

# 2019 Citywide Mobility Survey Results

Prepared for NYC DOT by RSG



# SURVEY OBJECTIVES

**1**

**Track year-over-year changes in travel behavior**

**2**

**Understand current views on the state of transportation within the city**

**3**

**Measure attitudes toward current transportation issues and topics**

**4**

**Perform in-depth sub-group analysis for planning zones and key targeted areas**

# 2019 SURVEY OVERVIEW



3,346

PARTICIPANTS



2,346

VEHICLES



18,322

TRAVEL DAYS



85,459

TRIPS



1,182,837

LOCATIONS

## SUMMARY

- Survey fielded from **May 22, 2019 through June 30, 2019.**
- **Smartphone participants participated in a 7-day travel diary.**
- **Online and call center participants participated in 1-day travel diary.**
- Same questionnaire was used for smartphone, online, and call center participants.
- Survey was available in English, Chinese, and Spanish.



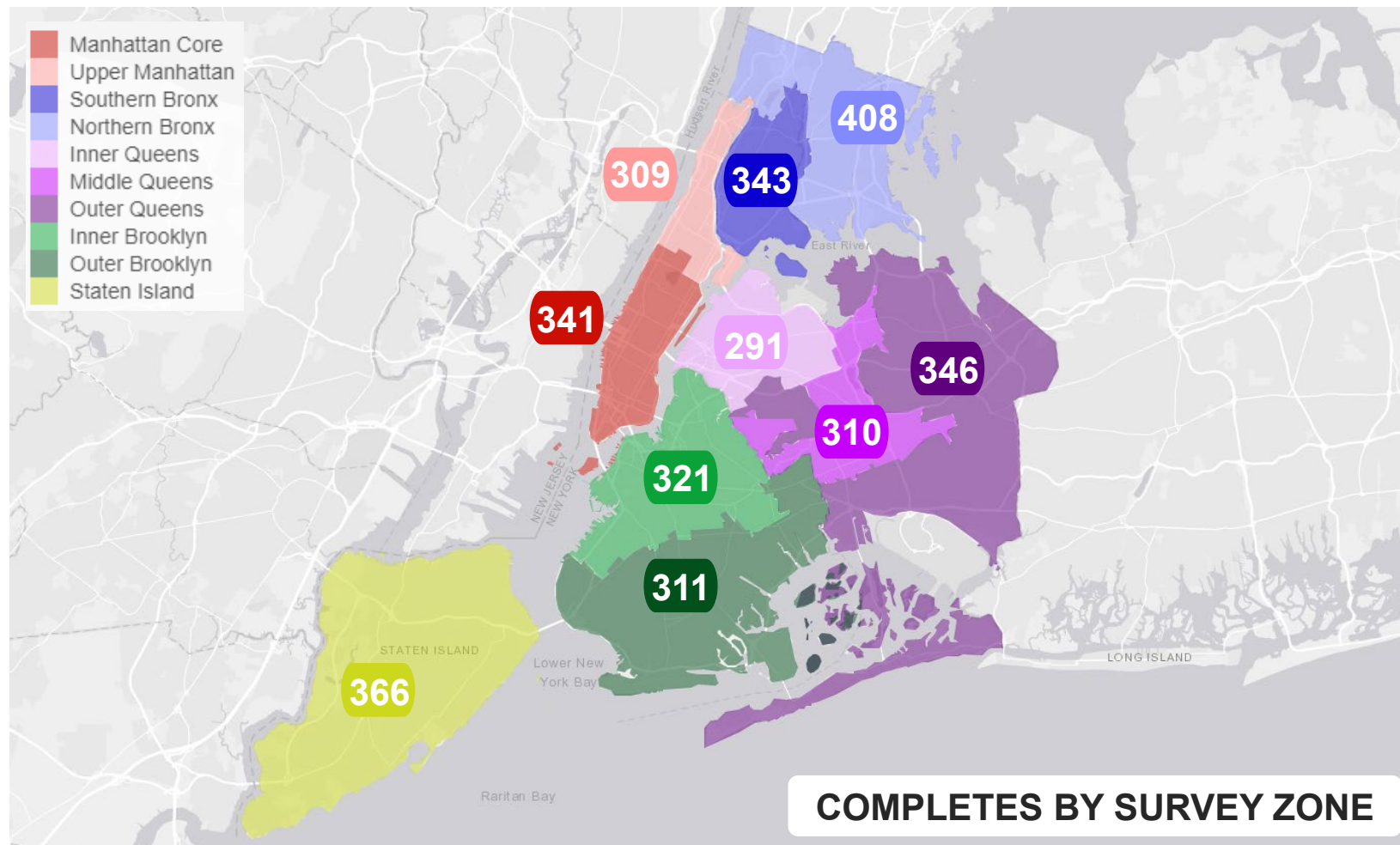
# SURVEY REGION AND ZONES

Target Completes = 3,000

Actual Completes = 3,346

Zone Target = 300

- The overall survey target was exceeded by 346 completes.
- The zone target was met in all zones except for Inner Queens.
- Response rates varied by zone and compensatory oversampling was used to meet targets.





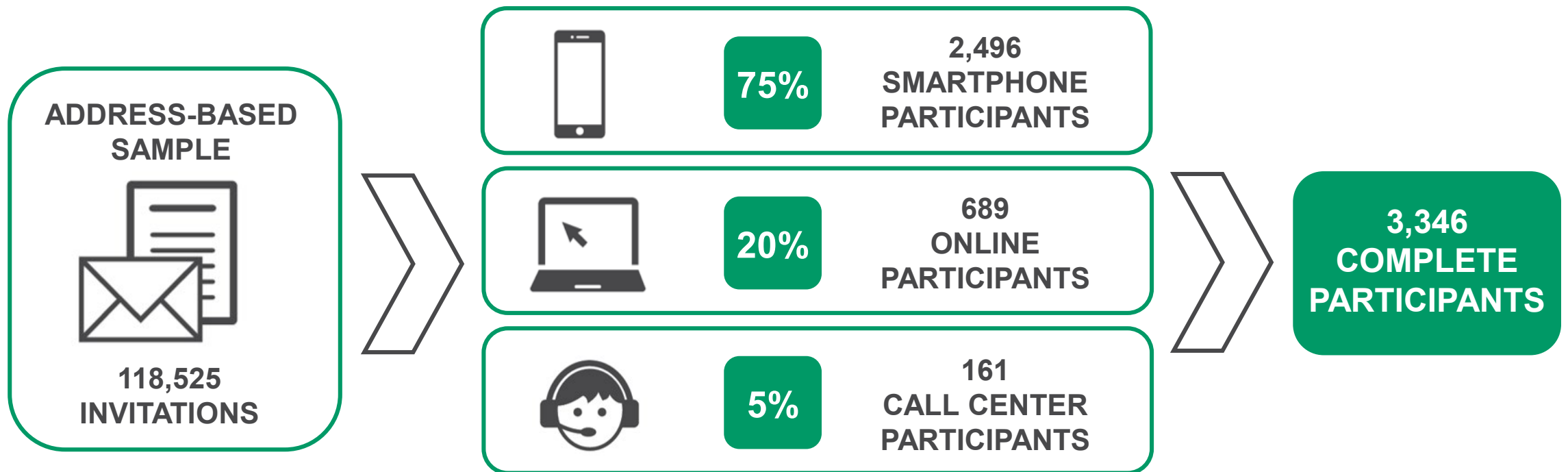
**CITYWIDE  
MOBILITY  
SURVEY**

## Methodology

# SURVEY DESIGN

2019 CMS departed from previous iterations of the survey in two primary ways:

1. Sampling methodology changed from random digit dialing to **address-based sampling**.
2. Survey participation through a **smartphone-app** was made available.



# SURVEY RECRUITMENT AND ENGAGEMENT

## RECRUITMENT



### Mailed Invitation Materials

- Address-based sampling was used by drawing a random sample of addresses from all residential addresses in the survey region.
- An invitation letter was sent to sample addresses followed by a reminder postcard.

## ENGAGEMENT

### Informational Website

- Participate in the survey
- Answers frequently asked questions

### Call Center

- Participate in the survey
- Answer questions
- Reminder calls

### Survey Email Address

- Answer participant questions
- Send reminder emails

## Invitation Materials

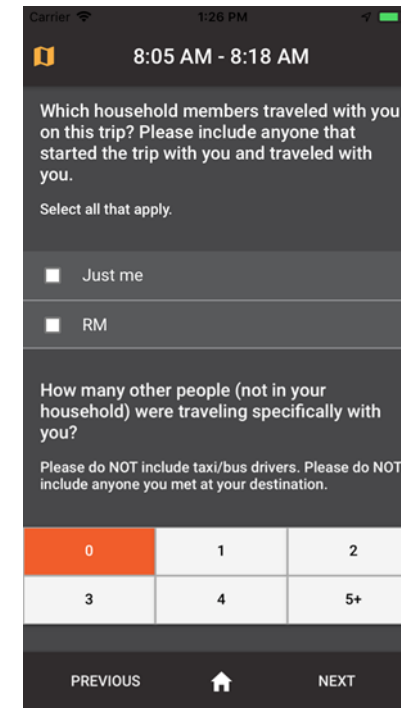
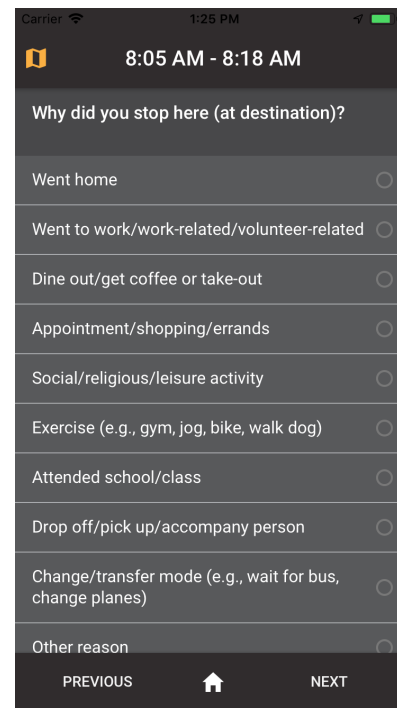
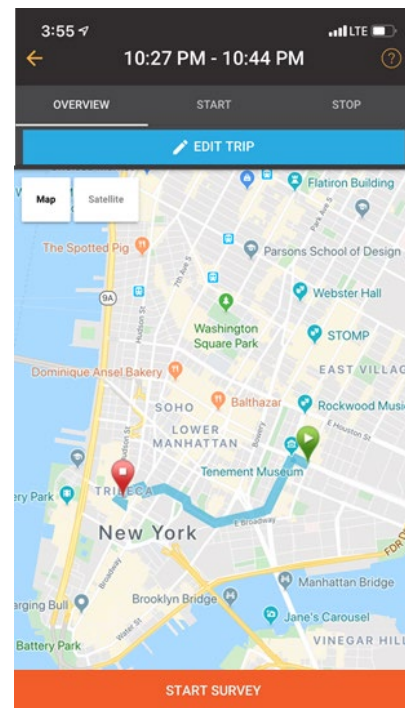
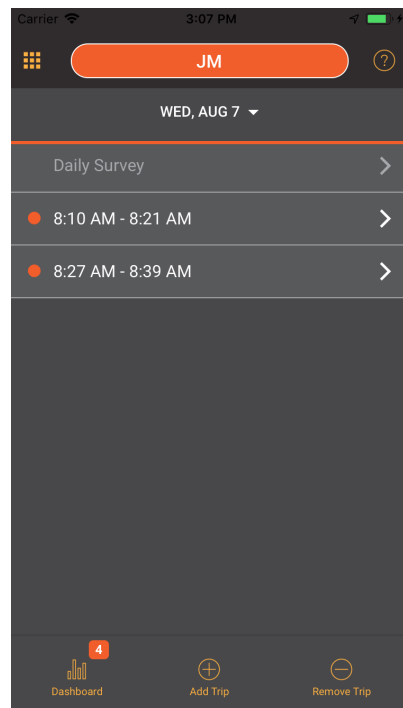


Printed on paper containing 30% post-consumer material.

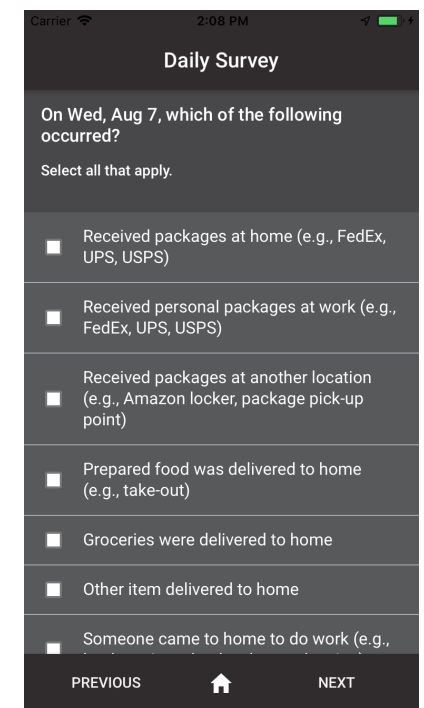
# SMARTPHONE APP PARTICIPATION

1. After downloading the rMove app, participants completed a brief recruit survey.
2. Their travel period began the next day and continued for 7 days.
3. rMove passively collected trip data and in-app surveys appeared after each trip.

## TRIP SURVEY



## DAILY SURVEY



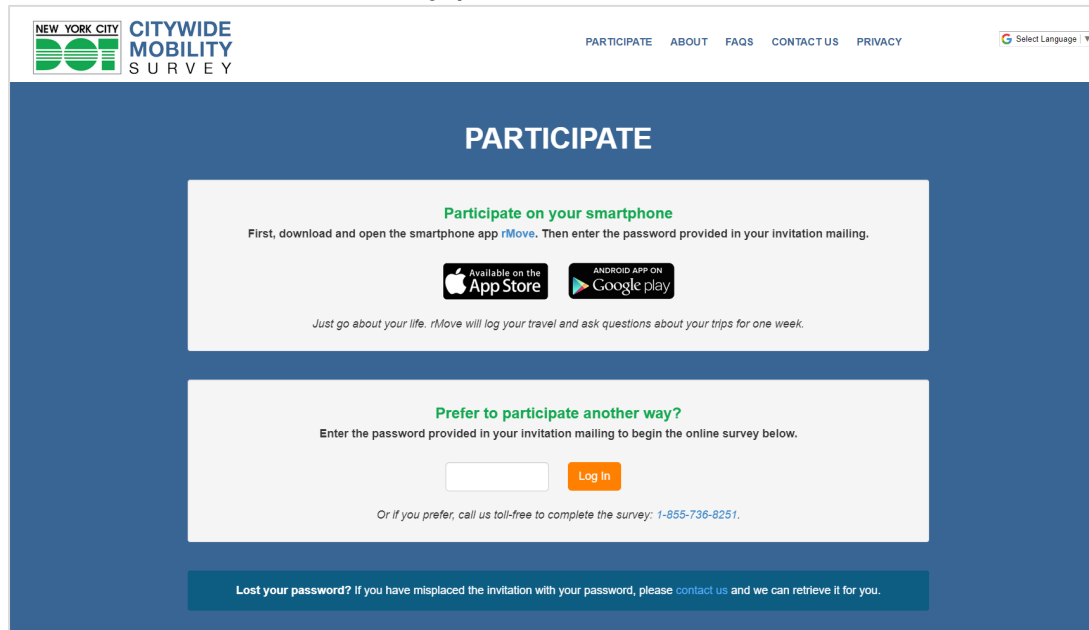


# ONLINE AND CALL CENTER PARTICIPATION

Participants who visited the survey website were presented with all three survey participation modes and could enter the online survey using the password received in their invitation mailings.

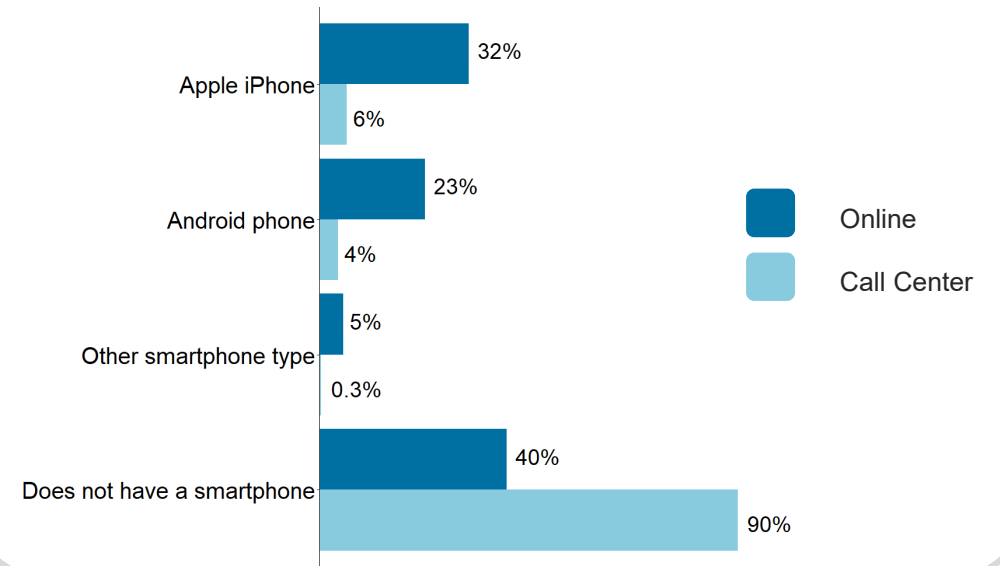
**90% of call center participants and 40% of online participants do not own smartphones.**

Entrance to online survey platform



SMARTPHONE OWNERSHIP FOR CALL CENTER AND ONLINE PARTICIPANTS

UNWEIGHTED N = 850, WEIGHTED N = 1,520,640



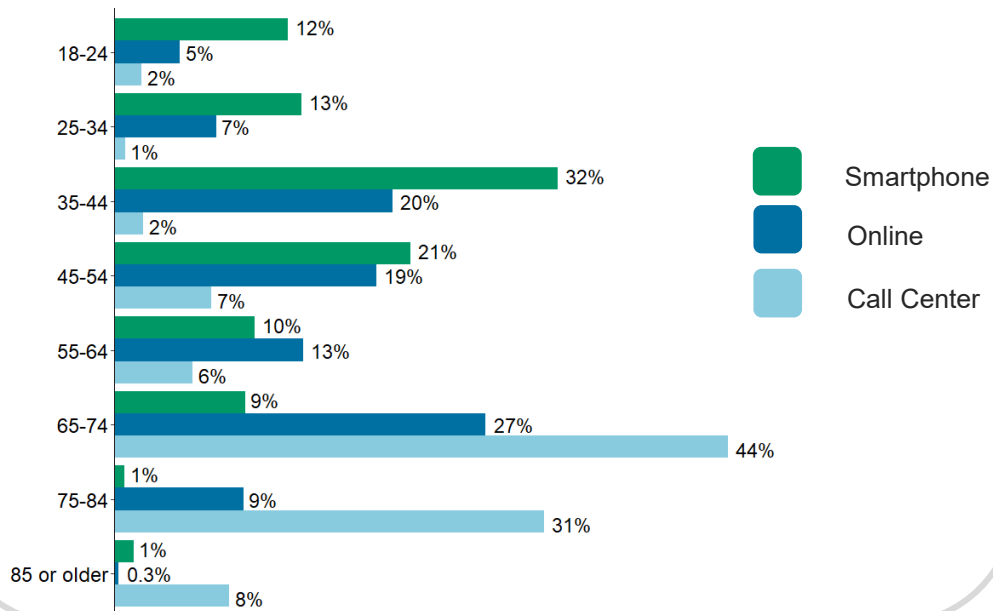
# SURVEY PARTICIPATION MODE PROFILE

89% of smartphone participants are under age 65, while 83% of call center participants are age 65 and over.

Call center participants were more likely to decline reporting household income in comparison to smartphone and online participants.

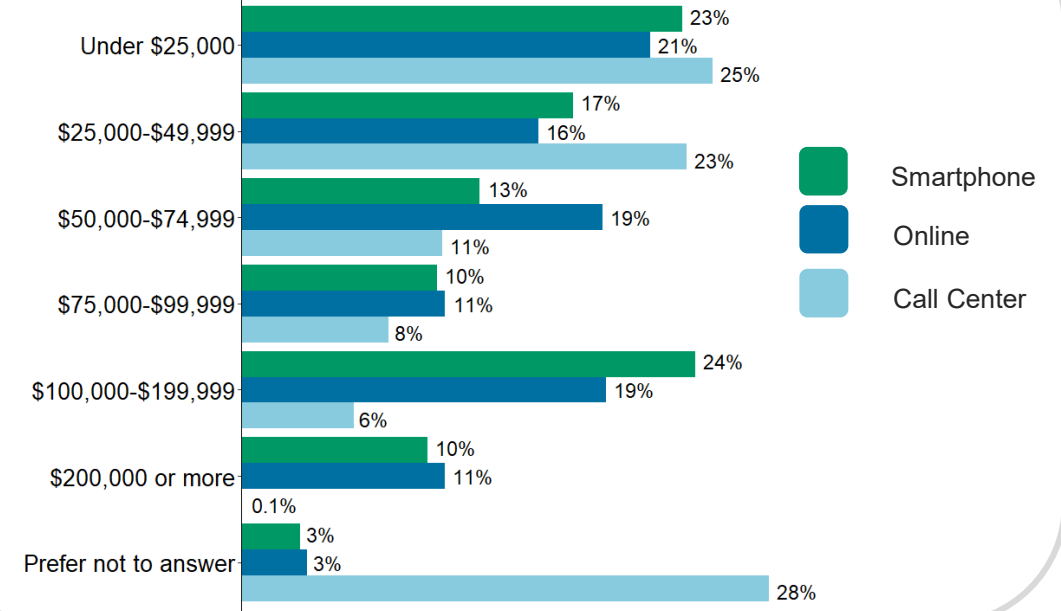
### PARTICIPANT AGE BY SURVEY MODE

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



### HOUSEHOLD INCOME BY SURVEY MODE

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



# SURVEY LANGUAGE

SURVEY MODE	SURVEY LANGUAGE	PARTICIPANTS	PERCENT OF PARTICIPANTS
<b>Smartphone</b>	English	2,421	72%
	Simplified Chinese	32	1%
	Spanish	43	1%
<b>Online</b>	English	679	20%
	Simplified Chinese	2	0%
	Spanish	8	0%
<b>Call Center</b>	English	157	5%
	Spanish	4	0%
<b>Total</b>		<b>3,346</b>	<b>100%</b>

Screenshot of rMove language selection.



# SURVEY RESPONSE

CMS ZONE	INVITED	RECRUITED	RECRUIT RATE <sup>1</sup>	COMPLETED	COMPLETE RATE <sup>2</sup>
Manhattan Core	8,848	401	4.5%	341	3.9%
Upper Manhattan	10,821	427	3.9%	309	2.9%
Inner Brooklyn	12,121	399	3.3%	321	2.6%
Outer Brooklyn	11,051	444	4.0%	311	2.8%
Inner Queens	8,581	415	4.8%	291	3.4%
Middle Queens	8,075	414	5.1%	310	3.8%
Outer Queens	10,688	484	4.5%	346	3.2%
Southern Bronx	18,826	512	2.7%	343	1.8%
Northern Bronx	18,826	586	3.1%	408	2.2%
Staten Island	10,688	508	4.8%	366	3.4%
<b>Total</b>	<b>118,525</b>	<b>4,590</b>	<b>3.9%</b>	<b>3,346</b>	<b>2.8%</b>

<sup>1</sup>Recruit Rate = Recruited / Invited

<sup>2</sup>Complete Rate = Completed / Invited

# SURVEY SUMMARY KEY AND OVERVIEW

## WEIGHTING KEY:

All figures are weighted to represent the population of New York unless noted otherwise.

Data at the trip and day levels are weighted to represent an average day.

## 2019 SURVEY SUMMARY OVERVIEW

Sample Profile

Trip Diary

Work & School Travel Behavior

Transit Services Usage

Vehicle Behavior & Ownership

Pedestrian Behavior

Bicycle Behavior

New Mobility Services Usage

Freight Services Usage

Equity Analysis



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MOBILITY**  
SURVEY

## Sample Profile

Household and Person Demographics

# SAMPLE PROFILE OVERVIEW

Demographic Breakdown		Unweighted Sample	Weighted Sample	ACS 5-Year Average (2013-2017)
<b>Age</b>	18 – 24	8%	11%	12%
	25 – 44	42%	40%	40%
	45 – 64	35%	31%	31%
	65 and older	15%	18%	17%
<b>Gender</b>	Female	56%	53%	53%
	Male	44%	47%	47%
<b>Race</b>	American Indian or Alaska Native	1%	1%	0%
	Asian	15%	17%	14%
	Black or African American	19%	20%	24%
	Native Hawaiian or other Pacific Islander	1%	0%	0%
	White	52%	44%	43%
	Two Races or More	4%	8%	3%
	Other	9%	9%	15%
<b>Ethnicity</b>	Hispanic, Latino, or Spanish Origin	22%	28%	29%
	Not of Hispanic, Latino, or Spanish Origin	78%	72%	71%
<b>Income</b>	Under \$25,000	18%	24%	25%
	\$25,000-\$49,999	18%	18%	19%
	\$50,000-\$100,000	31%	25%	26%
	\$100,000-\$199,999	24%	23%	20%
	\$200,000 or more	9%	10%	9%
<b>Borough</b>	Manhattan	19%	21%	21%
	Brooklyn	19%	30%	30%
	Queens	28%	28%	28%
	Bronx	23%	16%	16%
	Staten Island	11%	6%	5%
<b>Employment Status</b>	Employed	68%	66%	64%
	Not employed	32%	34%	36%
<b>Disability</b>	Any disability	12%	14%	13%
	Ambulatory – Difficulty walking or climbing stairs	7%	7%	8%
	Vision disability – Blind or have difficulty seeing	1%	2%	3%
	Hearing disability – Deaf or have difficulty hearing	3%	5%	3%

*Note: For variables where “Prefer not the answer” was an option, respondents who selected that answer have been excluded from these calculations.*

# HOUSEHOLD SIZE

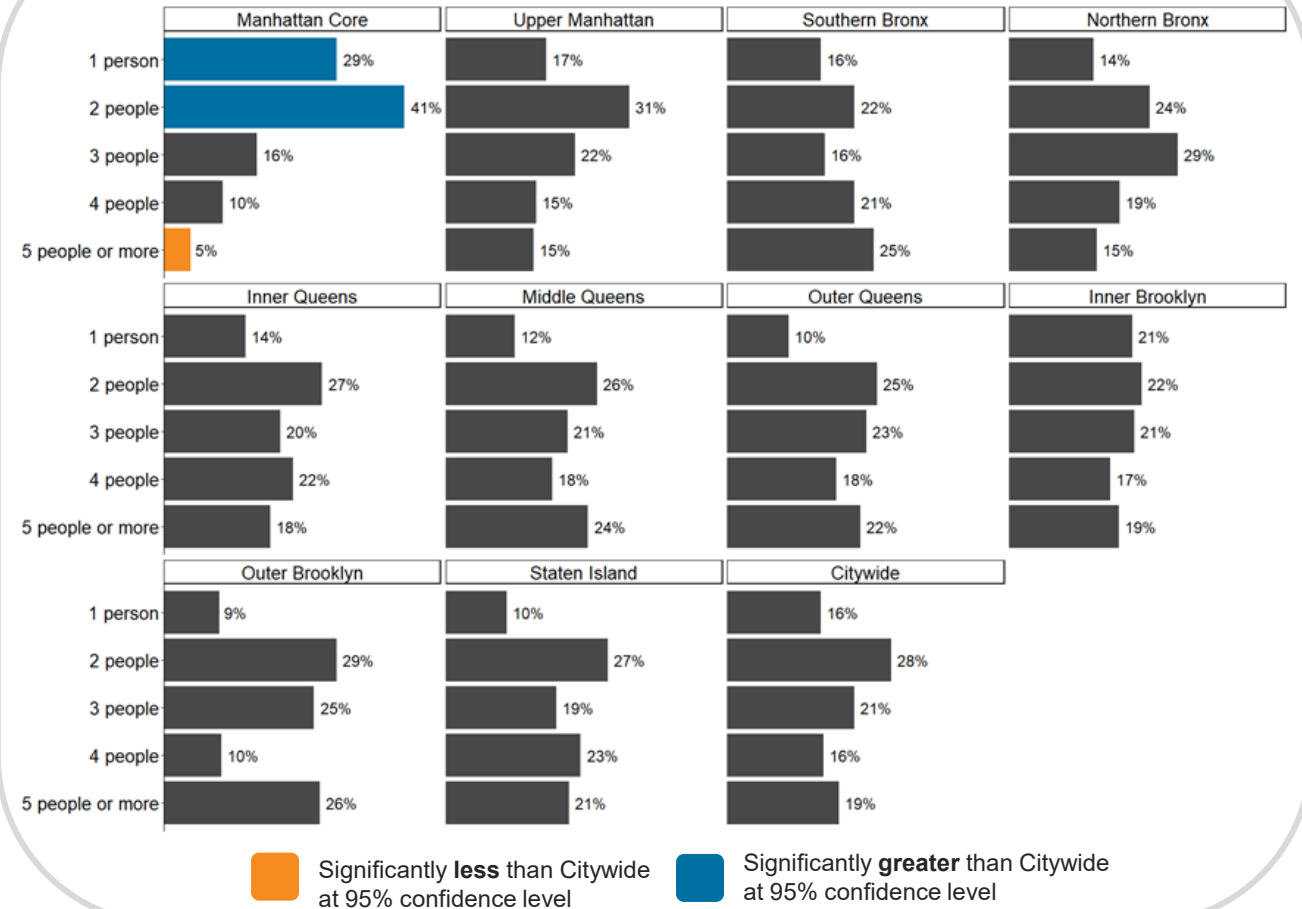
Manhattan Core has the highest share of:

- 1-person households – 13 percentage points higher than citywide
- 2-person households – 13 percentage points higher than citywide

Manhattan Core also has a significantly smaller share of households with 5 or more members – 14% lower than citywide.

## HOUSEHOLD SIZE BY SURVEY ZONE

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172





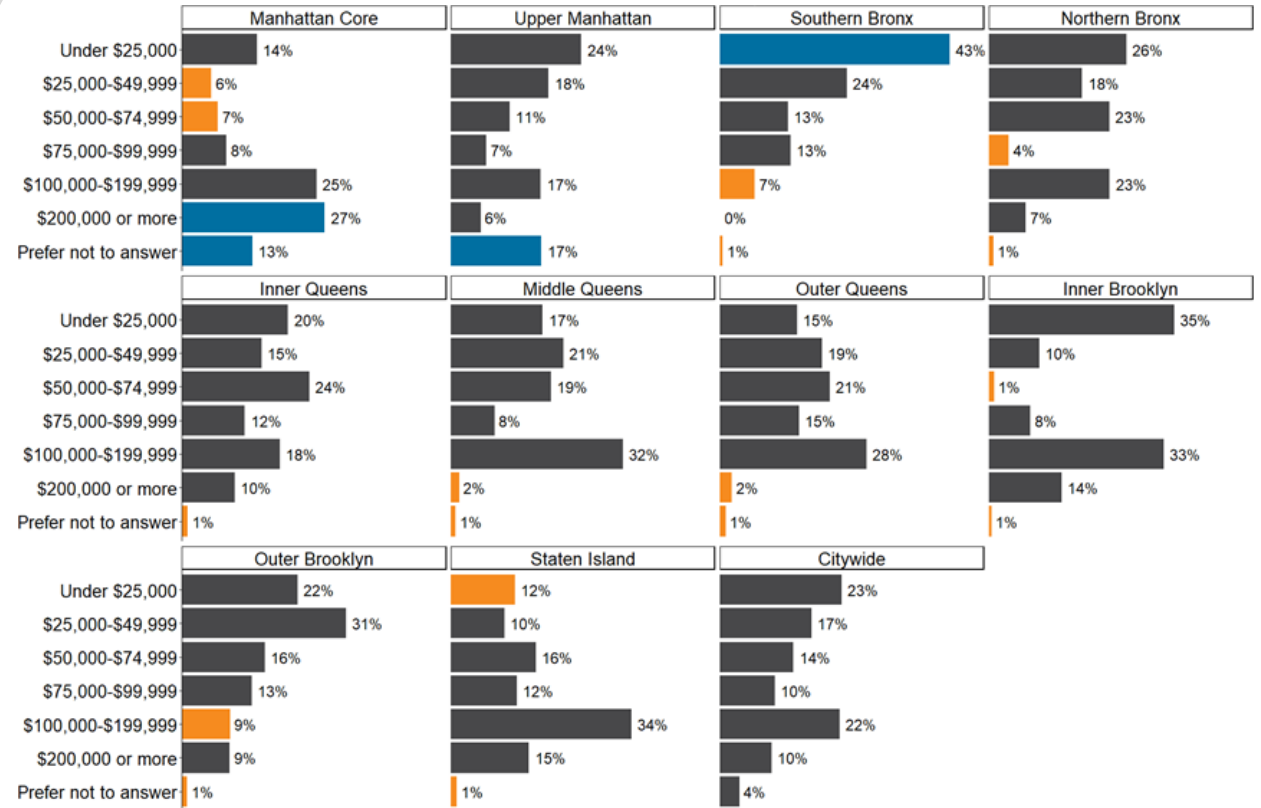
# HOUSEHOLD INCOME

**52% of households in the Manhattan Core make \$100,000 or more in annual income** – the highest proportion of all zones and 20 percentage points higher than citywide.

