] This estimate was slightly above the 2019 IRS business mileage reimbursement rate of 58 cents per mile.

Drawing upon previous studies of Uber drivers, the authors assumed the labor supply of drivers was highly elastic to driver pay, while demand for rides was relatively inelastic to passenger fares. To offset potential increases in the number of drivers after the introduction of a pay standard, the authors urged that the TLC allow companies that raised their utilization rates to pay lower per minute and per mile rates. The idea was that if the companies limited entry to their systems, the increase in driver trips per hour would more than compensate for any decrease in pay per trip.

The study was used to inform a pay standard that was equivalent to the city's minimum wage of $15 per hour, including the employer share of payroll taxes and an amount for paid leave. These reports informed the New York City minimum compensation standard that took effect in February 2019. Separate from the compensation standard, the TLC implemented a moratorium on the number of TNC vehicles in August 2018. With funding from the Alfred P. Sloan Foundation, Parrott and Reich were joined by University of Chicago Harris School of Public Policy economist, Dmitri Koustas, in publishing an assessment of the first year of the New York City pay standard in December 2020.[31]

Parrott and Reich 2020. "An Earnings Standard for Seattle TNC Drivers."[32]

This study drew upon responses to an extensive survey of drivers in Seattle. Since the companies did not provide trip level data to the city of Seattle to inform the Seattle study, drivers responding to the survey were asked to report earnings data from a representative week in early December 2019. Roughly 7,000 completed surveys

[29] James A. Parrott and Michael Reich, "An Earnings Standard for New York City's App-based Drivers: Economic Analysis and Policy Assessment," Report for the New York City Taxi and Limousine Commission, July 2018.
[30] 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," Center for New York City Affairs, January 2019.
[31] Dmitri Koustas, James Parrott and Michael Reich, "New York City's Gig Driver Pay Standard: Effects on Drivers, Passengers, and the Companies," Center for New York City Affairs at The New School, December 2020.
[32] James A. Parrott, and Michael Reich, *A Minimum Compensation Standard for Seattle TNC Drivers*, Report for the City of Seattle, Center for New York City Affairs, July 2020.

were received, a 21.5 percent response rate. The Seattle pay standard included an allowance for rest breaks and for health insurance and became effective in January 2021.

Louis Hyman, et al. 2020. "Platform Driving in Seattle."[33]

This study drew upon data provided to the authors by Uber and Lyft and was funded by the companies and timed for release a few days before the Parrott-Reich report for the City of Seattle. Its estimate of driver earnings ($23.27 per hour) differs from that in Parrott and Reich (2020) for two major reasons:

1. Hyman adjusts P1 time to exclude waiting times that did not result in a trip.
2. Hyman assumes driver expenses are only 19 cents per mile.

When Hyman's study used assumptions similar to those in Parrott and Reich's Seattle analysis, driver earnings between the two studies largely lined up.

Chicago Department of Business Affairs and Consumer Protection (BACP)[34]

Crowe LLP, an accounting and consulting firm, conducted this study. The report uses terminology that is not standard in studies of the TNC industry.

Crowe drew from TNC trip data available on Chicago's data portal, analyzing one week of trip data during each quarter between the beginning of 2018 and the third quarter of 2020. They note that trips declined with the COVID-19 lockdowns in 2020 and then recovered somewhat by 2022, but they do not include trip data for 2021 or 2022 in their analysis sample.

The report focuses on full-time drivers, which they define as those who accumulated 30 hours or more per week of trip time with passengers.[35] Such drivers account for a very small percentage of all drivers, usually three percent or less. Total weekly working time for such drivers likely would be in the 50-to-60-hour range. The report focuses on trip time, obtained from the Chicago data portal as the time between picking up a passenger and dropping off a passenger. This is equivalent to P3 time. To calculate expenses for full-time drivers, the report uses a rate of 58 cents per mile, the IRS rate.[36] The report finds that expenses for full-time drivers amounted to about 40 percent of gross earnings.

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[33] Hyman, L., Groshen, E.L., Litwin, A.S., Wells, M.T., Thompson, K.P., and Chernyshov, K., *Platform Driving in Seattle*, Ithaca, NY: Cornell University, ILR School, Institute for Workplace Studies, July 2020.

[34] Crowe, LLP, "Public Passenger Vehicle (PPV) Study: Chauffeur Conditions and Effects on License Holders," Conducted for the City of Chicago Department of Business Affairs and Consumer Protection, January 31, 2023.

[35] The report notes on p. 1. "The City prioritized for Crowe the goal to understand full-time chauffeur conditions in this study. The City's represented perspective was based on full-time chauffeurs being most likely to rely on providing PPV services as their primary source of income (PPV = Public Passenger Vehicles = TNCs and taxis)."

[36] Pp. 38-9: "We note that two studies in other cities have attributed operating expenses to chauffeurs comparable to this PPV Study in Chicago." Parrott and Reich authored studies in New York City (2018) and Seattle (2020), in both cases developing expense models based on various inputs (including chauffeur vehicle types) and data sources (including fixed administrative information and results of a driver survey). For New York City, Parrott and Reich determined that operating expenses averaged $0.538 per mile and wrote this was "remarkably close to the 54.5 cents Exhibit for 2018 allowed by the IRS." For Seattle, Parrott and Reich determined that operating expenses averaged $0.523 per mile. Both of these Exhibits are comparable to the $0.58 per mile rate used in Chicago's PPV Study calculations. A separate study of Seattle conducted by Hyman et al. applied a notably lower rate of $0.19 per mile to chauffeur operating expenses.

