# DOWNTOWN
## 2018 COMMUTE SURVEY

CentralHouston
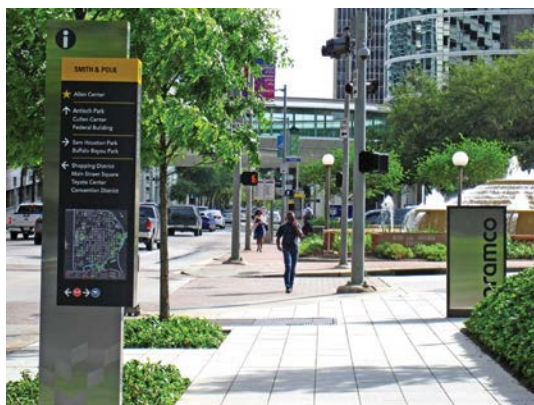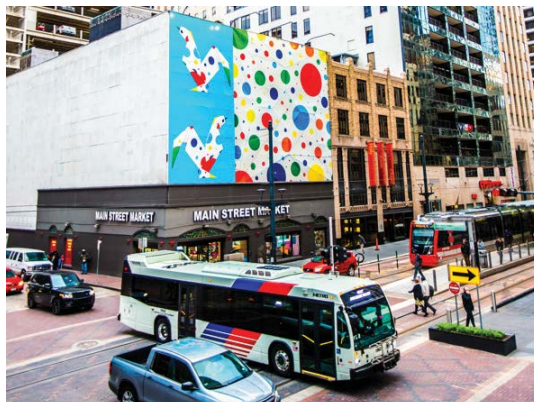
# About the 2018 Downtown Commute Survey

## About Central Houston, Inc.

Central Houston, Inc. (CHI) is a 501(c)(6) not for profit organization which serves as an advocate of the redevelopment and revitalization of Downtown and the central core, acting as a catalyst for collaboration and coordinated development through facilitation and leadership.

Downtown and the central core are the heartbeat of the city and the region; their continued health and growth is critical to the success of Houston. This is the guiding principal behind Central Houston, founded by Downtown business leaders to ensure that the center city remains vital and progressive. For more than 35 years, supported by its membership, the organization has collaborated, conceived, and implemented remarkable solutions for the complex challenges of our city. Central Houston's focus is long term and big picture.

## About the Downtown Commute Survey

CHI is committed to enhancing access and mobility to and within Downtown Houston for employees, visitors, tourists, and residents. CHI has conducted seven surveys of Downtown workers – in 1987, 1999, 2002, 2006, 2009, 2013, and 2018 – to understand commuter travel behavior.

## Download the Report

This 2018 Downtown Commute Survey Report is available online:
https://www.centralhouston.org/downtown-advantage/
https://www.downtownhouston.org/resource/transportation/

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## May 2019

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## Downtown Houston

As the center of the fourth largest city in the United States, Downtown Houston is the core of a dynamic regional economy that is shaped by the convergence of geography, history, development, natural systems, and the diverse residents calling Houston home. As the largest activity center in the eight-county region, an estimated 157,906 people worked Downtown in 2015, within the area bounded by the elevated portions of IH-45, IH-10, and IH-69.

According to the U.S. Census, Downtown employers draw workers from across the Houston region. The following kernel density map, also known as a heat map, shows where workers in Downtown Houston live within the core-based statistical area (CBSA) of Houston.

**Map 1. Residential Density of Downtown Employees - LEHD 2015**



Source: LEHD, 2015 LODES dataset

## 2018 Downtown Commute Survey

A research consultant, SSRS, was engaged to ensure that an unbiased, statistically significant sample would be achieved using a random sample from web panels. Survey deployment occurred between November 5 and November 26, with the survey garnering over 7,600 responses. The consultant weighted the survey responses to provide a representative sample of the Downtown employee population. The survey focused on commute behavior with the goal of eliciting insights to benefit employers, property owners, planners, and public policy makers.

## Methodology

Central Houston, Inc. (CHI) engaged SSRS to conduct the *2018 Downtown Commute Survey*. The primary objective of the survey was to assess how people from the Houston region commute to and from employment in Downtown and to establish the transit mode split of Downtown employees.

### SSRS Profile

SSRS is a full-service survey and market research firm managed by a core of dedicated professionals with advanced degrees in the social sciences. SSRS was established in 2008, and grew out of ICR, a survey research firm founded in 1987.  SSRS has a staff of more than 90 full-time employees including programmers, coders, project managers, operational directors, and more than 300 telephone interviewers in multiple sites across the nation.

SSRS designs and implements research solutions to complex strategic, tactical, public opinion, and policy issues in the U.S. and in more than 40 countries worldwide. The SSRS team specializes in creative problem-solving and informed analysis to meet its clients' research goals. SSRS provides the complete set of analytical, administrative and management capabilities needed for successful project execution. SSRS partners with clients interested in conducting high-quality research. In the industry, SSRS is renowned for its sophisticated sample designs and its experience with all facets of data collection, including those involving multimodal formats. SSRS also has extensive statistical and analytical capabilities for extracting important insights from the survey data and suggesting strategies based on those insights.

### Questionnaire Design

CHI provided the survey instrument to SSRS. SSRS reviewed the survey instrument and provided feedback. CHI and SSRS together finalized the questionnaire.

SSRS formatted and programmed the survey for completion online and in hardcopy paper format. The hardcopy survey was then separated and reformatted into thirteen different versions, one for each of the thirteen different primary commute modes utilized by Downtown employees. Before launching the survey online and in hardcopy, all survey versions were also translated into Spanish. Additional steps were employed to ensure a quality experience in survey administration regardless of the device utilized by respondents, whether a desktop computer, tablet, or phone.

### Sample Design: Non-Probability Panel and Hardcopy Format

SSRS utilized a non-probability web panel in combination with an open survey, for which surveys came from invitations to members of CHI to distribute to their employees. The open survey could be completed online or via a hardcopy paper survey. A valid respondent in either sample works in the Downtown District of Houston and lives in one of the surrounding counties.

### Data Collection

### Survey Sampling

The survey was conducted in both English and Spanish. SSRS managed the sample throughout the field progress, conducted interviews, and closely tracked survey completion rates. SSRS utilized SSI/Research Now panels.

Open surveys were managed by CHI and administered via a website link directing respondents to the online survey. The questionnaire was also offered in a hardcopy paper format. CHI was responsible for printing, distributing, and returning the completed hardcopy surveys to SSRS. SSRS scanned, keypunched, edited, coded, and incorporated hardcopy data into the datafile for weighting and inclusion in the final dataset.

## Survey Administration Procedures

Per standard practice on web surveys, respondents were allowed to skip any question they did not wish to answer in both the non-probability web sample and the online and hardcopy open samples. In general, this did not result in more than 2% of cases missing data for any question.

| Group A Panel Sample | Group B Open Web Sample | Group B Open Hardcopy Survey |
|---|---|---|
| 409 | 7,210 | 53 |

## Response Rate/Cooperation Rate

Response rates are one method used to assess the quality of a survey, as they provide a measure of how successfully the survey obtained responses from the sample. The American Association of Public Opinion Research (AAPOR) has established standardized methods for calculating response rates (AAPOR, 2008). The *2018 Downtown Commute Survey* completion rate is 93% among the panel sample and 75% among the open-link sample. The panel response rate was 7.9%. As it is not possible to determine the universe for the client-managed open-link web and hardcopy samples, the open-link response rate and overall combined composite response rate is unknown.

| | Group A Panel Sample | Group B Open Sample Combined |
|---|---|---|
| Invitations Sent | 16,562 | n/a |
| Click-through | 1,405 | 9,785 |
| Abandoned | 97 | 2403 |
| Terminates-Not Qualified | 899 | 119 |
| Qualified Completes | 409 | 7,263 |
| Participation Rate | 93% | 75% |
| Incidence | 31% | 98% |

## Data Processing and Integration

SSRS implemented several quality assurance procedures in data file preparation and processing. In addition to extensive testing of the web surveys prior to launching data collection, random data entries were generated to ensure that skip patterns were working correctly. After the survey launch, data was carefully checked for accuracy, completeness, and non-response to specific questions so that any issues could be identified and resolved prior to further data collection.

The data file programmer implemented a "data cleaning" procedure in which web survey skip patterns were created in order to ensure that all questions had the appropriate number of cases. This procedure involved a check of raw data by a program that consisted of instructions derived from the skip patterns designated on the questionnaire. The program confirmed that data were consistent with the definitions of codes and ranges and matched the appropriate bases of all questions.

## Weighting

Weighting balanced the demographic profile of the sample to target Downtown employee population parameters.[1] The web panel and open link samples were each weighted separately. Additionally, the entire sample was weighted as whole. This was accomplished using SPSSINC RAKE, an SPSS extension module that simultaneously balances the distributions of all variables using the GENLOG procedure. The population parameters used for post-stratification are: age (29 or younger, 30 to 54, 55 or older); gender; race (white, black, other); ethnicity (Hispanic, non-Hispanic); and education (high school graduate or less, some college, four-year college or more).

As the last stage – when weighting the entire sample as a whole – a "calibration weight" was added to reduce possible bias from the open link sample. This involved weighting the entire data to questionnaire-level "calibration benchmarks." The three calibration variables used were D3 (industry), Q7 (work schedule), and Q5 (commuting frequency).

Weights were trimmed at .1 to 10 to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of Downtown employees.

The following table compares unweighted and weighted sample distributions to population parameters.

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[1] Longitudinal Employer-Household Dynamics (LEHD) program, part of the Center for Economic Studies at the U.S. Census Bureau.

**Table 1. Sample Demographics**

| | 2015 LEHD Parameter | Unweighted Data | Weighted Data |
|---|---|---|---|
| **Education** | | | |
| 29 or younger | 16.9% | 3.7% | 18.1% |
| HS Grad | 27.3% | 12.8% | 27.5% |
| Some College/Assoc Degree | 26.9% | 67.6% | 34.8% |
| College Graduate | 28.9% | 15.9% | 19.6% |
| **Race** | | | |
| White | 70.0% | 72.8% | 71.9% |
| Black | 20.6% | 9.1% | 17.4% |
| Asian | 7.4% | 9.4% | 8.0% |
| Other | 2.0% | 8.7% | 2.7% |
| **Gender** | | | |
| Male | 57.6% | 49.5% | 56.0% |
| Female | 42.4% | 50.5% | 44.0% |
| **Age** | | | |
| 29 or younger | 16.9% | 15.9% | 19.5% |
| 30 to 54 | 60.7% | 61.3% | 57.4% |
| 55 or older | 22.4% | 22.8% | 23.1% |
| **Ethnicity** | | | |
| Hispanic | 80.7% | 15.2% | 14.4% |
| Non-Hispanic | 19.3% | 84.8% | 85.6% |
| **Calibration 1 – Industry** | | | |
| Agriculture/Mining/Construction/Manufacture | 17.6% | 45.2% | 21.0% |
| Retail/Wholesale | 5.6% | .6% | 2.8% |
| Transportation/Communication/Utilities | 21.3% | 11.5% | 19.5% |
| Financial Services/Real Estate | 8.5% | 7.0% | 8.5% |
| Business/Personal Services | 41.8% | 34.8% | 44.3% |
| Public Administration | 5.2% | .9% | 4.0% |
| **Calibration 2 – Work Schedule** | | | |
| 5 / 40 (Work five 8-hour days per week) | 62.6% | 55.1% | 64.1% |
| 9 /80 (Work eight 9-hour days, one 8-hour day, and one day off in a 2-week period) | 16.4% | 35.9% | 19.3% |
| 4 / 10 (Work four 10-hour days per week) | 8.5% | 1.7% | 6.1% |
| 3 / 12 (Work three 12-hour days per week) | 5.6% | .5% | 2.6% |
| Other (Work a schedule different from the above) | 6.8% | 6.8% | 7.9% |
| **Calibration 3 – Commuting Frequency (DAYS)** | | | |
| <1 | 3.1% | 1.4% | 3.4% |
| 1 | 3.6% | 1.5% | 3.7% |
| 2 | 8.8% | 2.1% | 5.4% |
| 3 | 9.3% | 3.9% | 8.2% |
| 4 | 12.4% | 10.7% | 12.8% |
| 5 | 51.4% | 77.1% | 58.5% |
| 6 | 4.7% | 2.4% | 3.9% |
| 7 | 6.7% | .9% | 4.1% |

## Effects of Sample Design on Statistical Analysis[2]

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. SSRS calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from a disproportionate sample design and systematic non-response. The total sample design effect for this survey is 3.55.