**43% of households in the Southern Bronx make under \$25,000 in annual income** – the highest proportion of all zones and 20 percentage points higher than citywide.

## HOUSEHOLD INCOME BY SURVEY ZONE

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



Significantly less than Citywide at 95% confidence level

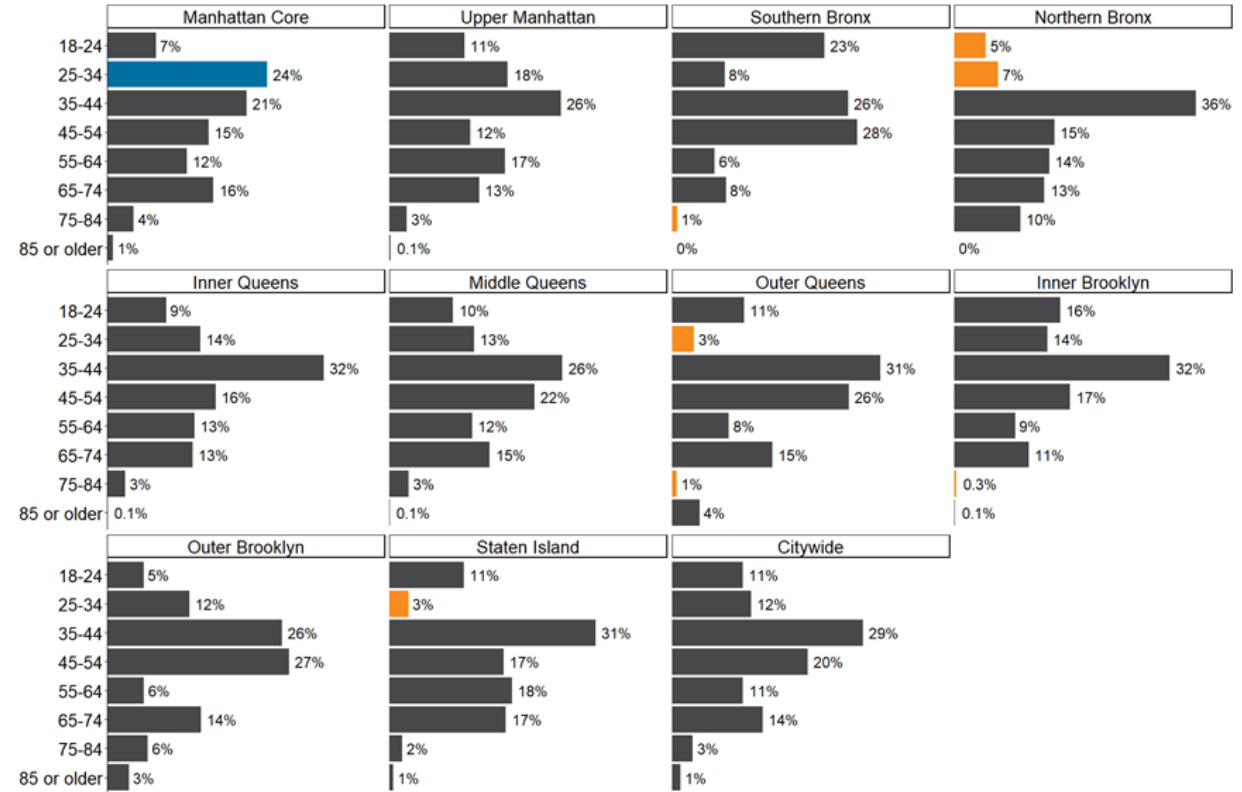
Significantly greater than Citywide at 95% confidence level

# PARTICIPANT AGE

**24% of Manhattan Core participants are age 25-34, 12 percentage points greater than the citywide share.**

**12% of Northern Bronx participants are age 18-34, 11 percentage points less than the citywide share.**

**PARTICIPANT AGE BY SURVEY ZONE**  
UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172

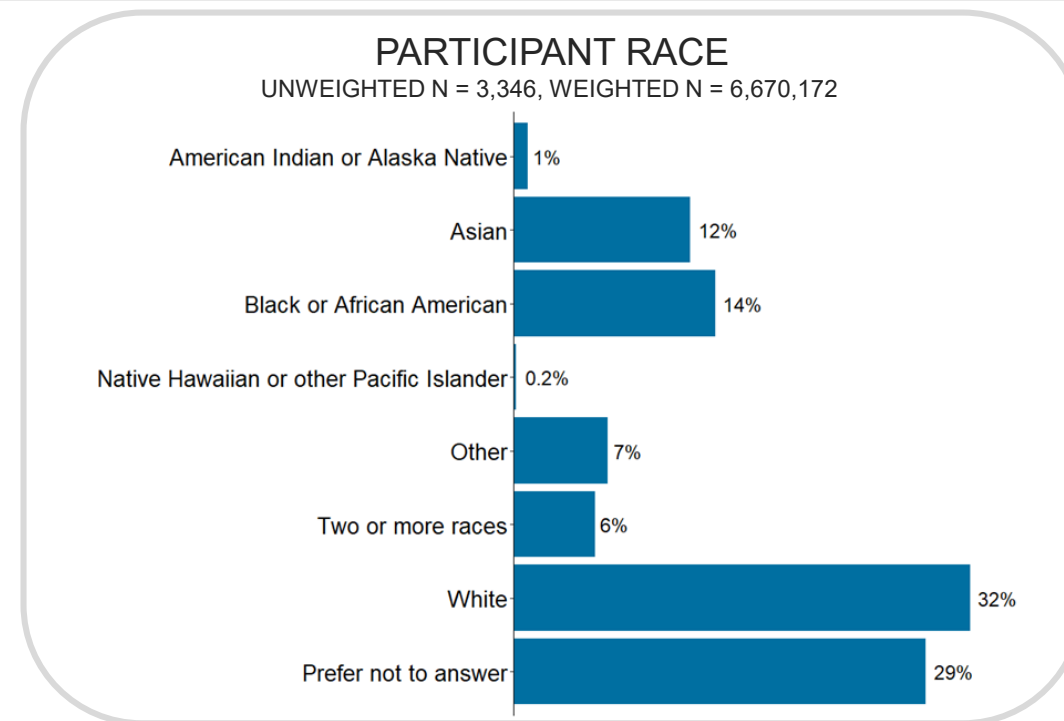
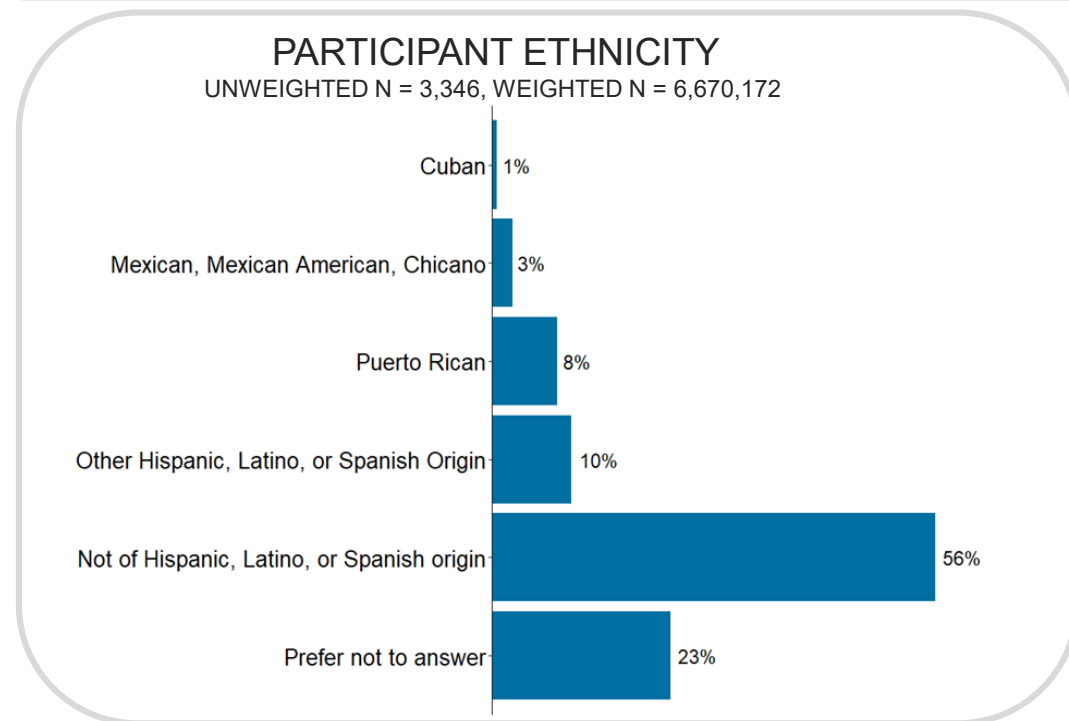


■ Significantly **less** than Citywide at 95% confidence level
 ■ Significantly **greater** than Citywide at 95% confidence level

# PARTICIPANT RACE AND ETHNICITY

21% of participants are of Hispanic, Latino, or Spanish origin and 23% declined to report their ethnicity.

Race was asked as a select all that apply – responses have been aggregated in the figure below for ease of comparison to the census. 29% of participants declined to report their race.



*Note: The “Prefer not the answer” option has been included in these figures but was excluded from the earlier sample profile table resulting in different shares.*

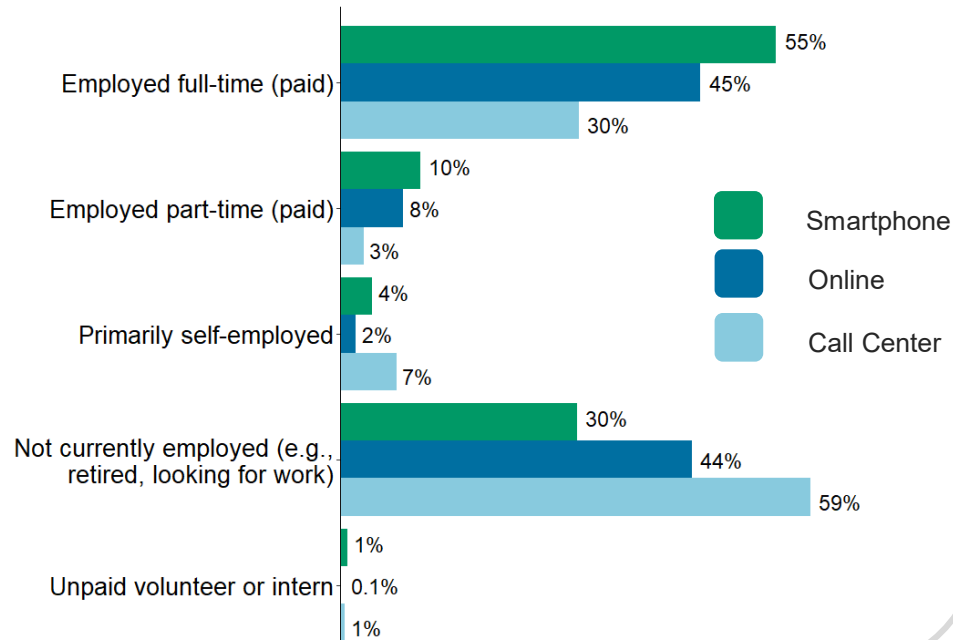
# EMPLOYMENT STATUS

Smartphone participants have the highest employment rate, while call center participants have the lowest employment rate – which is reasonable given that 83% of call center participants are age 65+.

Manhattan Core and Inner Queens have the highest employment rate of the survey zones.

EMPLOYMENT TYPE BY SURVEY MODE

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



EMPLOYED PARTICIPANTS BY SURVEY ZONE

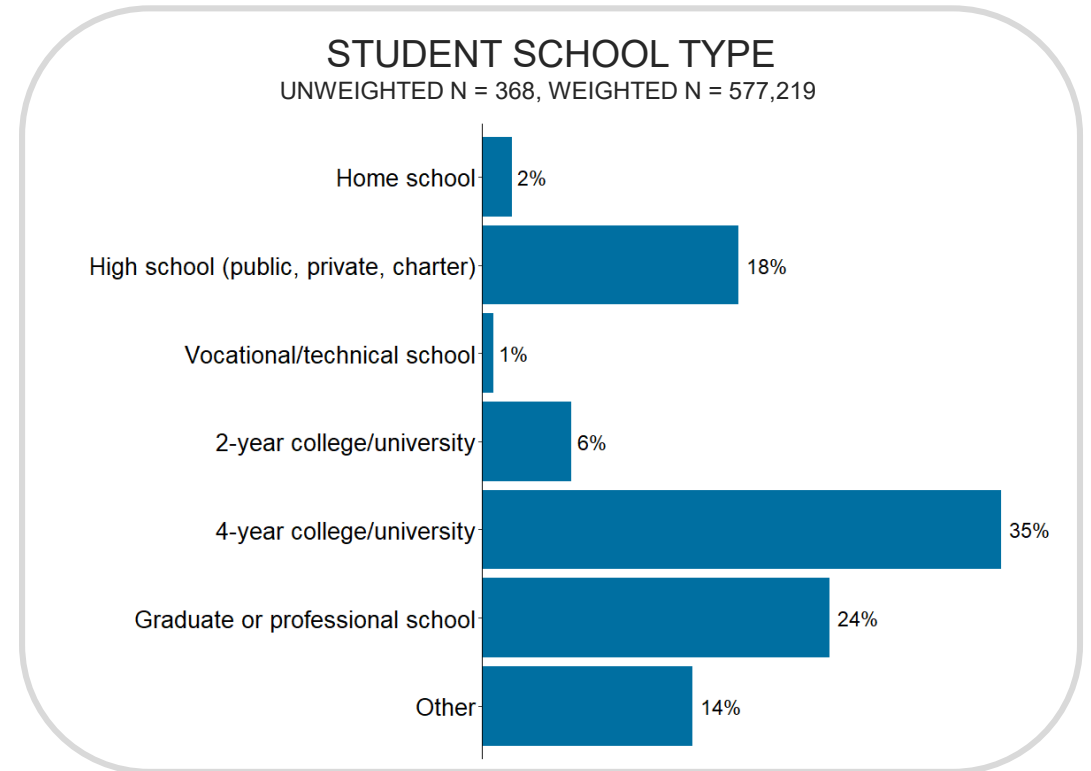
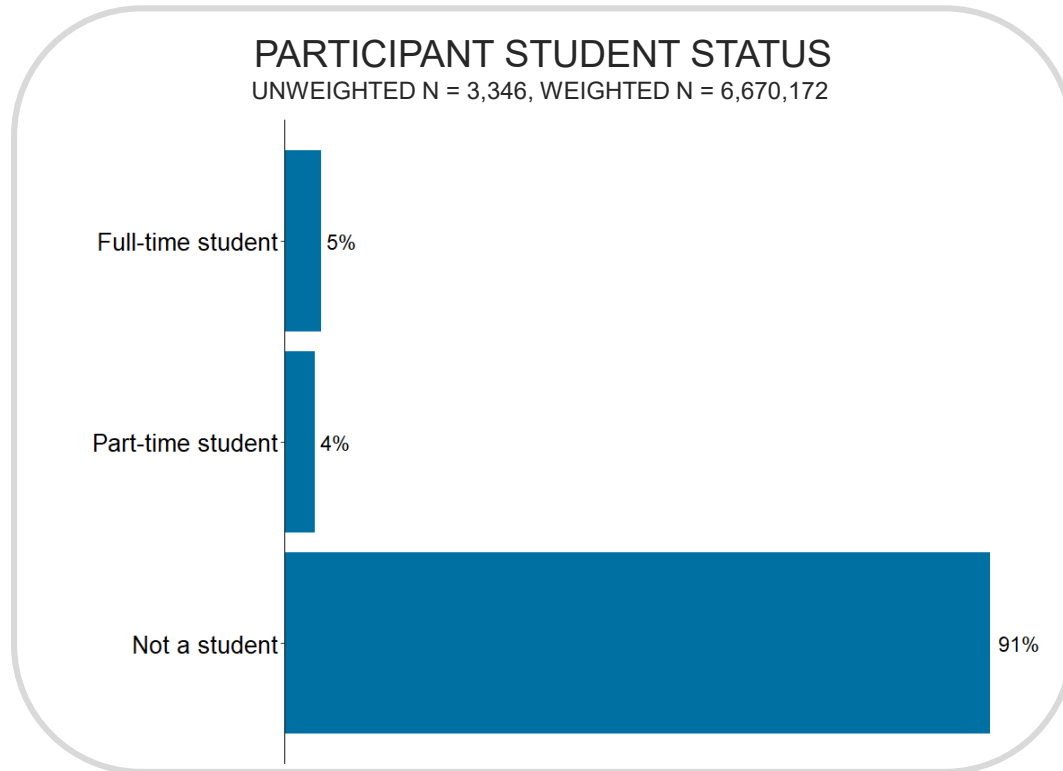
UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



# PARTICIPANT STUDENT STATUS

9% of participants are students.

The majority of participants who are students are enrolled in 4-year college/university programs.

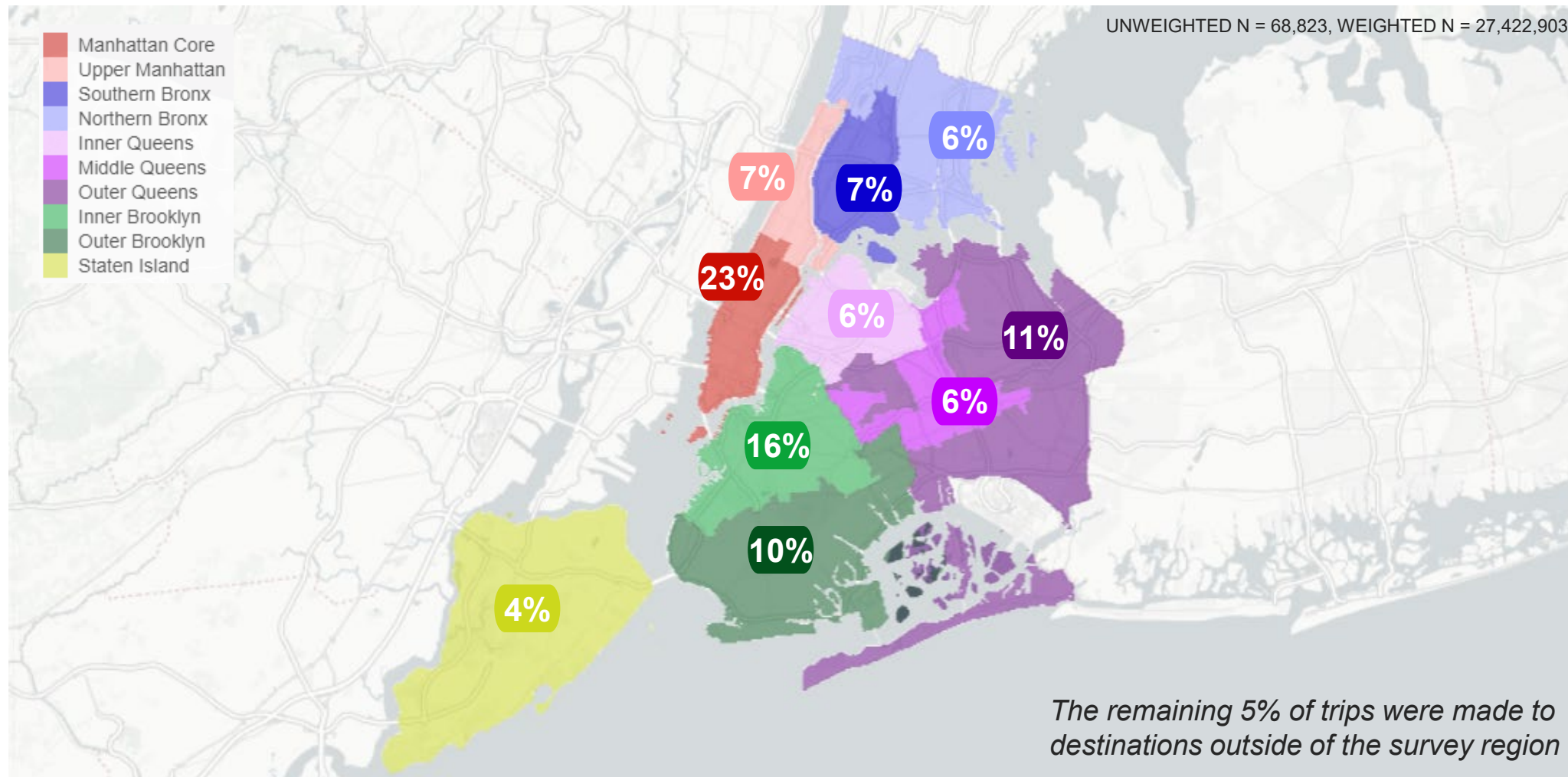




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# Trip Diary

# CITYWIDE TRIP SHARE BY DESTINATION SURVEY ZONE



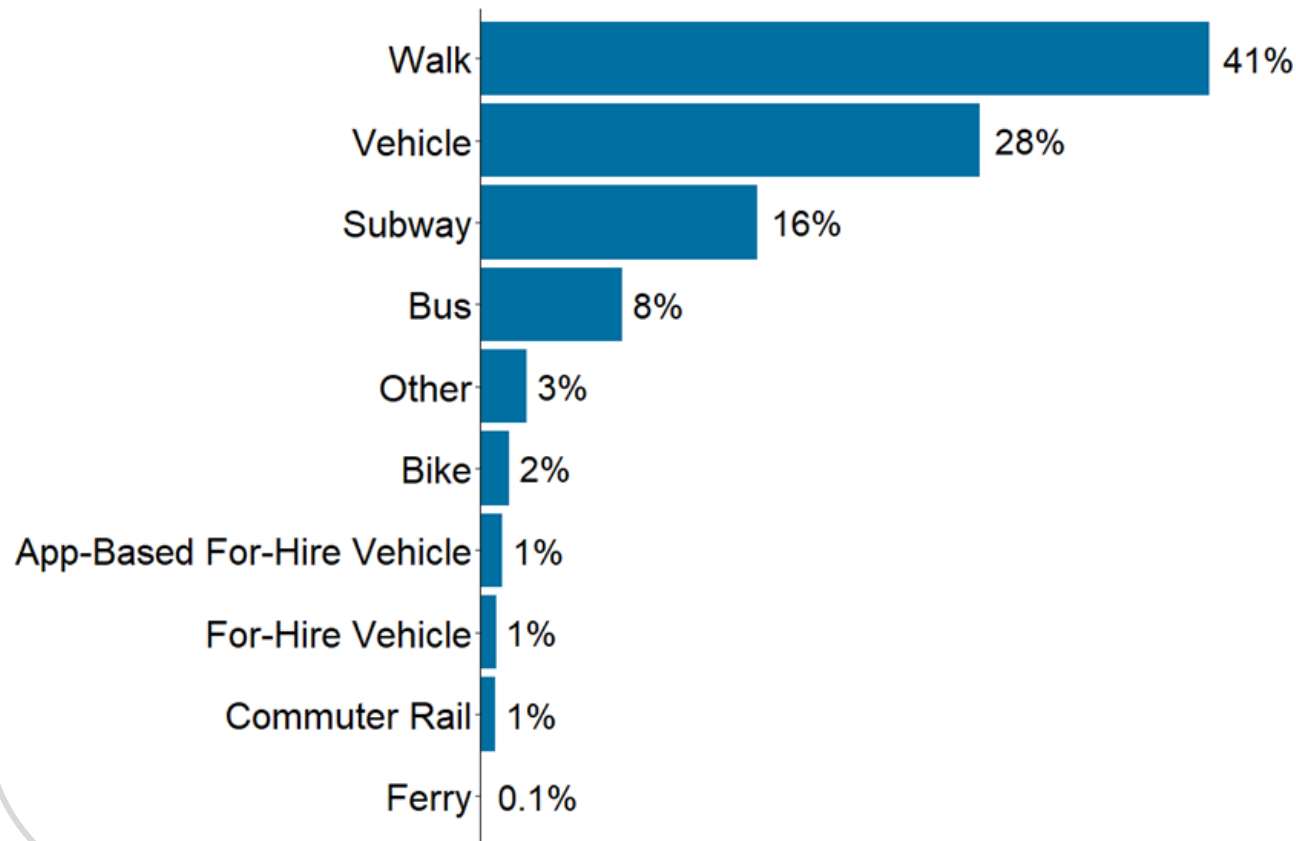
# CITYWIDE TRAVEL PROFILE – MODE SHARE

**68% of trips citywide were made using sustainable modes.**

41% of New Yorker's trips were walking trips, the highest of any mode.

## CITYWIDE MODE SHARE

UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



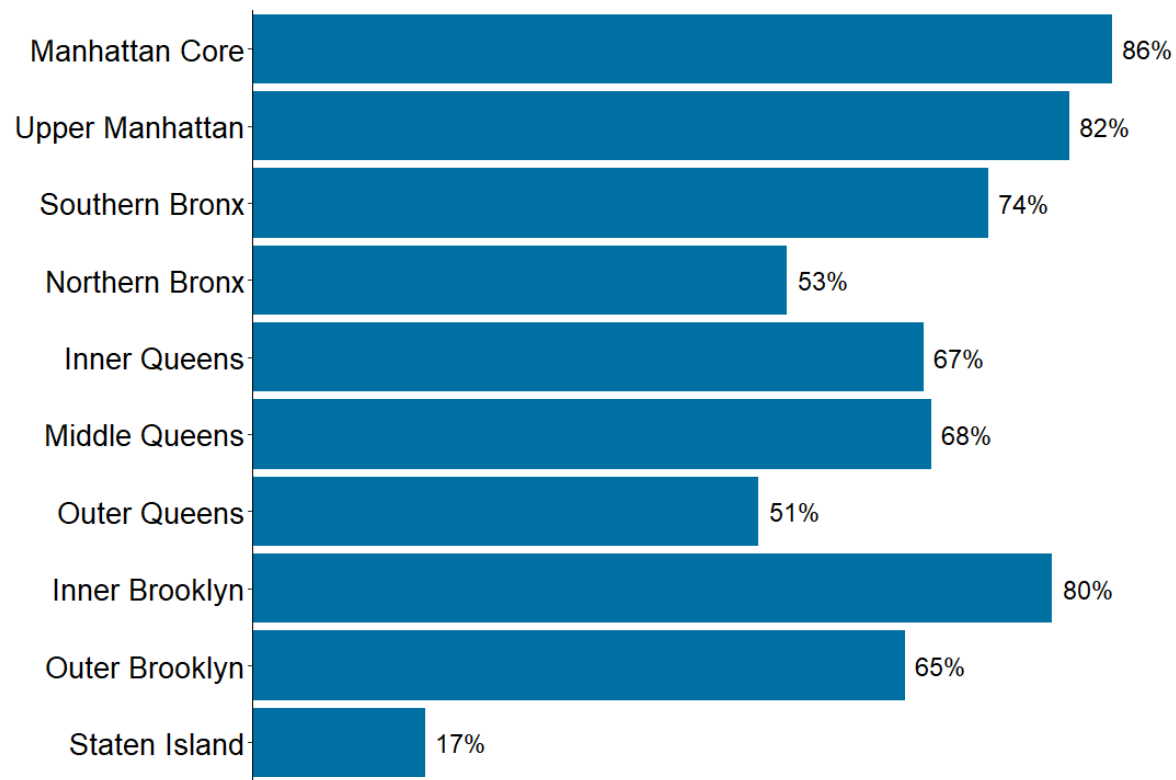


# CITYWIDE TRAVEL PROFILE - SUSTAINABLE MODE SHARE

**86% of Manhattan Core residents' trips were made using sustainable modes – the highest of all survey zones.**

## SHARE OF TRIPS MADE BY PARTICIPANT USING SUSTAINABLE MODES BY HOME SURVEY ZONE

UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



# CITYWIDE TRAVEL PROFILE – TRIP DESTINATION PURPOSE

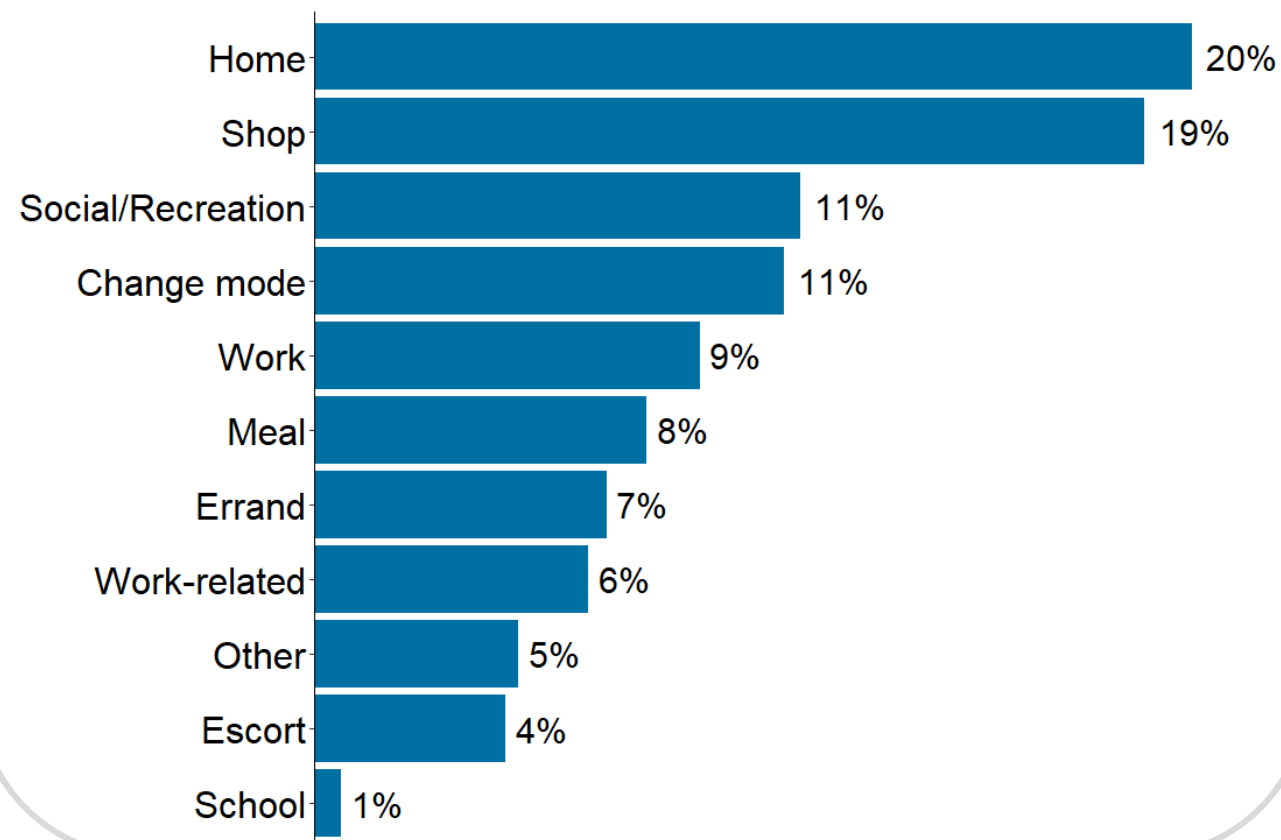
## Most frequent trip purposes:

- 20% of trips were trips home.
- 19% of trips were for the purpose of shopping.
- 15% of trips were to work or were work-related.