The report finds that almost all the full-time TNC drivers netted (after expenses) $20 or more per hour (of trip time with passengers). Two-thirds of drivers netted between $20 and $27 per hour. (Median and mean earnings are not reported, perhaps because they fell so much in 2020.) This headline result suggests the full-time drivers were compensated at rates that exceeded Chicago's minimum wage.

Concerns

Exhibit 8 of the report shows trip time with passengers (P3 time) averaged about 50 percent of what they term session time (P1 + P2 + P3).

When measured using session time, the proportion working full-time varied between 17 and 23 percent (Exhibit 7), comparable to proportions in other cities.

Exhibits 18 and 19 show that TNC drivers who worked 0-9 hours per week (session time) accounted for 60 percent of all drivers but only 39 percent of total work time of all drivers, again comparable to proportions in other cities. Those who worked 10 hours or more per week accounted for 61 percent of aggregate session hours.

The report counts as expenses only those incurred during time with passengers (P3).

The earnings data include tips, although pay standards generally exclude tips, because they are provided highly unequally among trips and drivers.

Comparison to other studies

To compare the findings about full-time TNC drivers in this report to those in other studies, the researchers make the following adjustments:

- Use session time instead of time with passengers: this reduces gross earnings by 50 percent.
- Include expenses for session time, not just time with passengers. A conservative adjustment would increase expenses by ten percent: 50 percent of gross earnings, not 40 percent.

Chicago TNC study conclusion

These two adjustments indicate most full-time TNC drivers in Chicago netted less than $5.50 per hour of session time.

9. Impacts on drivers, passengers and the TNCs

Drivers

The effect of a pay standard on Minnesota drivers will depend on the specifics of the policy that is chosen. A pay standard that incorporates more benefits into the per mile rate will increase driver compensation. The effects on the drivers will depend on changes in labor supply and in demand for rides. The effects will also vary among full-time and part-time drivers.

Labor supply

The supply of drivers—both the number of drivers and the hours worked by individual drivers—is likely to increase, but it is difficult to predict by how much. Uber studies, most notably one by Hall, Horton and Knoepfle[37], have estimated that driver labor supply is highly responsive to pay increases. However, these studies use data from well before the pandemic, when the number of unemployed workers with limited educational attainment searching for work far exceeded the number of low-wage job openings.

In the post-pandemic period, and especially in 2022 and early 2023, the number of such job openings substantially exceeded the number of job seekers. As a result, pay has increased in low-wage jobs, reversing decades of stagnant wages and growing wage inequality.[38] Data from the Minnesota Department of Employment and Economic Development (DEED) indicates pay for the lowest-wage jobs in the seven-county Twin Cities metro area rose nearly twice as fast during the past two years as for the overall private sector workforce, 13.7 percent compared to 7.1 percent.[39]

Immigrants with limited English language proficiency comprise a significant portion of the TNC workforce in Minnesota.[40] Recent pay increases in closely related industries, such as in package delivery and warehouse work, will likely affect the supply of TNC drivers. On the other hand, the growth of immigrant labor in Minnesota during the past decade likely contributed to the remarkable nearly 50 percent increase in the number of TNC drivers since early 2022.[41]

Unfortunately, there are no studies of TNC driver labor supply in the post-pandemic period. Nonetheless, it seems likely that the number of drivers will increase as a result of the pay standard. To the extent driver supply

[37] Jonathan V. Hall, John J. Horton, and Daniel T. Knoepfle, "Ride-Sharing Markets Re-Equilibrate," NBER Working Paper No. 30883, 2023.
[38] David Autor, Arindrajit Dube, and Annie McGrew, "The Unexpected Compression: Competition at Work in the Low Wage Labor Market," NBR Working Paper No. 31010, November 2023.
[39] Low-wage sectors include Trade and Transportation, Leisure and Hospitality, and Other Services. Wage change measured as the change in average weekly wages for the first three quarters of 2021 to the first three quarters of 2023 (latest data available). Minnesota Department of Employment and Economic Development, Quarterly Census of Employment and Wages.
[40] The TNC driver survey indicated 74 percent of respondents were foreign-born and 45 percent indicated that English was not the primary language spoken at home (although 94 percent of the surveys were completed in English.)
[41] DEED reports that the state's immigrant workforce increased by more than 80,000 workers from 2011 to 2021 (an increase of over 31 percent) compared to the 75,500 increase (only a 2.8 percent increase) in the native-born workforce over that period. Sixty-one percent of the foreign-born population were in their prime working years (25-54 years of age) compared to 38 percent of the total population. Minnesota DEED, "The Importance of Immigration in Minnesota," August 2023. 082223_immigration_MN_tcm1045-591108.pdf

increases, forward dispatch and P3 shares will decline. The pay standard could be adjusted to offset these likely responses.

Casual and part-time versus committed and highly committed full-time drivers

The pay standard will have different effects on compensation for rides during peak and off-peak travel times. Data from other cities shows demand for rides fluctuates substantially during each day, with more rides demanded during peak traffic hours—morning and evening rush hours on weekdays and weekend evenings. Drivers who work only during peak hours are likely to obtain more rides per hour than those who drive during off-peak hours. Thus, the pay standard will have more of an effect during off-peak hours.