SSRS calculates the composite design effect for a sample of size $n$, with each case having a weight, $w$ as:

$$deff = \frac{n \sum w^2}{(\sum w)^2}$$

In a wide range of situations, the adjusted standard error of a statistic should be calculated by multiplying the usual formula by the square root of the design effect ($\sqrt{deff}$). Thus, the formula for computing the 95% confidence interval around an estimate is:

$$\hat{p} \pm \sqrt{deff} \times 1.96 \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}}$$

where $\hat{p}$ is the sample estimate and $n$ is the unweighted number of sample cases in the group being considered.

The survey's margin of error is the largest 95% confidence interval for any estimated proportion based on the total sample — the one around 50%. For example, the margin of error for the entire sample is ±2.1 percentage points. This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 2.1 percentage points away from their true values in the population. Margins of error for subgroups will be larger. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording, and reporting inaccuracy may contribute additional errors of greater or lesser magnitude.

## Deliverables

Final deliverables for this study were a weighted SPSS file, final formatted questionnaire, a topline Power Point deck for Group A (panel sample) findings, and a detailed research report for the unified weighted sample of the combined results for Groups A & B (panel sample and open survey sample).

## What does "0%" mean?

In some instances, there will be a "0%" in the findings of this report. This means there is a respondent behind the given data field but, after weighting, they represent less than 0.1%. Instead of leaving this response blank and suggesting there were no responses to the given data field, this report represents those findings with a "0%" label. A blank field or a "-" means there were no respondents for the data field.

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[2] Margins of error are typically calculated on probability-based samples and are not technically correct for non-probability online samples. We supply them here to provide a general assessment of error ranges that may be associated with the data.

## Study Area

For the purpose of this survey, the Downtown Houston study area is defined as those businesses or residences bounded within the elevated portions of IH-45, IH-10, and IH-69. The study area includes portions of ZIP codes 77002, 77003, 77020, and all of 77010 and 77201.

**Map 2. Downtown Study Area**
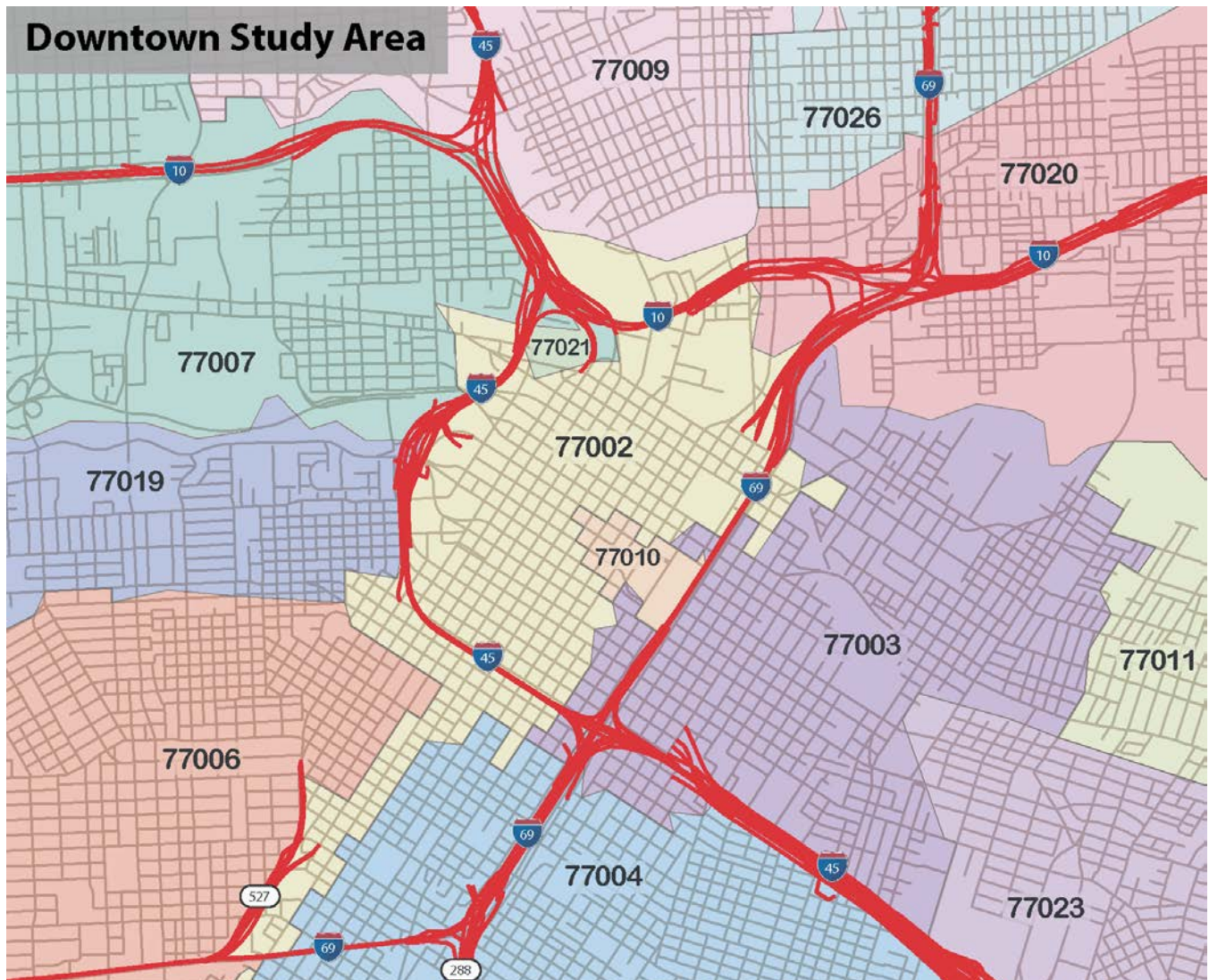


**The Downtown Study Area is bounded by IH-45, IH-10, and IH-69.**

## Respondent Workplace Concentrations

The following geocode map displays the concentration of respondent workplaces within the defined Downtown ZIP codes. Primary ZIP codes include 77002, 77010, 77201; secondary ZIP codes include 77020, 77003. More survey respondents reported employer addresses on Louisiana St. between Rusk and Pease Streets.

**Map 3. Concentration of Downtown Survey Respondents Workplaces**
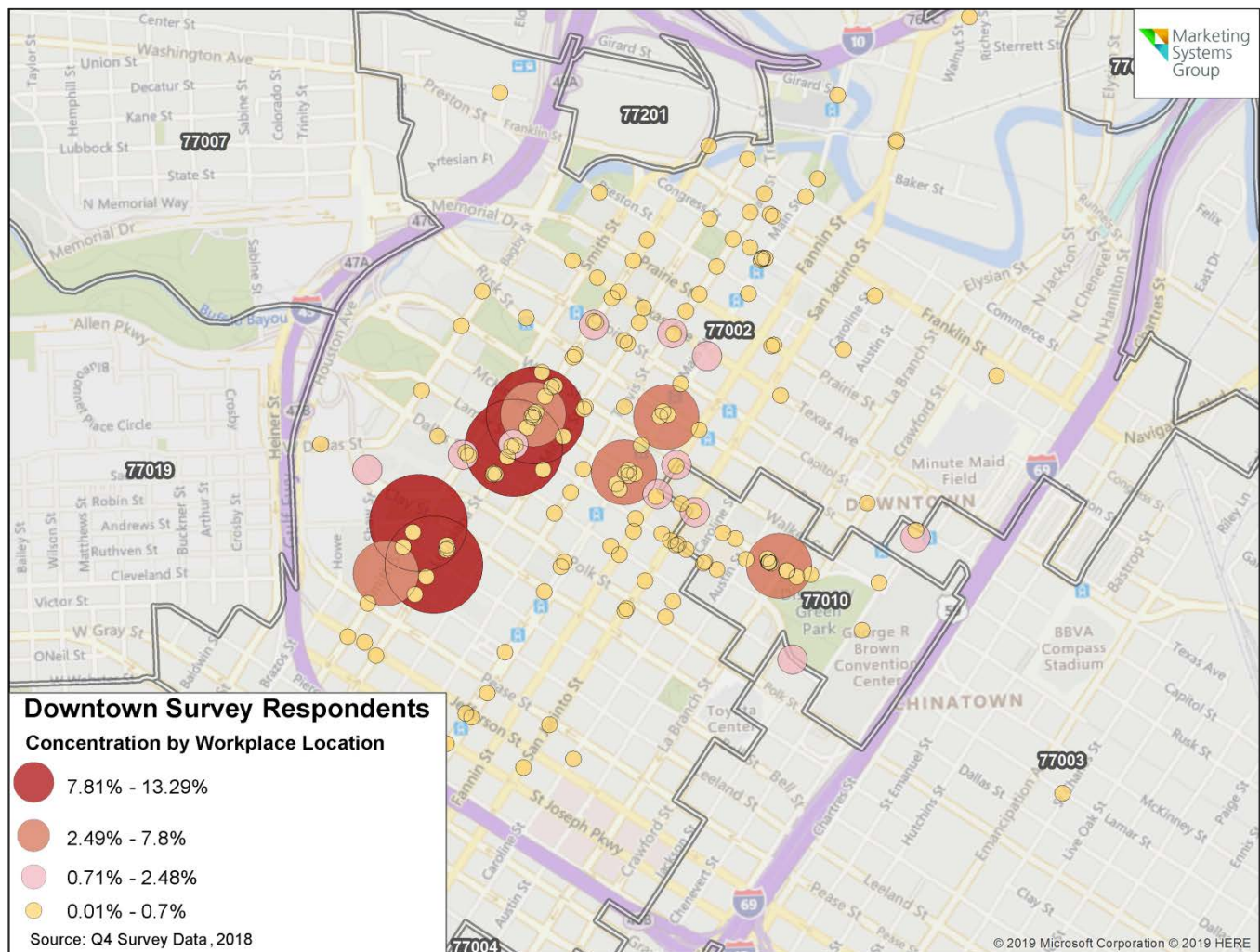


Q2. What is your work street address? │ Base: Total Downtown employees (n=7672)

## Commute Mode Split

In the *2018 Downtown Commute Survey*, respondents identified their primary commute mode – the means by which they usually commute to or from their Downtown place of employment – by selecting from one of the following thirteen options:

| | | |
|---|---|---|
| Drive Alone | Uber / Lyft | Dropped off by a family member / friend [Kiss and Ride] |
| Local Bus / Rail | Motorcycle / Moped | Employed Downtown, but primarily work at non-Downtown location |
| Park & Ride | Bicycle | Scooter [Motorized, Electrical, Kick] |
| Vanpool | Walk | Other |
| Carpool | | |

Most Downtown employees (56%) drive alone in a single-occupancy vehicle (SOV). Among the remaining 44% of employees:

- Most (31%) utilize a mode of public transit, either Park & Ride (22%) or their local bus or rail line (9%).
- One-in-fourteen (7%) share rides via a carpool (4%), vanpool (1%), or a "Kiss & Ride" (2%) (where the employee is dropped off by a family member or friend).
- Three-percent commute to work through an active mode, such as walking (2%) or biking (1%).
- Two-percent call upon an Uber or Lyft.
- One-percent take a motorcycle, moped, or scooter (motorized, electrical, or kick).
- Just less than one-percent (.8%) are employed Downtown but primarily work at a non-Downtown location.

**Figure 1. Primary Commute Mode**
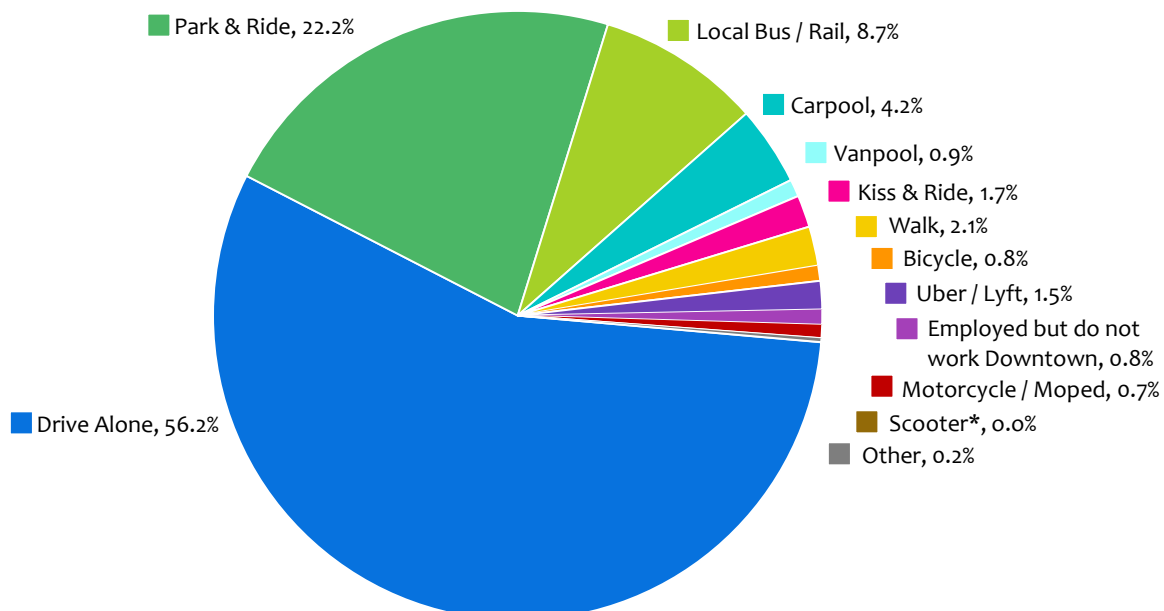


*Less than 0.1% of total weighted respondents.*
Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (n=7672)

## Regional Population Density

The total population for all Houston ZIP codes is 6,686,593. The Houston population is more concentrated in the outer ring of Beltway 8 across the northwestern, western and southern ZIP codes of Harris County. The following choropleth map displays the population density of the ZIP codes within the Houston core-based statistical area (CBSA).