*Note: Purpose refers to the “purpose for traveling to the trip destination.”*

## TRIP DESTINATION PURPOSE

UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



# DAILY TRIP RATE

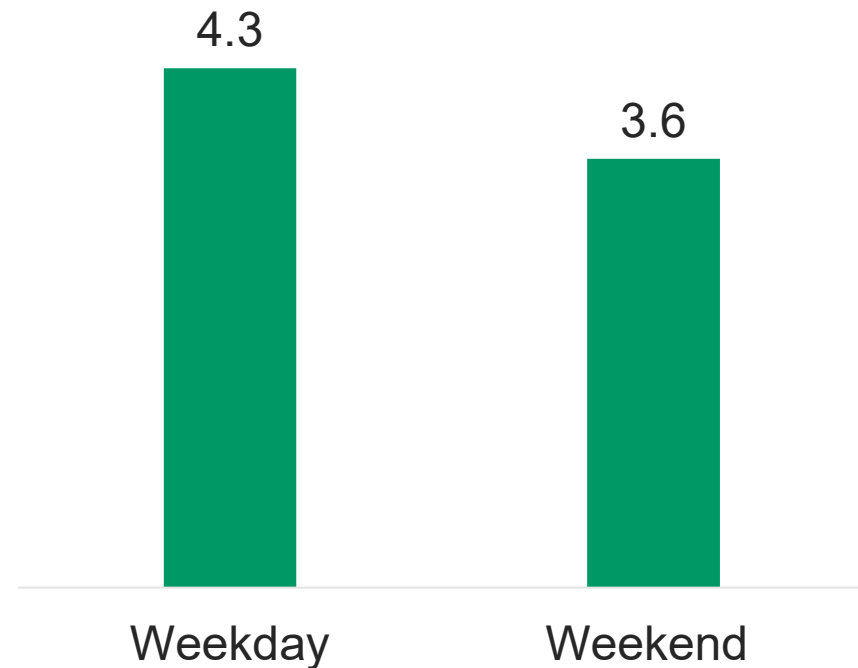
## CITYWIDE AVERAGE DAILY TRIP RATE

4.1

The **Citywide average trip rate has increased** in comparison to previous iterations of the survey.

More incidental trips have been captured by transitioning to smartphone data collection.

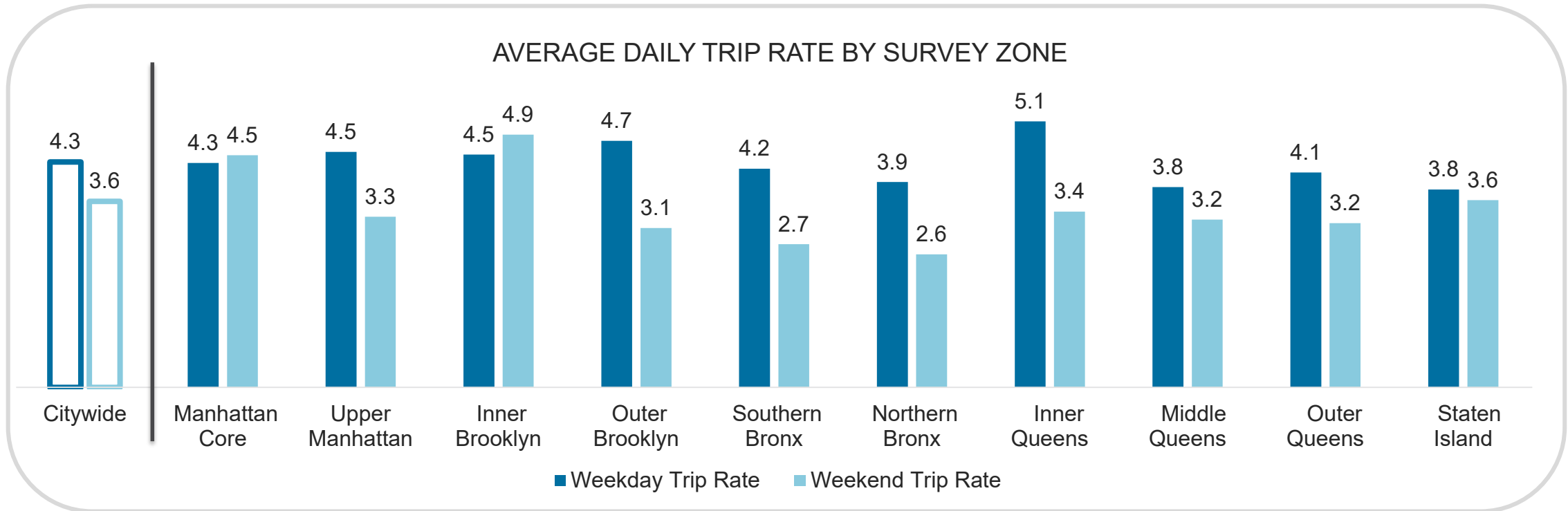
## AVERAGE DAILY TRIP RATE BY DAY OF WEEK



# DAILY TRIP RATE BY DAY OF WEEK

For weekdays, Inner Queens has the highest overall trip rate with residents taking an average 5.1 trips

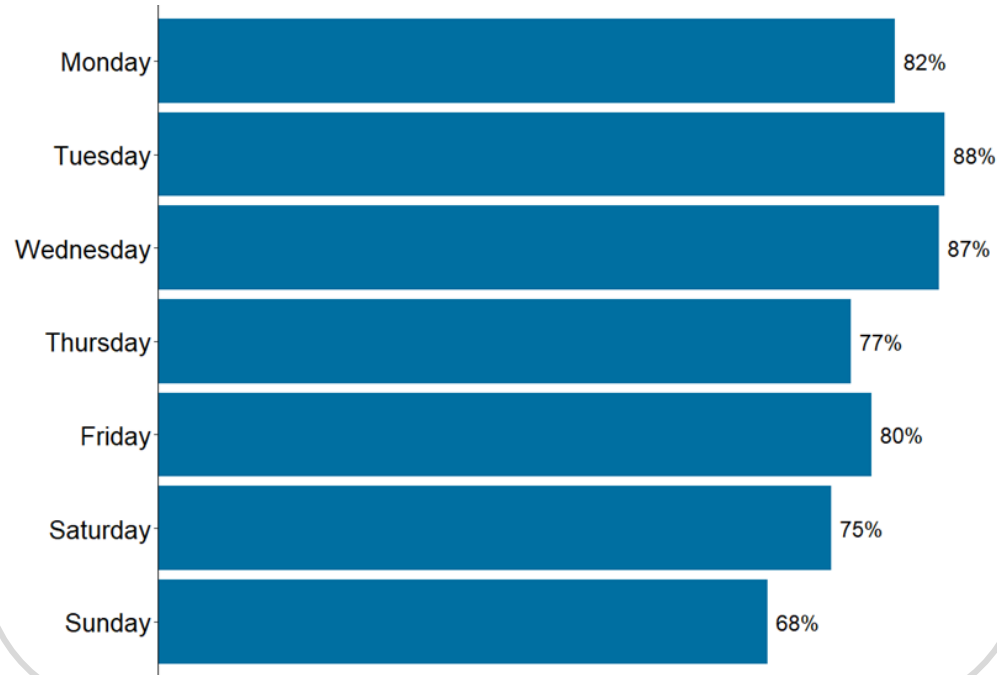
For weekends, Inner Brooklyn has the highest overall trip rate with residents taking an average of 4.9 trips.



# NO TRAVEL DAYS

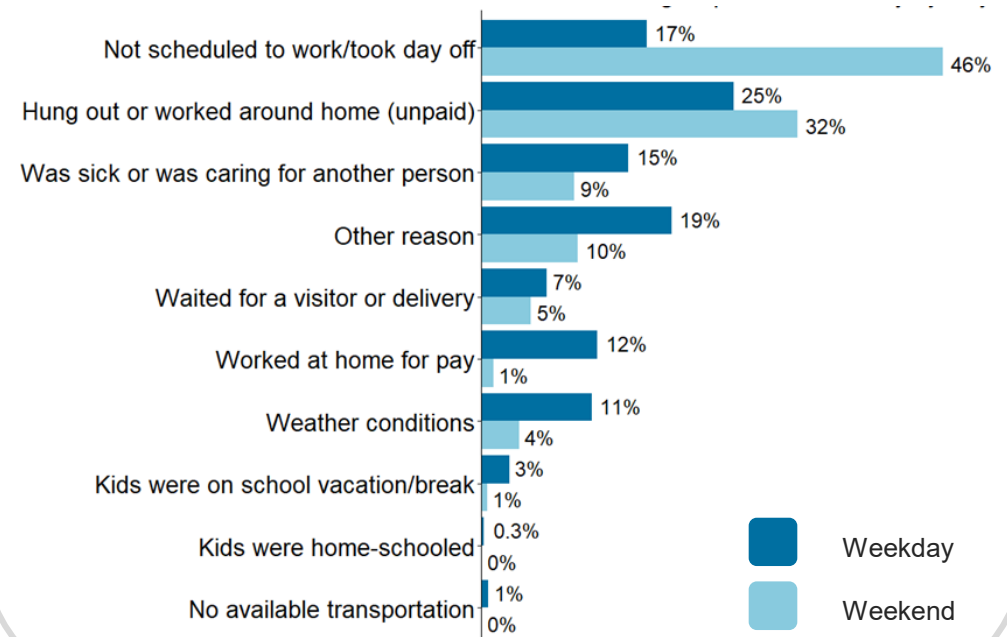
On an average day, 21% of New Yorkers do not make any trips.

PERCENT OF PARTICIPANT TRAVEL DAYS WITH 1+ TRIPS BY DAY OF WEEK  
UNWEIGHTED N = 14,502, WEIGHTED N = 6,670,172



REASON FOR NOT TAKING TRIPS ON TRAVEL DAY  
(select all that apply)

UNWEIGHTED N = 2,199, WEIGHTED N = 1,372,387



# TRIP PURPOSE

24% of trips ending in the Manhattan Core were work or work-related trips – 9 percentage points higher than citywide.

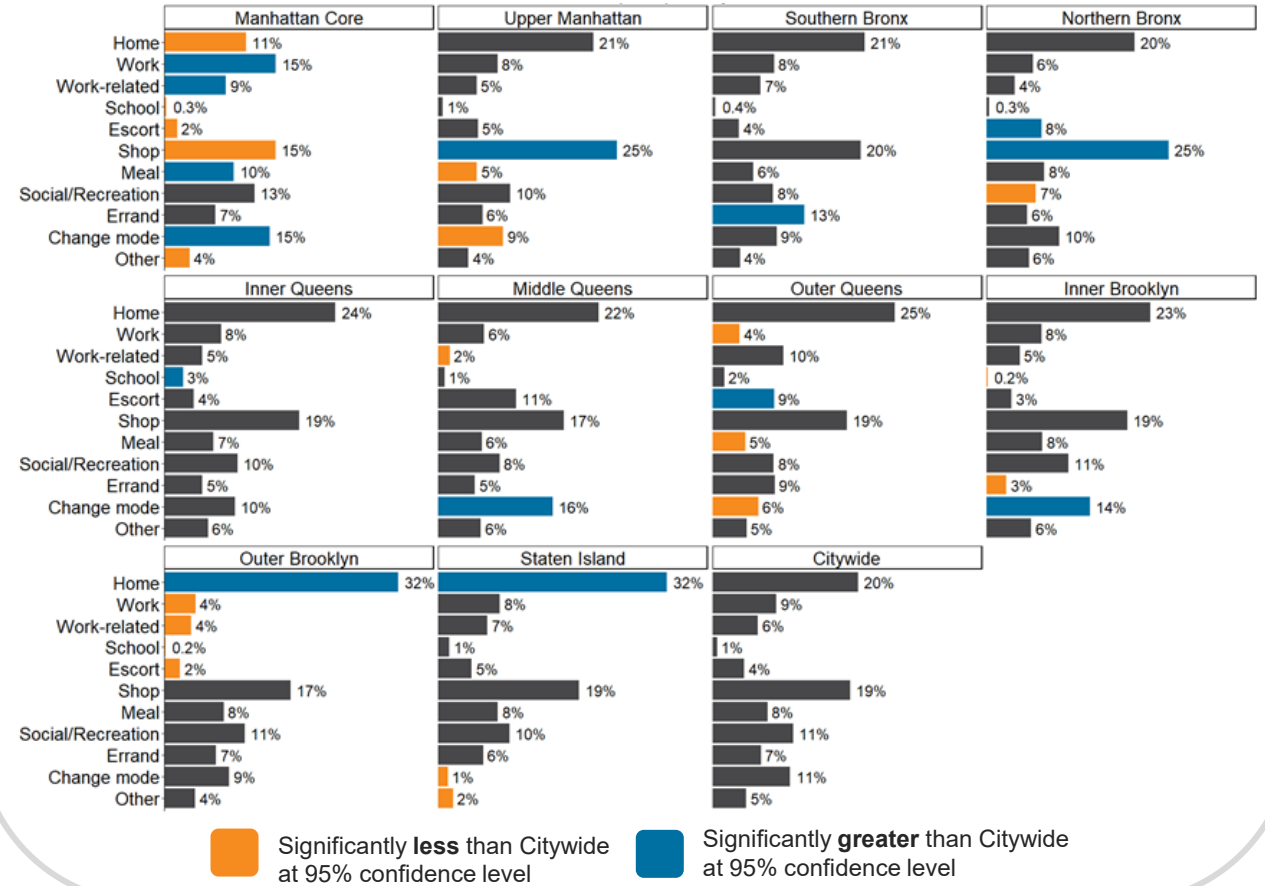
11% of trips ending in the Manhattan Core were made for the purpose of going home – 9 percentage points lower than citywide.

*Note: Trips with destinations outside of New York City are not included in this figure.*

*Purpose refers to the “purpose for traveling to the trip destination.”*

## TRIP PURPOSE BY DESTINATION SURVEY ZONE

UNWEIGHTED N = 64,092, WEIGHTED N = 25,978,307



# TRIP MODE

Staten Island has the highest share of vehicle trips and the lowest share of walk trips out of all zones.

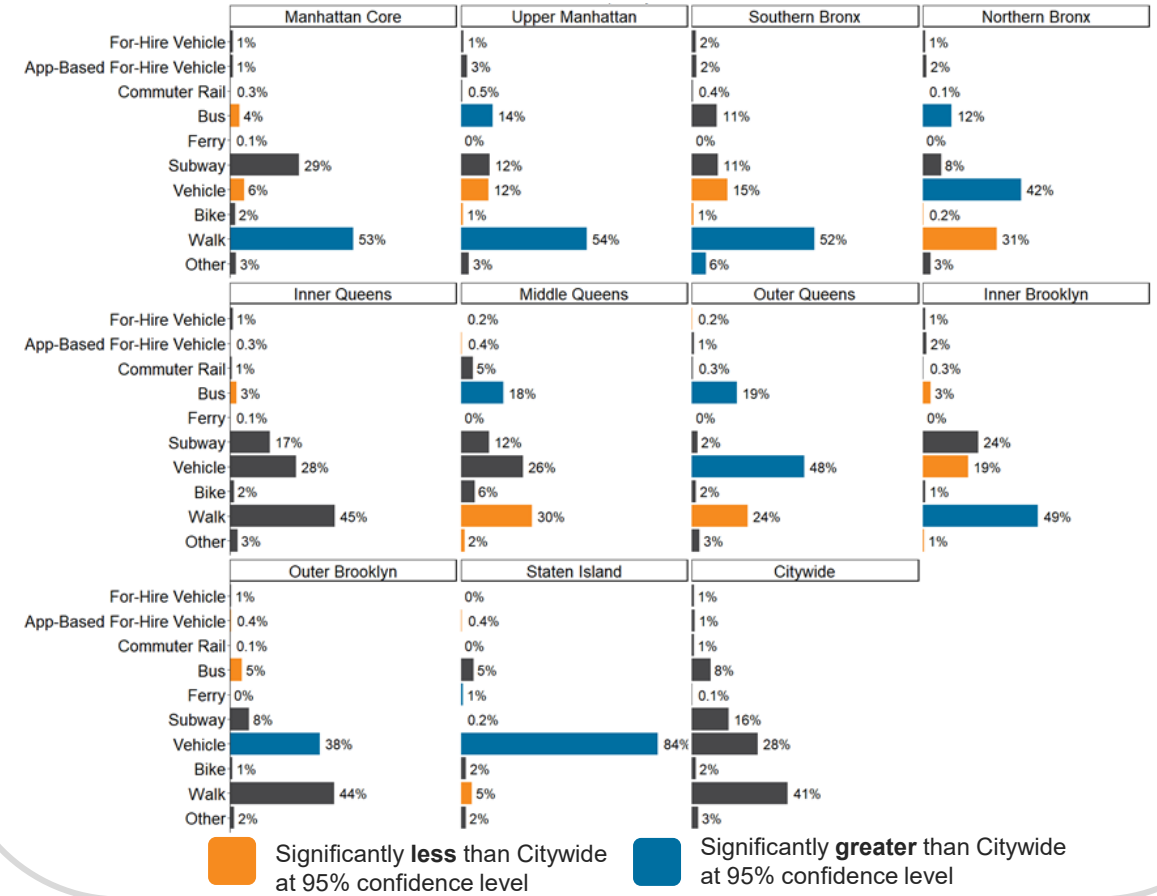
- 84% of trips ending in Staten Island are vehicle trips – 56 percentage points higher than citywide
- 5% of trips ending in Staten Island are walk trips – 36 percentage points lower than citywide

Outer Queens, Northern Bronx, and Outer Brooklyn zones also have vehicle trip shares at least 10 percentage points higher than citywide.

*Note: Trips with destinations outside of New York City are not included in this figure.*

## TRIP MODE BY DESTINATION SURVEY ZONE

UNWEIGHTED N = 64,092, WEIGHTED N = 25,978,307



# TRIP MODE BY TRIP PURPOSE

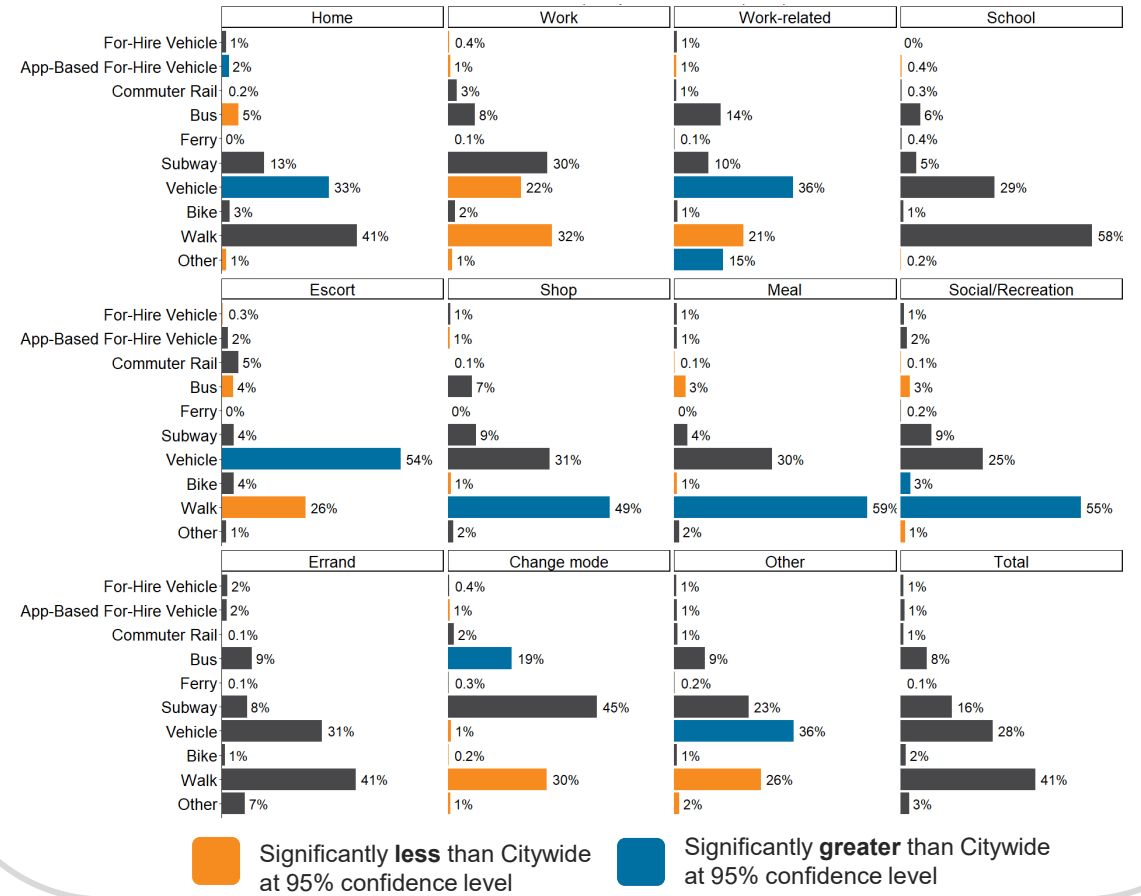
30% of trips to work are made using the subway.

Trips made for **work-related** reasons, trips **home**, and trips made for the purpose of **escorting someone** else to a destination are significantly **more likely to be made using a vehicle**.

Trips made for **shopping, eating, and social/recreation** purposes are significantly **more likely to be walking trips**.

*Note: Purpose refers to the “purpose for traveling to the trip destination.”*

TRIP MODE BY TRIP PURPOSE  
UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903





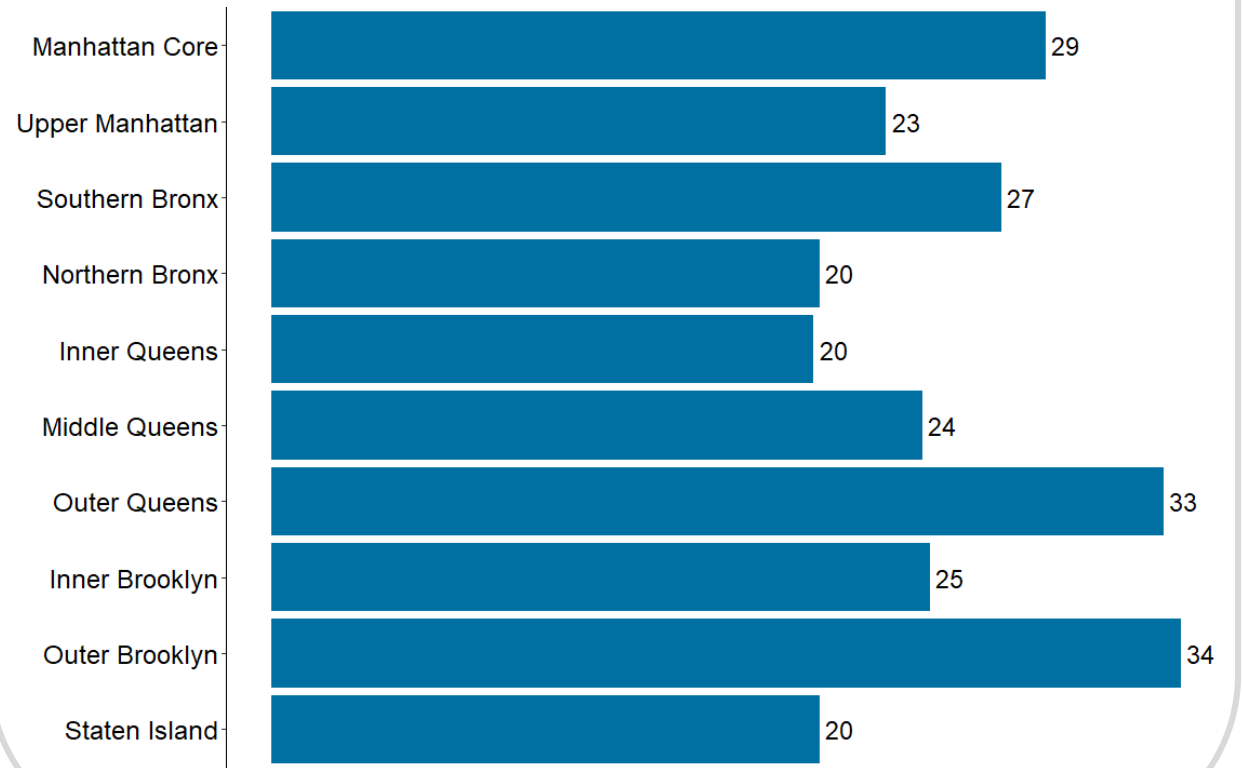
# TRIP DURATION

Trips to Outer Queens and Outer Brooklyn have the longest average duration.

Trips to the Northern Bronx, Inner Queens, and Staten Island have the shortest average duration.

AVERAGE TRIP DURATION (MINUTES)  
BY DESTINATION SURVEY ZONE

UNWEIGHTED N = 64,092, WEIGHTED N = 25,978,307





# Work and School Travel Behavior

# WORK LOCATION

**58% of employed New Yorkers who regularly commute to a workplace work in the same borough as their residence.**

## EMPLOYED PARTICIPANTS' USUAL WORK LOCATION

UNWEIGHTED N = 2,346, WEIGHTED N = 4,328,711

Only one work location	63%
Work location regularly varies (different offices/jobsites)	23%
Work remotely or from home ONLY (telework, self-employed)	7%
Drive/bike/travel for work	6%
<b>Total</b>	<b>100%</b>

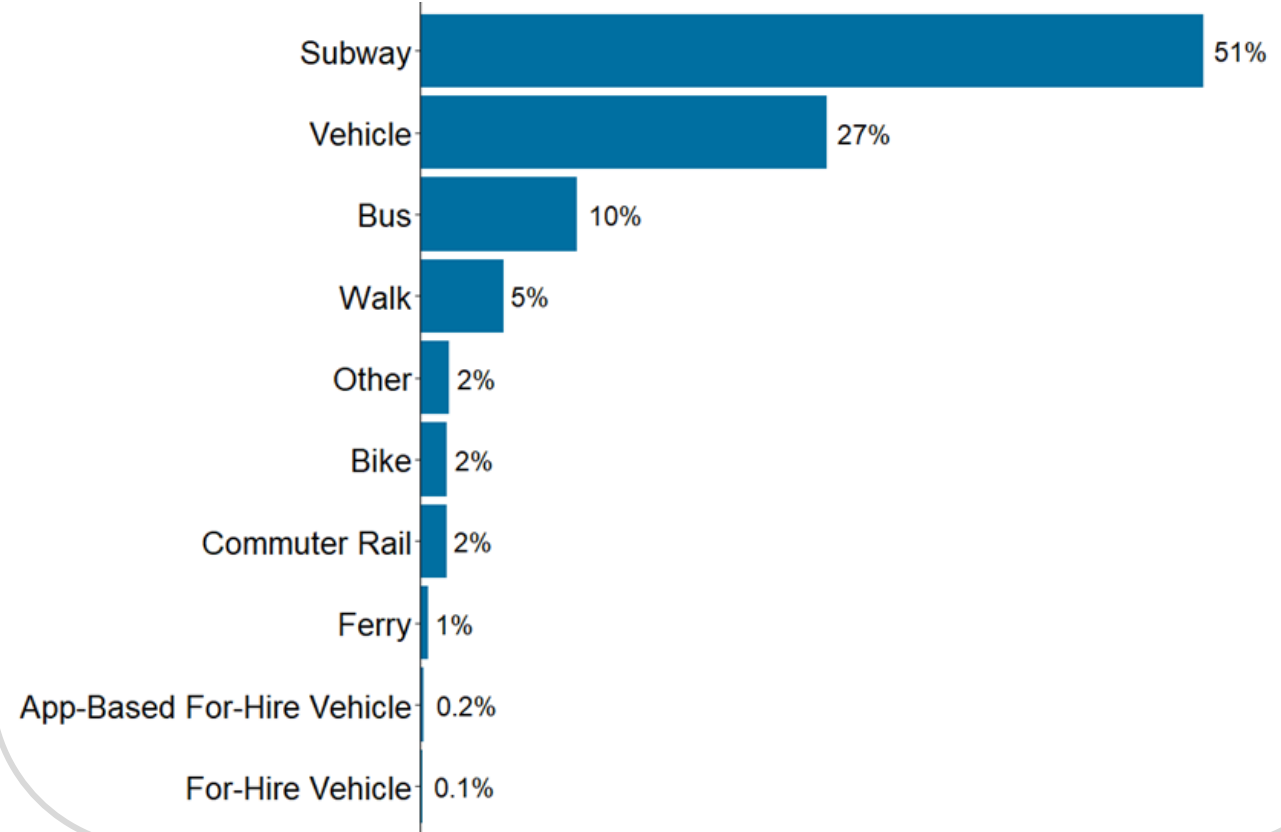
# WORK TRAVEL BEHAVIOR

51% of New Yorkers report typically commuting to work by subway service.

71% of New Yorkers report typically commuting to work using sustainable modes.