The drivers who work only during peak hours are more likely to be the part-time and very part-time drivers. These drivers likely will see less of a pay increase than other drivers. On the other hand, some of these drivers will choose to work longer hours or to reallocate some of their work time to off-peak driving.

The picture for the highly committed drivers, who already drive full time or close to full time, is somewhat different. In addition to driving at peak times, these drivers work during off-peak hours when the number of rides per hour is typically lower. Therefore, the pay standard would particularly benefit these drivers for their off-peak driving.

Passengers

If the companies raise fares in response to a driver compensation standard, passenger demand for rides might fall enough to lower the aggregate earnings of drivers. But the companies are unlikely to raise prices to levels that would significantly reduce consumer demand and commissions.

Although the companies could raise fares in response to a compensation standard, they have considerable latitude on the size of the increase.[42] Executive Order 23-07 directed this study to "analyze how potential changes may impact cost and access for riders." However, the companies did not provide data about fares and commissions, making it difficult to gauge possible effects of the compensation standard on fare pricing and rider demand.

However, some lessons can be drawn from changes in fares and commission rates after New York City implemented its gig driver pay standard in 2019.[43] The Koustas-Parrott-Reich study found the companies reduced their commissions in the period before their initial public offerings in the spring of 2019 to boost ridership. Commissions then returned to a rate of about 25 percent, and passenger fares rose as well.

[42] The companies compete more on wait times than on price: Uber and Lyft fares are very close to each other; fare increases are likely to be as well. Parrott and Reich 2018.

[43] Dmitri Koustas, James Parrott and Michael Reich, *New York City's Gig Driver Pay Standard: Effects on Drivers, Passengers, and the Companies*, Center for New York City Affairs at The New School, December 2020.

The New York City experience suggests the companies could reduce commission rates, as they did in early 2019. In the past two years, the companies have reported revenue margins relative to gross bookings of more than 25 percent.[44]

Lacking data about fares, it was not possible to analyze how Minnesota passengers have responded to fare increases, such as the addition of a fuel surcharge in the spring of 2022. Previous studies based on Uber data have found a one percent fare increase lowered demand for rides by 0.33 percent in Los Angeles, 0.52 percent in San Francisco, 0.61 percent in New York City and 0.66 percent in Chicago. The lower estimates are in cities with less dense mass transit alternatives.[45] If Twin Cities rider price sensitivity is roughly in the middle of this range, passenger fares would have to increase significantly to substantially reduce the aggregate number of TNC trips.

A compensation standard is likely to increase the number of TNC drivers on the road at any particular time. This increase would improve service for passengers, reduce their wait times, and likely reduce trip offer rejections by drivers. If fares did increase, some passengers may reduce the number of rides they seek. These effects are more likely to occur in neighborhoods with fewer mass transit alternatives. The availability of passenger fare data and ZIP code data for trips could have helped inform a better understanding of the possible impact of the compensation standard on riders.

TNCs

As mentioned, company commissions provide TNCs some latitude for absorbing higher driver compensation. The companies should save on recruitment and retention costs because the higher driver compensation would incentivize more drivers to stay with the TNC. The companies currently provide bonuses to induce drivers to drive more or in certain locations or at certain times. With better and more certain compensation, there will be less need for the companies to provide bonuses. Reduced turnover and a more experienced driver workforce should also improve the safety and quality of rideshare services.

The pay standard options provided here are based on the specific balance of driver supply, consumer demand, and company pricing policies that existed in 2022. Partial data from MAC for 2023 suggests the number of drivers has grown faster than the number of trips. These factors will evolve further. Given changing labor market conditions over time, the difficulty in predicting the magnitude of labor supply responses to the TNC compensation standard, the lack of data during the past year regarding changes in the demand for rides, and the possibility of further changes in TNC operating practices, it will be important for the State of Minnesota to monitor company trip, earnings and fare data on an ongoing basis and to periodically assess changing demand and supply conditions and make appropriate and timely adjustments to the compensation standard.

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[44] Lyft's revenue margin was 32.9 percent for the fourth quarter of 2023 with most revenue coming from TNC operations, and Uber's mobility division that includes TNC trips worldwide reported a 28.7 percent 4th quarter 2023 revenue margin. Company financial reports, February 2024.

[45] Peter Cohen, Robert Hahn, Jonathan Hall, Steven Levitt, and Robert Metcalfe, "Using Big Data to Estimate Consumer Surplus: The Case of Uber," Sept. 2-16, NBER Working Paper No. 22627; Castillo estimated average ride-hailing demand elasticity of 0.268 for inner city Houston. Juan Camilo Castillo, "Who Benefits from Surge Pricing?" Working Paper, Nov. 7, 2023, papers.ssrn.com/sol3/papers.cfm?abstract_id=3245533.

10. Summary and conclusion

This report's analysis of a year's worth of TNC trip activity and driver earnings indicates a minimum compensation standard is needed to ensure Minnesota's estimated 12,000 TNC drivers are compensated at rates on par with minimum wages in Minnesota. The need for such a standard is underscored by the fact that the drivers supply most of the capital in the industry: the vehicles they use to provide passenger services. And yet, reimbursement for the driver's outlays for vehicle expenses does not constitute income for drivers.

A minimum pay standard would ensure drivers receive compensation for their working time and they receive compensation to cover the expenses of acquiring, operating and maintaining their vehicle. The working conditions of incumbent drivers will then improve. However, conditions will need to be monitored for changes in the balance between trip demand and driver supply, as well as changes in business compensation practices. Any adjustment should be informed by ongoing analyses of trip, earnings and passenger fare data.