**Map 4. Houston Region Population Density - Residential ZIP Code**
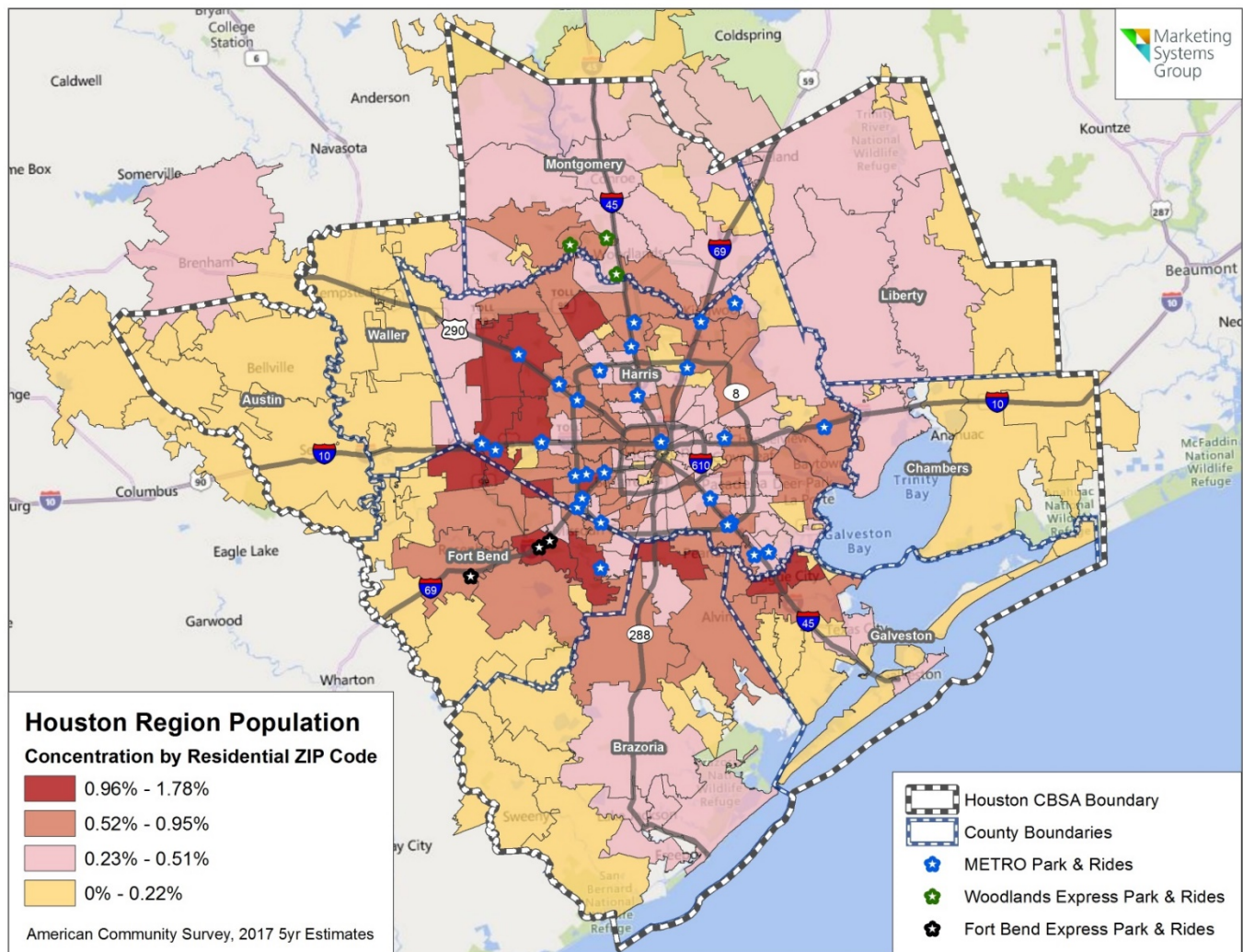


Source: American Community Survey (ACS) 2017 5-year Estimates

## Commute Distance

Respondents who participated via the open-link or hardcopy surveys provided their home ZIP code. Similar to the U.S. Census map findings, Downtown employees reside across the Houston area. There is a higher concentration of respondent residences in the 77007, 77008, 77494, 77479, and 77002 ZIP codes. The following choropleth map displays the concentration of survey respondents by their residential ZIP code. The data totals the number of survey respondents in each ZIP code and divides each by the population of the given ZIP code. These results display only those ZIP codes represented by at least one respondent.

**Map 5. Downtown Employees Surveyed - Residential ZIP Code**
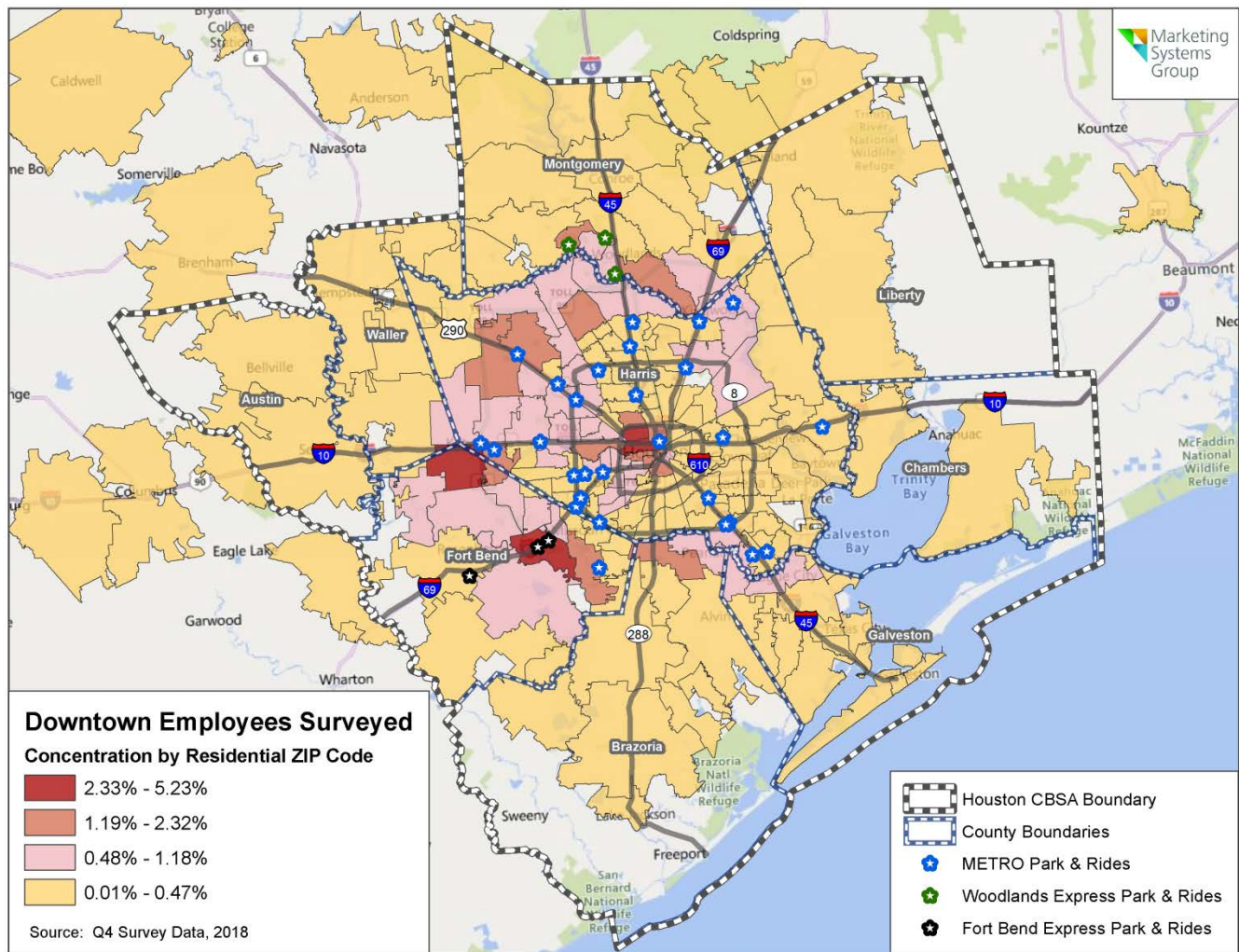


Q4. What is your home ZIP code? │ Base: Downtown employees, Group B Open Web Sample (n=7210)

In general geographical terms, employee points of origin are fairly equal across four sections of Houston, with more located between Beltway 8 and Grand Parkway (SH 99) (34%) and inside Loop 610 (28%).

### Figure 2. Houston Area of Residence

Outside Grand Parkway (SH 99), 18%

Inside Loop 610, 28%

Between Beltway 8 and Grand Parkway (SH 99), 34%

Between Loop 610 and Beltway 8, 20%
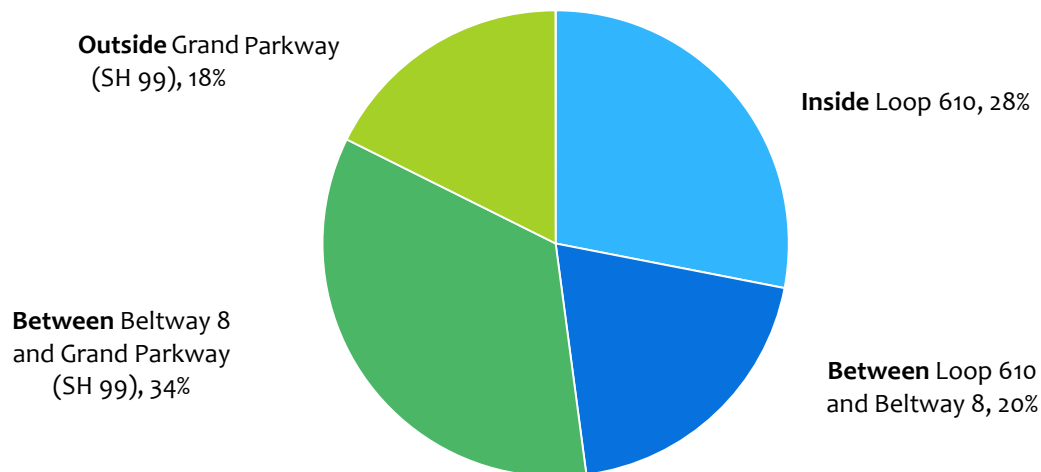
Q9. Which of the following best describes the location where you live? │ Base: Total Downtown employees (n=7672)

### Map 6. Greater Houston Area Highway Rings



**Greater Houston Area Highway Rings**

- EXISTING HIGHWAYS
- TOLL PROJECTS
- HIGHWAY PROJECTS - FUNDED
- HIGHWAY PROJECTS - NOT FUNDED
- MAJOR PROJECTS UNDER CONSTRUCTION

