

# 2014 Taxicab Fact Book 

The Taxicab Fact Boak was last published in 2OCB by Schaller Consulting. Since then, many changes have occurred, allowing us to take a new look at how yellow taxis operate in New York City. The largest change has been the introduction of the Taxi Passenger Enhancement Program (TPEP), a technology initiative which intraduced credit card readers to all taxis in 20ㄹ. . Along with this came the collection of electronic trip-sheet data, replacing handwritten paper trip -sheets with independent records including information an pick-up and drap-off times and locations and itemized fare amounts. With the new TPEP data, we are able to take a loak at taxi patterns from all taxis without having to rely on samples of trip-sheets.

The 2014 Taxicab Fact Book is a quick look at the state of the yellow taxi industry (with a brief look at the other far-hire vehicle industries). This will be the first in a regular summary of taxi trends in New York City. Not only daes the 2014 Fact Book contain updated statistics on total trips and fares, but it also provides unique looks at trip patterns by boraugh, shifts and taxi availability, and driver and passenger demographics.

Michael R. Bloomberg
Mayor

# TLIF-REFIILATED INDIISTRNE 



There are 13,437 medallions, the right to run a yellow taxi $\square$
A typical taxi travels $70, \mathrm{OLD}$ miles per year, enough to travel around the world 2.8 times

> The average age of a tax vehicle is 3.3 years 0

0
ED\% - a . 60 \% of taxi vehicles are hybrid-electric vehicles and $2 \%$ of taxi vehicles are wheelchair-accessible

Trips: $485,0 \mathrm{OD}$ per day | 175 MILLIIN per year For more on trips. see p 3-6*
The are over 50, 이 drivers For more on drivers, see p $\mathrm{P}-10$
A typical driver shift is 9.5 hours


## Models of Operation

## Fleets

Run garages that own and operate many taxis
Drivers lease the taxi on a daily or weekly basis
The lease fee is capped according to TLC regulations

## Driver-Iwned Vehicles (DDV)

Driver conditionally owns the car but leases the medallion from an agent who manages it for an owner

## Individual Dwner-Dperators

Driver owns car and medallion and is required to drive at least 210 shifts per year

## Regulations

Street hails or e-hails anywhere in NYC
Accessible vehicles are required to participate in Accessible Dispatch program
TLC sets rate of fare
Specific vehicle standards (TLL inspection 3 times per year)
Closed entry with a fixed supply
Drivers must be able to read, speak, and understand English

## BIRD TAXIS

Bora Taxis were created as a new class of lii to provide legal. yellow-caliber taxi service to since $94 \%$ of yellow taxi pick-ups occur either or at one of the airports.

Bora Taxis are a hybrid service, providing bo and prearranged for-hire vehicle services.

18, 100 Bora Taxi permits are being issued in
 issuance planned for June 2014.

Bora Taxis are not permitted to pick up passe Manhattan below E lGth Street or W LIth S serve airport taxi queues

Bora Taxi Service Areas

BRONX


## YEIIIOW TAXITRISS


 2009 2010 2 III


Yellow taxis provide an average of

## 485,000

trips/day
The average trip distance is $\mathbf{2 .} \mathbf{6}$ miles




Average Total Pick-ups and Drop-offs by Time of Day (15-minute increments)



MON
WED
THU
FRI
SAT
SUN

Source: NYC TLE TPEP Trip-sheet data, 2012

| Boraugh | \% of all Taxi <br> Pick-ups |
| :--- | ---: |
| Manhattan | 90.3\% |
| Bronx | $0.5 \%$ |
| Brooklyn | $3.1 \%$ |
| Cueens | $1.5 \%$ |
| Staten Island | $0.8 \%$ |
| Airports | $3.5 \%$ |
| New York City | $1[0.5 \%$ |

Yellow taxi activity is centered on Manhattan, where $90.3 \%$ of taxi pick-ups occur. After Manhattan, the area with the highest percentage of pick-ups is at the airports, which together account for $3.5 \%$ of all pick-ups. Taxi activity in the boroughs outside of the airports is scarce: in total, about $5.2 \%$ of all pick-ups occur in these areas. The borough with the largest share is Brooklyn, where $3.1 \%$ of all taxi pick-ups occur followed by Queens with $1.5 \%$, the Bronx with $0.9 \%$, and Staten Island with 0.8\%.