Should the companies raise fares in response to a driver compensation standard, passenger demand for rides might fall enough to lower the aggregate earnings of drivers. That outcome is unlikely since it would constrain the companies' ability to generate commissions on those rides. As the greater use of forward dispatch (a driver receiving the next trip offer while transporting a passenger) in recent years indicates, the companies have latitude in managing the efficient use of drivers' time on the platform as well as the ability to manage access to their platforms.

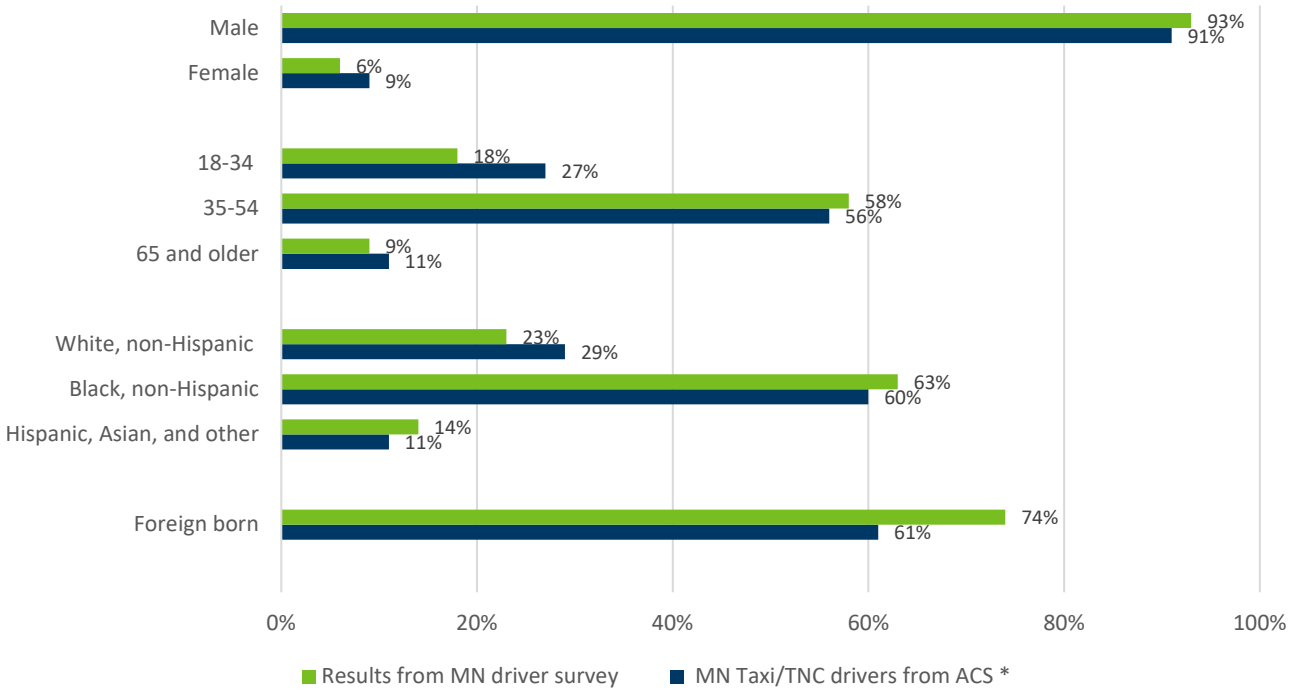
The completion of this report fulfills the obligation set forth in Executive Order 23-07 for the Minnesota Department of Labor and Industry to commission a study to analyze Minnesota-specific data and research to inform Minnesota policies that advance the fair compensation of TNC drivers. Uber and Lyft provided DLI with data about more than 18,000,000 completed TNC trips originating in Minnesota in 2022.[46] That data set, plus the results of a survey of more than 1,800 Minnesota TNC drivers, provides a clear picture of typical characteristics of TNC drivers and their working patterns in 2022.

This analysis of driver earnings, trip length and distance, the differences in driver and passenger behavior between the Twin Cities and Greater Minnesota, and options for minimum pay standards, represents one of the largest analyses of TNC data completed to date in the US. This report together with the 24 consensus recommendations of the Governor's Committee on the Compensation, Well-being and Fair Treatment of Transportation Network Company drivers, provides robust and specific Minnesota data for policymakers and community members to use in forming Minnesota TNC policies to advance the fair compensation of TNC drivers.

[46] The TNCs did not provide data about fares and commissions, making it difficult to analyze possible effects of a compensation standard on fare pricing and rider demand.

Appendices

Appendix Exhibit 1
Demographics of Minnesota driver survey respondents and taxi/TNC drivers from the American Community Survey



Source: American Community Survey, 2017-2021 sample; workers categorized based on primary occupation.