**Regional Geographies:** Inside Loop 610 | Between Loop 610 and Beltway 8 | Between Beltway 8 and the Grand Parkway (SH 99) | Outside the Grand Parkway (SH 99)
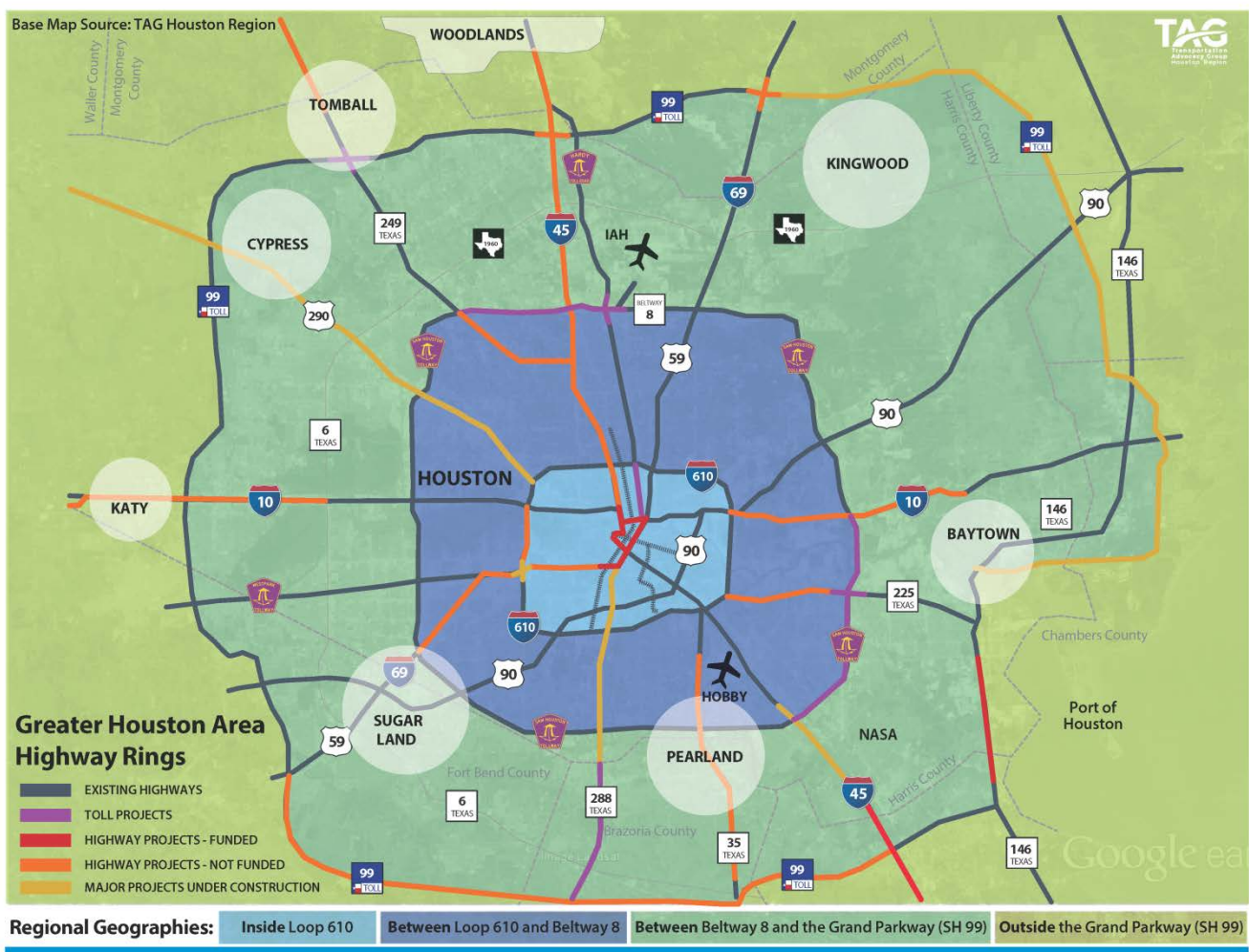
Downtown employees were prompted to select the number of miles they travel to work from the following ranges:

| | | |
|---|---|---|
| < 1 mile | 10 - 19 miles | 50 - 59 miles |
| 1 - 2 miles | 20 - 29 miles | 60 - 69 miles |
| 3 - 4 miles | 30 - 39 miles | ≥ 70 miles |
| 5 - 9 miles | 40 - 49 miles | |

The median distance traveled by Downtown employees to work is between 20 to 29 miles.

Survey responses indicate that:

- 29.2% live within 9 miles of their workplace.
- 18.4% live between 10-19 miles of their workplace.
- 28.5% live between 20-29 miles of their workplace.
- 16.6% live between 30-39 miles of their workplace.
- 7.3% live more than 40 miles from work.

**Figure 3. Miles Traveled To Work**
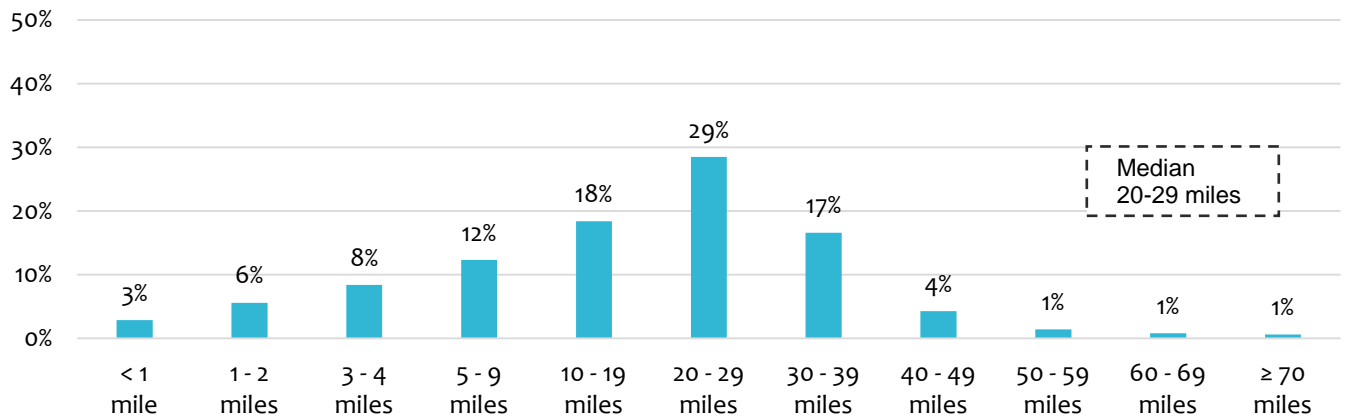


Q8. How many miles do you travel to work? │ Base: Total Downtown employees (n=7672)

Distance from place of employment directly influences an employee's primary commute mode. The median of 20-29 miles is comprised of those Downtown employees who drive alone to work, as they constitute the lion's share of the survey universe.

- Nearly all (90%) of those who actively commute to work by walking or biking live less than 4 miles from their place of employment. More than half (58%) of active commuters live within one mile.

- Conversely, Park and Ride commuters live the furthest away as the clear majority (86%) travel 20 miles or more to work. In fact, two-in-five (43%) who take Park & Ride are based 30 or more miles away from work.

- Road commuters also follow the bell curve trend, with most traveling 20 to 29 miles to work including those who drive alone (26%) and those who share rides in carpools or vanpools (39%). The exception is "Kiss & Ride" commuters who tend to travel a shorter distance to work (22%, 5-9 miles; 24%, 10-19 miles). "Kiss & Ride" commuters are dropped off by a family member / friend.

**Figure 4. Miles Traveled To Work**
*By Primary Commute Mode*
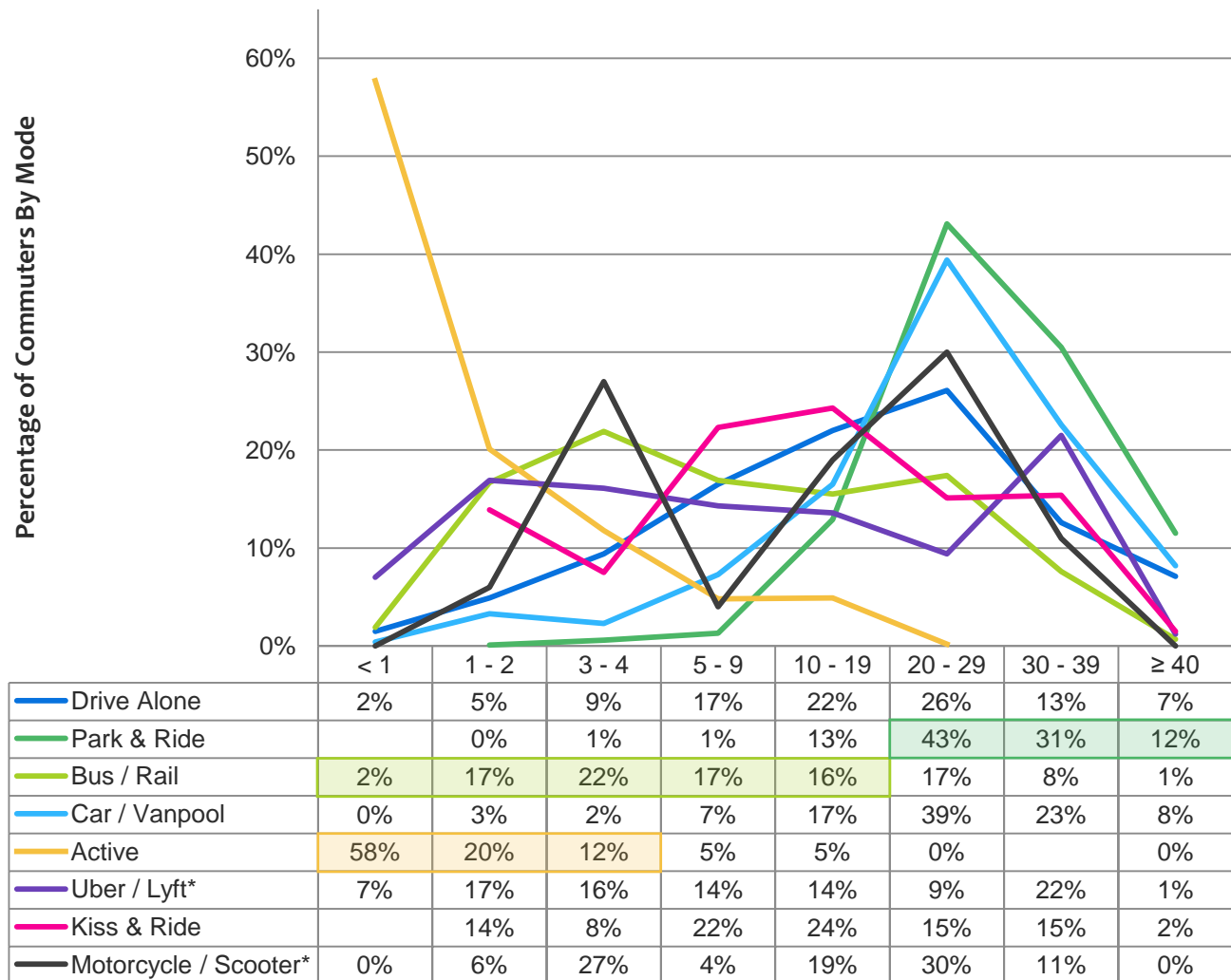
Percentage of Commuters By Mode

| | < 1 | 1 - 2 | 3 - 4 | 5 - 9 | 10 - 19 | 20 - 29 | 30 - 39 | ≥ 40 |
|---|---|---|---|---|---|---|---|---|
| Drive Alone | 2% | 5% | 9% | 17% | 22% | 26% | 13% | 7% |
| Park & Ride | | 0% | 1% | 1% | 13% | 43% | 31% | 12% |
| Bus / Rail | 2% | 17% | 22% | 17% | 16% | 17% | 8% | 1% |
| Car / Vanpool | 0% | 3% | 2% | 7% | 17% | 39% | 23% | 8% |
| Active | 58% | 20% | 12% | 5% | 5% | 0% | | 0% |
| Uber / Lyft* | 7% | 17% | 16% | 14% | 14% | 9% | 22% | 1% |
| Kiss & Ride | | 14% | 8% | 22% | 24% | 15% | 15% | 2% |
| Motorcycle / Scooter* | 0% | 6% | 27% | 4% | 19% | 30% | 11% | 0% |

Q8. How many miles do you travel to work? │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117, Motorcycle / Scooter* n=25) │ *Sample sizes less than 100 should be interpreted with caution.

Solo driving is largely the most common commute mode for Downtown employees regardless of trip distance; however, there are two exceptions to this statement:

- Employees who live less than one mile from work predominantly travel by foot to work (60%). Nonetheless, nearly three-in-ten who travel less than one mile (28%) indicated that they drive to work.

- Downtown employees who travel 30 – 39 miles to work are almost as likely to utilize Park & Ride (41%) as they are to drive alone (43%).