## TYPICAL WORK COMMUTE MODE

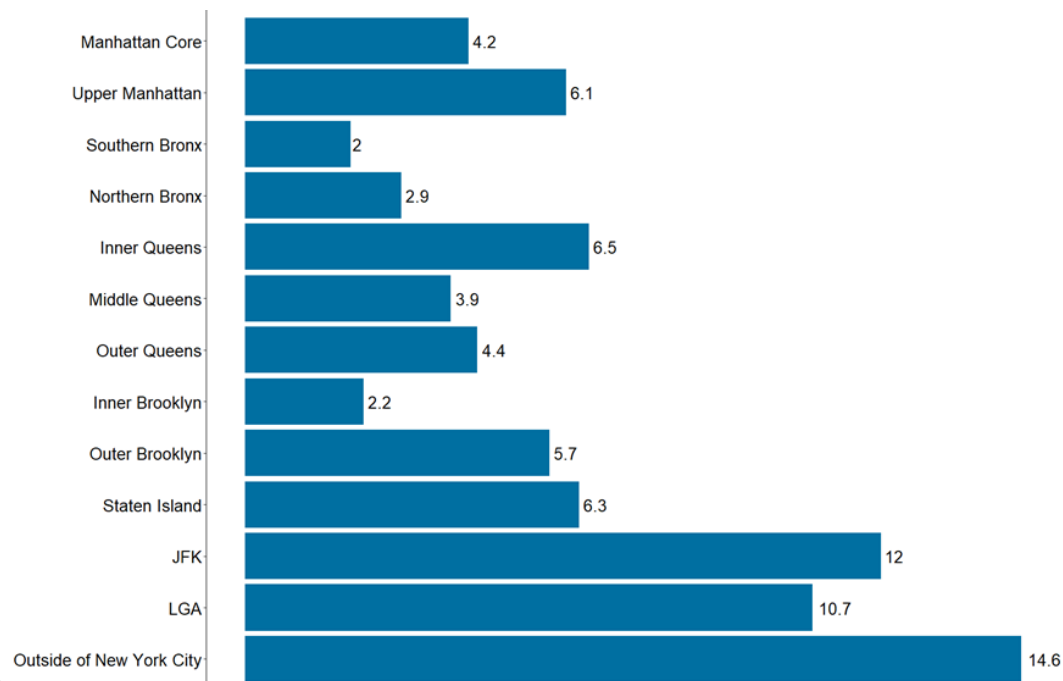
UNWEIGHTED N = 2,212, WEIGHTED N = 3,973,645



# WORK COMMUTE DISTANCE AND DURATION

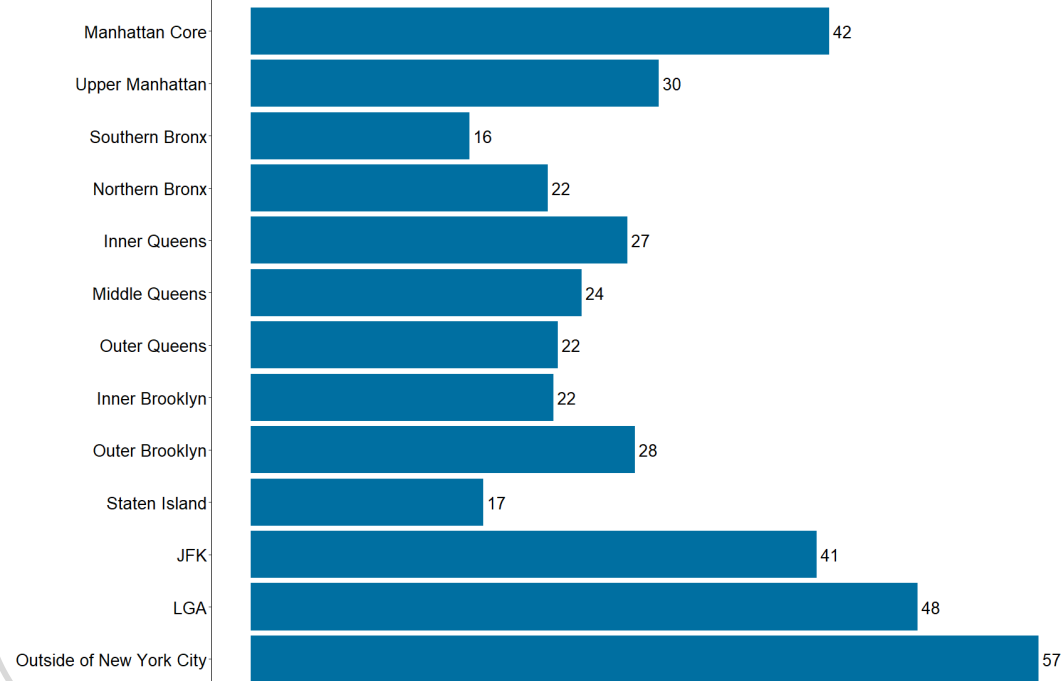
## AVERAGE WORK COMMUTE DISTANCE BY SURVEY ZONE (MILES)

UNWEIGHTED N = 6,471, WEIGHTED N = 2,416,204



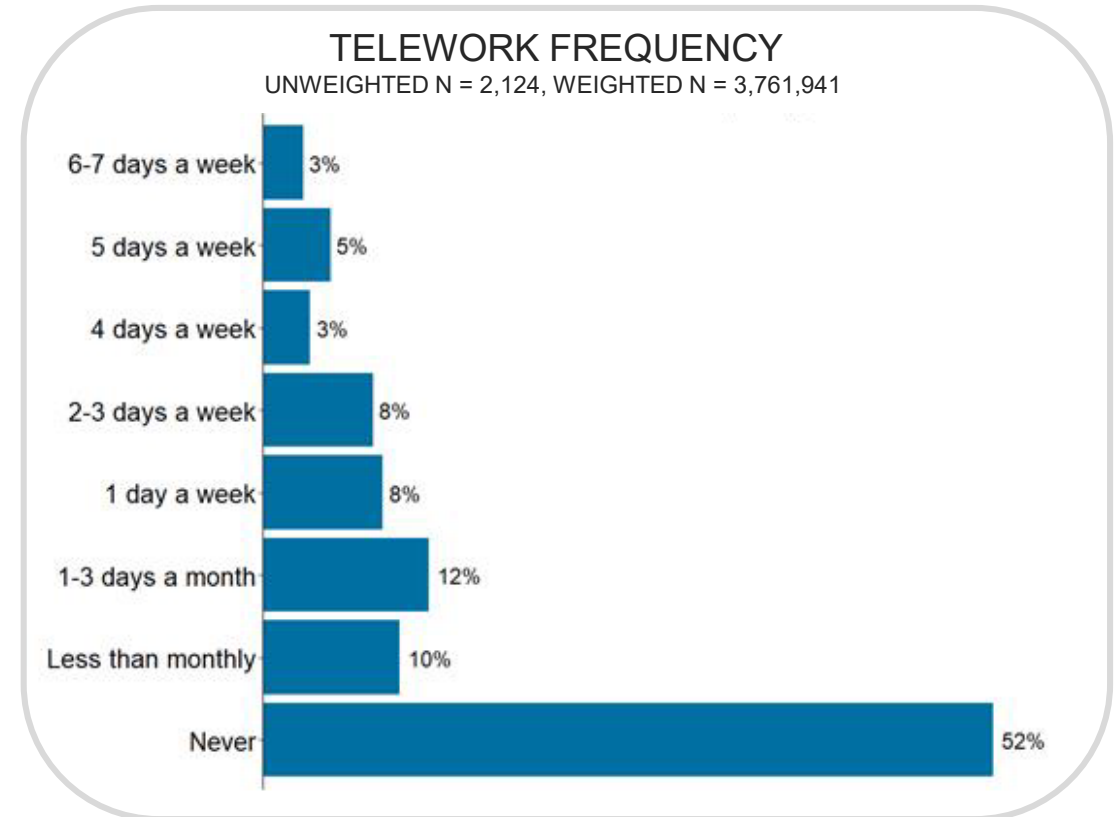
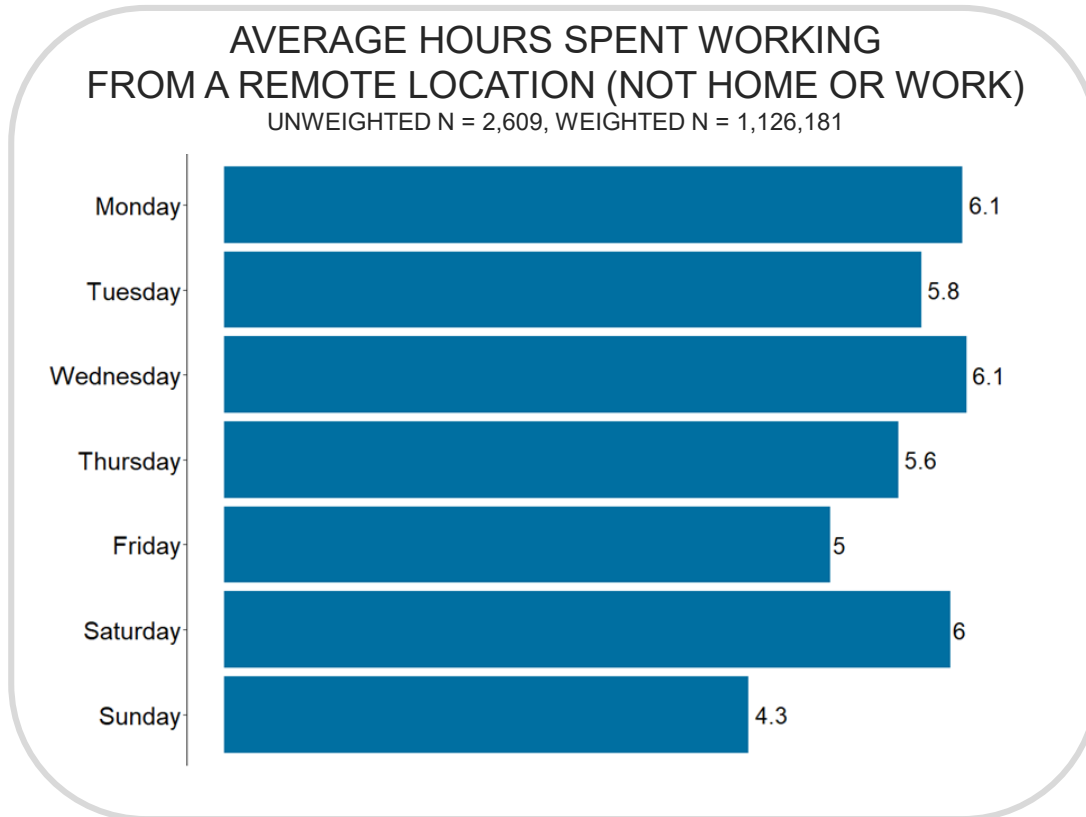
## AVERAGE WORK COMMUTE DURATION BY SURVEY ZONE (MINUTES)

UNWEIGHTED N = 6,477, WEIGHTED N = 2,417,788



# REMOTE WORKING

27% of employed New Yorkers reported that they typically telework at least 1 day a week.



Note: Average hours spent working from a remote location was calculated only for persons who reported working remotely on their travel day.

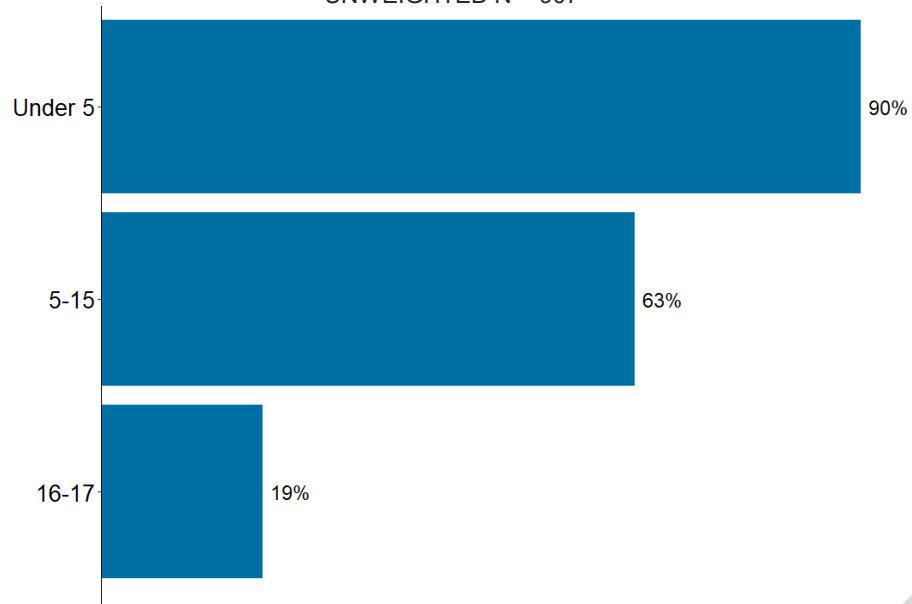
# CHILDREN'S SCHOOL COMMUTE

Most children under age 15 are escorted to school by a parent or guardian.

Children predominately walk or take a bus/shuttle to school.

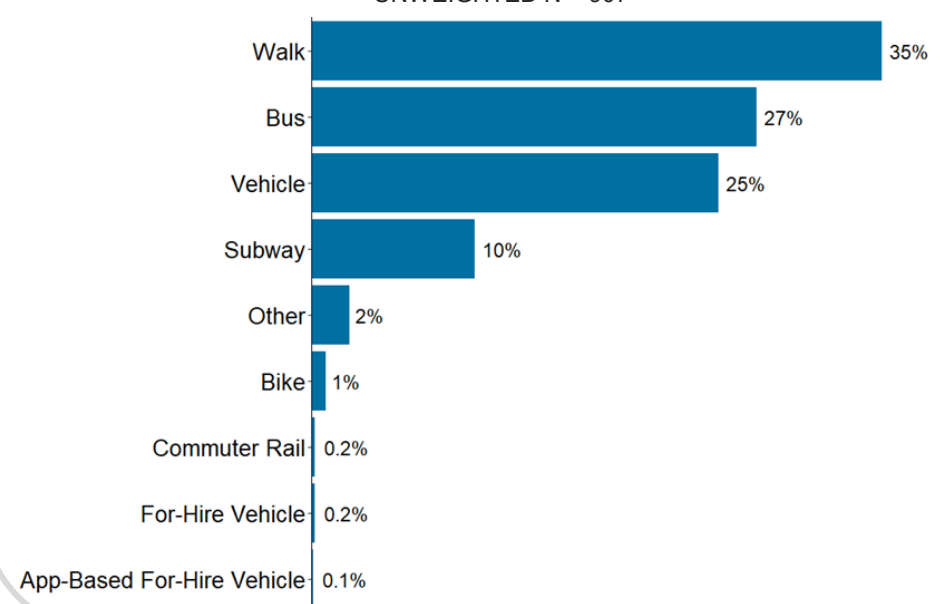
SHARE OF CHILDREN ESCORTED TO SCHOOL BY PARENT OR GUARDIAN BY CHILD'S AGE

UNWEIGHTED N = 907



CHILDREN'S TYPICAL SCHOOL COMMUTE MODE

UNWEIGHTED N = 907



Note: Data shown here for children (age 0-17) is unweighted.



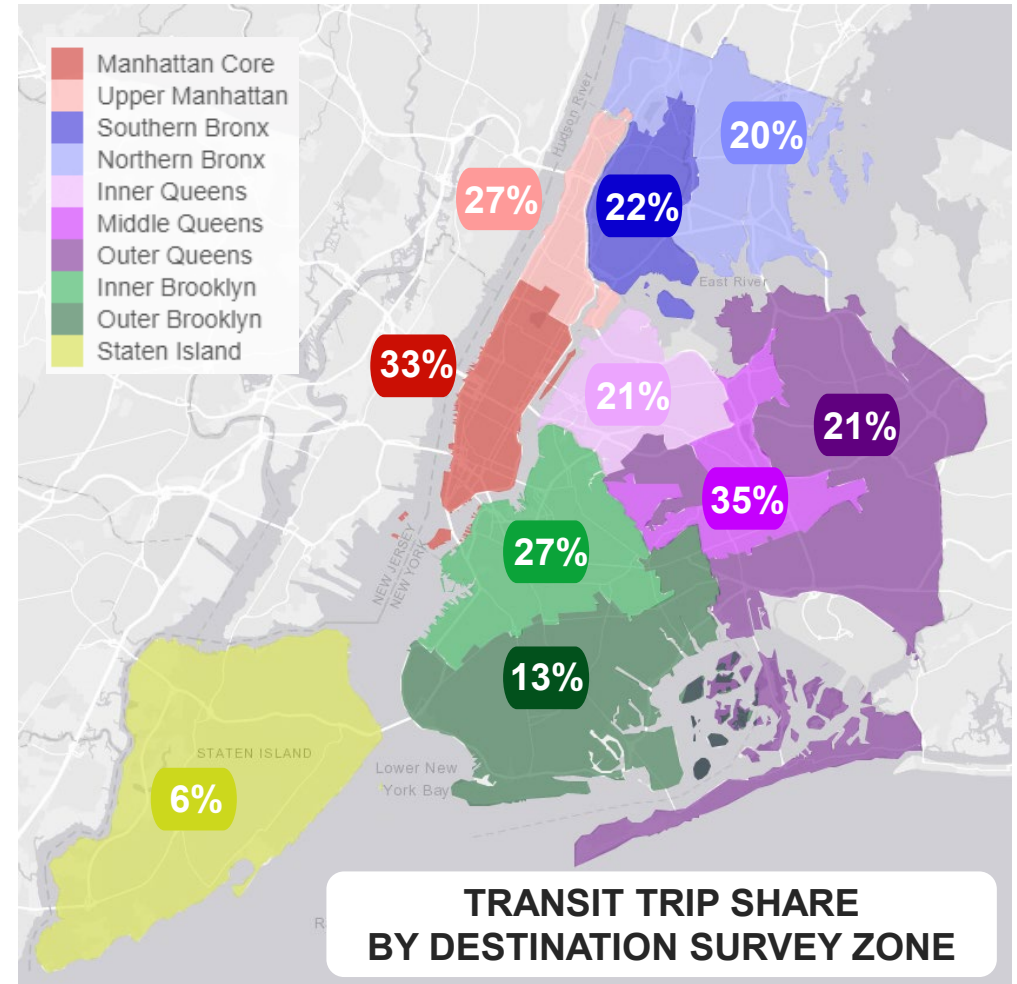
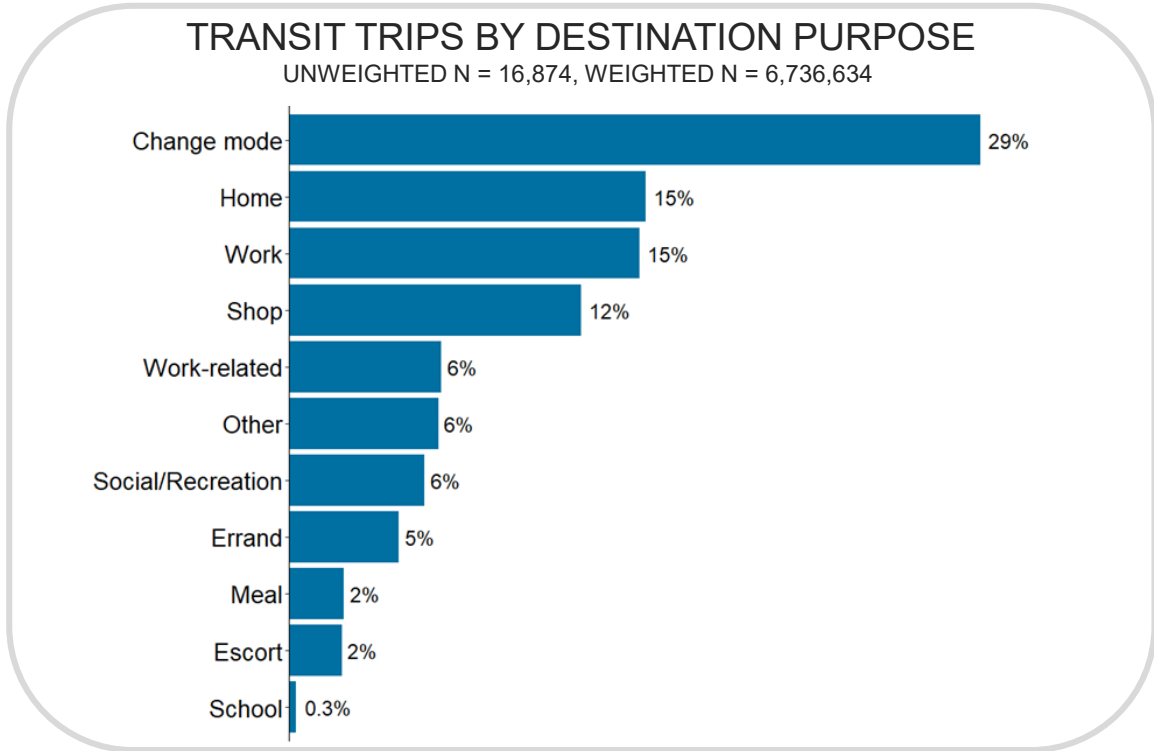
**CITYWIDE**  
**MOBILITY**  
SURVEY

# Transit Services Usage



# TRANSIT TRIP PROFILE

The majority of bus, subway, commuter rail, and ferry trips are made for the purpose of changing modes, going home, and going to work.



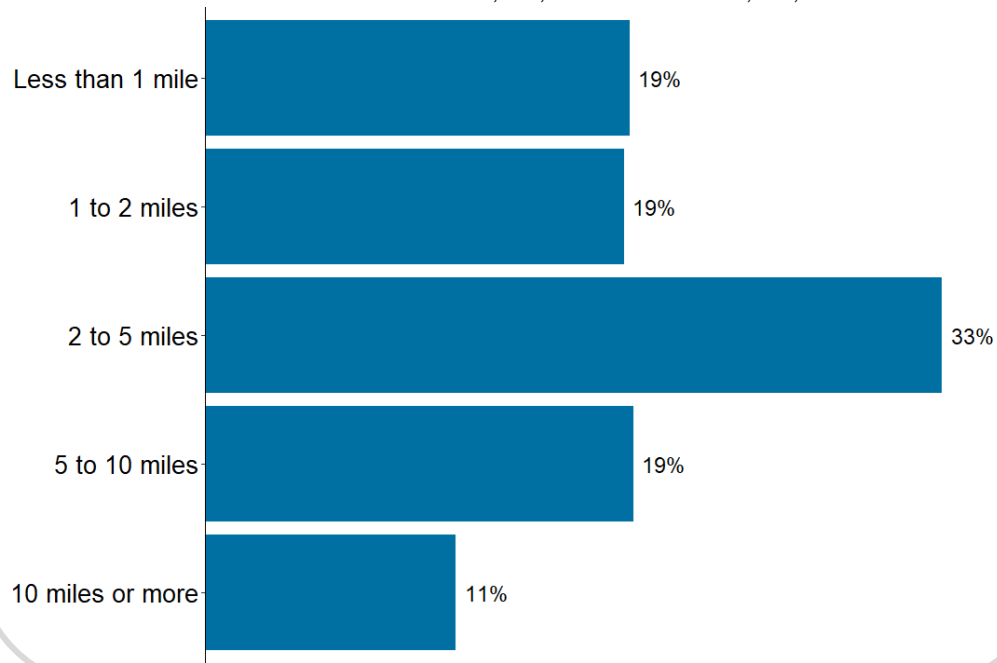
# TRANSIT TRIP DISTANCE AND DURATION

71% of transit trips are 5 miles or less with 38% of trips under 2 miles.

85% of transit trips are 60 minutes or less with 51% of trips under 20 minutes.

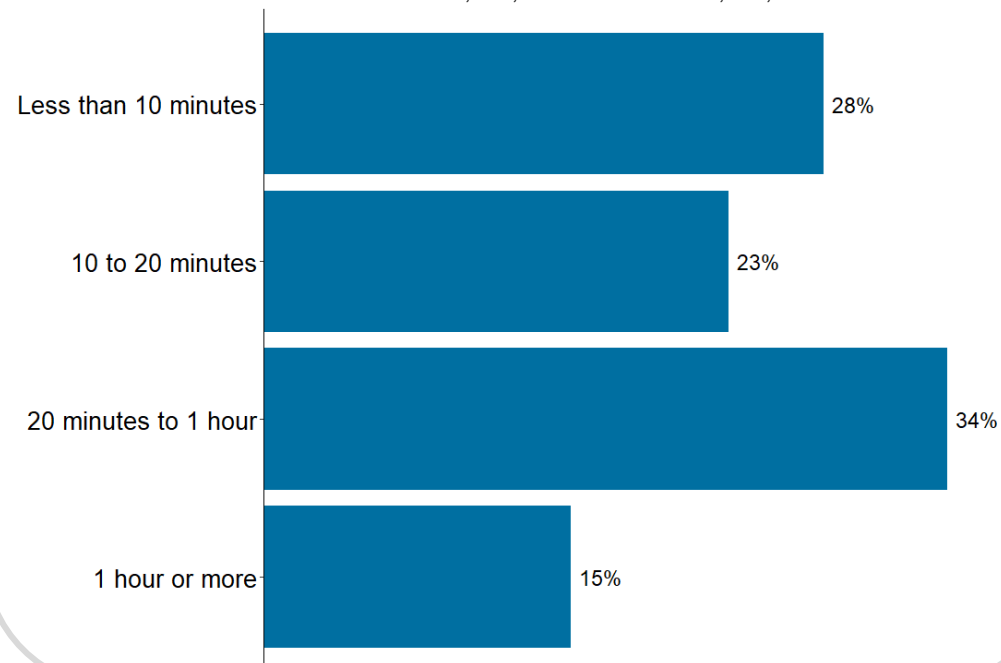
### DISTANCE OF TRANSIT TRIPS

UNWEIGHTED N = 16,862, WEIGHTED N = 6,724,346



### DURATION OF TRANSIT TRIPS

UNWEIGHTED N = 16,874, WEIGHTED N = 6,736,634



# TRANSIT TRIP ACCESS AND EGRESS

The majority of New Yorkers walk to and from transit.

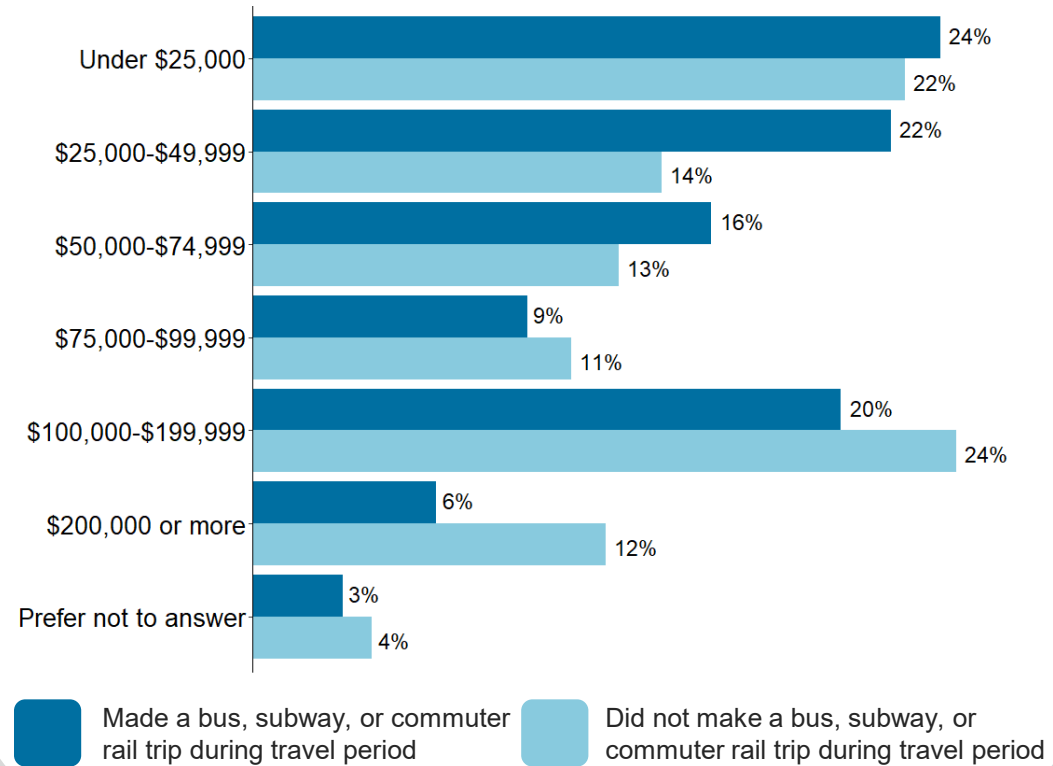
MODE	CONNECTING TO TRANSIT	CONNECTING FROM TRANSIT
Walk	93%	94%
Vehicle	1%	1%
For-hire vehicle	1%	1%
Bicycle	2%	2%
Other	3%	2%

UNWEIGHTED N = 16,649, WEIGHTED N = 6,644,976

# INCOME BY TRANSIT USE

## INCOME BY BUS, SUBWAY, AND COMMUTER RAIL USE DURING TRAVEL PERIOD

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172





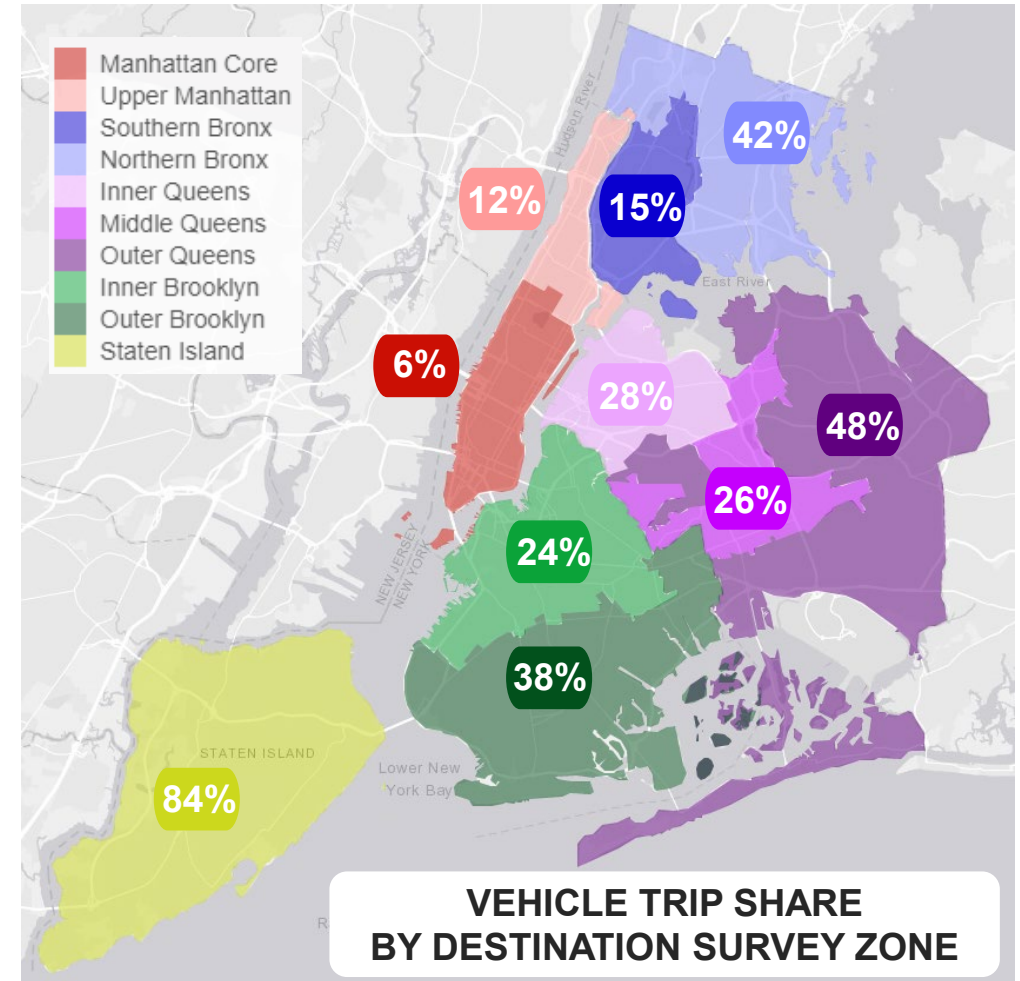
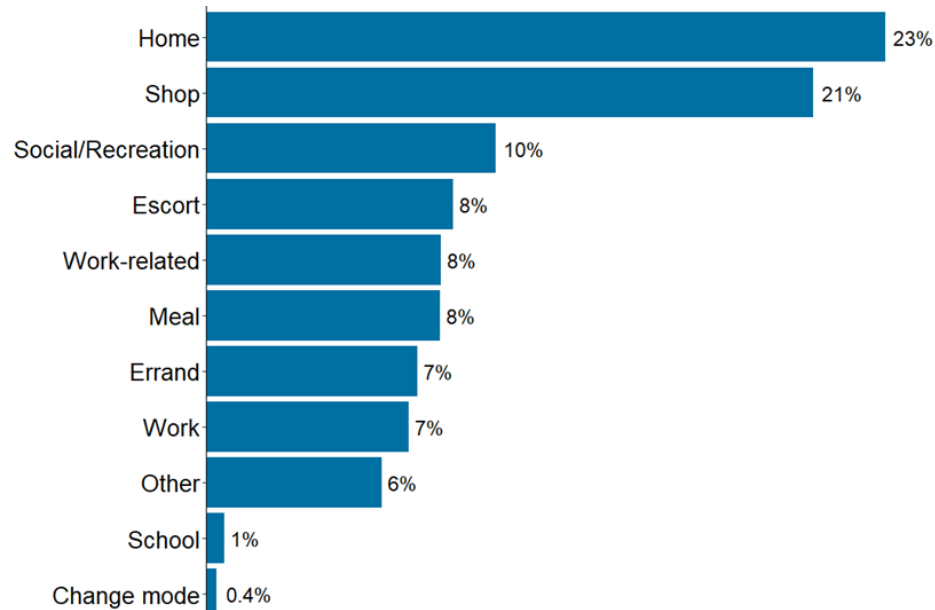
## Vehicle Behavior and Ownership

# VEHICLE TRIP PROFILE

The largest share of vehicle trips are made for the purpose of shopping or going home.