Appendix Exhibit 2

Demographic characteristics of taxi/TNC drivers compared to all Minnesota workers from the American Community Survey

	TNC drivers	All employed
Estimated number	**4,322**	**2,978,618**
	percent distribution	
Gender		
Male	91	52
Female	9	48
Age		
18-24	8	12
25-54	64	64
55 and older	28	24
Race-ethnicity		
White, non-Hispanic	29	81
Black or African American, non-Hispanic	60	6
Hispanic, Asian, and other	11	13
Foreign born share	61	11
Country of origin (among foreign born)		
Somalia	24	7
Kenya	13	3
Ethiopia	11	5
Liberia	10	3
Nigeria	8	2
Laos	3	4
Mexico	0	13
India	0	6
Education (age > 24)		
High school or less	48	24
Some college	31	33
Bachelor's or higher	21	43
Poverty status of household		
0-100% of federal poverty level	16	5
100%-200% of federal poverty level	23	10
greater than 200% of federal poverty level	62	85
Receiving SNAP	18	5
Health insurance coverage		
Medicaid	28	9
Medicare	3	2
Employer provided (includes spousal	50	73
Purchase own insurance	6	11
Uninsured	14	5

Source: 2017-2021 American Community Survey 5-year sample.

Appendix Exhibit 3
Earnings analysis methodology

Section 4 in the text describes the earnings data Uber and Lyft supplied to DLI. This appendix details the data cleaning steps, describes how P1 adjustments were made in an exercise to determine the impact of using adjusted data and explains how drivers were categorized into average weekly hours bins.

1. Data cleaning steps

		Description
Total trips in original 2022 files	18,025,460	
Step 1	5,271	remove trips with duplicated trip_id
Step 2	145,463	remove rows in which there missing data (NAs) in driver_id, p2_start_time, p3_start_time, or P3_end_time
Step 3	8,798	remove rows in which p3_minutes less than 1 or p3_miles negative
Step 4	8,583	remove rows with average speed greater than 80 miles/hour or less than 3 miles/hour
Total trips removed	168,115	
Percentage of trips removed	0.93%	
Total trips used	**17,857,345**	

2. Adjustments for short P1 periods

As noted in Section 4, the company data reported low average P1 times, compared to the P1 share of total trip (P1 + P2 + P3) time reported in previous studies. Indeed, 40 percent of Minnesota trips in 2022 had a P1 time of zero, indicating a considerable use of forward dispatch. In addition, the companies provided P1 times as only the elapsed time since the driver's last rejected offer. This practice truncates actual driver waiting time. To gauge the difference this truncation might have on estimates of driver pay per working hour, the analysis adjusted P1 times that were positive but fewer than 2.5 minutes. For example, in the January trip file, 31 percent of all P1 times were less than 2.5 minutes but greater than zero. Not all trips involve a driver decision to reject one or more trip offers. Thirty percent of trips had P1 times that were likely unaffected by company truncation.

Two methods were used to adjust the short (fewer than 2.5 minutes) P1 times, one that produced a low estimate by taking the average P1 time for the 70th to 90th percentile P1 times (including P1=0 in the distribution for purposes determining percentiles) and one that produced a high adjustment as the average P1 time for the 80th to 90th percentile. The midpoint of the low and high adjustments was then used instead of the short P1 times. This method left unchanged all zero P1 times and all P1 times longer than 2.5 minutes but less than 120 minutes.

As indicated in Exhibit 7 in the text, adjusting for the short positive P1 times had a perceptible but small effect on earnings—hourly earnings would have been 2.3 percent higher in Greater Minnesota counties and 3.3

percent higher in the Twin Cities metro area. As a result, the subsequent earnings analysis in Section 4 uses the unadjusted P1 data as submitted by Uber and Lyft.

3. Categorizing drivers by average weekly hours

Individual driver hours were combined across the two companies for the entire year and divided by the number of weeks a driver was active to derive usual average weekly hours. Drivers were then categorized into one of four groups: weekly hours less than 10, 10 to 20, 20 to 32 and 32 or more. Drivers working less than an average of 10 hours per week were considered casual drivers; those working 10 or more hours per week were considered non-casual drivers. Exhibit 6 shows the distribution of drivers and the share of all trips provided by drivers in each of the four groups. For example, drivers logging 32 hours or more per week provided 41 percent of all trips; and the one-third of drivers who worked 20 hours or more accounted for more 69 percent of all trips. In contrast, the 45 percent who are casual drivers performed only 11 percent of all trips.

Appendix Exhibit 4

Average Minnesota TNC wheelchair accessible vehicle (WAV) licensing and vehicle expenses

Expense category	Specific expenditure	Annual	Per mile
Per mile costs based on 35,000 miles per year			
Licensing, vehicle registration fees & tax		**$243**	**$0.0069**
Operating costs	Vehicle acquisition	$25,932	$0.7409
	Gas	$3,335	$0.0953
	Vehicle maintenance	$5,000	$0.1429
	Insurance	$3,936	$0.1125
	Cellphone	$1,440	$0.0411
	Vehicle cleaning	$700	$0.0200
	Subtotal	**$40,343**	**$1.1526**
Total vehicle and operating expenses		**$40,585**	**$1.1596**
Amount for casual drivers			**$0.9790**

Given the data about minivan make and model from the airport TNC vehicle fleet listing, researchers estimated WAV acquisition costs based on a 2022 Toyota Sienna XLE Hybrid with a combined city/highway 36 mpg rating. Twenty-two vehicles were priced from the website of a prominent WAV vehicle Minnesota dealer that had an average of 36,000 miles on the odometer and a rear-loading 40-inch wheelchair ramp installed. The average price was $67,600, about $28,000 more than a comparable year-make-model with similar mileage but not WAV-equipped. Monthly costs were estimated based on 36-month financing (including the sales tax cost) at 5.11 percent interest. Monthly payments would be $2,161, or $25,932 on an annual basis.