Looking at trip patterns by time of day and day of week, Manhattan continues to be the primary borough where pick-ups occur. However, there are a few times of day where pick-ups in Brooklyn and Queens and at the airports make up a higher share of all pick-ups than usual. The Brooklyn share of pick-ups reaches its peaks overnight, usually between IDPM and 5AM. The average weekly peak accurs early Sunday mornings when Broaklyn pick-ups make up 8\% of all pick-ups between 1:3DAM and 2:3DAM (representing about l,800 taxi pick-ups on average for this hour). The Queens share of pick-ups reaches its peaks at the start of the AM shift, likely due to the fact that most taxi garages are located in Northwestern Queens. Most mornings between 4:3DAM and 6:ICAM, about 5-6\% of all pickups occur in Queens.

At the airports, daily peaks occur in the AM around 5:3DAM and in the evening around 4:3DPM, and these peaks range from representing 4\% to 7\% of all pickups. The weekly peak occurs late on Sunday evenings, where taxi traffic is generally low, when pick-ups at the airport represent about 8\% of all taxi pick-ups. From GPM to midnight on Sunday evenings, around l,250 taxi pick-ups occur each hour, on average. This is not significantly higher than the valumes at the airports during other peaks, but with fewer taxis on the road at this time, these trips make up a higher proportion of all trips. Pick-ups in the Bronx and Staten Island, on average, do not make up mare than $1 \%$ of all trips at any given point in time during the week.

Weekly peaks in the percentage of trips ending outer boroughs are even higher than for pick-ups. Taxi trips


The average yellow taxi fare in 2013 was \$13.4D, an increase from 20I2, when the average fare was $\$ 11.98$. This increase of average fares is mostly due to an increase in the rate of fare, which took effect in September 2012.

The average revenue taken in by a taxi driver varies by time of day and day of week. Average hourly gross revenue ranges from around \$2B for Wednesdays at 3AM to just over \$44 for Thursdays at IDPM. After accounting for hourly expenses, including \$1.43 per hour for fuel' and amortized lease payments ranging from $\$ 3.58$ to \$11.58 per hour, hourly net revenue ranges from \$14 for Wednesday at 3AM to \$3l for Thursdays at IDPM. In comparison, according to the Bureau of Labor Statistics, bus drivers make an average of about \$21 per hour, which falls in the middle of the range for taxi drivers. It is important to note, however, that unlike bus drivers, taxi drivers do not receive emplayersponsored benefits.

Before TPEP systems were introduced to all yellow taxis in late 20I8, no taxis accepted credit cards. At the time when credit card readers had been installed in all taxis in late 2008, passengers paid by credit card for less than 20\% of all trips, and the share of trips paid by credit card has grown steadily since then. Today, paying with a credit card is more popular than paying with cash, as $55 \%$ of all trips are paid by credit card.

## Tipping

Tipping by taxi passengers has remained rather constant for the last few years, holding at an average tip of $18 \%$. This tip percentage persisted even after the fare increase in late 2012, meaning drivers are making more in tips since the base for the tip is now higher.

## Taxi Fares in NYC Compared to Dther Cities

While a ride in a New Yark taxi may cost more than taking one of the city's buses or trains, the average New York taxi fare ranks relatively in the middle compared to taxi fares nationwide. In a study of the nation's 6 [ largest metropalitan areas, New Yark ranked 42nd for a one-mile cab ride with an average fare of \$6.3l. For a five-mile cab ride, New York came in at 4Sth and for a ten-mile ride, it ranked 47th. In each category, New York was less expensive than Boston, Los Angeles, San Francisco, and San Jose. This trend holds true, even after the 2012 fare increase. New York is more expensive than the national average, however². This represents a change from 200B, when the average New York cab fare at the time was slightly below average, coming in Ilth out of 14 major U.S.S. cities with I,30] or mare metered taxi cabs. ${ }^{3}$

[^0]
## Average Driver Fare Revenue per Hour (Grass and Net)