## VEHICLE TRIPS BY DESTINATION PURPOSE

UNWEIGHTED N = 20,669, WEIGHTED N = 7,705,583



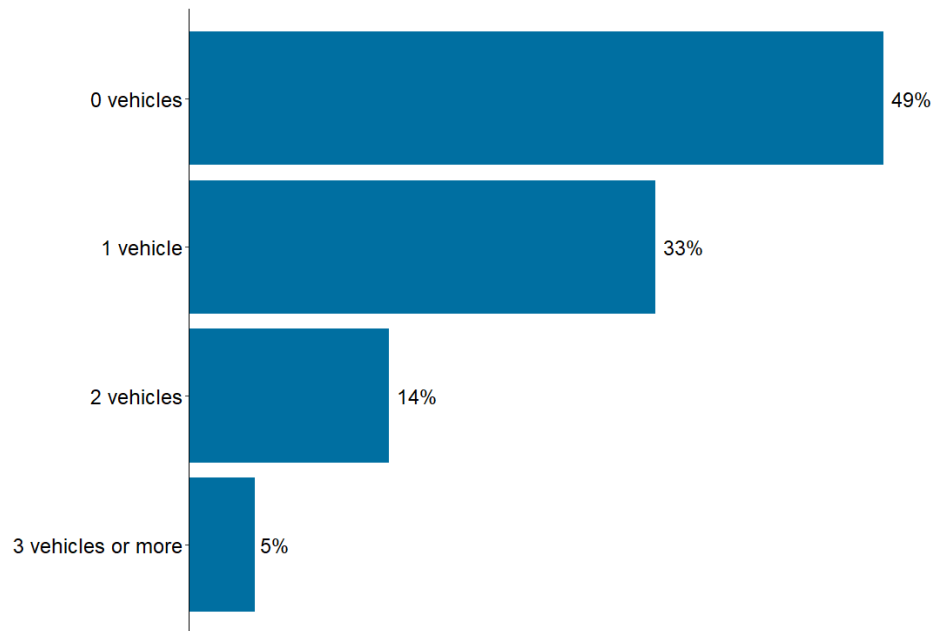
# VEHICLE OWNERSHIP

**51% of New Yorkers have at least one vehicle in their household.**

In 2018, Just over half (53%) of New Yorkers personally own or have access to a car

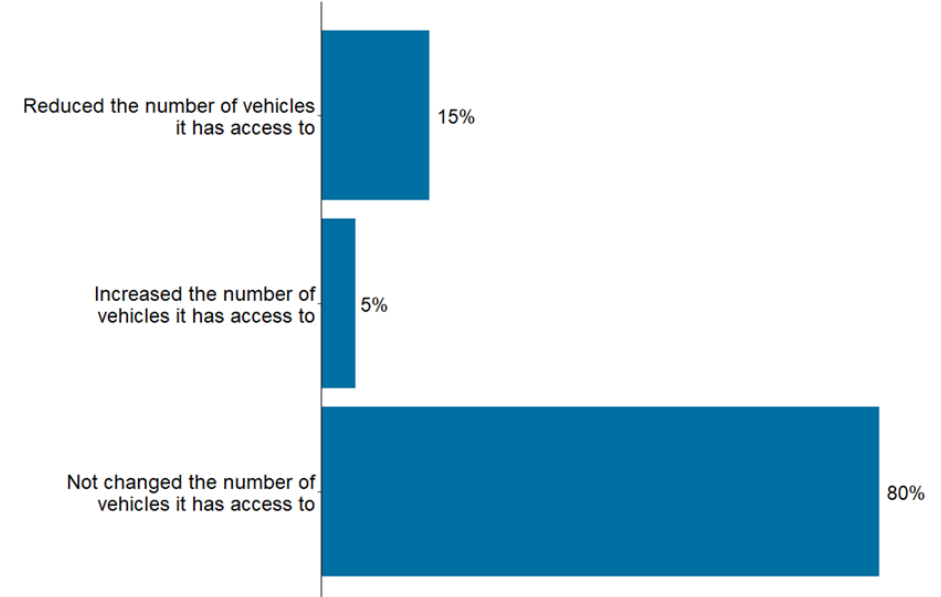
## NUMBER OF VEHICLES IN HOUSEHOLD

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



## CHANGE IN NUMBER OF VEHICLES IN HOUSEHOLD IN THE PAST YEAR

UNWEIGHTED N = 3,202, WEIGHTED N = 6,388,200



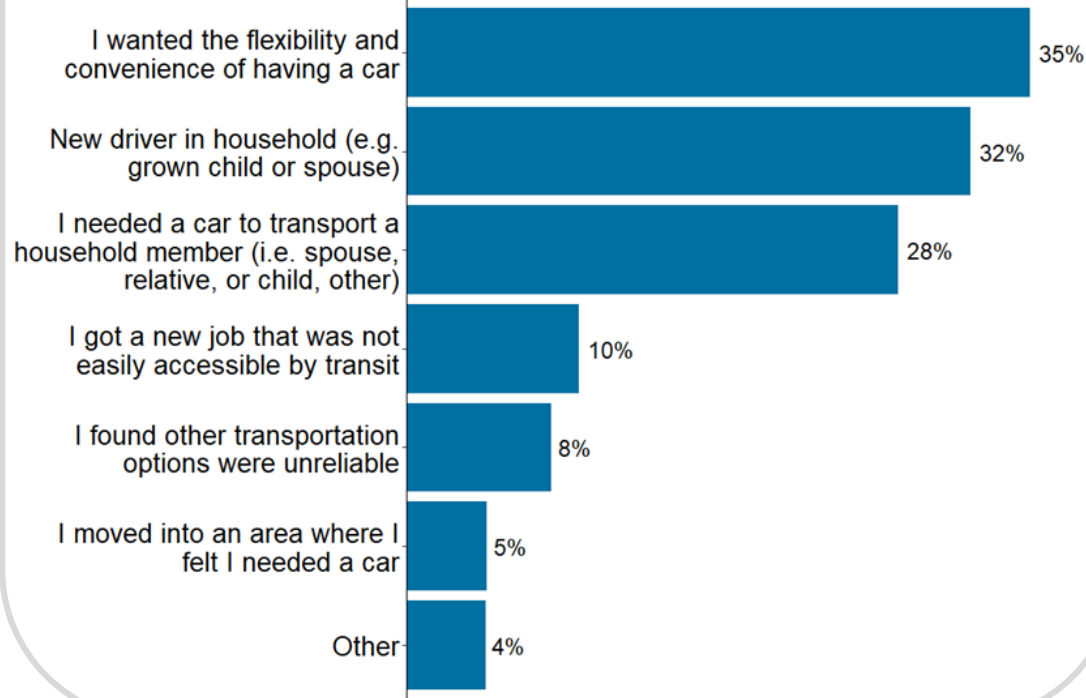
# CHANGES IN VEHICLE OWNERSHIP

## FOR THE 5% WHO INCREASED THEIR VEHICLE COUNT

### REASONS FOR INCREASING VEHICLES IN HOUSEHOLD

(select all that apply)

UNWEIGHTED N = 184, WEIGHTED N = 311,330

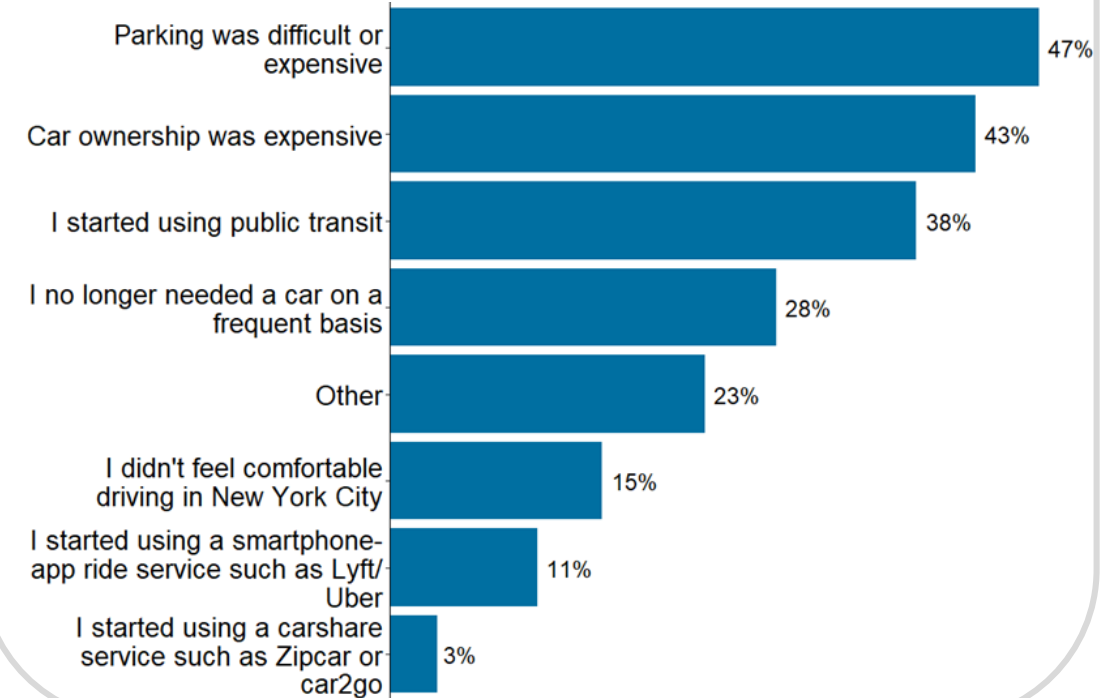


## FOR THE 15% WHO DECREASED THEIR VEHICLE COUNT

### REASONS FOR REDUCING VEHICLES IN HOUSEHOLD

(select all that apply)

UNWEIGHTED N = 369, WEIGHTED N = 986,085



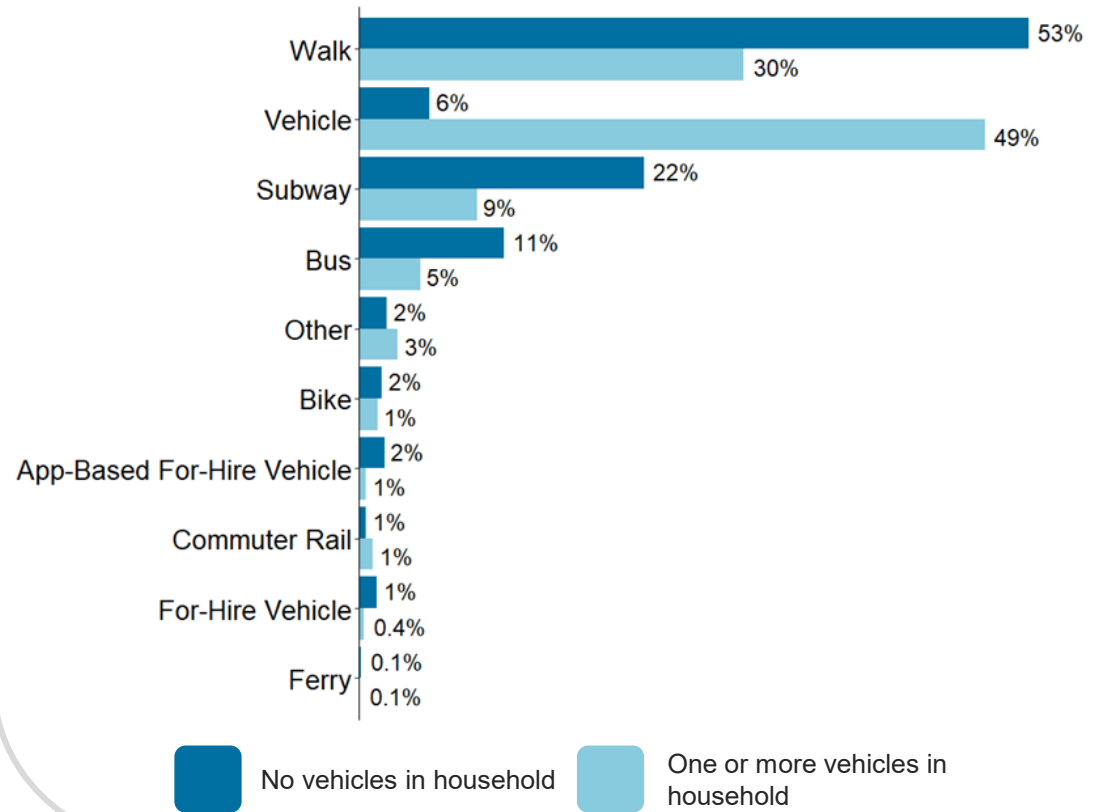


# MODE SHARE BY VEHICLE OWNERSHIP

Participants in zero-vehicle households make substantially more walk, subway, and bus trips – but fewer vehicle trips – than participants in households with one or more vehicles.

MODE SHARE BY HOUSEHOLD VEHICLE OWNERSHIP

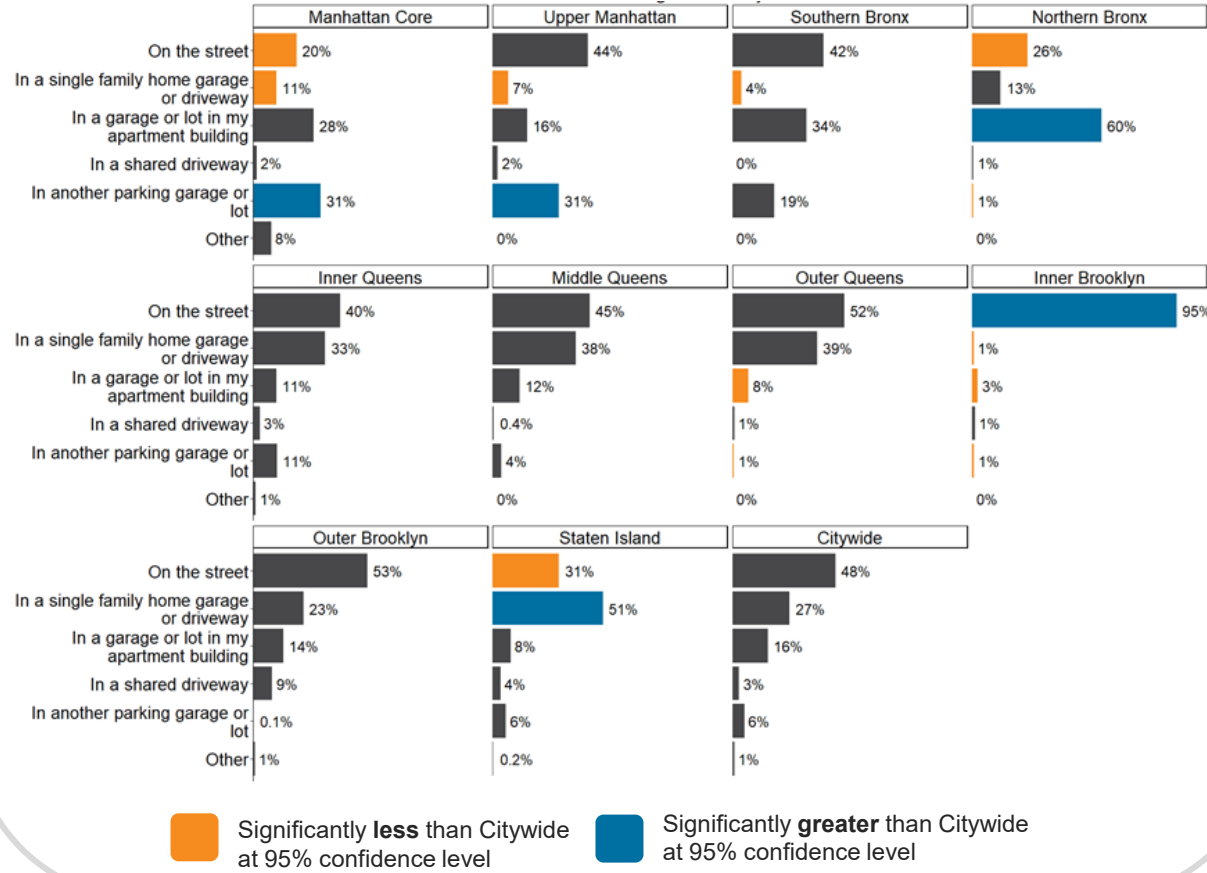
UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



# PARKING LOCATION AT HOME

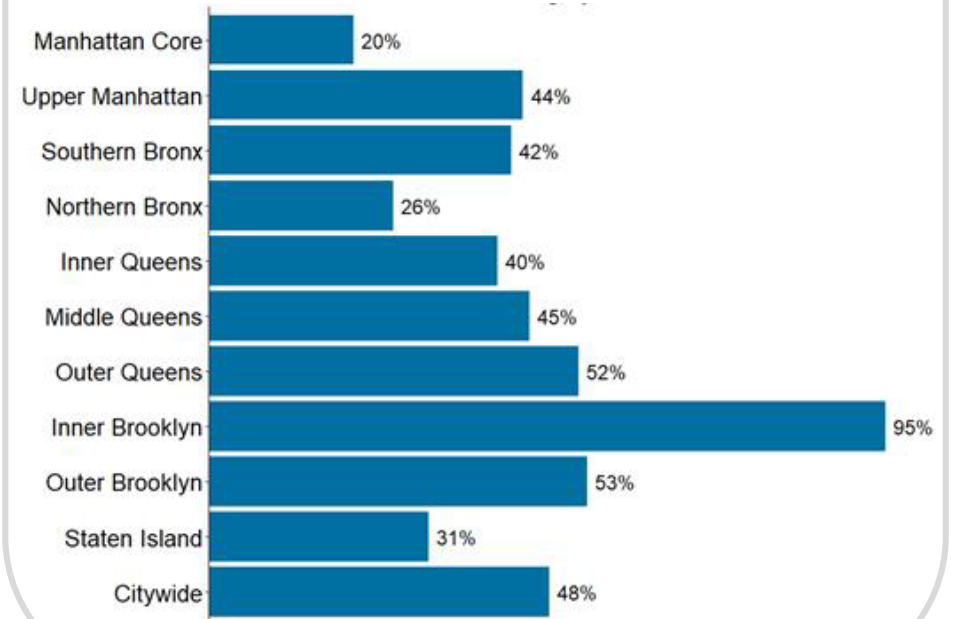
## PARKING LOCATION AT HOME BY HOME SURVEY ZONE

UNWEIGHTED N = 1,606, WEIGHTED N = 3,315,944



## STREET PARKING AT HOME BY HOME SURVEY ZONE

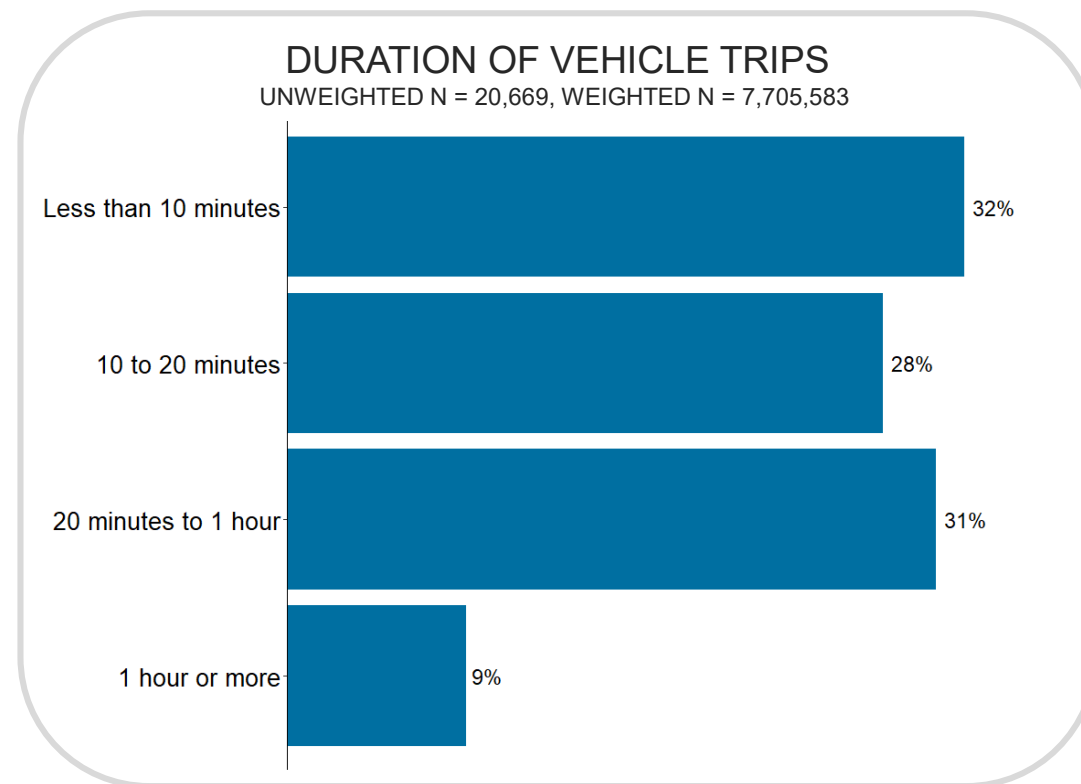
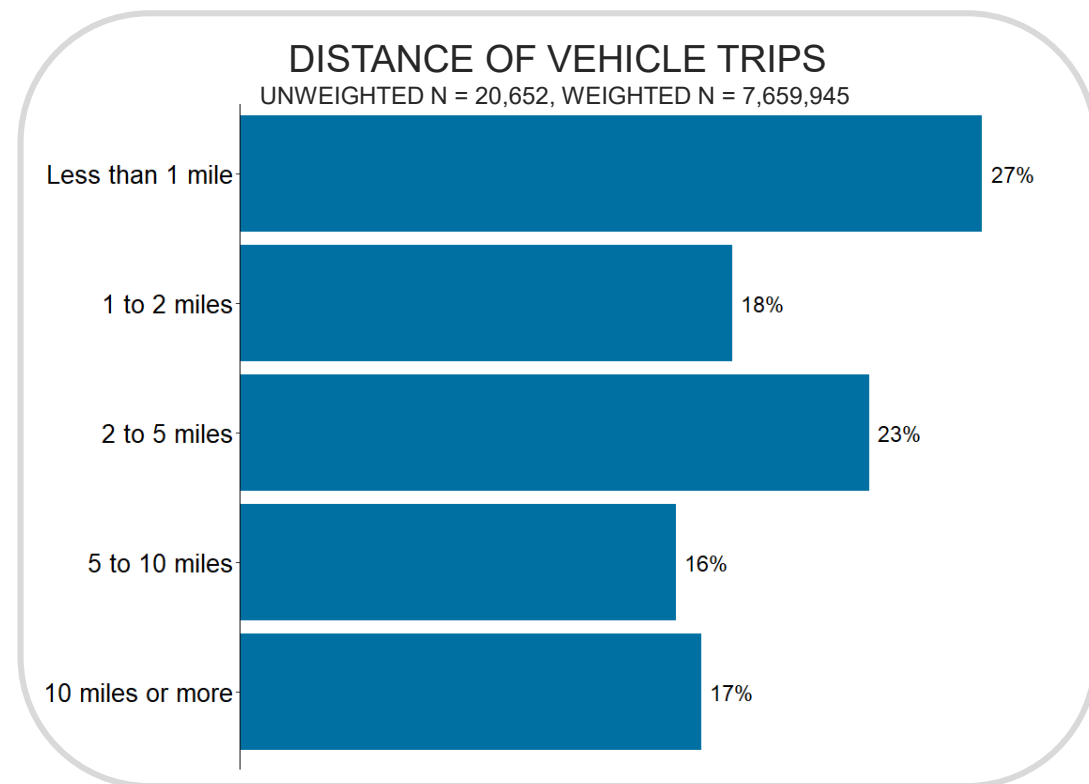
UNWEIGHTED N = 1,606, WEIGHTED N = 3,315,944



# VEHICLE TRIP DISTANCE AND DURATION

68% of vehicle trips are 5 miles or less with 27% of trips under 1 mile.

91% of vehicle trips are 60 minutes or less with 60% of trips under 20 minutes.



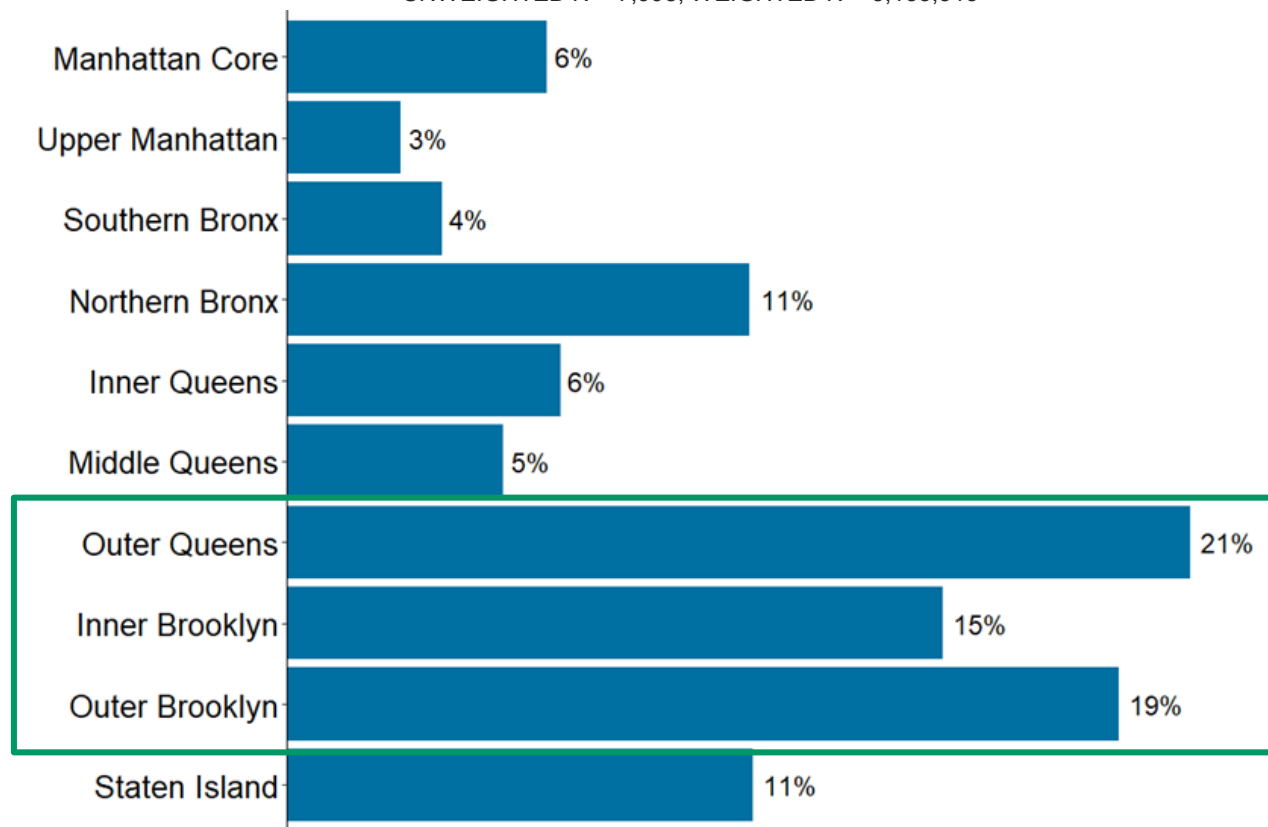
# VEHICLE TRIPS UNDER TWO MILES

**45% of citywide vehicle trips are 2 miles or less.**

Outer Queens, Inner Brooklyn, and Outer Brooklyn have the largest share of vehicle trips under two miles of all survey zones.

SHARE OF VEHICLE TRIPS UNDER TWO MILES  
BY TRIP DESTINATION SURVEY ZONE

UNWEIGHTED N = 7,998, WEIGHTED N = 3,135,313



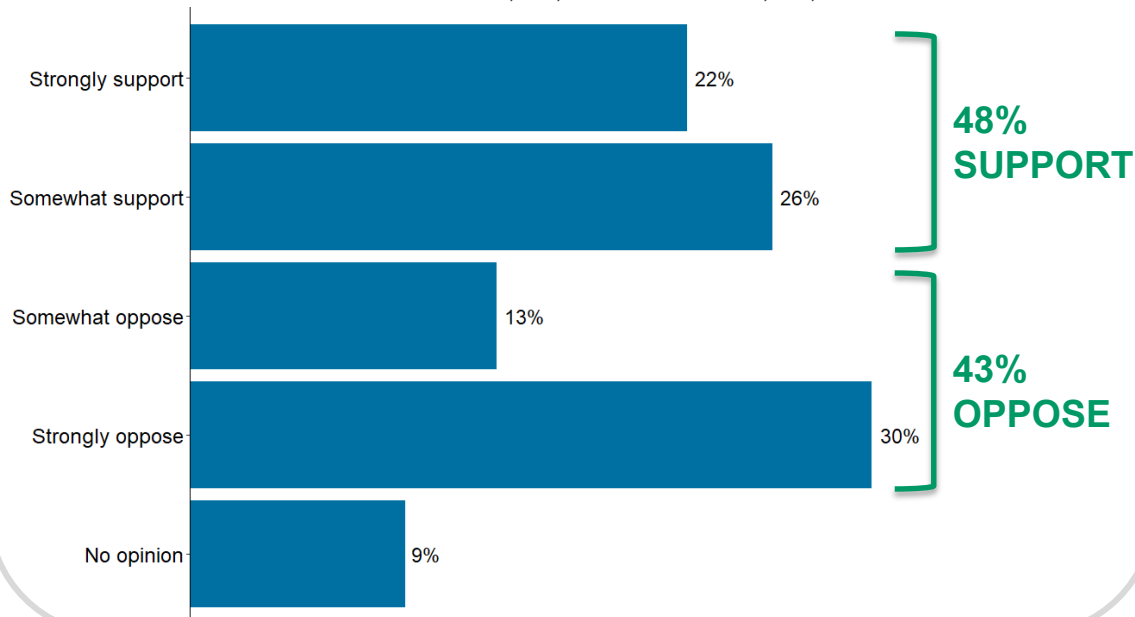
# CONGESTION PRICING ATTITUDES

Participants were shown the following statement and then asked the questions shown below.

New York State recently approved congestion pricing for New York City. Starting in 2021, drivers will pay a toll to enter Manhattan south of 60th Street. The purpose of the system is to raise revenue for mass transit and to reduce traffic congestion.

What is your opinion of congestion pricing?

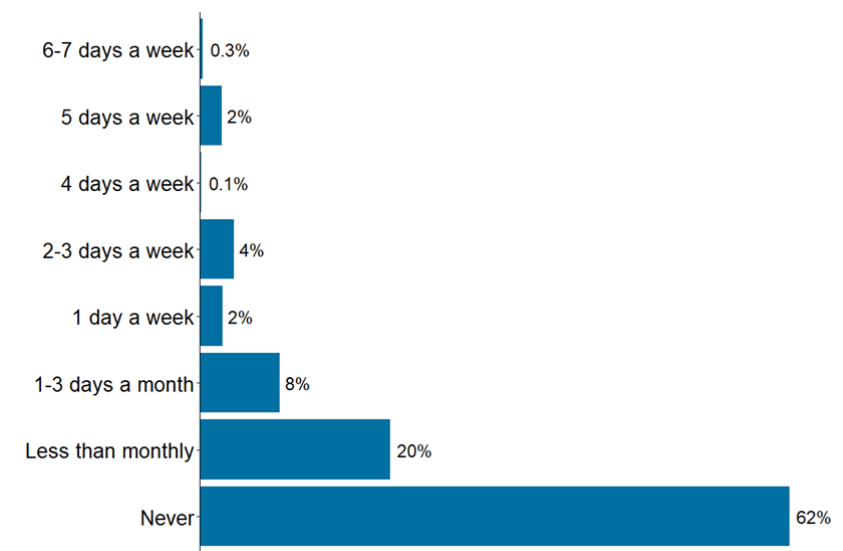
UNWEIGHTED N = 3,208, WEIGHTED N = 6,389,205



REPORTED FREQUENCY OF DRIVING INTO OR WITHIN TOLLING ZONE

(INCLUDING ZERO-VEHICLE HOUSEHOLDS)

UNWEIGHTED N = 3,273, WEIGHTED N = 6,507,177



# CONGESTION PRICING ATTITUDES

## VEHICLE OWNERS

- Vehicle owners who “never” drive into or within Manhattan below 60<sup>th</sup> are **4.3 times more likely to support** congestion pricing than vehicle owners who drive “weekly” into or within the district.
- Vehicle owners who drive “less than weekly” into or within Manhattan below 60<sup>th</sup> are **2.2 times more likely to support** congestion pricing than vehicle owners who drive “weekly” into or within the district.

## CITYWIDE

- People with household incomes greater than \$200,000 are **2.8 times more likely to support** congestion pricing than people with household incomes under \$25,000.
- People with no vehicles in their household are **1.8 times more likely to support** congestion pricing than people with 2 or more vehicles in their household.