**Table 2. Primary Commute Mode**
*By Miles Traveled To Work*

| Distance | < 1 | 1 - 2 | 3 - 4 | 5 -9 | 10 - 19 | 20 -29 | 30 - 39 | ≥ 40 |
|---|---|---|---|---|---|---|---|---|
| **Walk** | 60% | 5% | 2% | - | - | * | - | - |
| **Bike** | 0% | 5% | 3% | 1% | 1% | - | - | 0% |
| **Bus / Rail** | 6% | 26% | 23% | 12% | 7% | 5% | 4% | 1% |
| **Uber / Lyft** | 4% | 5% | 3% | 2% | 1% | 1% | 2% | 0% |
| **Kiss & Ride** | - | 4% | 2% | 3% | 2% | 1% | 2% | 0% |
| **Motorcycle / Scooter** | - | 1% | 2% | 0% | 1% | 1% | 0% | 1% |
| **Drive Alone** | 28% | 49% | 63% | 75% | 67% | 51% | 43% | 55% |
| **Car / Vanpool** | 1% | 3% | 1% | 3% | 5% | 7% | 7% | 6% |
| **Park & Ride** | 0% | 0% | 2% | 2% | 16% | 34% | 41% | 36% |
| **N =** | 127 | 397 | 632 | 1094 | 1386 | 2156 | 1396 | 478 |

Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (n=7672) │ Highlighted cells indicate the median miles for that given primary commute mode. │ Column summation does not necessarily total 100% due to decimal rounding. In cases where rounding occurs in the same direction on the values for multiple modes in a given column, a variance of as much as 2% can result.

**Map 7. METRO Service Area**
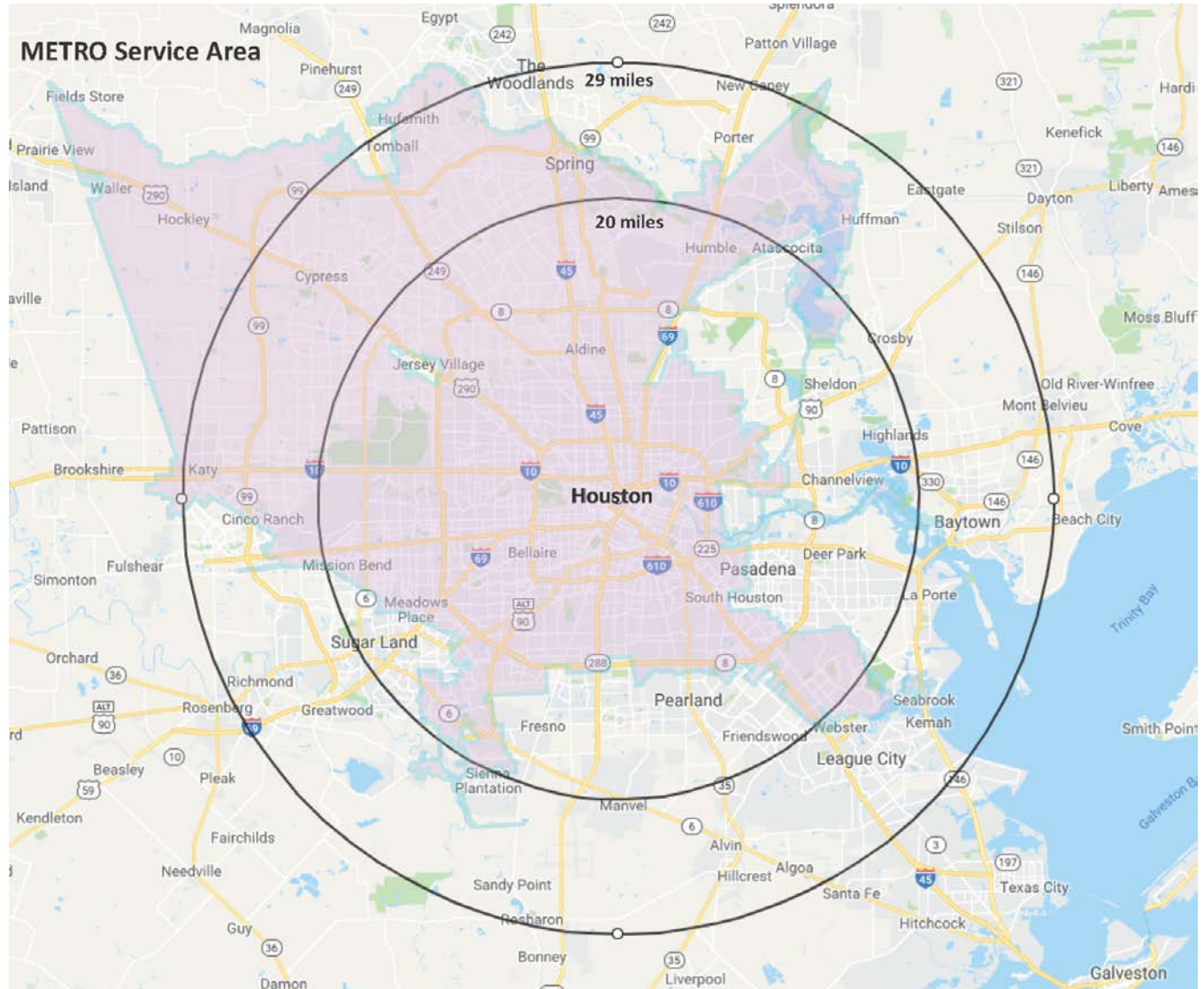


Nearly half (47%) of survey respondents live within 19 miles of Downtown and more than three-fourths (76%) live within 29 miles. The map above shows the METRO Service Area overlaid across 19- and 29-mile radial circles from Downtown. 74% of local bus / rail users travel less than 19 miles and 91% of local bus / rail users travel less than 29 miles.

There are clear indications that distance from the commute origin to one's place of work dictates primary commute mode. The horizontal blue line in the graph below is illustrative of where the majority sample begins, which also happens to correlate with shifts in commute modes.

When a Downtown employee resides within 10 miles of their place of employment, they are more likely to choose to walk, bike, or commute by local bus / rail. Once a majority within a given commute mode is based 10 miles or more away from work, they are more apt to "take to the road" and choose to share a ride with a friend or family member, or drive alone. When the majority travel 20 miles or further to work, they choose a mode which reduces the stress of commuting – carpool, vanpool, or Park & Ride.

**Figure 5. Primary Commute Mode**
*By Miles Traveled To Work*
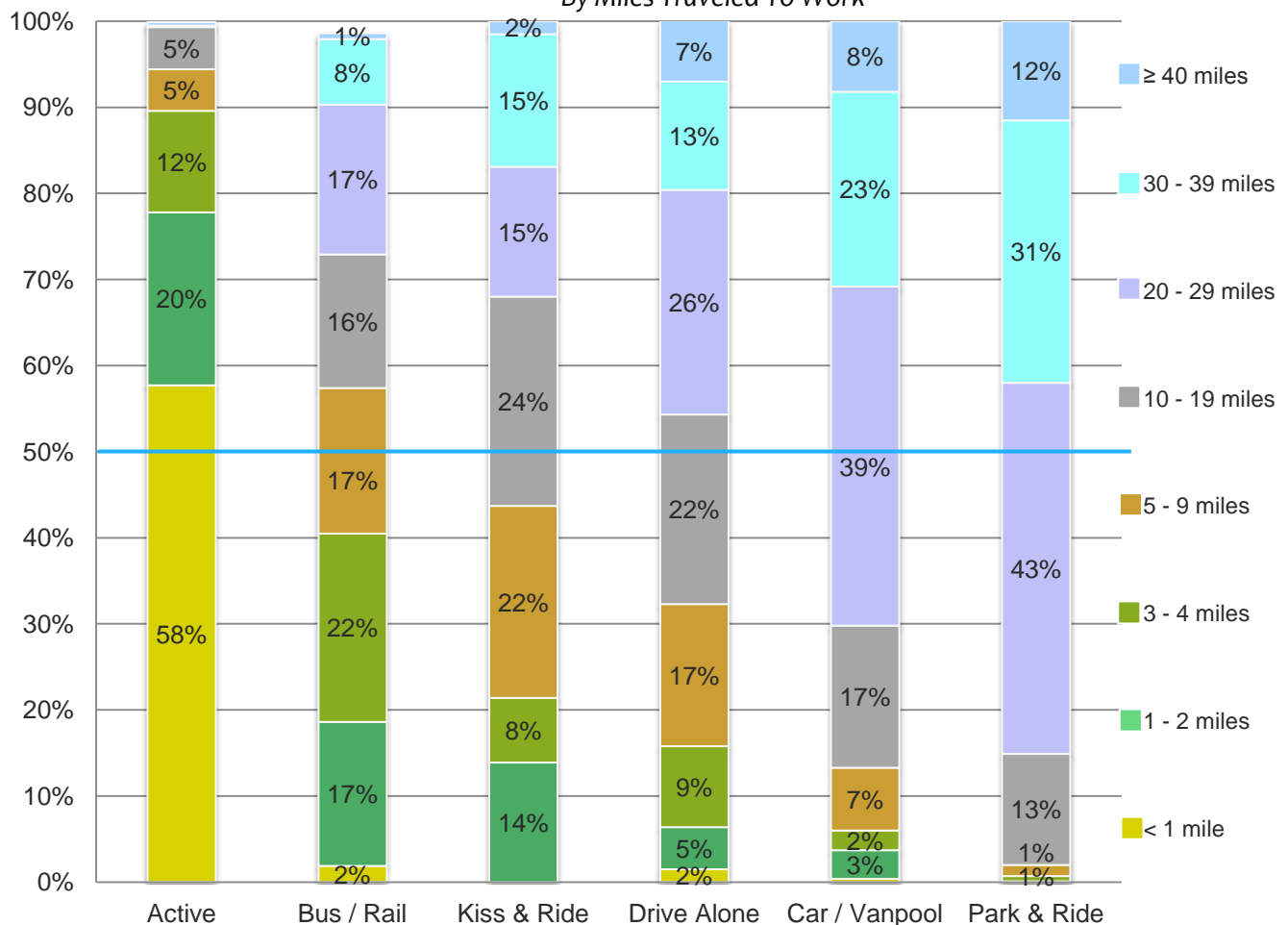


Q8. How many miles do you travel to work? | Base: Total Downtown employees (SOV n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Kiss & Ride n=117) | Motorcycle / Scooter and Uber / Lyft removed due to small base sizes.

Because commute distance was captured by respondents in aided ranges, the median commute distance is not an exact number, having been calculated through applied midpoint values for each range. However, calculating the median with midpoint values demonstrates the impact distance has on the type of commute mode Downtown employees utilize. Midpoints were applied to each range accordingly:

| Aided Range | Applied Midpoint | Aided Range | Applied Midpoint |
|---|---|---|---|
| < 1 mile | 0.5 | 30 - 39 miles | 34.5 |
| 1 - 2 miles | 1.5 | 40 - 49 miles | 44.5 |
| 3 - 4 miles | 3.5 | 50 - 59 miles | 54.5 |
| 5 - 9 miles | 7.0 | 60 - 69 miles | 64.5 |
| 10 - 19 miles | 14.5 | >= 70 miles | 75.0 |
| 20 - 29 miles | 24.5 | | |

The median carpool, vanpool, and Park & Ride commutes are the longest of all modes at 20 – 29 miles, or the 24.5 mile applied midpoint.

## Figure 6. Median Miles Traveled to Work
### *By Primary Commute Mode*



Q8. How many miles do you travel to work? │ Base: Total Downtown Employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117, Motorcycle / Scooter* n=25) │ *Sample sizes less than 100 should be interpreted with caution.

## Downtown Residents

Downtown residents are defined as individuals residing in one of three primary Downtown ZIP codes – 77002, 77003, and 77010. Of employees who responded to the *2018 Downtown Commute Survey*, four-percent live in one of the three primary Downtown ZIP codes. Primary commute habits across two ZIP code groupings (1. 77002+77010, 2. 77002+77003+77010) revealed residents from these ZIP codes are much more likely to actively commute by walking or biking and less likely to drive alone or take Park & Ride than the general Downtown employee population. Despite their proximity to Downtown, a considerable number drive alone (24%, 1. 77002+77010; 32%, 2. 77002+77003+77010).