Source: NYC TLC TPEP Trip-sheet data, 2013 and estimates of amortized hourly vehicle lease payments and gas expenses

## Monthly Average Percentage of Trips Paid by Credit Card



Source: NYC TLC TPEP Trip-sheet data, 2008-2013

Percent of Shifts Started by Time of Day (15-minute increments)


Average Number of Taxis on the Road by Time of Day (15-minute increments)


Source: NYC TLC TPEP Trip-sheet data, 2012

Average Percentage of Taxis Пccupied by Time of Day (15-minute increments)


Source: NYC TLC TPEP Trip-sheet data, 2012

TLC Rules require that all mini-fleet medallions must be operated for two shifts each day. Fleet vehicles tend to start their shifts around a centralized time for both the AM and PM shifts. This is especially true on weekdays, when on average, $39 \%$ of vehicles operated under this madel start their evening shifts in the 5:OD-6:IIPM hour, with over $10 \%$ starting in just the 5:00-5:15 black alone. The morning shift start times are also clustered to a degree, but less sa than the evening shift. In the morning shift, 28\% of fleet vehicles begin weekday AM shifts in the 6:30-7:30РM hour, on average.

Although independent medallions do not have the same double-shifting requirements, many of the owners of these medallions choose to operate for two shifts anyway, since leasing out their vehicle for a second shift provides a source of additional income. True single-shifters are a rarity today, as only around 10\% of all medallions operate for one daily shift on a consistent basis. Those taxis that are single-shifted start their shifts at staggered times (instead of the more clustered shift start times found in the fleet model). No more than $10 \%$ of single-shifted owner-drivers begin a shift in the same hour (and no more than 4\% start in any single 15 -minute interval).

## Taxis on the Road and Taxi Dccupancy

The number of taxis available for service varies considerably by time of day and by day of the week. On average, Monday shifts tend to have slightly fewer available cabs than other days of the week, with an average of 72\% of all taxis on the road for the AM shift and an average of $77 \%$ of all taxis on the road for the PM shift. Similar patterns of service exist for shifts from Tuesday through Thursday, where AM shifts range from 80-82\% of all taxis on the road and PM shifts range between $81-85 \%$. Fewer taxis are available on Friday marnings ( $70 \%$ an average), but more taxis are available in the PM shift (85\%), and drivers in the PM shift keep their taxis out later into the night. This pattern is more exaggerated for Saturdays where there is not a morning AM rush hour (AM service runs at 71\% and PM service runs at 82\%). Sundays have the lowest number of available taxis for the entire week, with bath shifts running with about 67\% of all taxis.

At the traditional PM shift-change time (from 4PM to 5PM) each day, the number of available taxis on the road draps considerably. In an average weekday. service levels at this time drop 33\% from service levels at noan. The large number of taxis changing hands between 4PM and EPM seems to have a quantifiable effect on a passenger's ability to hail a taxi when he or she needs one. There is a daily spike in the percentage of available taxis that are occupied between 4PM and 6PM each day. ©n average, 64\% of taxis are occupied during these hours.

Aside from these spikes, other areas of high occupancy occur mostly at peak travel times. For weekday AM rush hours (between 8AM and SAM), the average occupancy is around $56 \%$. For the PM rush hours following the shift change (between 6PM and 7PM), the average occupancy is around $62 \%$. Dn Friday and Saturday nights, peaks occur around midnight and again at 4AM when bars close in NYC. At midnight on weekends, $56 \%$ of available taxis are occupied, on average, and at 4AM. about $49 \%$ of available taxis are occupied.


Source: NVC IIL Licensing Data, September 2013

## Where Drivers Come Fram

TLC-licensed drivers came from all five New Yark City boroughs, 31 U.S. states and the District of Columbia, and more than 175 countries around the world. A handful of these countries have only one driver in the fleet, whereas other countries have tens of thousands.