*Note: These statements are based on an ordinal logistic regression model.*

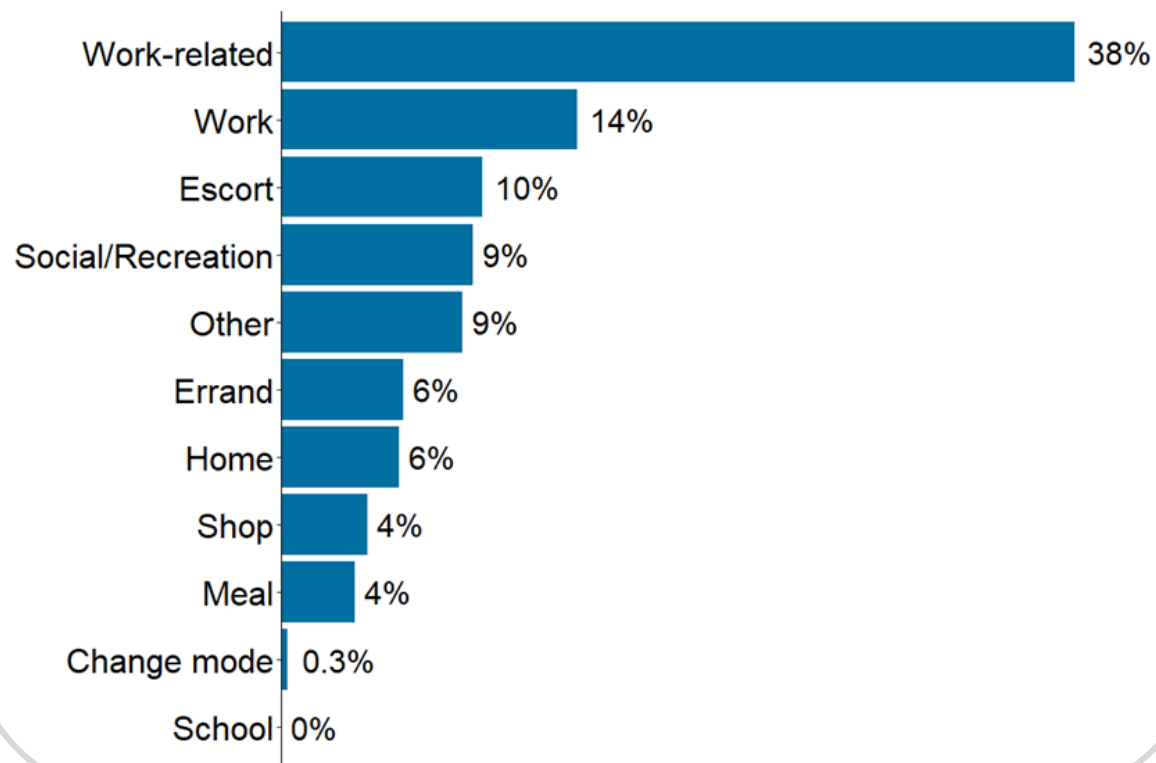
# VEHICLE TRIPS ENDING IN CBD TOLLING ZONE

**52% of vehicle trips into or within the CBD tolling zone are made for work or work-related reasons.**

Average trip distance: 4.4 miles  
Average trip duration: 26 minutes

DESTINATION TRIP PURPOSE FOR VEHICLE TRIPS ENDING IN THE CBD TOLLING ZONE

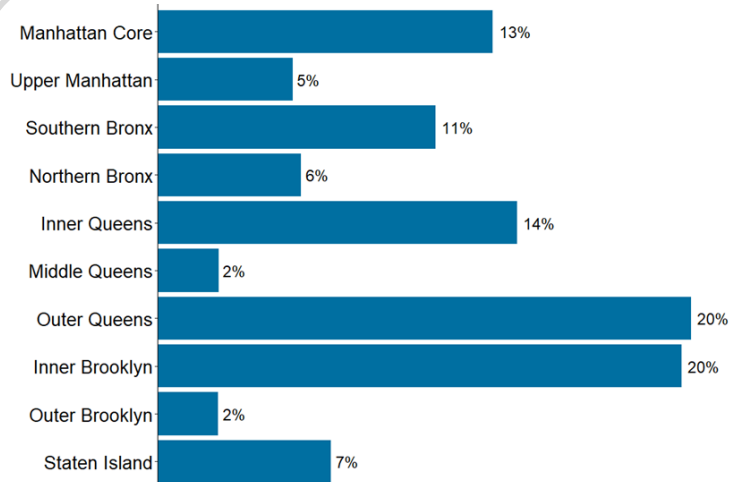
UNWEIGHTED N = 585, WEIGHTED N = 284,431



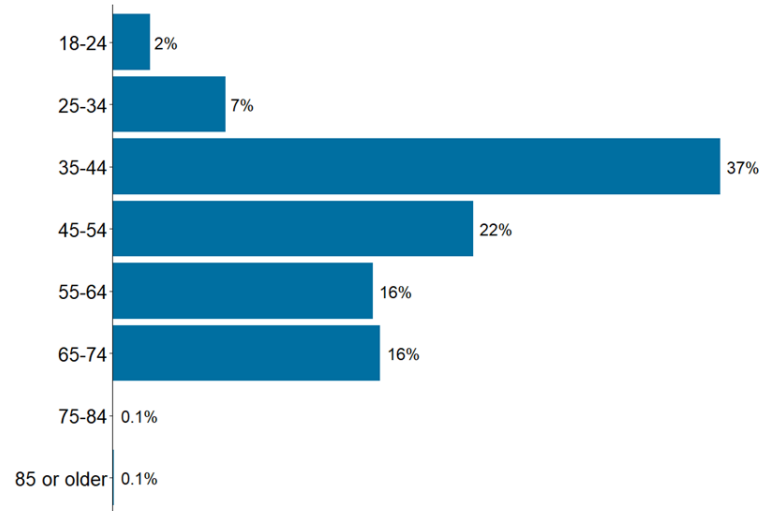
# VEHICLE TRIPS ENDING IN CBD TOLLING ZONE

## DEMOGRAPHIC PROFILE OF NEW YORKERS WHO MADE VEHICLE TRIPS ENDING IN THE CBD TOLLING ZONE

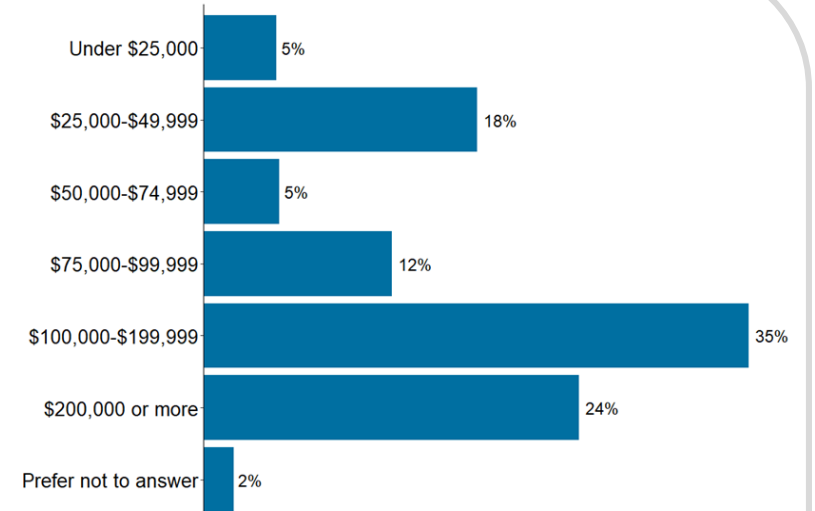
UNWEIGHTED N = 258, WEIGHTED N = 525,563



Home Survey Zone



Age



Household Income



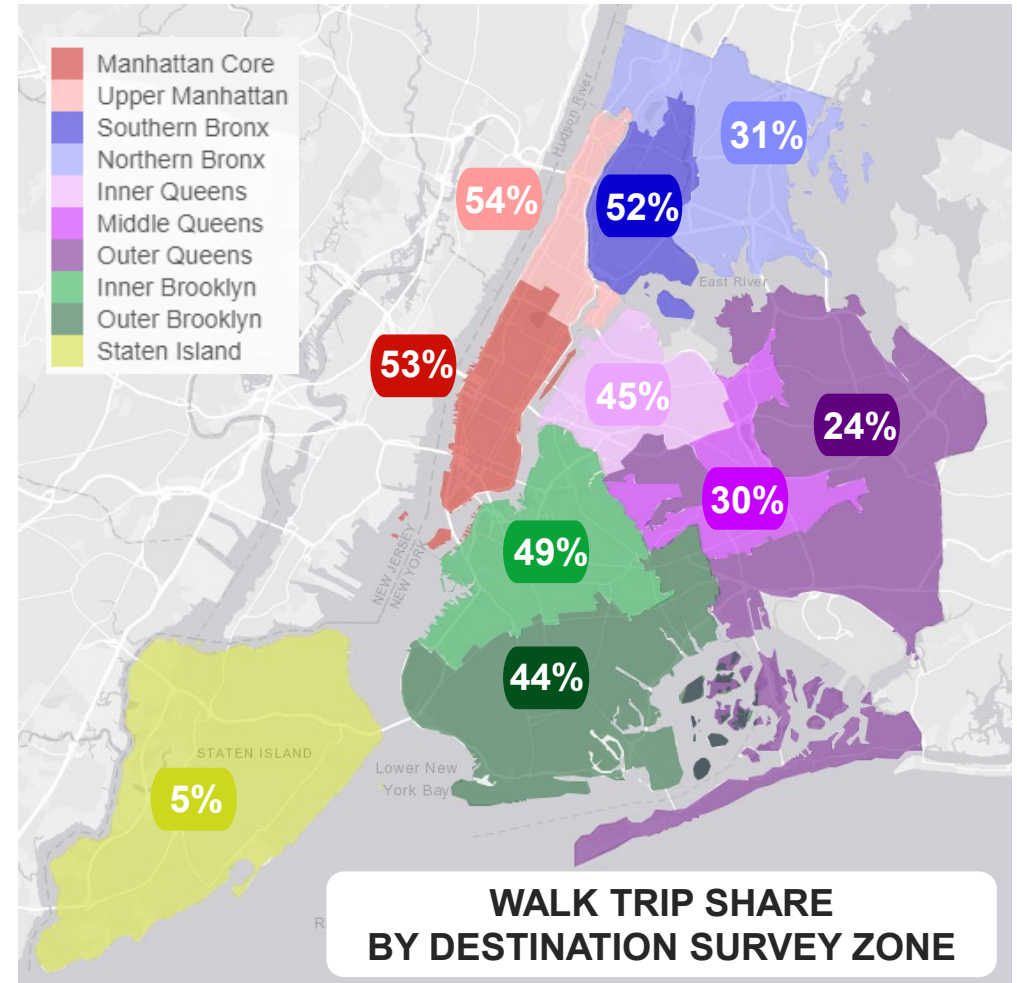
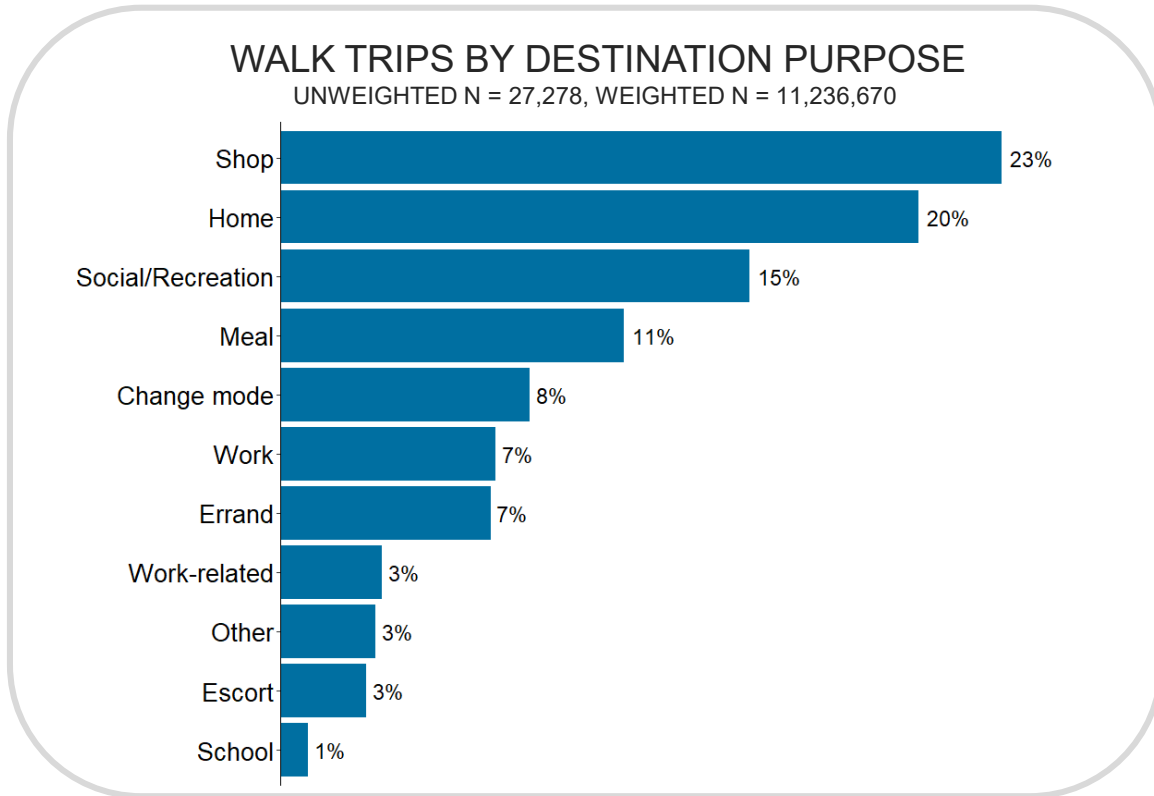


**CITYWIDE  
MOBILITY**  
SURVEY

# Pedestrian Behavior

# WALK TRIP PURPOSE

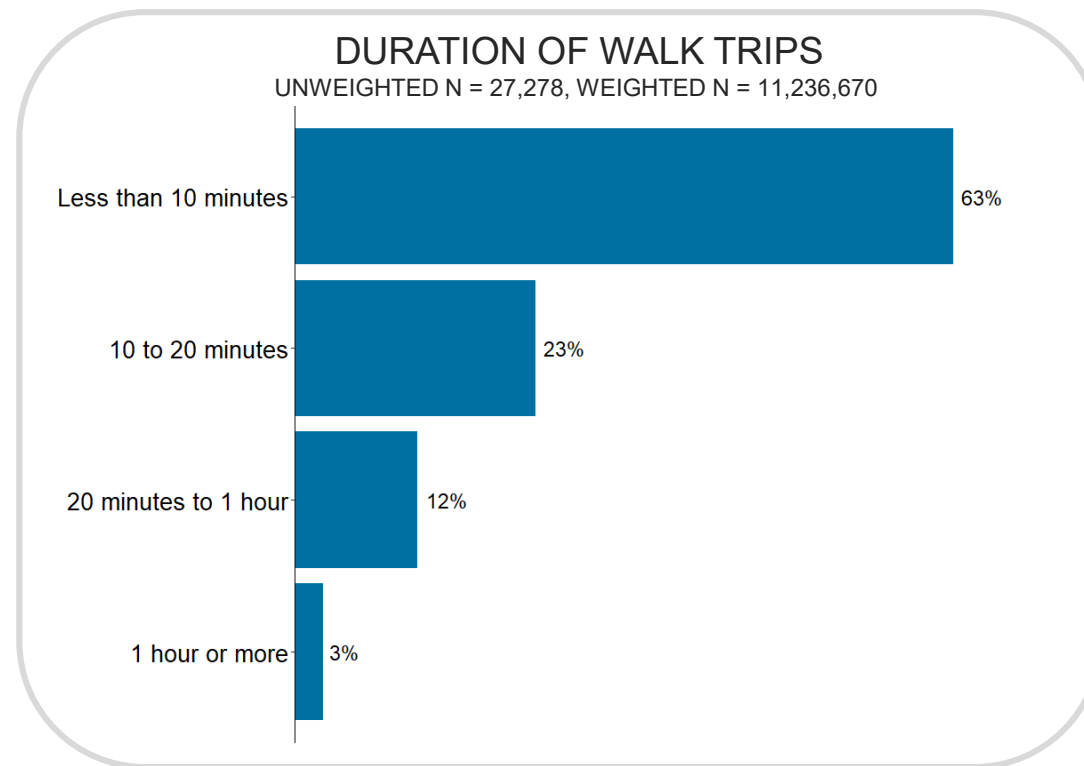
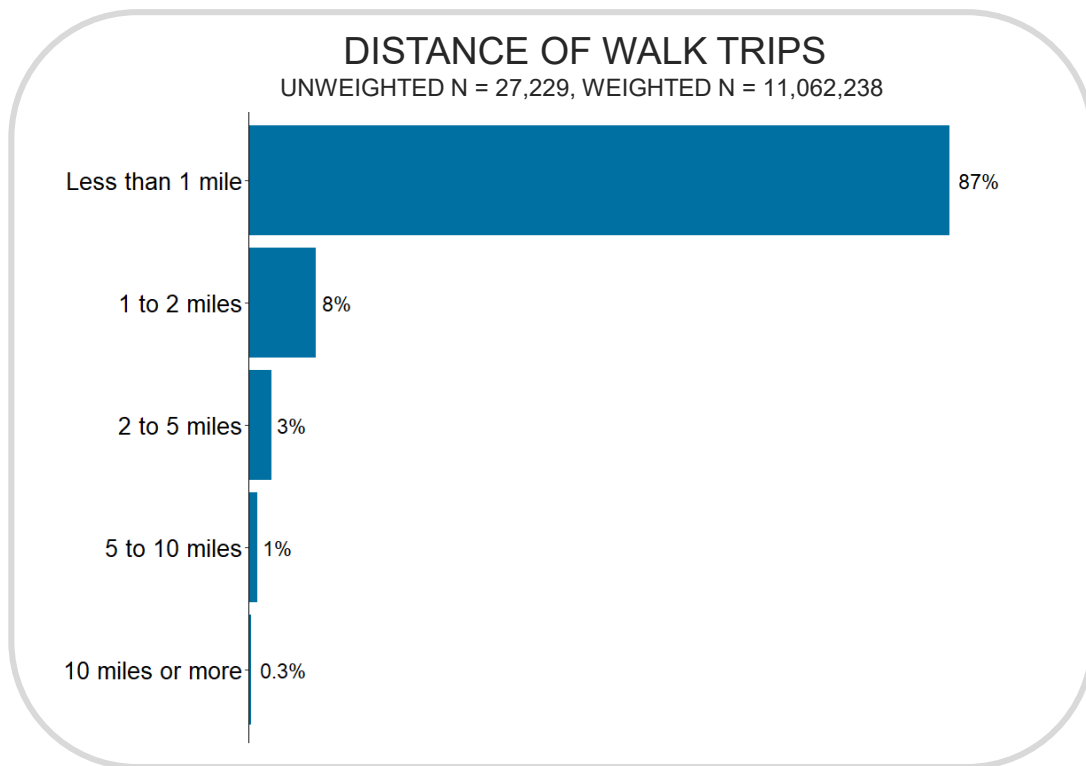
The majority of walking trips are made for the purpose of shopping or going home.



# WALK TRIP DISTANCE AND DURATION

87% of walk trips are 1 mile or less.

86% of walk trips are 20 minutes or less with 63% of trips under 10 minutes.





**CITYWIDE  
MOBILITY**  
SURVEY

## **Bicycle Behavior**

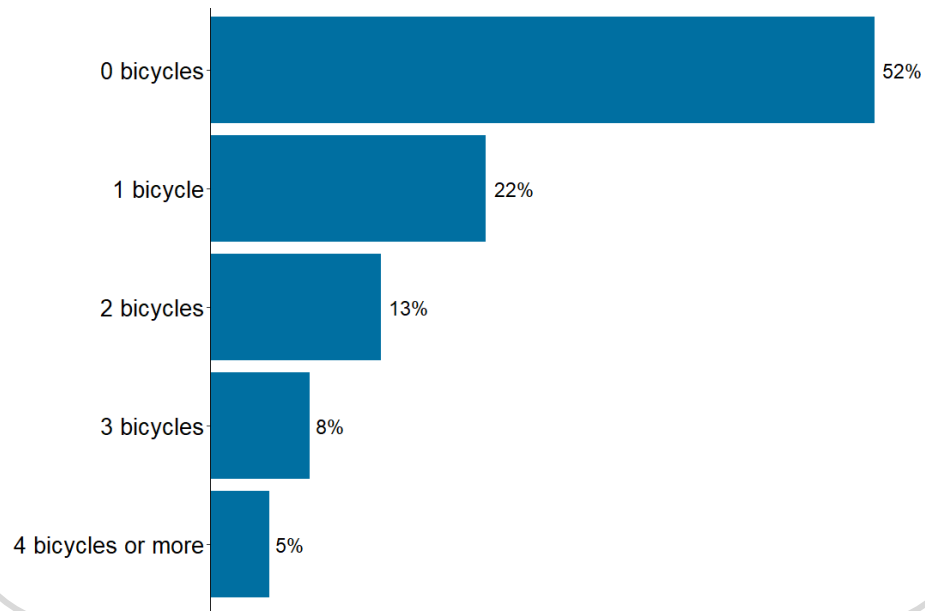
# BICYCLE OWNERSHIP AND USE

**48% of households in New York own a bicycle** – an increase from previous years, 41% in 2017 and 38% in 2018.

The majority of bike trips are social/recreation trips or trips home.

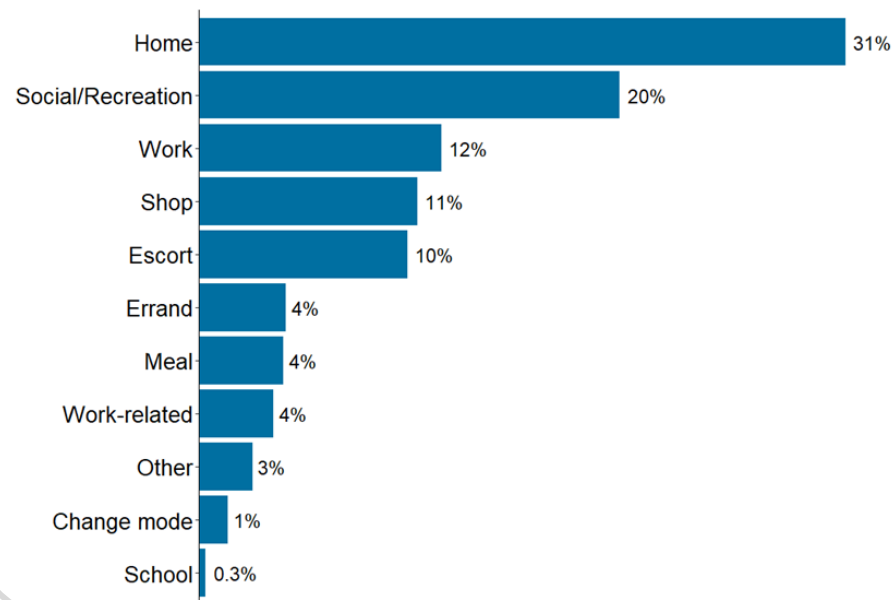
### NUMBER OF BICYCLES IN HOUSEHOLD

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



### BIKE TRIP PURPOSE

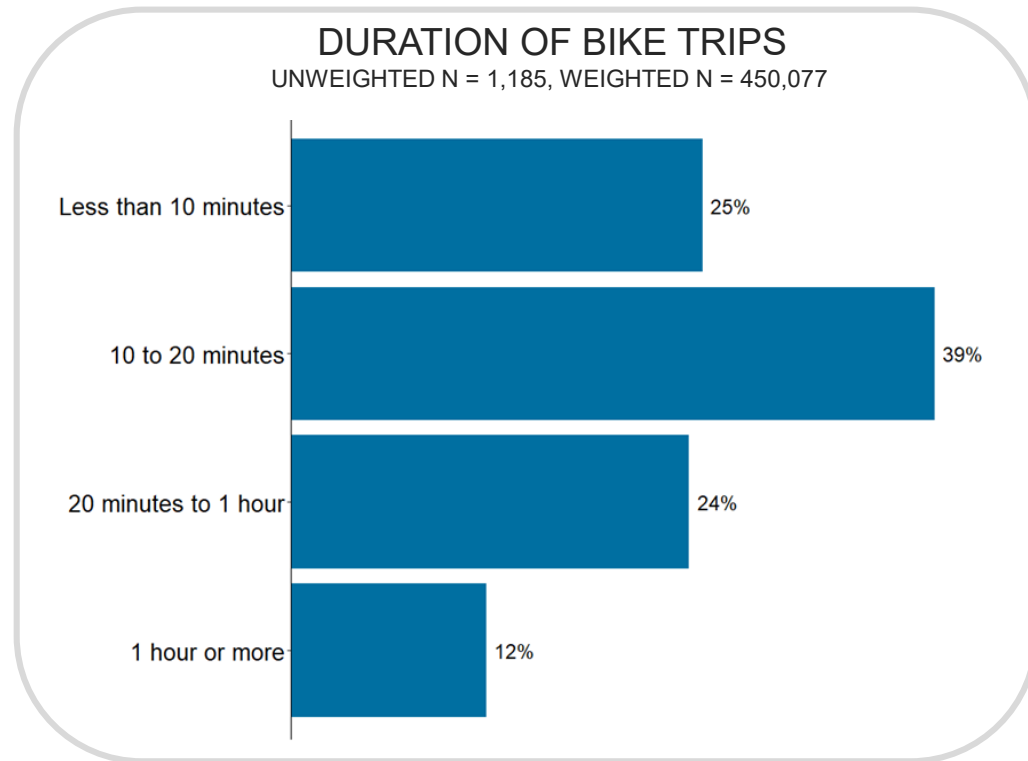
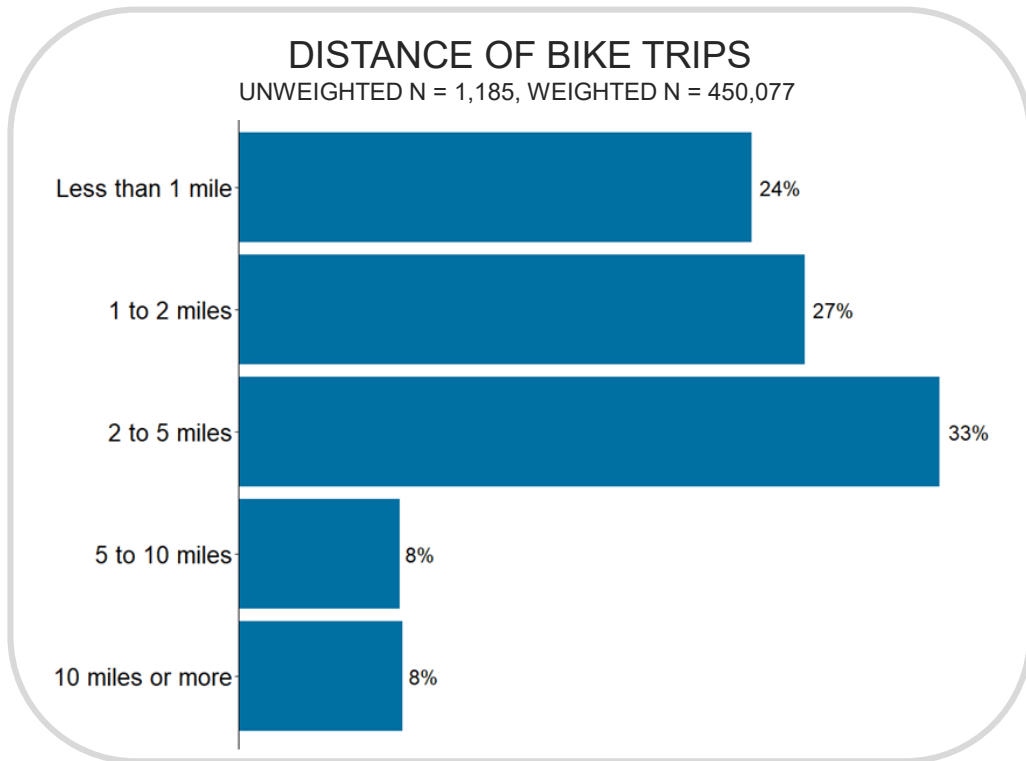
UNWEIGHTED N = 1,185, WEIGHTED N = 450,077



# BIKE TRIP DISTANCE AND DURATION

84% of bicycle trips are 5 miles or less with 51% of trips under 2 miles.

88% of bicycle trips are 60 minutes or less with 64% of trips under 20 minutes.



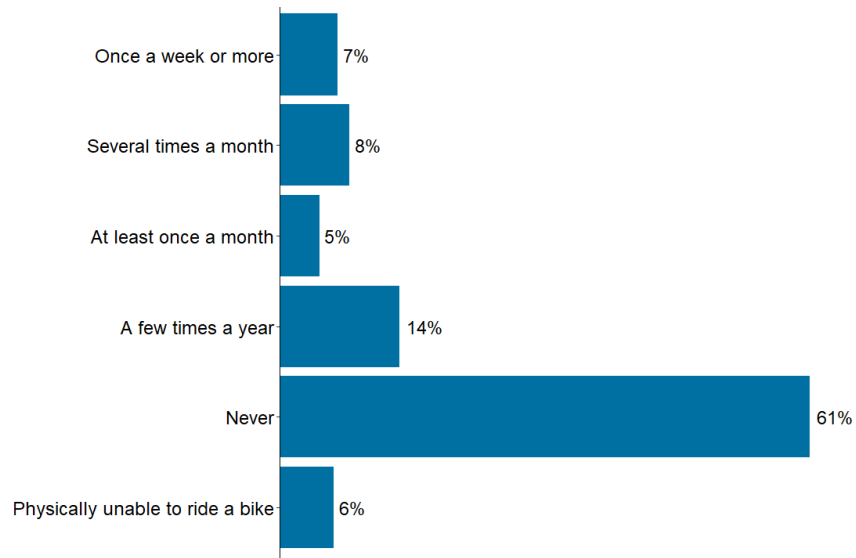
# BICYCLE FREQUENCY

33% of New Yorkers ride a bike at least once a year.

14% of New Yorkers rode a bike within the past seven days with 8% riding a bike at least two days within the past seven days.

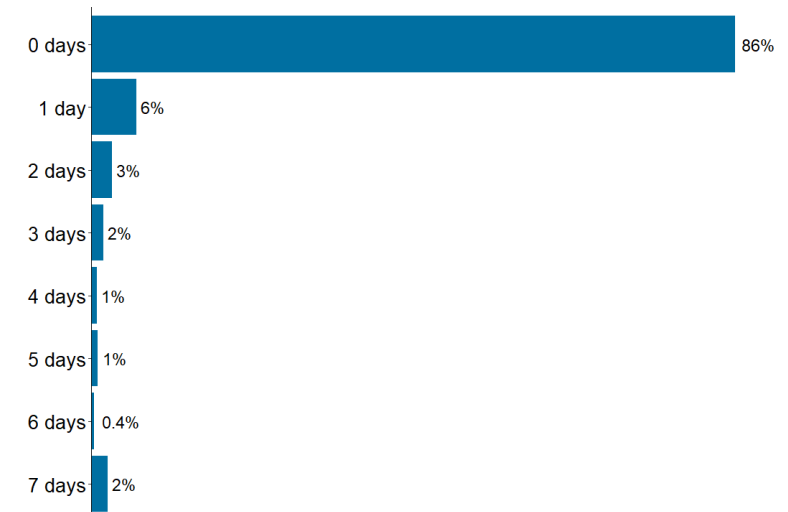
## FREQUENCY OF BICYCLE TRAVEL

UNWEIGHTED N = 3,161, WEIGHTED N = 6,261,200



## NUMBER OF DAYS NEW YORKERS RODE A BIKE IN THE PAST SEVEN DAYS

UNWEIGHTED N = 1,279, WEIGHTED N = 2,218,730



# ATTITUDES TOWARDS RIDING A BICYCLE

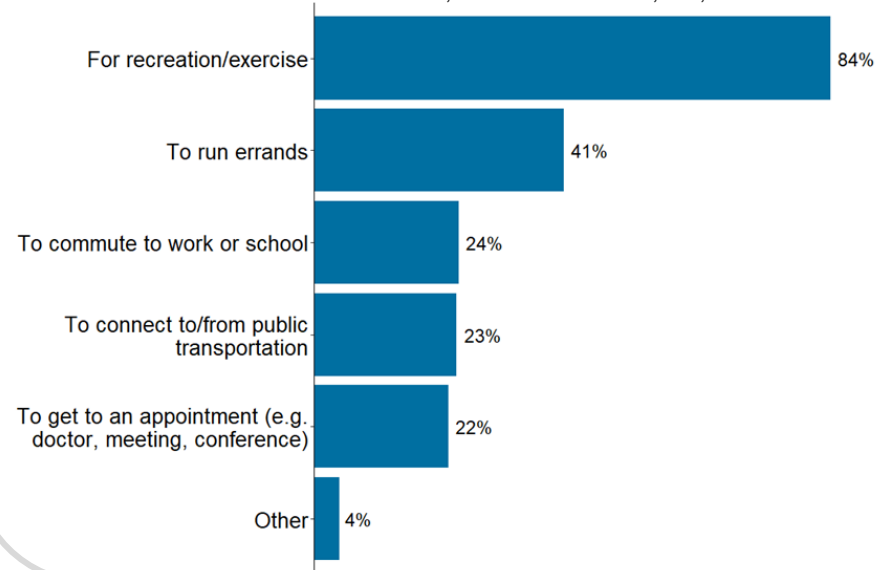
84% of New Yorkers typically make bicycle trips for recreation and exercise.

39% of New Yorkers who never ride a bicycle because they prefer other modes and 32% do not ride a bicycle because they don't feel safe due to lack of bike lanes.