Since the modeled vehicle was a hybrid, gas costs were lower than for the overall non-WAV fleet average. Vehicle maintenance and insurance costs were assumed to be greater than for the non-WAV fleet considering the more recent model year, higher vehicle value, larger size and the inclusion of the electro-mechanical ramp. Thus, the maintenance and insurance costs were based on the median of the highest quartile amounts from the driver survey: $2,500 for maintenance costs every six months; and $328 monthly insurance costs.

Appendix Exhibit 5

Minnesota WAV pay standards, base and comprehensive options

Twin Cities metro area	
Minnesota per mile vehicle expense factor for WAVs	$1.160
Scaled by P3 share to trip distance (.717)	$1.616

	TNC compensation rates			
	Base vehicle expense only		**Base + comprehensive benefits**	
	Non-WAV	WAV	Non-WAV	WAV
P3 per minute rate	$0.486	$0.486	$0.486	$0.486
P3 per mile rate	$0.890	$1.616	$1.21	$1.93
Average trip P3 minutes	14.64	14.64	14.64	14.64
Average trip P3 miles	7.87	7.87	7.87	7.87
Pay for time	$7.12	$7.12	$7.12	$7.12
Pay for miles	$7.00	$12.72	$9.50	$15.22
Total trip earnings	**$14.12**	**$19.84**	**$16.62**	**$22.34**

Greater Minnesota	
Minnesota per mile vehicle expense factor for WAVs	$1.160
Scaled by P3 share to trip distance (.572)	$2.027

	TNC compensation rates			
	Base vehicle expense only		**Base + comprehensive benefits**	
	Non-WAV	WAV	Non-WAV	WAV
P3 per minute rate	$0.427	$0.427	$0.427	$0.427
P3 per mile rate	$1.116	$2.027	$1.393	$2.304
Average trip P3 minutes	10.45	10.45	10.45	10.45
Average trip P3 miles	4.47	4.47	4.47	4.47
Pay for time	$4.46	$4.46	$4.46	$4.46
Pay for miles	$4.99	$9.06	$6.23	$10.30
Total trip earnings	$9.45	$13.52	$10.69	$14.76

Appendix Exhibit 6
Comprehensive benefit options, Twin Cities metro area

Minneapolis minimum wage, as of Jan. 1, 2024		$15.57
Payroll tax *(self-employed payroll tax computed at 7.65% on after-expense compensation)*		$1.28
Total hourly after-expense compensation		$16.85
Assumed annual hours: 35/wk, 50 wks/year		1,750
1. Earned Sick and Safe Time (ESST)	Workers earn 1 hour ESST for every 30 hours worked and can earn a max of 48 hours a year	1,440
	Employer cost = wage/30; adjust for maximum hours subject to accrual	
	Adjust employer hourly cost by ratio of 1,440/1,750 FTE hours	0.8229
2. Paid leave	Hourly benefit rate, BLS Employer Cost of Employee Compensation (ECEC) for transportation workers	9.3%
3. Health insurance	BLS ECEC health insurance benefit rate	12.6%
4. Unemployment insurance	BLS ECEC cost for state and federal unemployment insurance	0.6%
5. Retirement and savings costs	BLS ECEC retirement and savings costs for transportation workers	6.7%

Benefit component	Per hour wage*	Annual (1,750 hrs)	Per mile (35,000 annual)	Scaled for P3 share of miles	Vehicle mileage rate + benefit cost
	$15.57	*1750*		*0.717*	
Minnesota TNC vehicle expenses (plus license, registration, phone and cleaning)			**$0.6383**	**$0.890**	
Earned sick and safe time (ESST)	$0.427	$747	$0.0214	$0.030	**$0.920**
Paid leave--includes ESST	$1.448	$2,534	$0.0724	$0.101	**$0.991**
Health insurance	$1.962	$3,433	$0.0981	$0.137	**$1.027**
Retirement savings	$1.043	$1,826	$0.0522	$0.073	**$0.963**
Unemployment insurance	$0.093	$163	$0.0047	$0.007	**$0.897**
Comprehensive benefits **	**$4.546**	**$7,956**	**$0.2273**	**$0.3170**	**$1.207**

* Per hour wage for Twin Cities metro area used to estimate benefit cost is the Minneapolis 2024 minimum wage: $15.57.

** Comprehensive benefits includes: paid leave, health insurance, retirement savings and unemployment insurance.

Note: Cost of ESST based on Minnesota law taking effect Jan. 1, 2026; other benefit costs estimated using BLS national average compensation costs for transportation workers relative to average hourly wage. Costs estimated based on 1,750 annual hours and amortized on a per mile basis assuming 35,000 annual miles. BLS, Employer Costs of Employee Compensation, Dec. 15, 2023.