The highest concentration of yellow taxi drivers comes from Bangladesh, with over IU,250 drivers. Drivers from Bangladesh now represent 23.1\% of all yellow taxi drivers. Pakistan comes in second with 5,850 yellow taxi drivers (about $13.2 \%$ of all yellow taxi drivers). This represents a shift from 2005, when the highest concentration came from Pakistan (14.4\%), and Bangladesh was second at $13.5 \%$. The concentration of drivers coming from the U.S. and associated territories has also decreased from $9.1 \%$ in 2005 to $6.0 \%$ taday.

For FHV drivers, the number ane place of birth is the Dominican Republic. Drivers from this country represent 19.5\% of all FHV drivers (over $9,00 \mathrm{Cl}$ drivers in total). The second highest concentration of FHV drivers comes from the U.S.,. representing $9.6 \%$ of all FHV drivers (about 4,50] drivers).

## Where Drivers Live

About 88\% of TLC-licensed drivers live within the five boroughs that make up New York City. A plurality of yellow taxi drivers live in Queens (about 43\%). After Queens, the most papular boroughs are Broaklyn ( $23 \%$ ), the Branx ( $13 \%$ ), Manhattan ( $7 \%$ ), and Staten Island (2\%). In comparison, FHV drivers are more spread out throughout the five boroughs, with 23\% of






Source: NYC TLC Licensing Data, September 2013
drivers in Queens, 24\% in Broaklyn, 2२\% in the Branx, 10\% in Manhattan, and just 3\% in Staten Island.

Among those drivers who do not live in New Yark City. most live in New Jersey (around 6,30] or 6\% of all drivers) or in New York State on Long Island (about 4\%) or in Upstate NY ( $2 \%$ ). Less than one percent of all drivers live elsewhere.

## Who Drivers Are

Although female drivers have been behind the wheels of New York City cabs since the 194]s, the taxi industry continues to be nearly all male. This trend has held firm for many, many years. Around 49,500 (98.3\%) of today's yellow taxi drivers are male, whereas just 536 are female. The percentage of female FHV drivers is slightly higher, with a total of around 2,301 female drivers (just under 4\% of all FHV drivers).

TLC-licensed drivers range in age from II years (the
youngest age allowed by TLC Rules), to the oldest, who turned 94 in August 2013 . The average age for a New York City yellow taxi driver is 4 B years old, up from 44 years old in 2005. For FHV drivers, the average age is 47 years. Looking at the age distributions for yellow taxi and FHV drivers, a larger share of yellow taxi drivers are younger in age than FHV drivers, with about 21\% of yellow drivers under 35 years ald and just $19 \%$ of FHV drivers. The largest age cohort for both groups of drivers is those between 5 and 54 years of age. Around 14\% of yellow taxi drivers and 15\% of FHV drivers fall into this age group.

## PARSENFERS

Yellow Taxis serve around 600,000 passengers every day in New Yark Lity. They serve a broad spectrum of people, men and women who are young and old, poor and rich. However, taxi passengers are dispropartionately younger and more affluent than the population of NYC as a whole and much closer sacio-economically to Manhattanites.

In surveys canducted on passenger-facing monitors in the back of taxis, $49 \%$ of taxi passengers reported that they were male and 34\% reported that they were female ( $17 \%$ declined to answer). This ratio of males to females is somewhat higher than the gender breakdown for the city as a whole, where men make up $47.5 \%$ of the city's total papulation and women make up 52.5\%.

## Sex of Passengers

 0/0/0/0/0/0/010/010
Driver's
License

[^1]

II

Medallions are small metal plates attached to the hood of a taxi, certifying it for passenger pick-up throughout the city. Yellow taxicabs with medallions are the only vehicles authorized to pick up passengers by street hail anywhere in New Yark City. There are two different types of taxi medallions, an independent medallion and a mini-fleet medallion. Each has its own set of rules and requirements and transfers at a different price point.

An independent medallion is a class of medallion taxicab license in which the owner may only own one medallion, and often has an abligation to drive a minimum number of shifts annually. Dwners of independent medallions typically aperate as owner-drivers who own both the medallion and the taxi vehicle. Income for owners of independent medallions is derived from the fares and tips received from passengers less the cost of owning and maintaining a vehicle and medallion. Dften, these owner-drivers will lease their taxis to a second driver for additional income.