## TYPICAL REASON FOR BICYCLE TRIPS

(select all that apply)

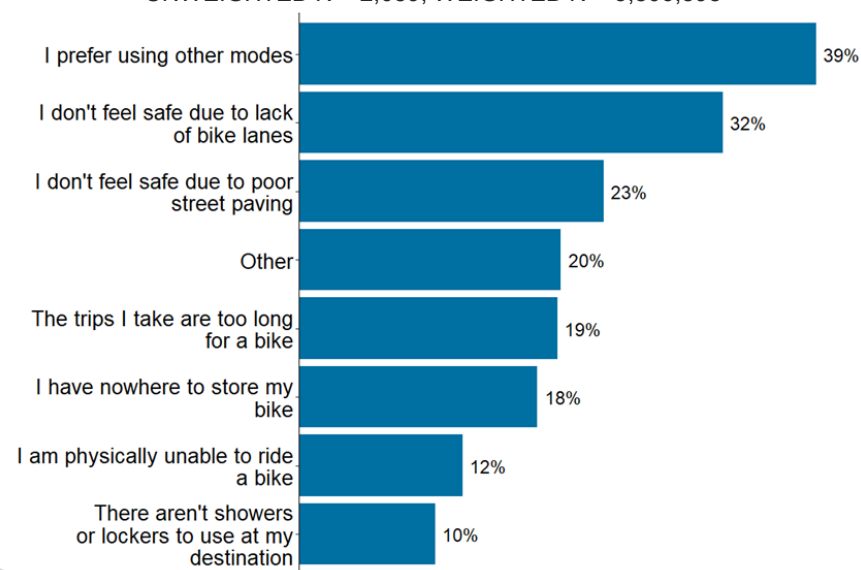
UNWEIGHTED N = 939, WEIGHTED N = 2,065,162



## REASONS FOR NOT RIDING A BICYCLE

(select all that apply)

UNWEIGHTED N = 2,089, WEIGHTED N = 3,806,898





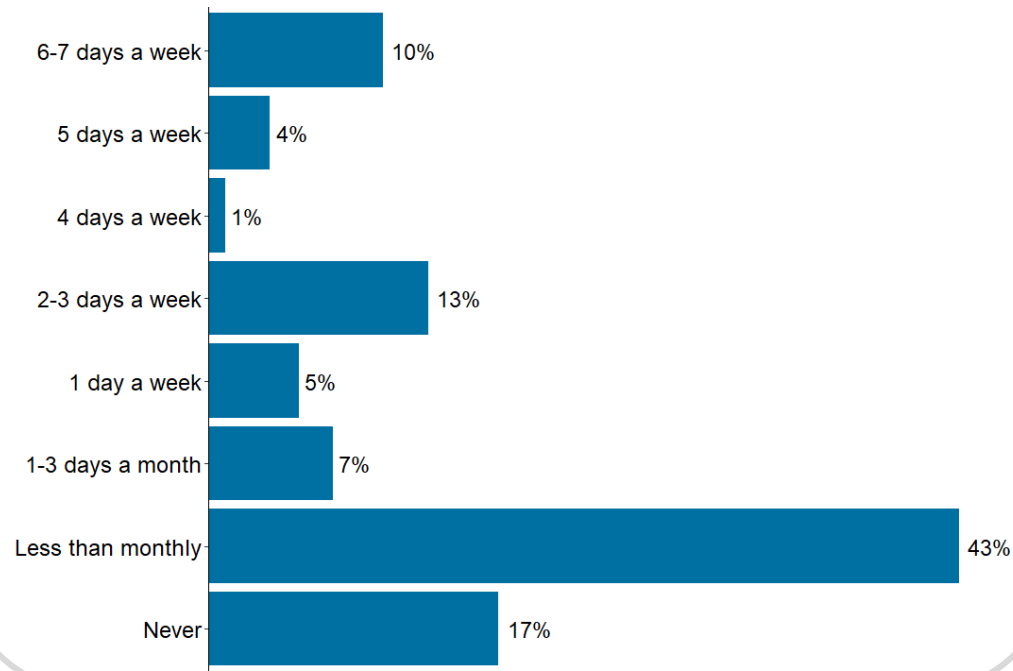
# BIKESHARE SERVICES USAGE

15% of New Yorkers use bikeshare services

14% of New Yorkers use Citi Bike, 1% use Lime, and 0.2% use Jump

## FREQUENCY OF CITI BIKE USAGE

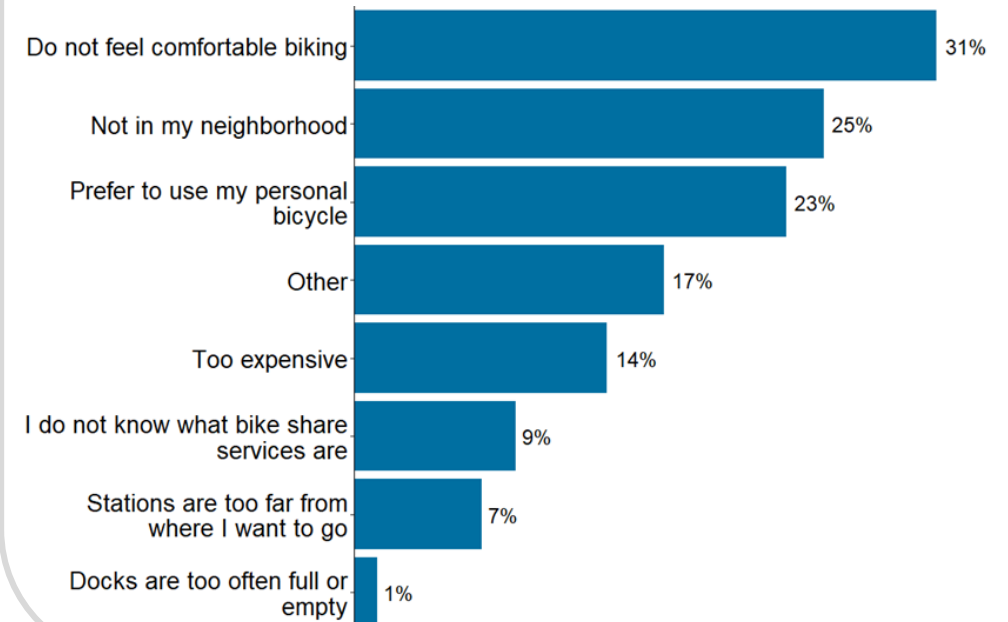
UNWEIGHTED N = 429, WEIGHTED N = 871,357



## REASONS FOR NOT USING BIKESHARE SERVICES

(select all that apply)

UNWEIGHTED N = 2,683, WEIGHTED N = 5,346,147





# New Mobility Services Usage

# APP-BASED FOR-HIRE VEHICLES

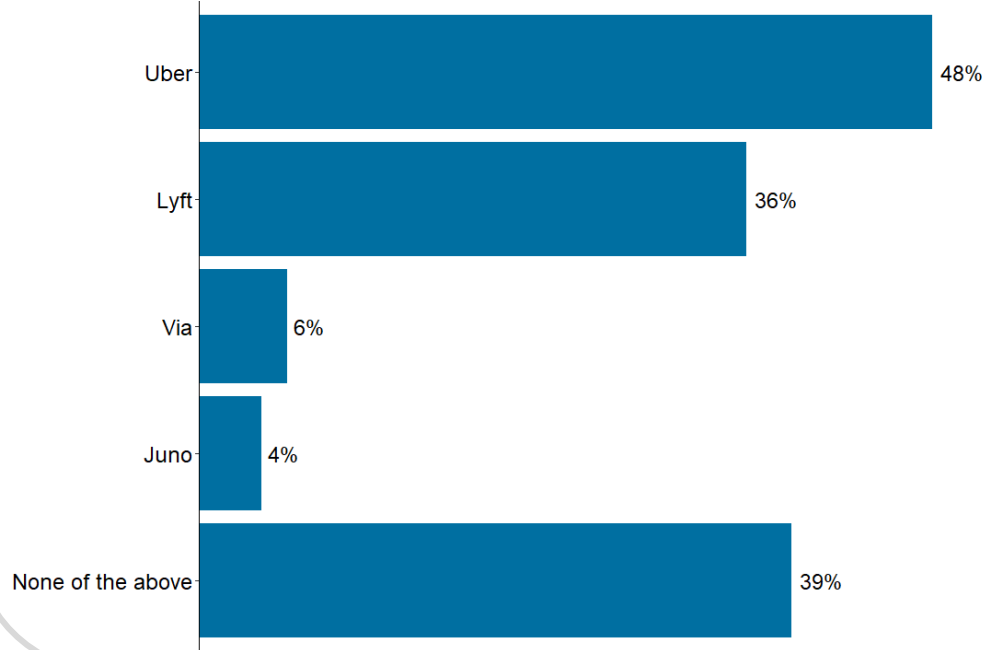
**61% of New Yorkers use app-based for-hire vehicles, a higher share than previous years.**

50% reported using app-based for-hire vehicles services in 2018 and 35% in 2017. Among the 39% of New Yorkers that do not use app-based for-hire vehicles, 26% do not own smartphones.

## APP-BASED FOR-HIRE VEHICLE SERVICES USED

*(select all that apply)*

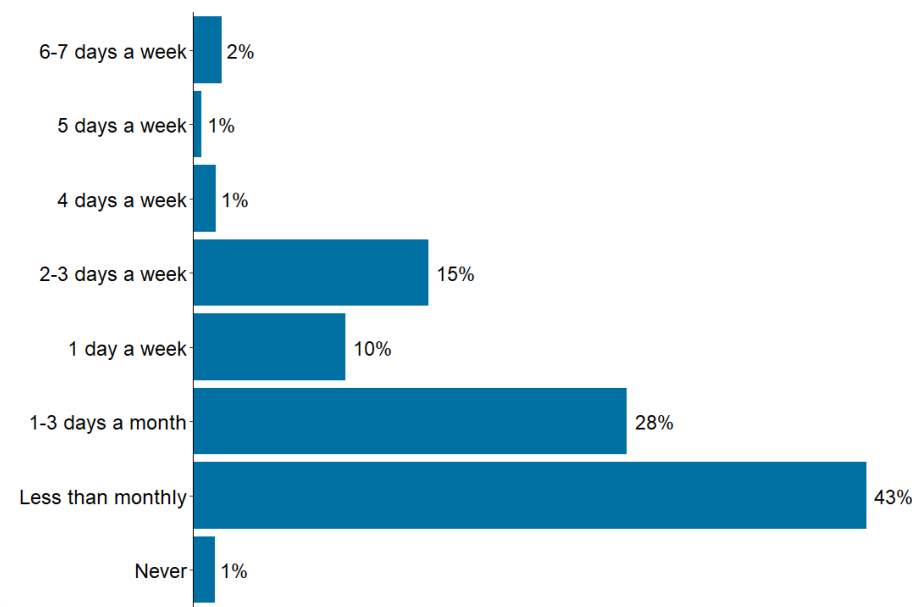
UNWEIGHTED N = 3,254, WEIGHTED N = 6,375,373



## FREQUENCY OF APP-BASED FOR-HIRE VEHICLE USAGE

(AMONG THOSE WHO REPORTED USING A SERVICE AT LEAST ONCE)

UNWEIGHTED N = 1,976, WEIGHTED N = 3,887,716



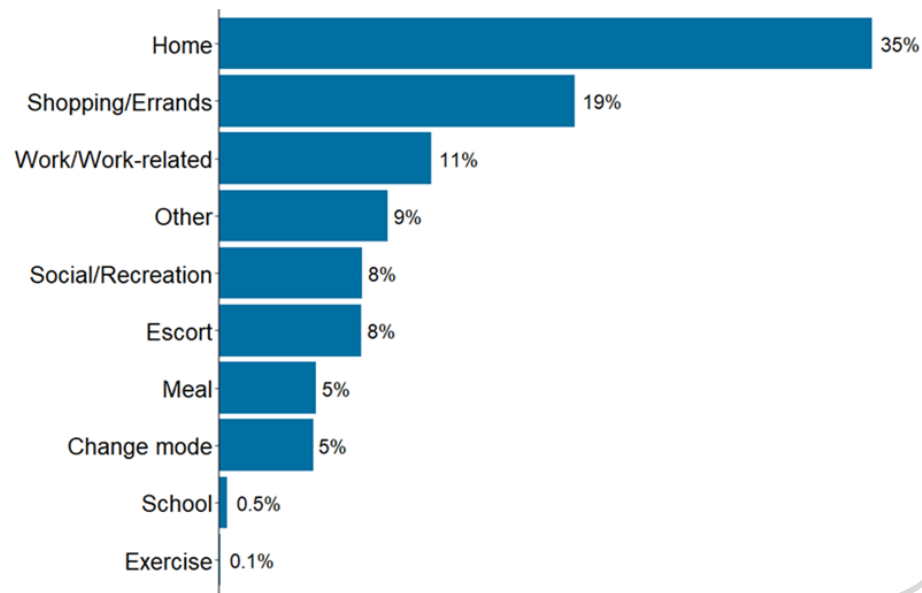
# APP-BASED FOR-HIRE VEHICLE BEHAVIOR

New Yorkers use app-based for-hire vehicles primarily for making trips home followed by going shopping and running errands.

Users previously made these trips using subway, for-hire vehicles, or a household vehicle.

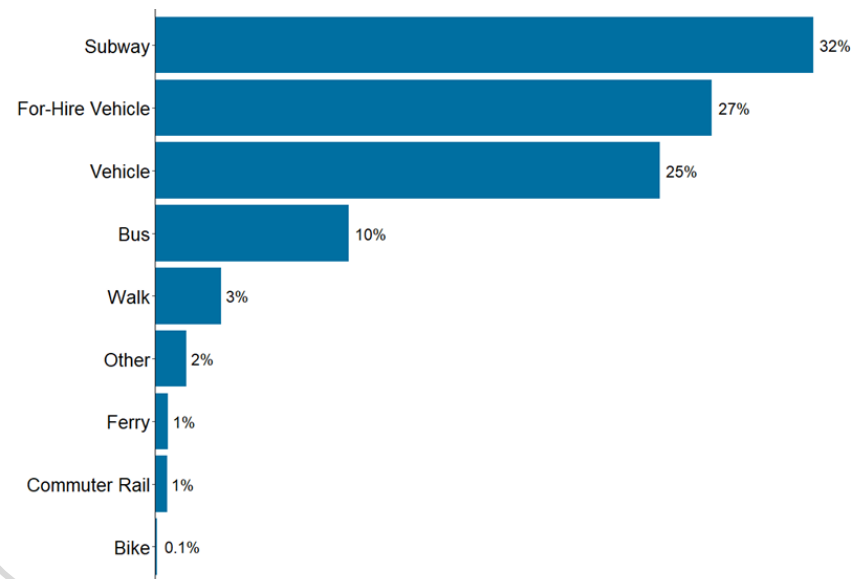
### MOST COMMON PURPOSE OF APP-BASED FOR-HIRE VEHICLE TRIPS

UNWEIGHTED N = 1,976, WEIGHTED N = 3,887,716



### PRIMARY MODE USED PRIOR TO APP-BASED FOR-HIRE VEHICLE SERVICES

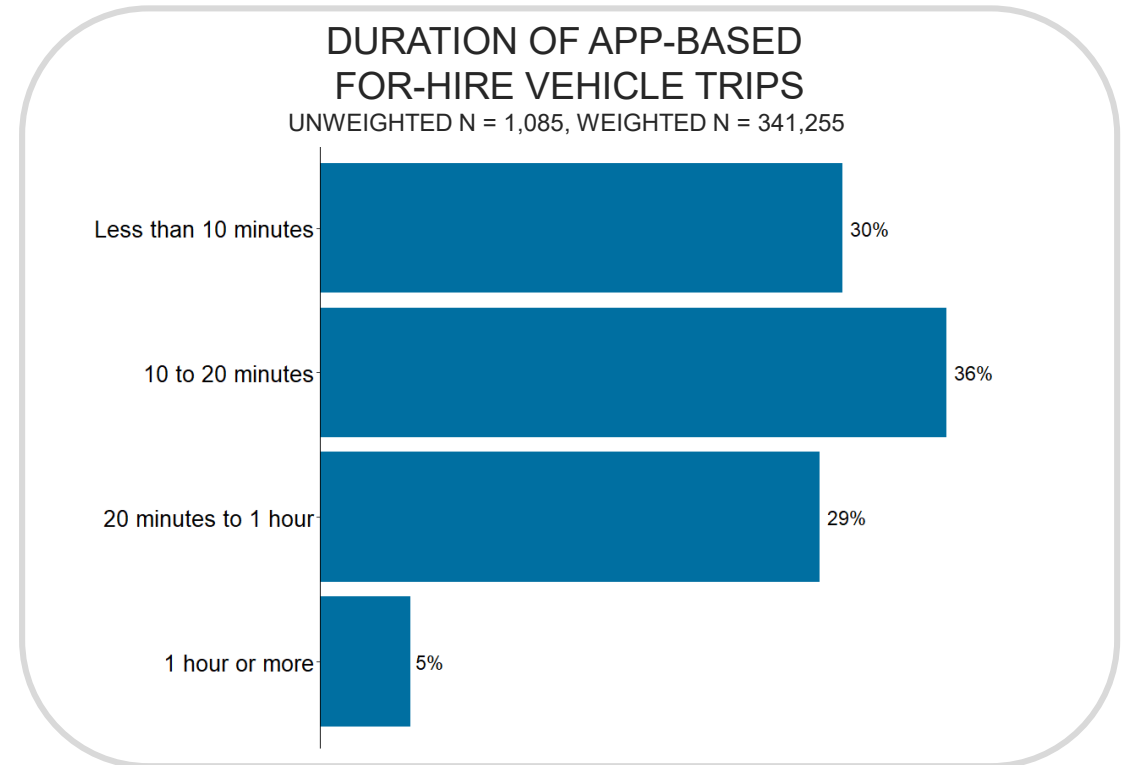
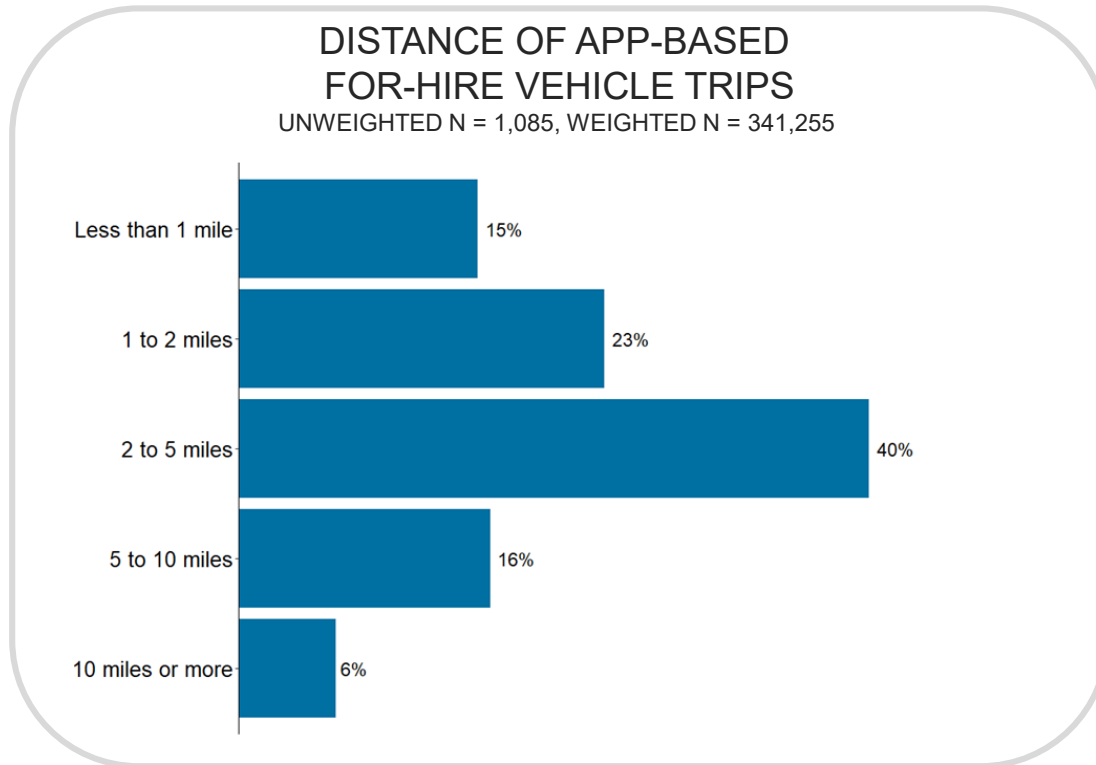
UNWEIGHTED N = 1,976, WEIGHTED N = 3,887,716



# APP-BASED FOR-HIRE VEHICLE DISTANCE AND DURATION

78% of app-based for-hire vehicle trips are 5 miles or less with 39% of trips under 2 miles.

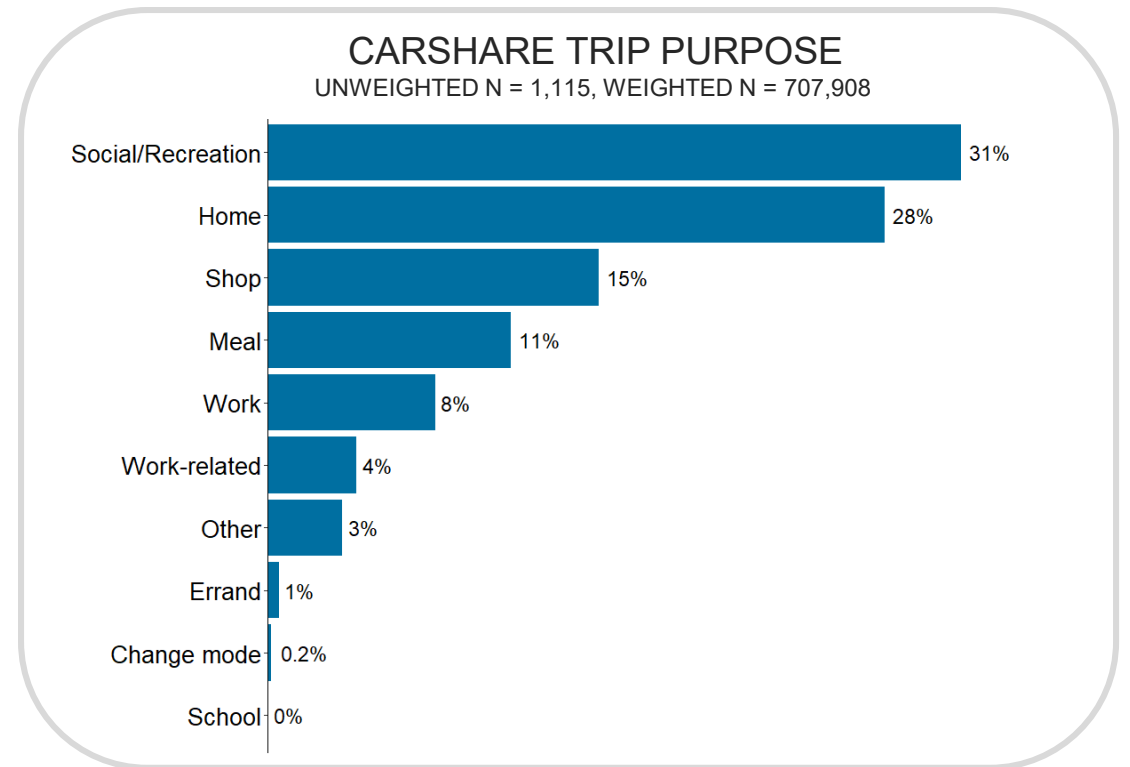
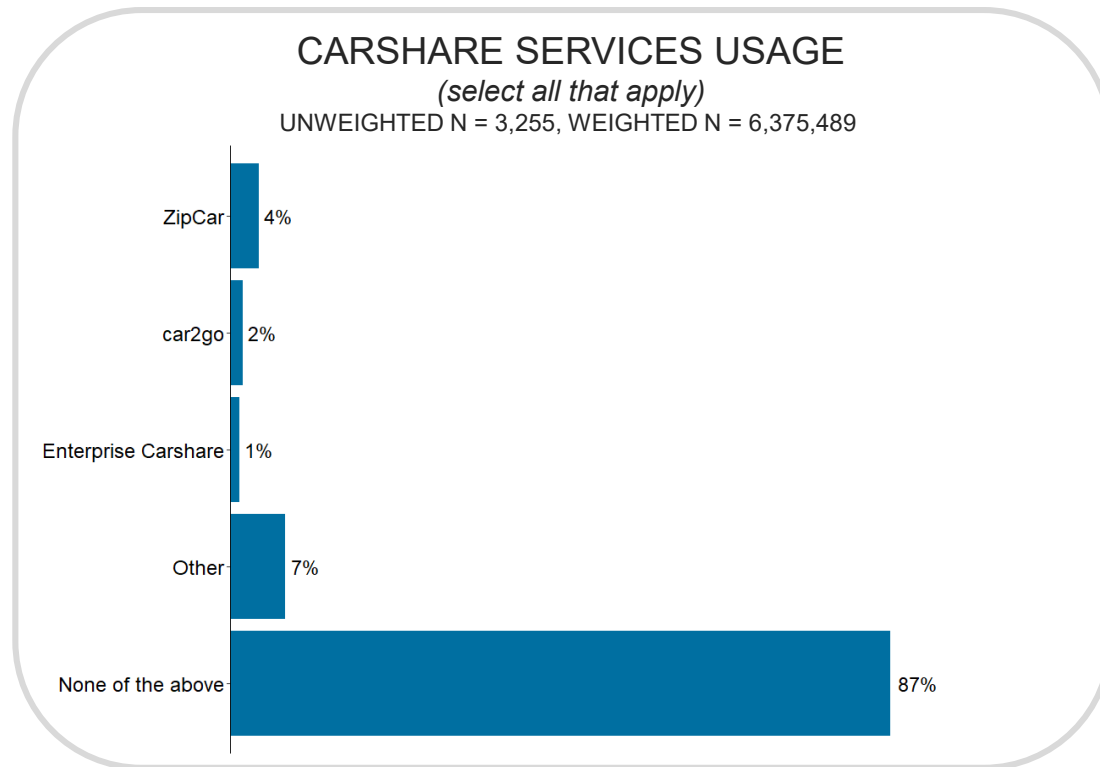
95% of app-based for-hire vehicle trips are 60 minutes or less with 66% of trips under 20 minutes.



# CARSHARE SERVICES USAGE

13% of New Yorkers use carshare services and 31% of carshare trips are for social and recreation purposes.

The average carshare trip distance is 26 miles.

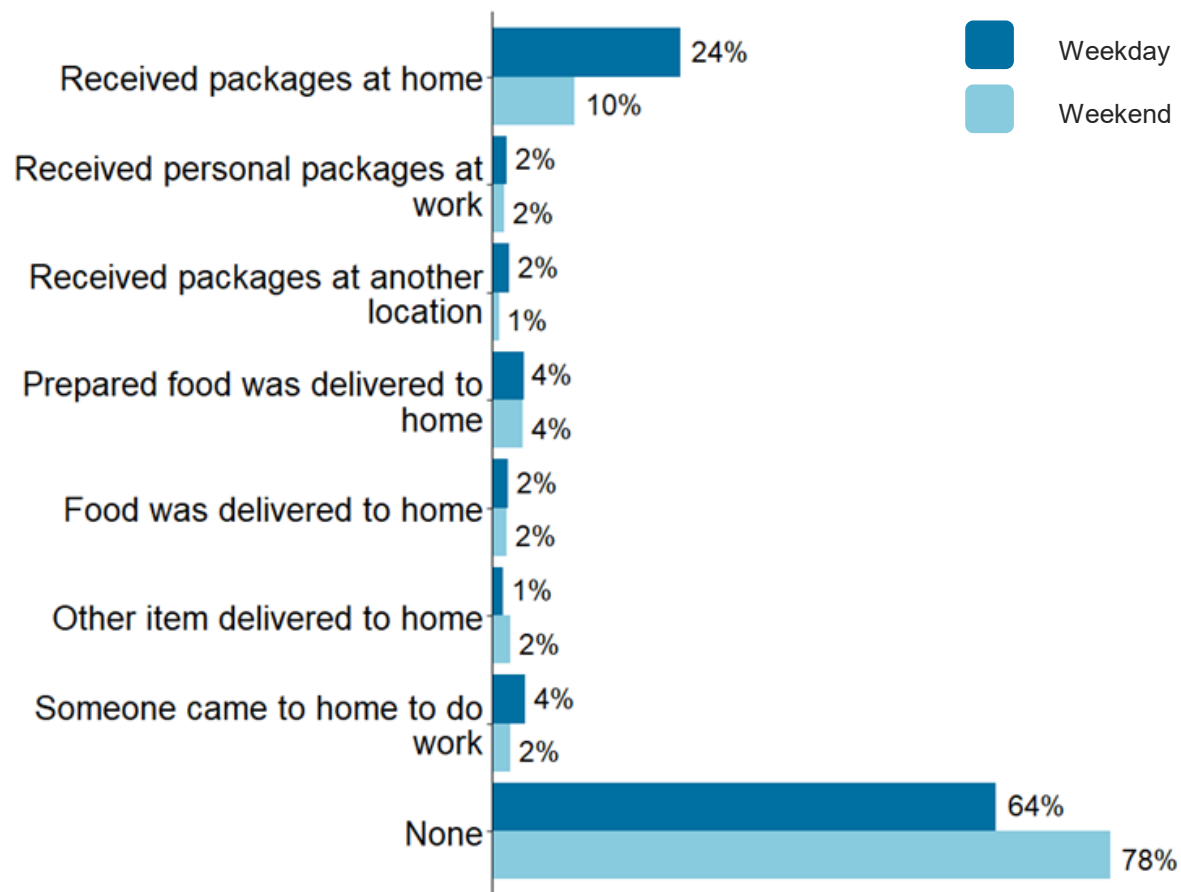




**CITYWIDE  
MOBILITY**  
SURVEY

## Freight Services Usage

# DAILY GOODS AND SERVICES DELIVERIES



UNWEIGHTED N = 14,502, WEIGHTED N = 6,670,172

**32% of New Yorkers receive deliveries or have household services performed on an average day.**

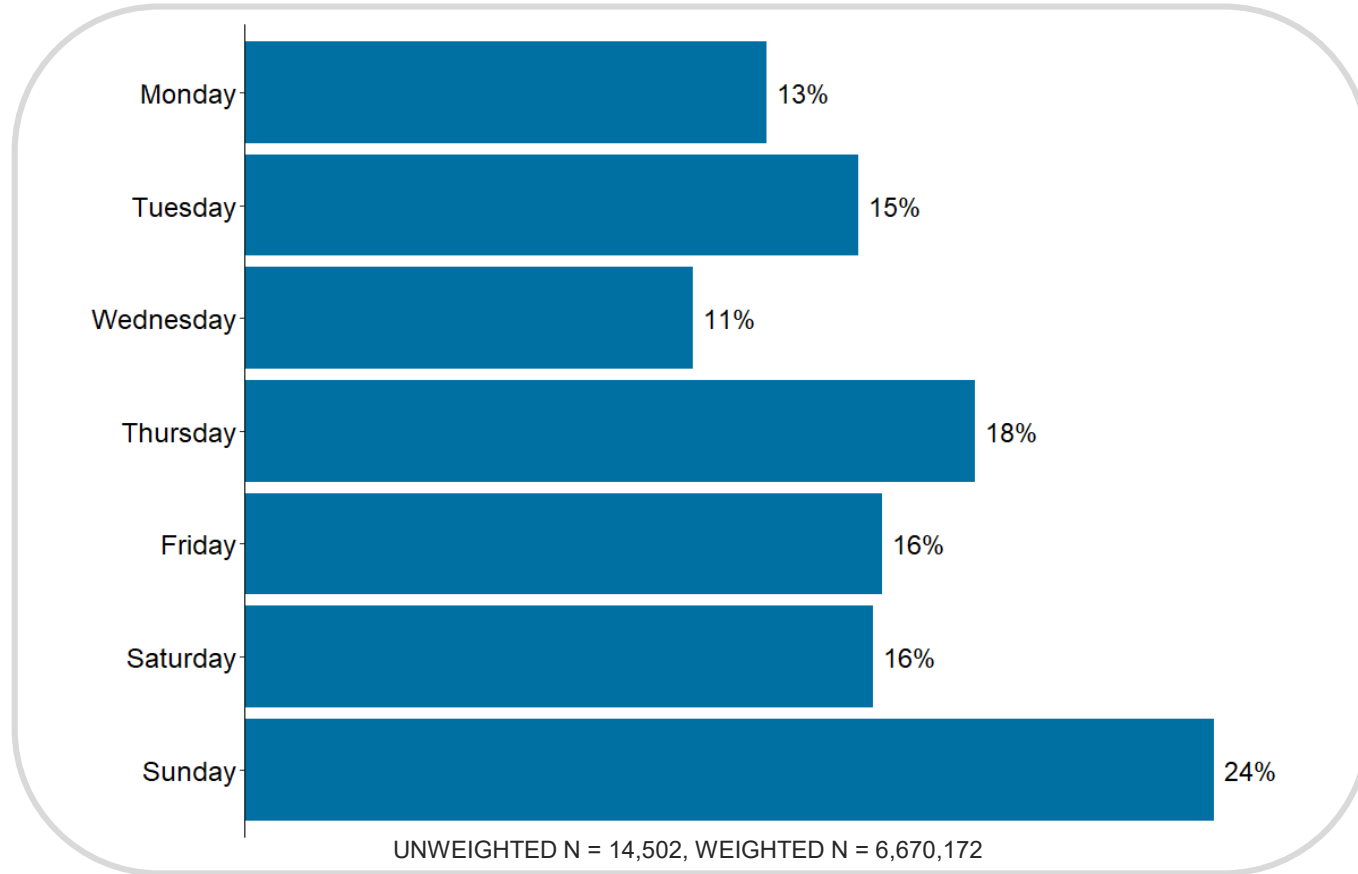
Direct comparisons cannot be made to previous years due to different scales. However, there appears to be a slight increase in deliveries year-over-year.