**Figure 7. Primary Commute Mode**

*By Primary Downtown ZIP Code Groupings*



■ Total Downtown Employees　■ 1. 77002 / 77010　■ 2. 77002 / 77003 / 77010
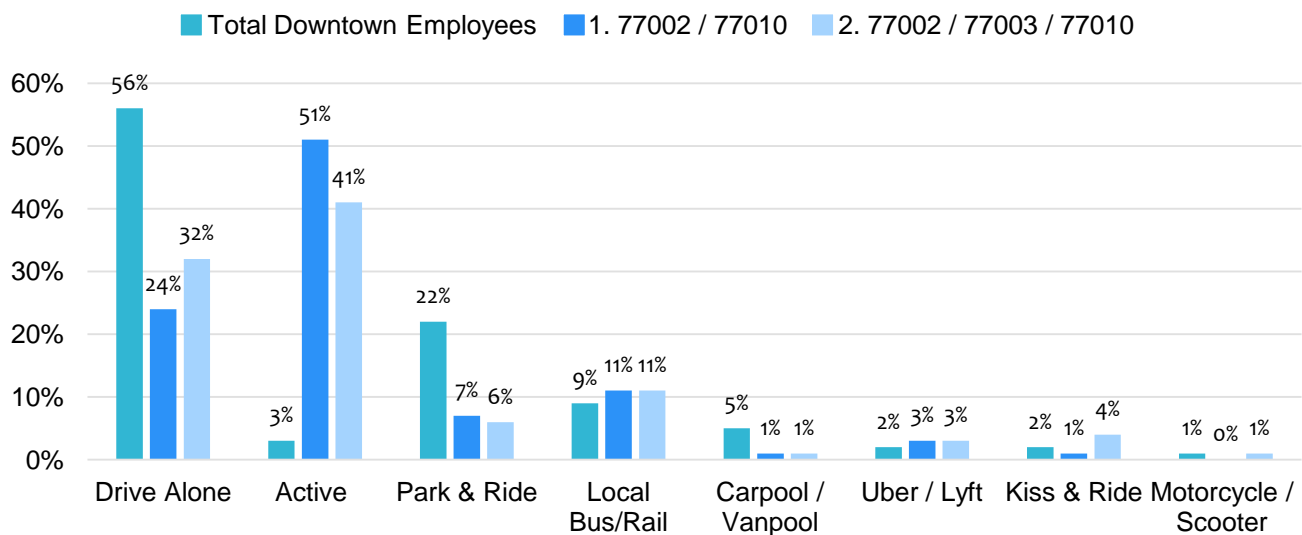
Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (n =7672, 77002 / 77010 n=199, 77002 / 77003 / 77010 n=264)

## AM Travel

The majority of all Downtown employees (60%) leave home in the morning for work before 7:30 AM. Roughly two-thirds (65%) of Downtown commuters depart for work during the METRO morning peak travel window between 6 AM and 9 AM.



**Figure 8. Home Departure Time**
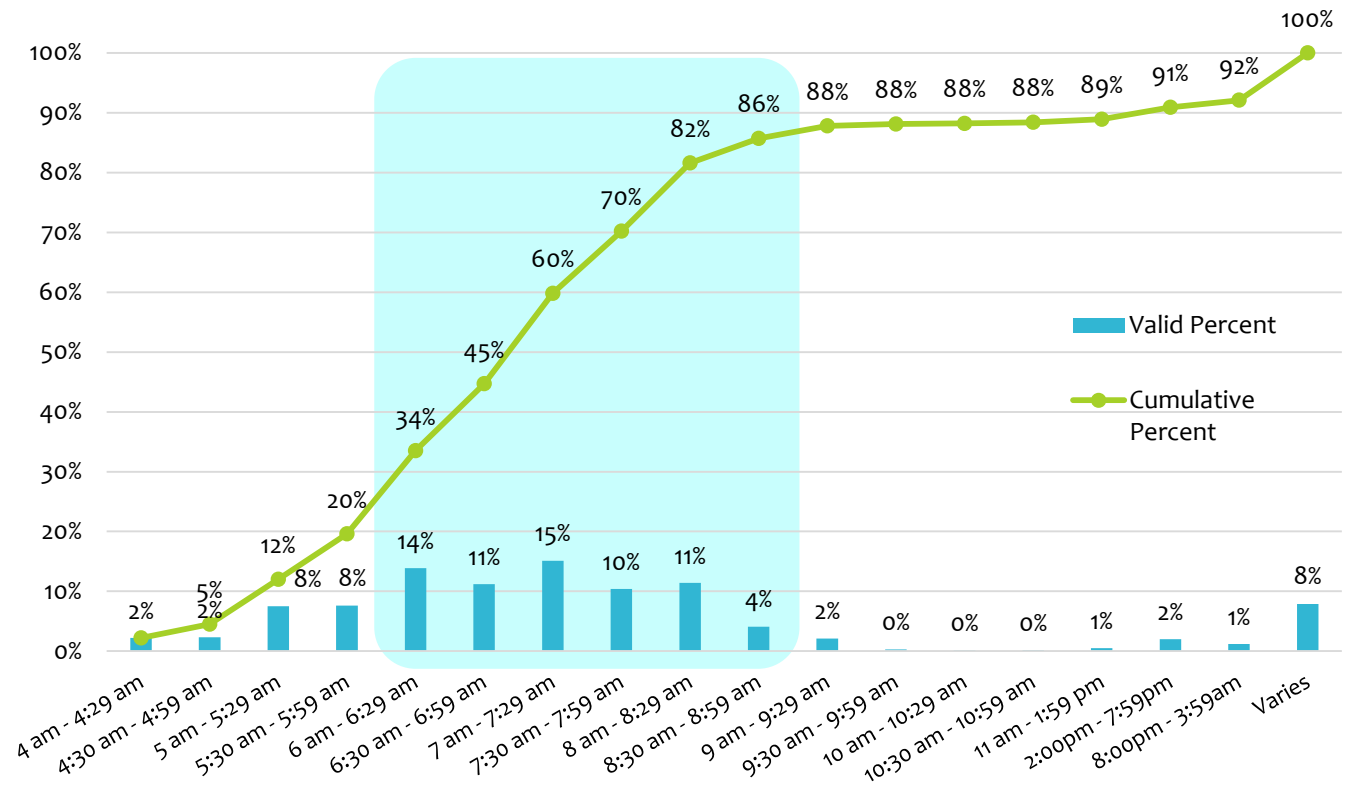
Q10. What time do you usually leave your home to go to work? │ Base: Total Downtown employees (n=7672) │ Summation of figures may show discrepancies of plus or minus 1% due to decimal rounding.

Morning departure times for Downtown employees differ by commute mode.

- Park & Riders, who travel the furthest to work on average, have a clear peak departure time between 6:00 - 6:29 AM.

- Carpool and Vanpool commuters have an elevated morning departure time of 5:30 - 5:59 AM; however, departure times remain elevated, albeit slightly less so, over the morning travel window of 6:00 AM and 8:00 AM.

- Solo drivers and local bus / rail commuters follow similar commute patterns in that both follow a low-arching bell curve towards their peak departure window of 7:00 - 7:29 AM.

- Most Kiss & Ride commuters depart between 7:30 - 7:59 AM for their morning commute.

- A larger share of active commuters walk or bike towards work between 8:00 - 8:29 AM, a later commute start than any other commute mode.

- Both Uber / Lyft and motorcycle / scooter commuters display dual peak commute patterns. Uber / Lyft commuters' peak departure windows are 6:00 - 6:29 AM and 8:00 - 8:29 AM. Motor bike commuters' peak departure windows are 7:00 - 7:29 AM and 8:00 - 8:29 AM. However, these sharper variances in their results may be attributed to their smaller base sizes, as both Uber / Lyft and Motorcycle / Scooter commute modes have less than 100 respondents each in their samples.

**Figure 9. AM Departure Times: Commute To Work**
*By Primary Commute Mode*



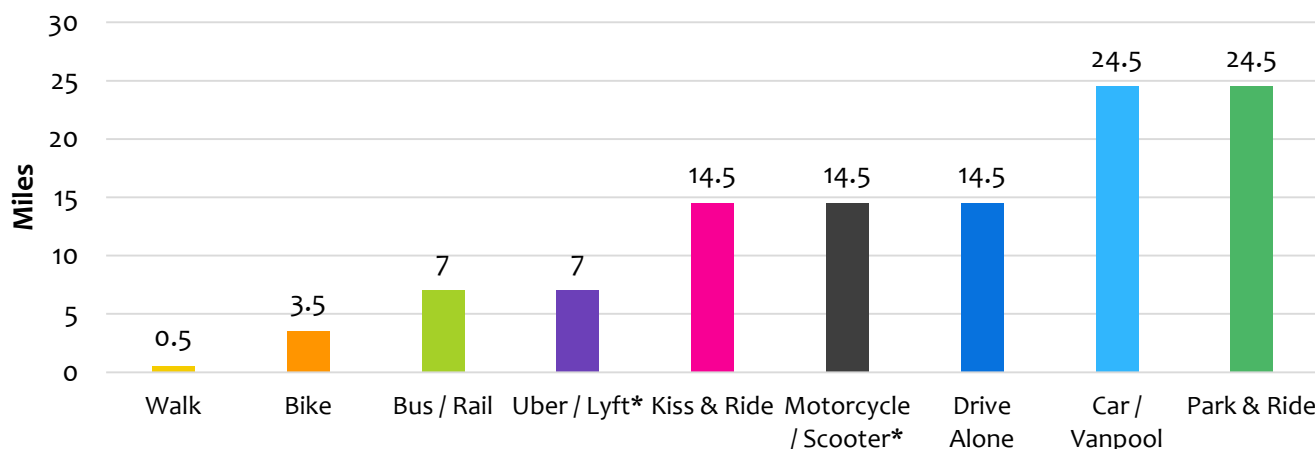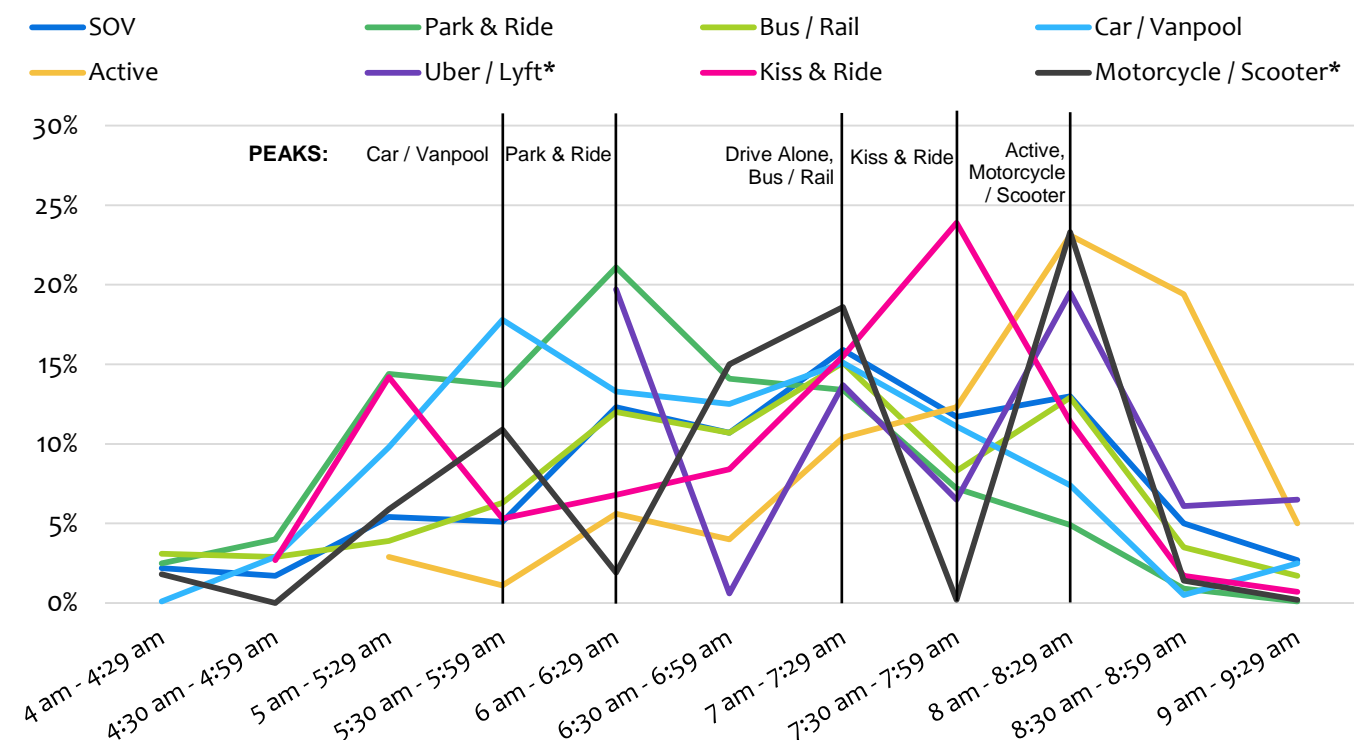Q10. What time do you usually leave your home to go to work? │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117, Motorcycle / Scooter* n=25) │ *Sample sizes less than 100 should be interpreted with caution.

The most commonly reported one-way commute length to work is between 1 hour and 1 hour and 14 minutes (25%, To Work, See Figure 10; 26%, From Work, See Figure 19). Three-in-ten employees (30%) travel to work in less than 30 minutes.