A mini-fleet medallion is a class of medallion taxicab license that must be owned in groups of at least two. The owners of mini-fleet medallians own multiple medallions and many maintain a fleet of taxi vehicles that are leased to drivers on a per shift basis. Incomes for fleet owners are derived from lease fees less the cost of aperating and maintaining the vehicle.

## The Haas Act

Until the mid-I93Is, the taxi industry of New Yark City had no regulation. There were an unspecified number of taxis and there wasn't a set standard for the fares that could be charged by a driver. This changed in 1937 with the enactment of the Haas Act, which established the medallion system.

Criginally it set a limit of $16, \mathrm{ClCl}$ taxi medallions. However, that number was decreased ta Il. 787 after World War II. It remained unchanged until I996 when it was increased by 133 medallions to a total of 11,500 . As of now, there are I 3,437 total taxi medallions in New York City.

The Haas Act classified the two types of medallions in use today: independent and mini-fleet

It also set up a nominal "ED/40" ratio of mini-fleet to independent medallions

## The Price of a Medallion

TLLC does not set the price of a medallion: instead, the market sets the price of the medallin. The price of a medallion depends on a number of factors.

- Taxi fares and tips
- Demand for taxi service
- Availability and cost of taxicab medallion financing
- Market for the medallion
- Anticipated return on the investment to acquire a medallion as compared to other investments
- Cost of operating a taxi

Average Annual Medallion Sale Prices


Source: NYC TLL Medallion Sales Database and Consumer Price Index
When medallions first began being traded after World War Il under the Haas Act, the average price was $\$ 2,50$. It has grown exponentially since then. The average annual price of independent medallions increased $260 \%$ between 2004 and 2012 while the average annual price of mini-fleet medallions increased $321 \%$ over the same time period. When accounting for inflation, prices still increased 214\% for independent medallions and 265\% for mini-fleet medallions. The annualized return on investment (RDI) for a medallion over this time would be about $19.5 \%$. In comparison, over the same time, the ROI for a similar investment in the S®P 500 would yield a $3.9 \%$ annual return.

The value of a mini-fleet medallion is much greater than the value of an independent medallion. In 2013, the average price of an independent medallion (appraximately $\$ 967,00 \mathrm{CD}$ ) was about $84 \%$ of the average price of a mini-fleet medallion (appraximately $\$ 1,150,000)$. This price differential may be explained by differences in the medallions, such as a requirement for many independent medallions that the owner must drive the taxi, or the fact that mini-fleet medallions are often held by large fleet companies which can more easily lease a taxi for two shifts each day (and thus see a higher return on their investments). TLC data indicates
that about $58 \%$ of the existing medallions are mini-fleet medallions while $42 \%$ are independent medallions.
Historical Medallion Prices
Medallion prices have increased during periods of medallion sales in part due to the fare increases that have accompanied them. During these periods of sales, independent medallion prices rose $22 \%$ in $20 \square 4$ and 22 in 2005. Mini-fleet medallion prices rose 22\% in 2004 and 21\% in 2005. In 200B, independent medallion prices rose 14\% while mini-fleet medallion prices rase 27\%.
Medallion prices rose in 2007 as well by approximately 11\% for independent and 19\% for mini-fleet.

## In the Future

Two-thousand wheelchair-restricted medallions are slated to be sold over the next several years. Already. 200 mini-fleet wheelchair-restricted medallions have been auctioned off at an average price of \$2.27 Million (mini-fleet medallions are sold in pairs, making the average price \$1.13 Million per medallian).

A typical New York Lity cab will drive around 70,000 miles and carry more than ID,ODO passengers in a single year. It is important that all medallian cabs and for-hire vehicles receive regular safety and emissions inspections to ensure the safest ride possible for both passengers and drivers. The TLL's inspection facility in Woodside, Queens, has been responsible for inspecting each and every regulated taxi vehicle operating in New York Lity for more than 20 years.

## The Facility

Before the inspection facility opened its doars, the taxi inspection process was completely decentralized. Inspections would take place in 17 different garages and gas stations around the city. While TLC officers would observe these inspections, they had little control over the rigor of the process and there was very little uniformity across lacations. On September I, 1988, the inspection process for the entire fleet of regulated vehicles became centralized at an official TLL inspection facility in Woodside, Queens. The site inspects upwards of 40 Cl cars per day, and canducted over 51,000 primary inspections last year.