In 2018, 28% of New Yorkers received some kind of delivery at least several times a week.



# ONLINE SHOPPING BY DAY OF WEEK

On an average Sunday, 24% of New Yorkers shop online.



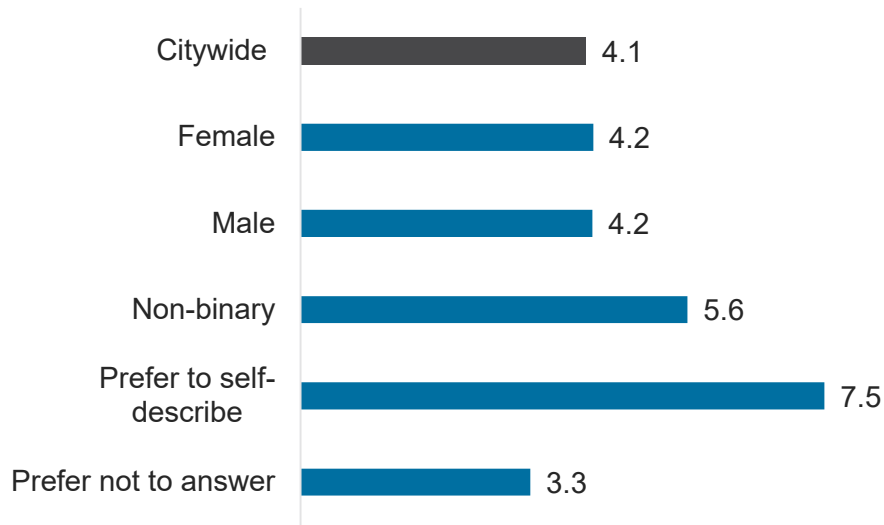


**CITYWIDE  
MOBILITY**  
SURVEY

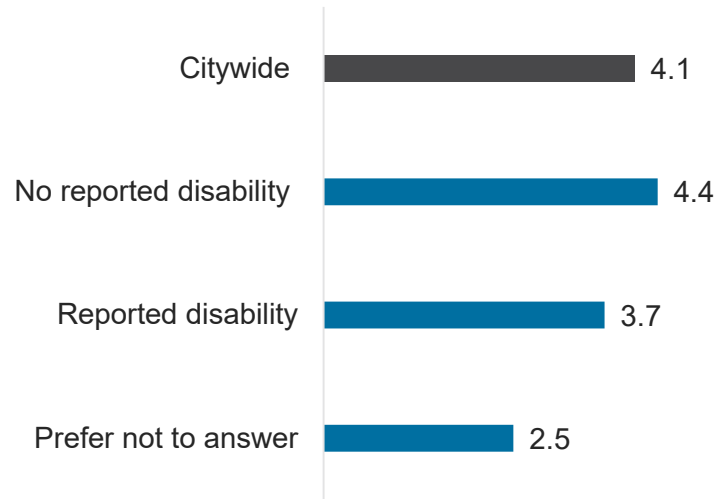
## Equity Analysis

# EQUITY ANALYSIS OF DAILY TRIP RATES

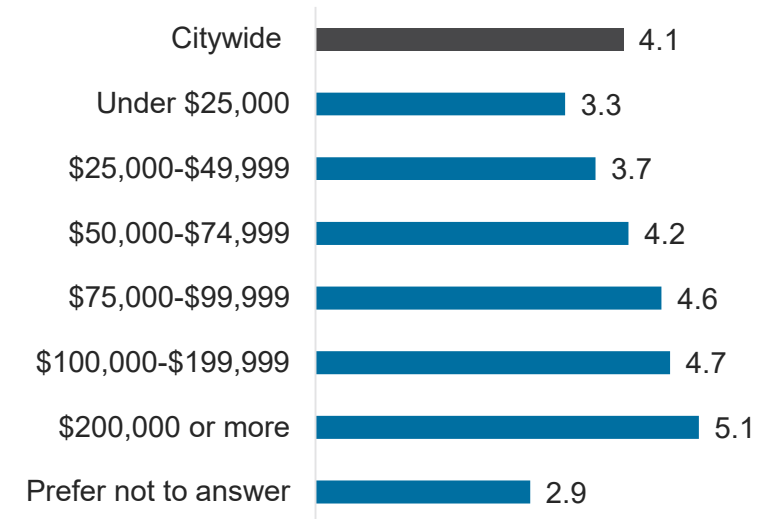
Daily trip rates differ from the citywide average across key demographic measures.



**Gender**



**Disability Status**



**Household Income**

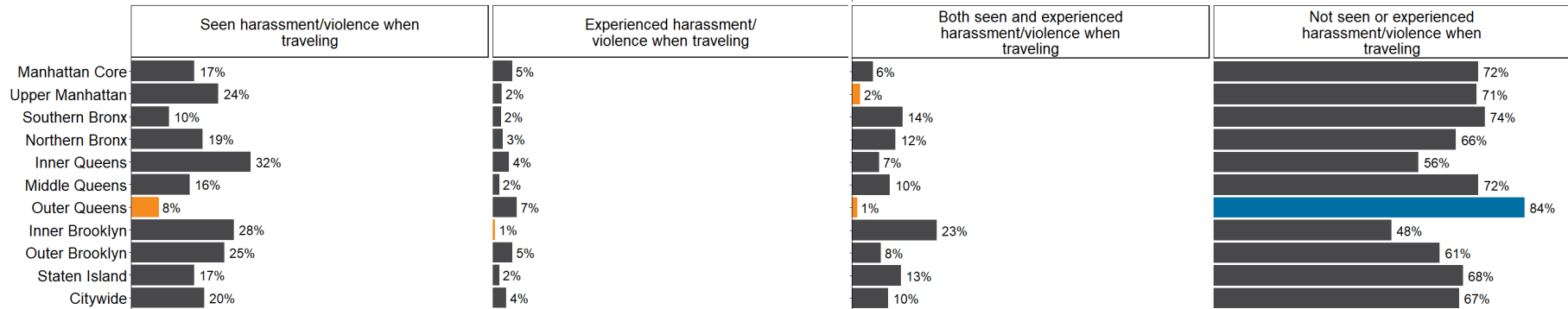
# UNDERSTANDING FREQUENCY OF STREET HARASSMENT

In the past week, have you seen and/or experienced visual, verbal, or physical harassment/violence when traveling?

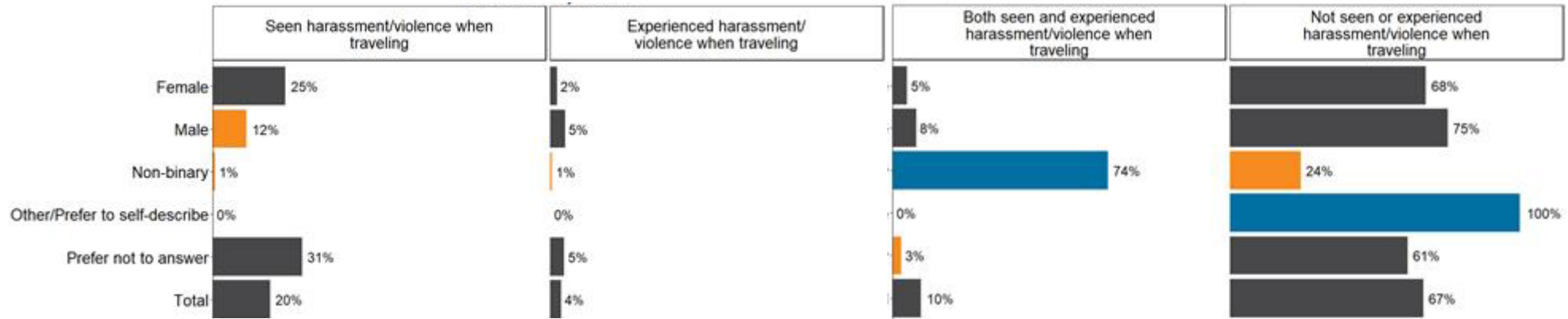
■ Significantly **less** than Citywide at 95% confidence level  
■ Significantly **greater** than Citywide at 95% confidence level

UNWEIGHTED N = 3,111, WEIGHTED N = 6,174,439

Survey Zone



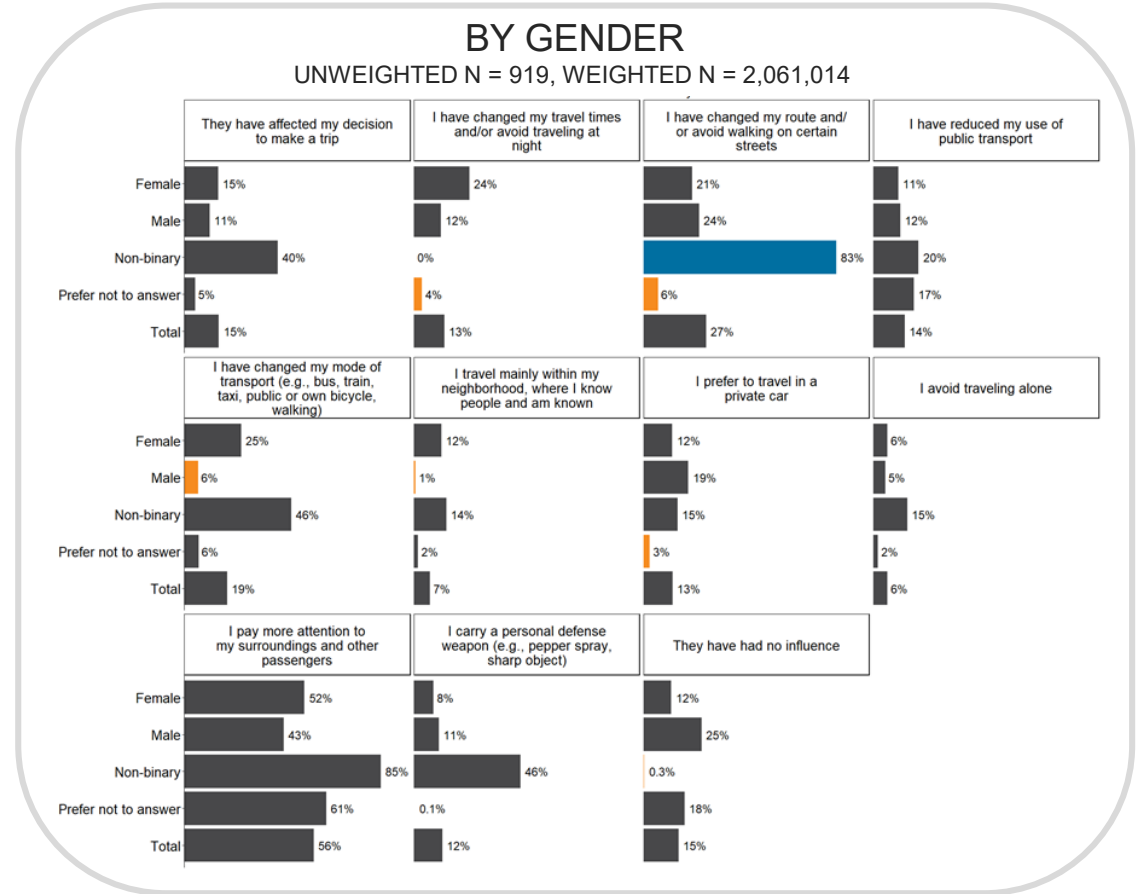
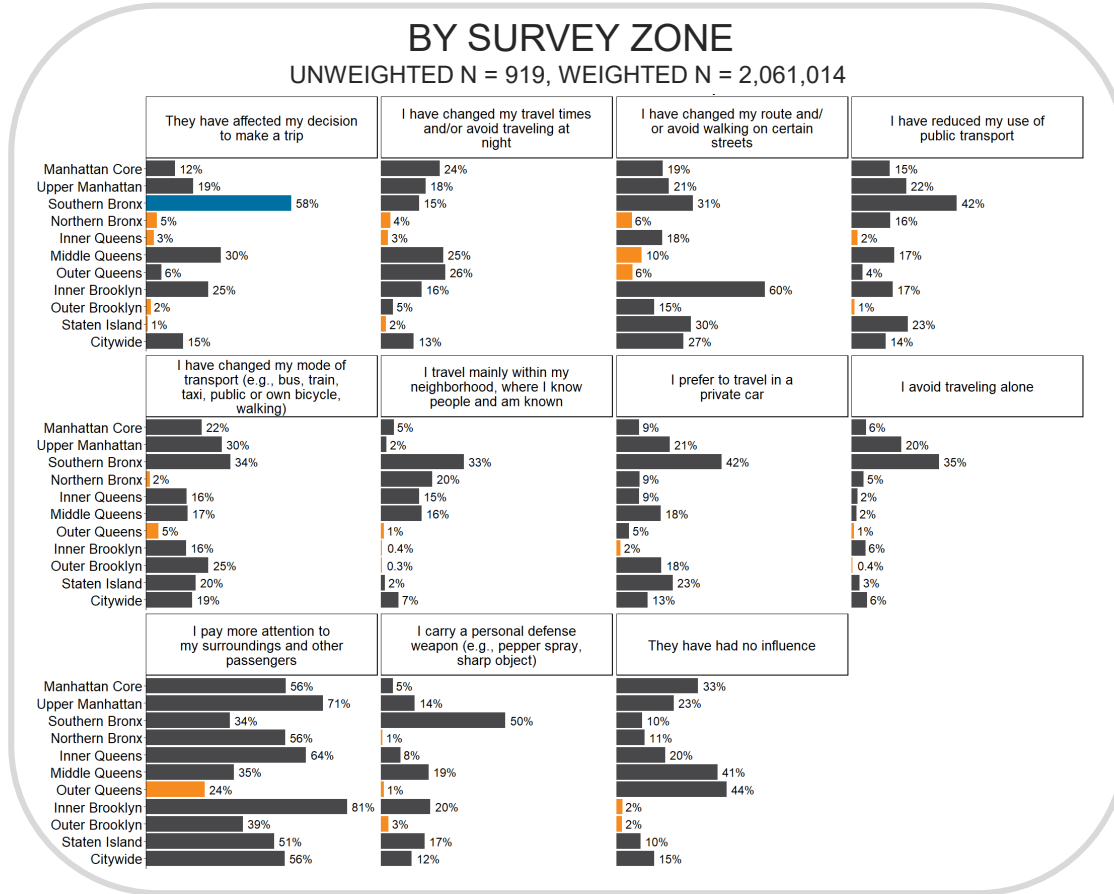
Gender



# EFFECTS OF STREET HARASSMENT

How have these experiences influenced your behavior when traveling this past week?

■ Significantly **less** than Citywide at 95% confidence level  
■ Significantly **greater** than Citywide at 95% confidence level



# EFFECTS OF DISABILITY STATUS ON TRAVEL BEHAVIOR

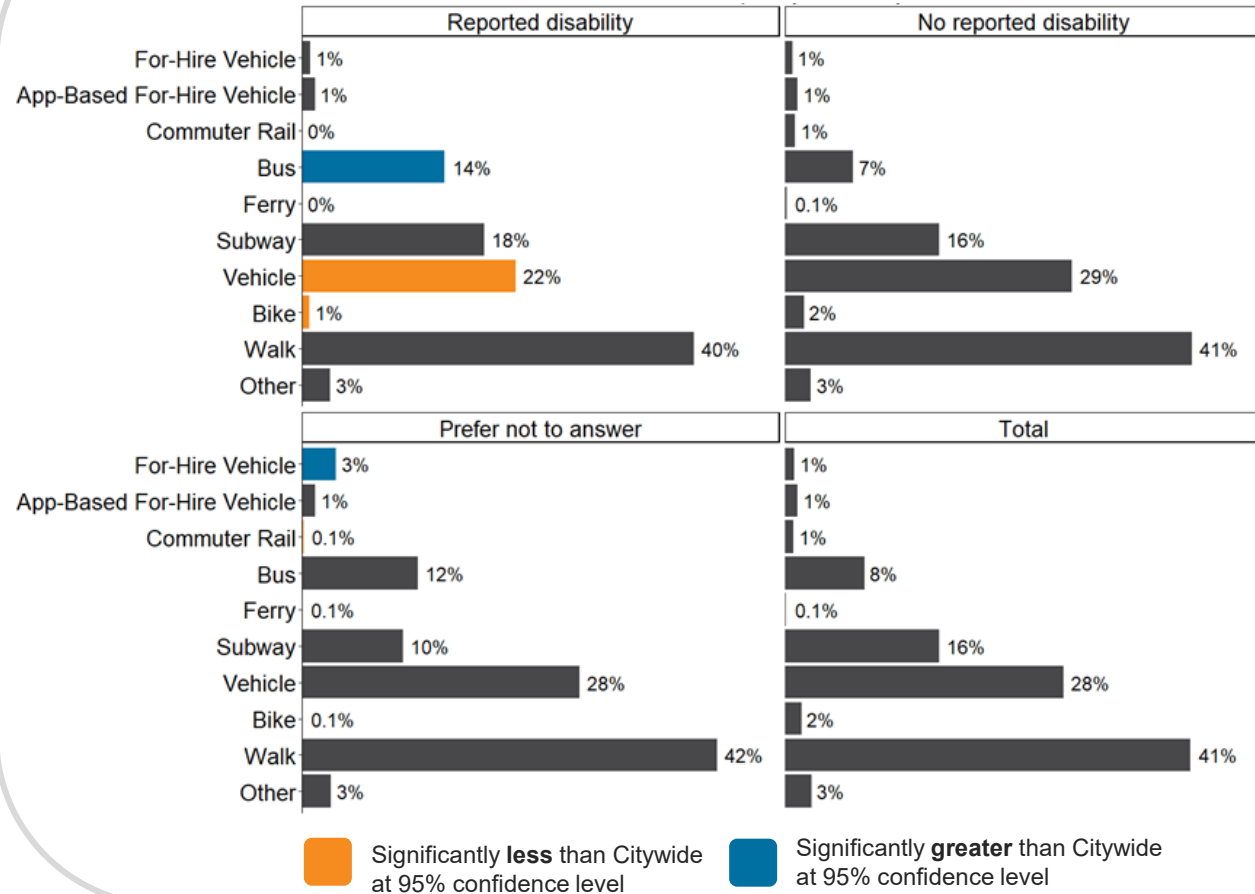
Participants who reported a disability make significantly:

- more trips by bus
- fewer trips by vehicle

In comparison to all participants.

## MODE SPLIT BY REPORTED DISABILITY

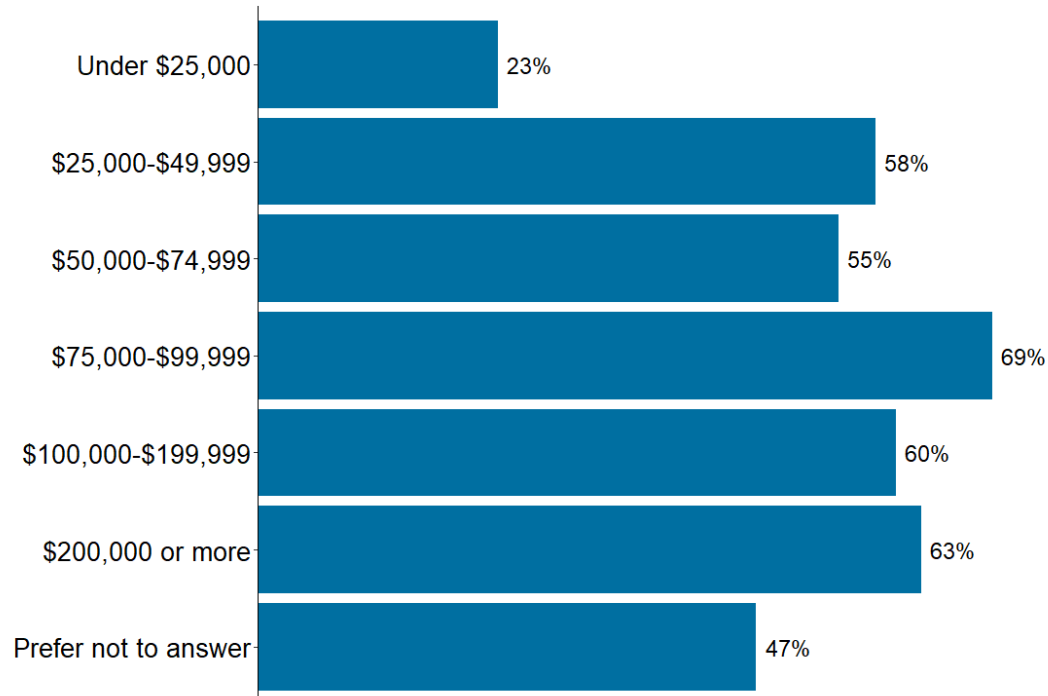
UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



# EFFECTS OF INCOME ON TRAVEL BEHAVIOR

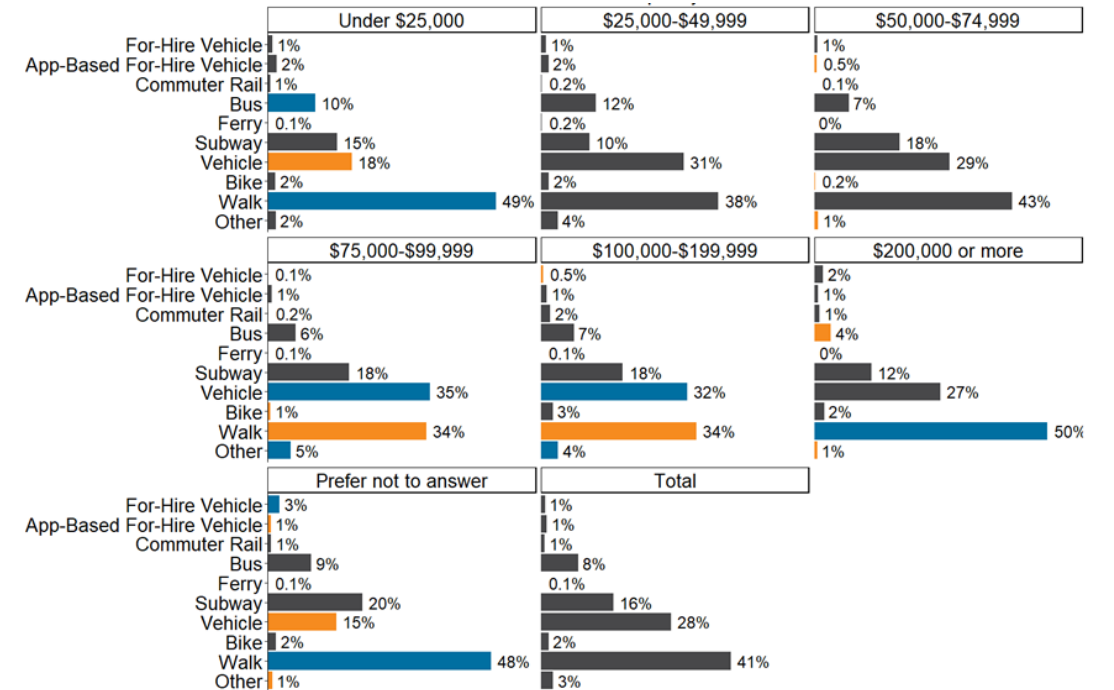
## HOUSEHOLD OWNS 1 OR MORE VEHICLES BY INCOME

UNWEIGHTED N = 3,346, WEIGHTED N = 6,670,172



## MODE SPLIT BY INCOME

UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903

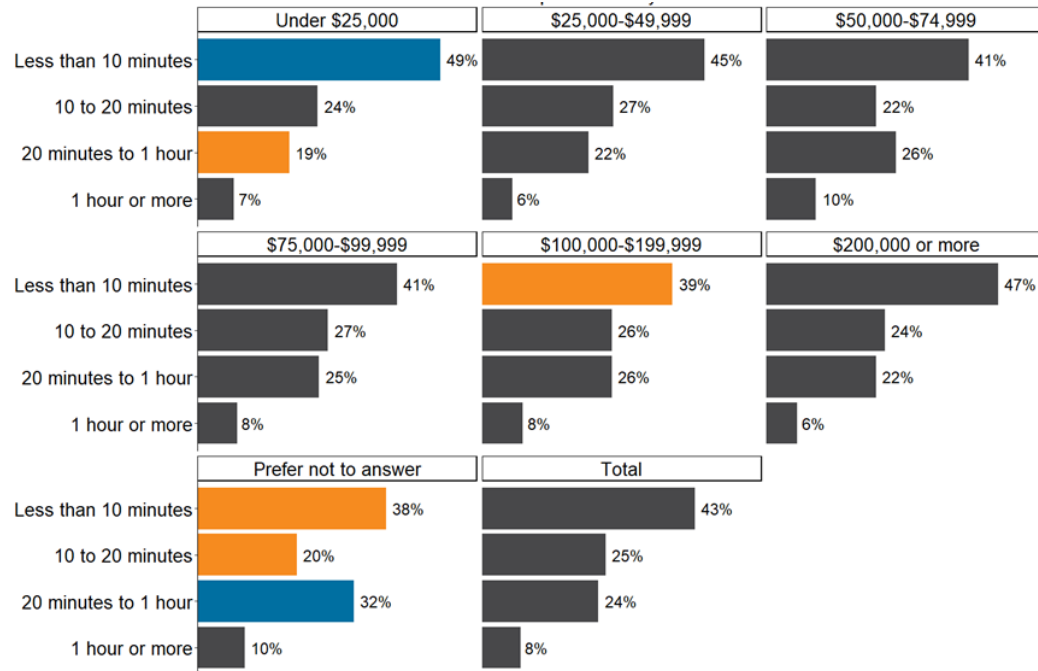


■ Significantly **less** than Citywide at 95% confidence level
 ■ Significantly **greater** than Citywide at 95% confidence level

# TRIP DISTANCE AND DURATION BY INCOME

## TRIP DURATION BY INCOME

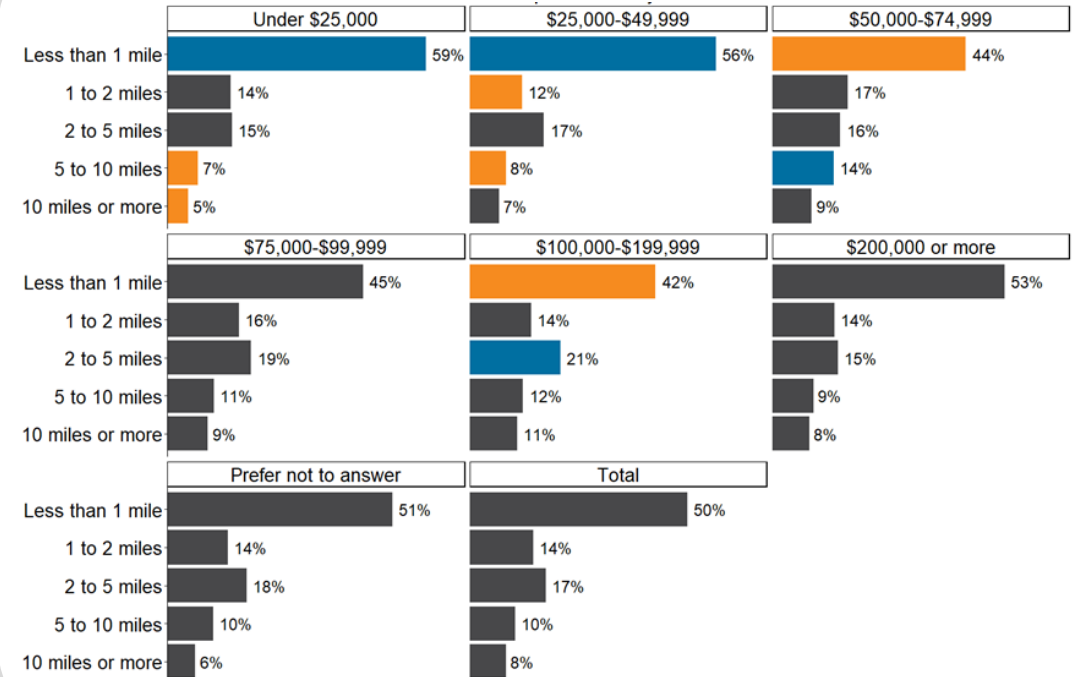
UNWEIGHTED N = 68,823, WEIGHTED N = 27,422,903



■ Significantly **less** than Citywide at 95% confidence level
 ■ Significantly **greater** than Citywide at 95% confidence level

## TRIP DISTANCE BY INCOME

UNWEIGHTED N = 68,736, WEIGHTED N = 27,149,883



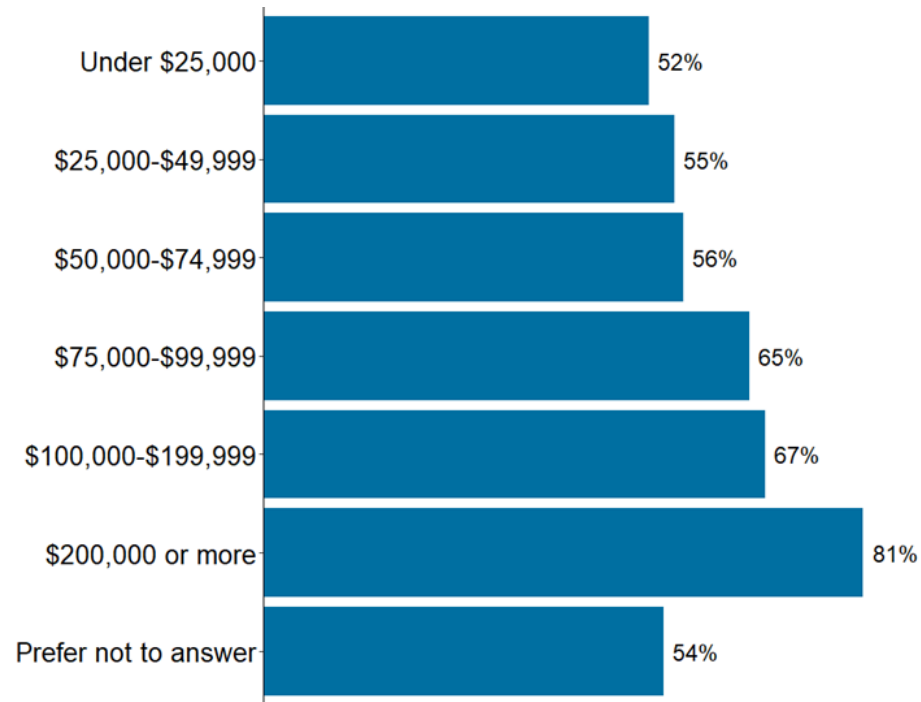
■ Significantly **less** than Citywide at 95% confidence level
 ■ Significantly **greater** than Citywide at 95% confidence level



# NEW MOBILITY SERVICES USERS BY INCOME

## PERCENT OF APP-BASED FOR-HIRE VEHICLE SERVICE USERS BY INCOME

UNWEIGHTED N = 3,254, WEIGHTED N = 6,375,373



## PERCENT OF BIKESHARE SERVICE USERS BY INCOME

UNWEIGHTED N = 3,161, WEIGHTED N = 6,261,200