## Figure 10. Duration of Commute To Work
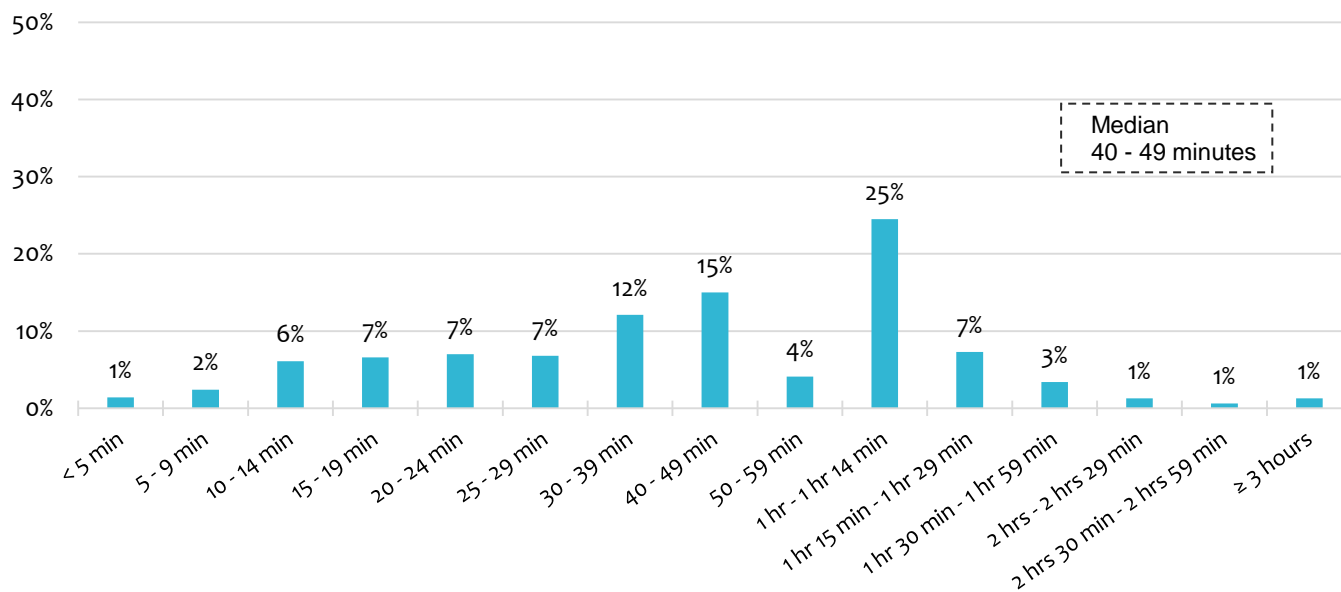


Q11. How long does it take you to get to work? │ Base: Total Downtown employees (n=7672)

The median time it takes employees to travel to work is 40 - 49 minutes, or the 44.5 minute applied midpoint. Because the length of commute to work was captured by respondents in aided ranges, calculating the median minutes traveled to work is not an exact number but rather calculated through applied midpoint values, such as with number of miles traveled. Midpoints were applied to each range accordingly:

| Aided Range | Applied Midpoint | Aided Range | Applied Midpoint |
|---|---|---|---|
| < 5 minutes | 2.5 | 50 - 59 minutes | 55.5 |
| 5 - 9 minutes | 7.0 | 1 hour - 1 hr 14 minutes | 67.0 |
| 10 - 14 minutes | 12.0 | 1 hr 15 minutes - 1 hr 29 minutes | 82.0 |
| 15 - 19 minutes | 17.0 | 1 hr 30 minutes - 1 hr 59 minutes | 104.5 |
| 20 - 24 minutes | 22.0 | 2 hrs - 2 hrs 29 minutes | 134.5 |
| 25 - 29 minutes | 27.0 | 2 hrs 30 minutes - 2 hrs 59 minutes | 164.5 |
| 30 - 39 minutes | 34.5 | >= 3 hours | 190.0 |
| 40 - 49 minutes | 44.5 | | |

Commuters who walk register the shortest median commute at 10 - 14 minutes. Park & Ride commuters endure the longest median commute of 1 hour to 1 hour and 14 minutes. While more local bus / rail commuters live close to work (median 5 - 9 miles), they indicated that they experience the same lengthy commute – median 40 - 49 minutes – as drive alone commuters living further from their place of work (median 10 - 19 miles).

**Figure 11. Median Minutes Traveled To Work**
*By Primary Commute Mode*
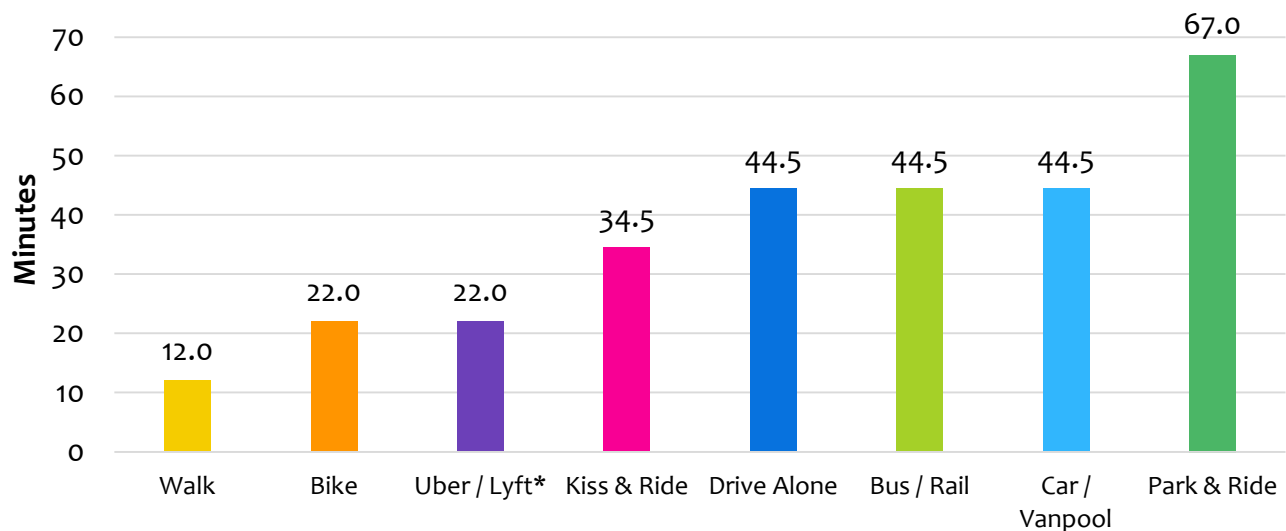


Q11. How long does it take you to get to work? │ Motorcycle / Scooter omitted from the graph due to small base size. │ Base: Total Downtown Employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution.

Commute lengths across modes follow an upward bell curve culminating at 1 hour to 1 hour 14 minutes. The only exception is active commuters who have two peaks, at less than 5 minutes (24%) and at 10-14 minutes (26%), trending downward thereafter.

**Figure 12. Duration of Commute To Work**
*By Primary Commute Mode*
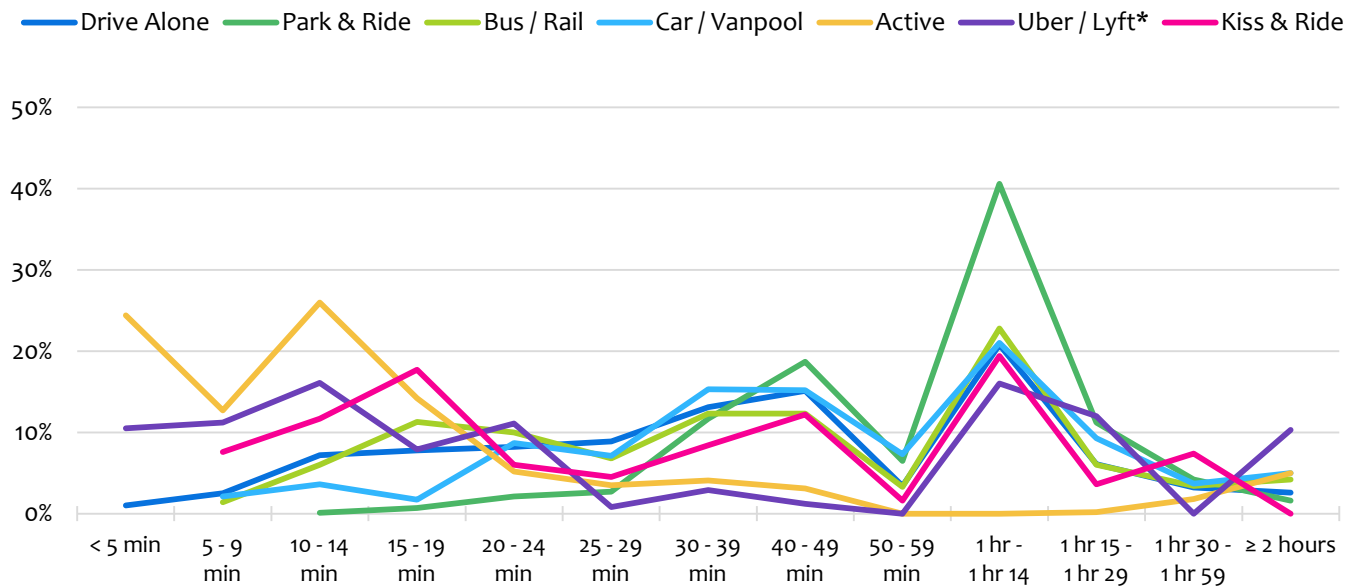


Q11. How long does it take you to get to work? │ Motorcycle / Scooter omitted from the graph due to small base size. │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution.

Most Downtown commuters (79%) head in directly and do not make stops on their way to work. Among the one-in-five making stops, most (14%) make just one stop before work.

**Figure 13. Number of Stops During Commute To Work**
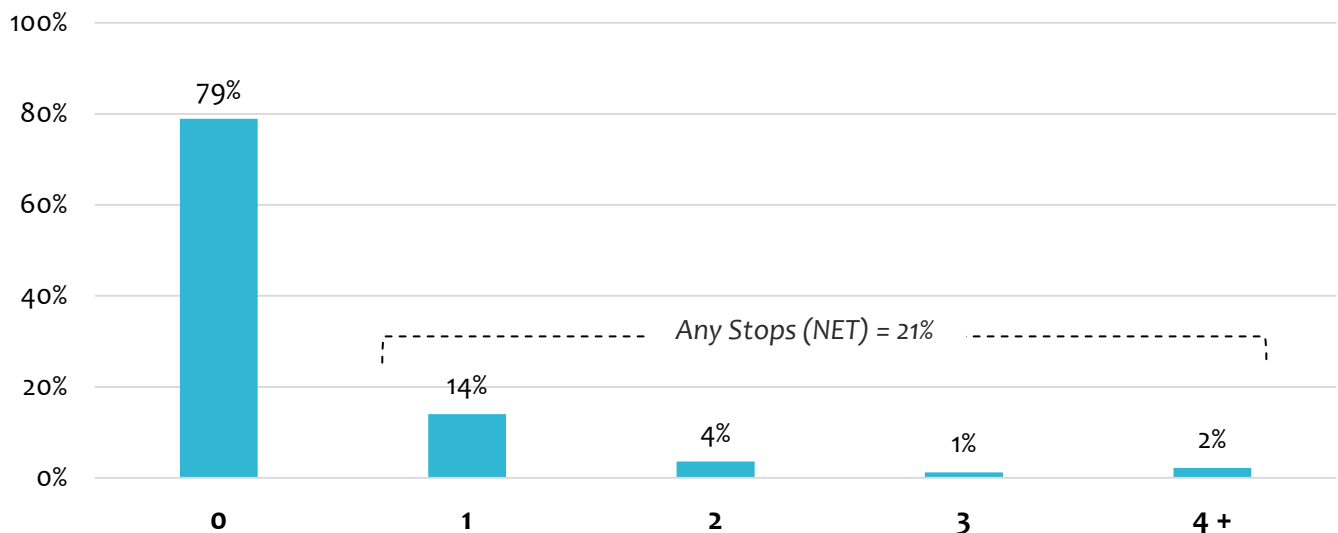


Q12. How many stops do you usually make on your way to work? │ Base: Total Downtown employees (n=7672)

The likelihood of stopping on the way to work is influenced by Downtown employees' primary commute mode. While a majority across all commute types do not make any stops, those who commute by local bus / rail or Uber / Lyft (39% each) are more likely to make stops, with one-quarter each (24%) making two or more stops on their way to work. Nearly all active commuters (92%) make no stops on their way in to work.