Appendix Exhibit 7
Comprehensive benefit options, Greater Minnesota

Minnesota minimum wage, as of Jan. 1, 2024	$10.85
Payroll tax *(self-employed payroll tax computed at 7.65% on after-expense compensation)*	$0.89
Total hourly after-expense compensation	$11.74
Assumed annual hours: 35/wk, 50 wks/year	1,750

1. Earned sick and safe time (ESST)	Workers earns 1 hour ESST for every 30 hours worked and can earn a max of 48 hours a year	1,440
	Employer cost = wage/30; adjust for maximum hours subject to accrual	
	Adjust employer hourly cost by ratio of 1,440/1,750 FTE hours	0.8229
2. Paid leave	Hourly benefit rate, BLS Employer Cost of Employee Compensation (ECEC) for transportation workers	9.3%
3. Health insurance	BLS ECEC health insurance benefit rate	12.6%
4. Unemployment insurance	BLS ECEC cost for state + federal unemployment insurance	0.6%
5. Retirement and savings costs	BLS ECEC retirement and savings costs for transportation workers	6.7%

Benefit component	Per hour wage*	Annual (1,750 hrs)	Per mile (35,000 annual)	Scaled for P3 share of miles	Vehicle mileage rate + benefit cost
	$10.85	*1750*		*0.572*	
Minnesota TNC vehicle expenses (plus license, registration, phone and cleaning)			**$0.6383**	**$1.116**	
Earned sick and safe time (ESST)	$0.298	$521	$0.0149	$0.026	**$1.142**
Paid leave--includes ESST	$1.009	$1,766	$0.0505	$0.088	**$1.204**
Health insurance	$1.367	$2,392	$0.0684	$0.120	**$1.235**
Retirement savings	$0.727	$1,272	$0.0363	$0.064	**$1.179**
Unemployment insurance	$0.065	$114	$0.0033	$0.006	**$1.122**
Comprehensive benefits **	**$3.168**	**$5,544**	**$0.1584**	**$0.2769**	**$1.393**

* Per hour wage for Greater Minnesota used to estimate benefit cost is the Minnesota state minimum wage: $10.85

** Comprehensive benefits includes: paid leave, health insurance, retirement savings and unemployment insurance.

Note: Cost of ESST based on Minnesota law taking effect Jan. 1, 2026; other benefit costs estimated using BLS national average compensation costs for transportation workers relative to average hourly wage. Costs estimated based on 1,750 annual hours and amortized on a per mile basis assuming 35,000 annual miles. BLS, Employer Costs of Employee Compensation, Dec. 15, 2023.

Appendix Exhibit 8
2024 Minnesota TNC driver survey responses

Q1: Company	Frequency	Percent	Valid Percent
Lyft	256	14	14.0%
Uber	433	23.7	23.7%
Lyft, Uber	1135	62.1	62.2%
Missing	3	0.2	
Total	1827	100	100

Q2: Hours driven/wk	Frequency	Percent	Valid Percent
Fewer than five hours	117	6.4	6.4%
Five to less than 10 hours	181	9.9	9.9%
Ten to less than 20 hours	263	14.4	14.4%
Twenty to less than 32 hours	377	20.6	20.7%
Thirty-two hours or longer	884	48.4	48.5%
Missing	5	0.3	
Total	1827	100	100

Q3: How long driving	Frequency	Percent	Valid Percent
Less than three months	58	3.2	3.2%
Three months to less than six months	67	3.7	3.7%
Six months to less than one year	133	7.3	7.3%
One year or longer	1554	85.1	85.8%
Missing	15	0.8	
Total	1827	100	100

Q4: Source of income	Frequency	Percent	Valid Percent
It is 10% or less of my income.	255	14	14.1%
It is more than 10% but less than half of my income.	306	16.7	16.9%
It is more than half but not all of my income.	370	20.3	20.4%
It is my sole source of income.	882	48.3	48.6%
Missing	14	0.8	
Total	1827	100	100

Q5: Wait to receive passenger request	Frequency	Percent	Valid Percent
Less than two minutes	135	7.4	7.4%
Two to less than five minutes	367	20.1	20.2%
Five to less than 10 minutes	480	26.3	26.4%
Ten to less than 15 minutes	268	14.7	14.7%
More than 15 minutes	570	31.2	31.3%
Missing	7	0.4	
Total	1827	100	100

Q6: Minutes driving to pick up next passenger	Frequency	Percent	Valid Percent
Less than four minutes	56	3.1	3.1%
Between four and eight minutes	614	33.6	33.8%
Eight minutes or more	1147	62.8	63.1%
Missing	10	0.5	
Total	1827	100	100

Q7: Receive a trip offer while still with passenger from previous trip	Frequency	Percent	Valid Percent
On less than 10% of my trips	608	33.3	33.5%
On between 10% and 25% of my trips	488	26.7	26.9%
On between 25% and 40% of my trips	374	20.5	20.6%
On 40% or more of my trips	346	18.9	19.1%
Missing	11	0.6	
Total	1827	100	100

Q8: Trip offers rejected	Frequency	Percent	Valid Percent
Less than 5%	885	48.4	48.9%
From 5% to less than 10%	300	16.4	16.6%
From 10% to less than 20%	207	11.3	11.4%
20% or more	418	22.9	23.1%
Missing	17	0.9	
Total	1827	100	100

Q9: Main reason you reject trip offers	Frequency	Percent	Valid Percent
I will not earn enough for that trip to make it worthwhile.	1284	70.3	70.8%
It will take me to an area where it will be hard to get another trip offer.	225	12.3	12.4%
Other	304	16.6	16.8%
Missing	14	0.8	
Total	1827	100	100

Q10: Miles driven	
Valid responses	1,748
Missing	79
Mean*	27,211.56
Median	30,909
Mode	40,000
Mode frequency	660
Minimum	1,000
Maximum	40,000

*This question set a maximum of 40,000 miles, which was the response selected most often, indicating many drivers would have entered more than 40,000 miles if they had the ability to do so. This resulted in a lower mean than otherwise expected. To calculate a more accurate mean, the analysis examined the distribution and estimated a new mean of approximately 30,500 miles if there were no mileage constraint. This number is close to the median, which would be expected since the means and medians of the first three quartiles were similarly close.