The center is committed to honesty within the taxi industry. Security cameras are installed throughout the facility, and supervisors carefully monitor everyone who comes in and out of the inspection area. On the enforcement side, officers have ramped up their efforts to keep unlicensed taxis off the streets in recent years, seizing 7,830 vehicles in the last year, up from 3,000 the previaus year and $1,00 \mathrm{Din}$ the year priar.

With tens of thousands of drivers coming through the center every day, the Woodside facility has been described as a "little U.N." Inspection reports and violation sheets are translated inta twelve different languages, but even that falls short of what inspectors need in order to communicate with drivers from all over the warld. Dften, they rely on signs, symbols, or one-on-one meetings with mechanics to physically point to the part of the car that needs to be fixed.

## Looking Ahead

With $18,00 \mathrm{Cl}$ new Bora Taxis set to hit the streets in the next several years, Woodside is preparing for tens of thousands of additional inspections each year. To handle the influx, inspectors have converted one inspection lane inta an "express re-inspection" lane and plan to make further adjustments to the inspection process to cut down an the time each car spends in the facility.

The staff at Woodside knows that time out on the streets is crucially important to cab drivers, and sa they pride themselves on making the inspection process as quick and efficient as possible. A typical inspection takes only $15-20$ minutes, and the average wait time for an inspection taday is 55 minutes - down from over an hour in 2012 and from over twa hours in years prior.

## The Process

Each of the 13,237 yellow medallion taxis on the streets of New York Lity goes through a rigorous inspection process three times per year. The cabs are equipped with 18 different sensors, each one of which is reviewed in the four-stage inspection process.

The vehicle's VIN (its Vehicle Identification Number) is scanned inta the system, and the owner's information must match the information on file for the VIN when the car is checked in for inspection.

## 2

The vehicle's emissions are tested using the Dn-Board Diagnostic System - Versian 2 (IDBIII), the standard test for motar vehicles in New York State. The computer test provides a read-out of the emissions control systems in the vehicle to ensure they are working praperly.

## 3

The cab's meter is inspected to ensure it is running at the proper rate. The car runs in place for one mile while a camputer tracks its metered fare, ensuring that customers are not overcharged and that drivers get the full fare. If the meter runs
 too slowly or quickly, it must be recalibrated before the car is allowed back out on the streets.
4
In this stage, the car's safety features are inspected, from the lights and locks to the seatbelts and assist straps. Inspectars check and double-check each individual component to ensure maximum safety for both passengers and drivers. To check
 the brakes, inspectors drive the car forward and stop very suddenly on a brake pad, which can test all three brakes (front, rear, and axle) at once,
5
Finally, inspectors check the car's undercarriage for leaks and irregularities. Any problem here, no matter how small, is considered a vialation and must be repaired and rechecked at the inspection facility before the car and driver can get back to work.


## Frequency of Inspections at Woodside




Bora Taxis

еvery уеаг

The 2014 Taxicab Fact Book was a collaborative effort from the staff at the Taxi \& Limousine Commission
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[^0]:    1 Assumes an average of 11.5 miles travelled per hour, the taxi fleet average fuel economy of 29 MPG , and the 2013 averase gas price of $\$ 3.302$ per oallon (from ia gov)
    2 Nationwide comparisons from taxifarefinder.com
    3 Shaller Consulting, "The New York City Taxicab Fact Book," March 2006,

[^1]:    I Source: U.S. Census Bureau, 2010 Census Summary File I, Table P6
    2 Source: U.S. Census Bureau, 2012 American Community Survey I-Year Estimates, Table SIMD
    3 Source: U.S. Census Bureau, 2012 American Community Survey I-Year Estimates, Table B25044
    4 Source: U.S. Bureau of Transportation Statistics; Seat Belt Use in the States, U.S. Territories, and Nationwide, 2005-2012; duly 2013. Available at http://www-nrd.nhtsa. dot.gov/Pubs/8ilisu9.pdf