Q11: Do you own primary vehicle for Lyft/Uber driving?	Frequency	Percent	Valid Percent
No, I do not own my vehicle.	177	9.7	9.7%
Yes, I own my vehicle.	1641	89.8	90.3%
Missing	9	0.5	
Total	1827	100	100

Q12: Do you rent or lease vehicle for Lyft/Uber driving?	Frequency	Percent	Valid Percent
No, I do not rent or lease my vehicle.	1534	84	85.2%
Yes, I rent or lease my vehicle.	267	14.6	14.8%
Missing	26	1.4	
Total	1827	100	100

*Given that 90 percent of respondents said they owned their vehicle in Question 11, it is likely a portion of the 15 percent of respondents who said they rent or lease are drivers who thought that leasing implies ownership.

Q13: Year vehicle purchased	Frequency	Percent	Valid Percent
2010-2015	116	6.4%	7.6%
2016-2020	638	34.9%	41.5%
2021-2024	782	42.8%	50.9%
Missing	291	15.9%	
Total	1536		

Q14: Do you have a loan on your vehicle?	Frequency	Percent	Valid Percent
No	545	29.8	33.4%
Yes	1089	59.6	66.6%
Missing	193	10.6	
Total	1827	100	100

* The gap between those who own their vehicle and those who say they have a loan may be attributable to some drivers having purchased their car outright.

Q15: Monthly car payment	
Valid responses	1,421
Missing	406
Mean	$667.32
Median	$574
Mode	$0
Mode frequency	76
Minimum	$0
Maximum	$2,400

Q15: Monthly car payment	Owner*	Rent/Lease
Valid responses	1,141	245
Missing	375	22
Mean	$601.99	$955.08
Median	$549	$764
Mode	0	$2,400
Mode frequency	73	9
Minimum	0	0
Maximum	$2,400	$2,400

*For this comparison, the analysis excludes owners who also said they rent/lease.

Q16: Why did you buy or lease vehicle?	Frequency	Percent	Valid Percent
For a mix of uses	461	25.2	26.0%
Primarily for personal use	290	15.9	16.4%
Primarily to use to drive for Uber or Lyft	1019	55.8	57.6%
Missing	57	3.1	3.1
Total	1827	100	100

Q17: Monthly insurance payment	
Valid responses	1,756
Missing	71
Mean	$212.83
Median	$199
Mode	$150
Mode frequency	64
Minimum	0
Maximum	$500

Q17: Monthly insurance payment	Owner*	Rent/Lease
Valid responses	1,485	234
Missing	31	33
Mean	$208.12	$239.09
Median	$195.00	$222.50
Mode	$150	$500
Mode frequency	59	7
Minimum	0	0
Maximum	$500	$500

*For this comparison, the analysis excludes owners who also said they rent or lease.

Q18: 6-month maintenance payment	
Valid responses	1,739
Missing	88
Mean	1,424.43
Median	1,405
Mode	2,500
Mode frequency	359
Minimum	0
Maximum	2,500

Q18: 6-month maintenance payment	Owner*	Rent/Lease
Valid responses	1,477	224
Missing	39	43
Mean	$1,420.24	$1,423.42
Median	$1,403	$1,489
Mode	$2,500	$2,500
Mode frequency	304	44
Minimum	0	0
Maximum	$2,500	$2,500

*For this comparison, we exclude owners who also said they rent/lease.

Q19: Age	Frequency	Percent	Valid Percent
18 to 34	320	17.5	17.7%
35 to 54	1050	57.5	57.9%
55 to 64	278	15.2	15.3%
65 or more	165	9	9.1%
Missing	14	0.8	
Total	1827	100	100

Q20: Gender	Frequency	Percent	Valid Percent
Female	130	7.1	7.2%
Male	1679	91.9	92.5%
Other	7	0.4	0.4%
Missing	11	0.6	
Total	1827	100	100

Q21: Hispanic origin	Frequency	Percent	Valid Percent
No	1709	93.5	95.0%
Yes	90	4.9	5.0%
Missing	28	1.5	
Total	1827	100	100

Q22: Country of Birth	Frequency	Percent	Valid Percent
Africa	1143	62.6	63.3%
Asia	89	4.9	4.9%
Europe, Canada or Australia	24	1.3	1.3%
Latin America or the Caribbean	66	3.6	3.7%
United States	483	26.4	26.8%
Missing	22	1.2	
Total	1827	100	100

Q23: Race	Frequency	Percent	Valid Percent
American Indian or Alaska Native	12	0.7	0.7%
Asian or Asian American	71	3.9	3.9%
Black or African American	1155	63.2	64.0%
Some other race	123	6.7	6.8%
White	444	24.3	24.6%
Missing	22	1.2	
Total	1827	100	100

Q24: Zip Code	Frequency	Percent	Valid Percent
Twin Cities metro	1,673	91.6%	94.7%
Rest of state	94	5.1%	5.3%
Missing	60	3.3%	
Total	1827	100%	100%

Q25: English primary language in home	Frequency	Percent	Valid Percent
No	811	44.4	45.0%
Yes	992	54.3	55.0%
Missing	24	1.3	
Total	1827	100	100

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