### Figure 14. Number of Stops During Commute To Work
*By Primary Commute Mode*
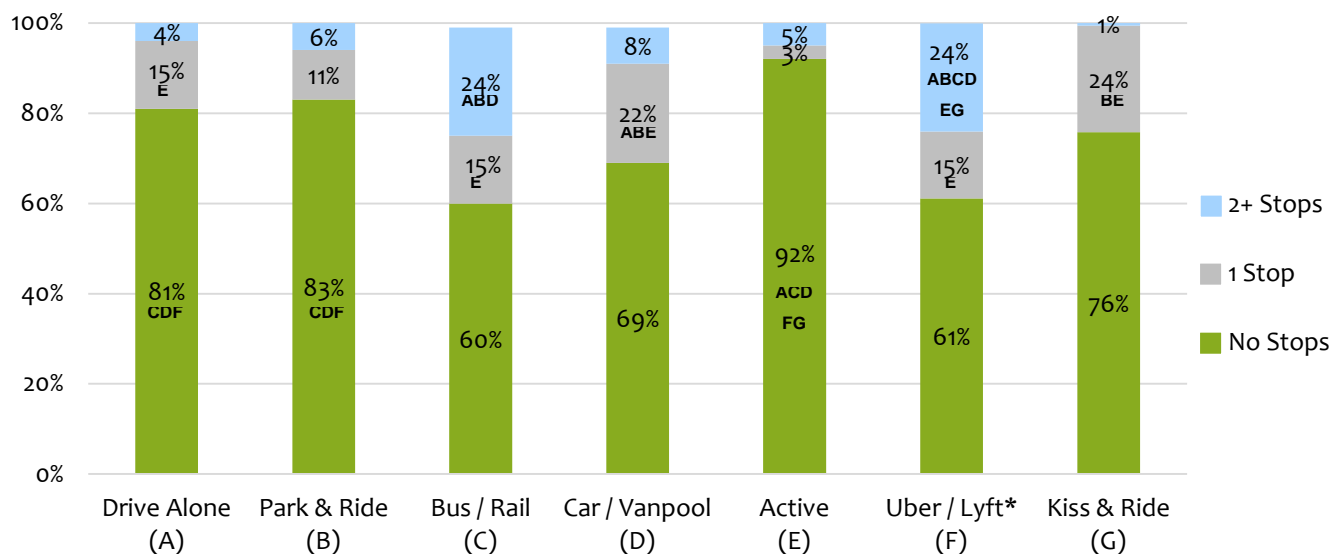


Q12. How many stops do you usually make on your way to work? │ Motorcycle / Scooter omitted due to very small sample size. │ Base: Total Downtown employees (SOV n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be analyzed with caution. │ ᴬᴮᶜᴰᴱᶠᴳ indicates significant differences at a 95% confidence level.

Among the one-in-five Downtown commuters (21%) who make stops on their way in to work, the most common reason to do so is to pick up food or beverage (46%). Another third make stops related to dependent care (33%), primarily childcare (28%).

### Figure 15. Stop Types During Commute To Work
*Among Those Who Make Stops*
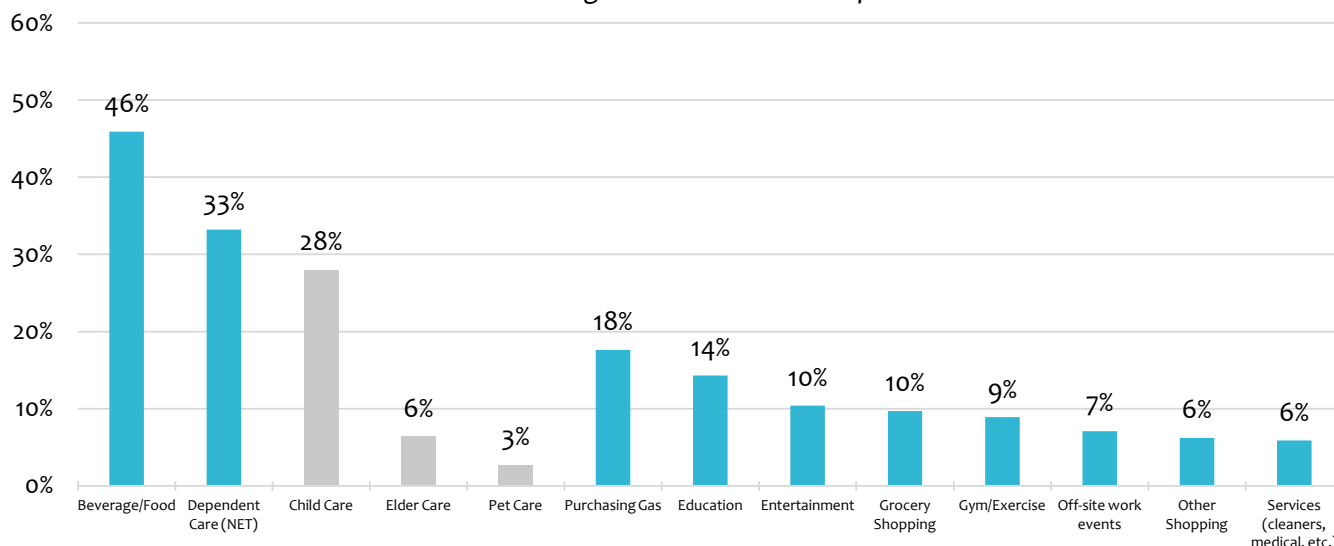


Q13. What type of stops do you usually make on your way to work? │ Some respondents utilize multiple types of Dependent Care. │ Base: Total Downtown employees who make stop(s) during commute to work (n=1211)

Primary commute mode also influences the nature of stops made:

- More solo drivers (54%) and local bus / rail commuters (51%) stop for beverage or food on their way in to work than do those commuting via other modes.

- Park & Ride commuters are nearly as likely to make stops to purchase gas (32%) as they are to make stops related to childcare (28%) or for beverage / food (26%).

- Significantly more solo drivers make stops related to education (19%) on their way in to work than do other commute modes.

- Stops related to child care account for one-third to one-fourth of stops for those driving alone (34%), Park & Ride (28%), and carpool / vanpool (27%).

**Figure 16. Stop Types During Commute To Work**
*By Primary Commute Mode*
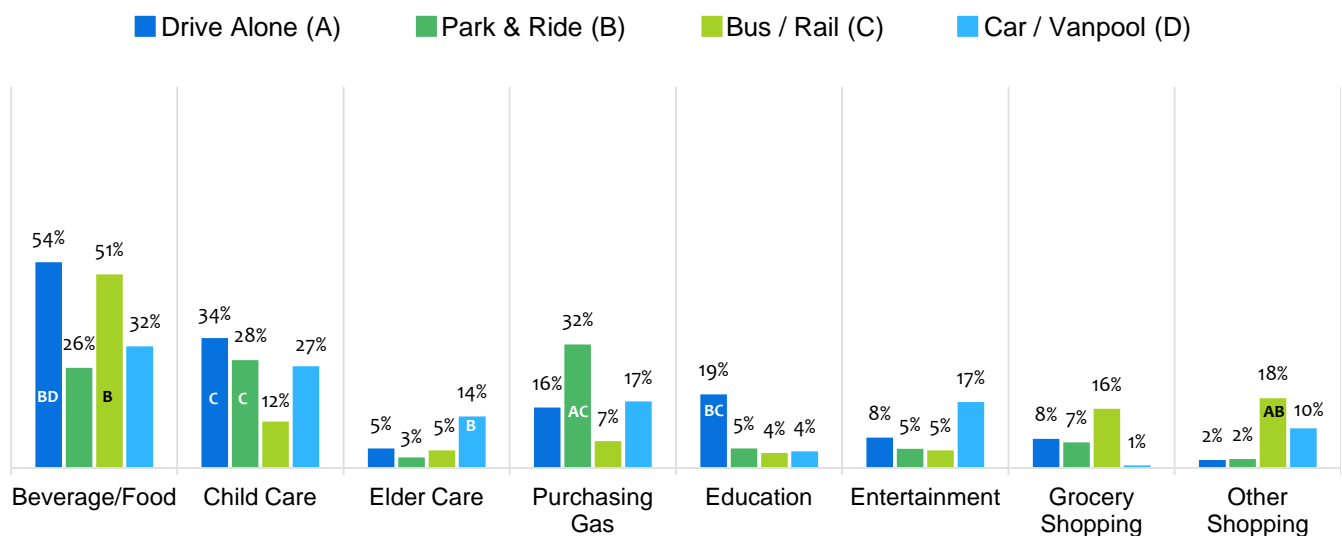


Q13. What type of stops do you usually make on your way to work? │ Base: Total Downtown employees who make stop(s) during commute to work (Drive Alone n=642, Park & Ride n=286, Local Bus / Rail n=111, Carpool / Vanpool n=112) │ ABCD indicates significant differences at a 95% confidence level.

## PM Travel

Most Downtown employees (75%) leave work by 6:30PM. The METRO evening peak travel time falls between 3 PM and 6 PM, with about two-in-three (63%) Downtown commuters departing work during that window.

**Figure 17. Work Departure Time**
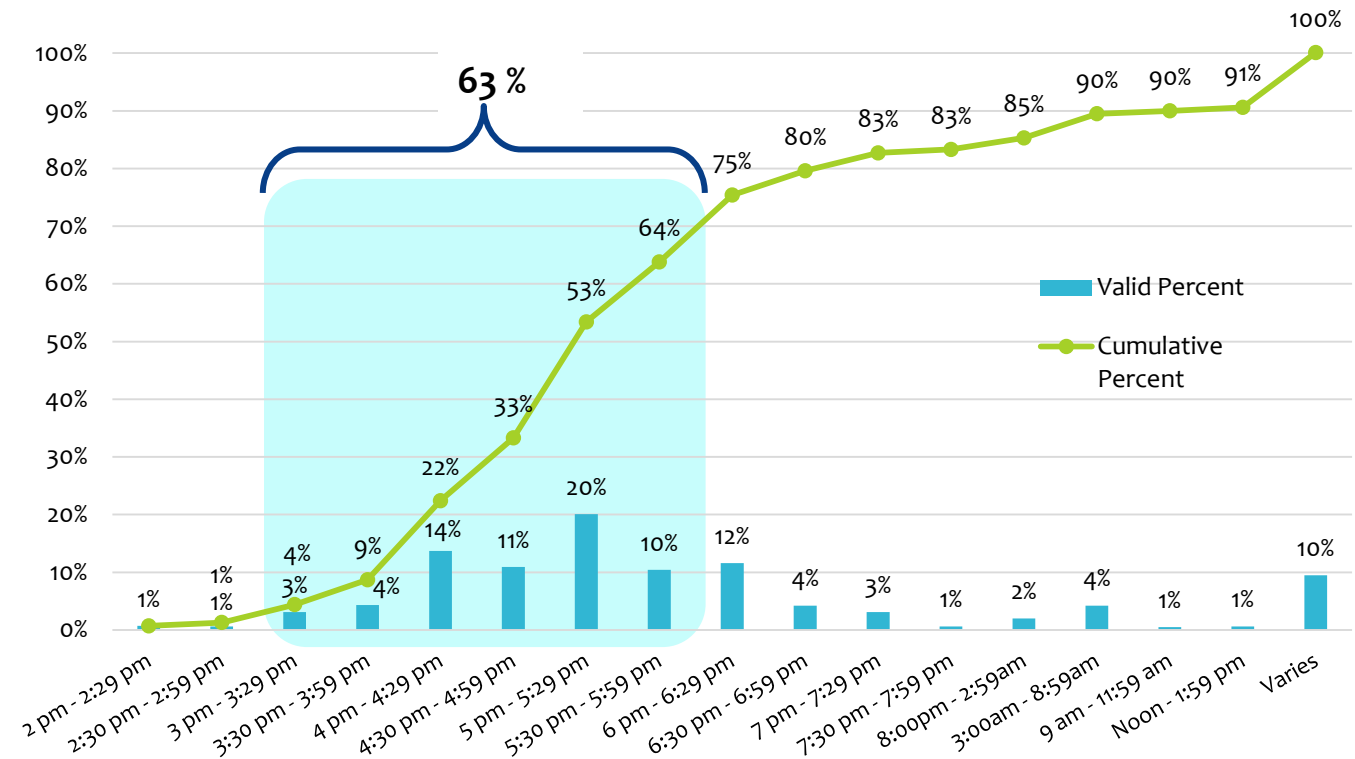


Q14. What time do you usually leave work? │ Base: Total Downtown employees (n=7672) │ Summation of figures may show discrepancies of plus or minus 1% due to decimal rounding.

Overall, 5:00 - 5:29 PM is the most common time range for Downtown employees to depart work. Primary commute mode affects the time at which Downtime employees usually leave work.

- Carpool and vanpool commutes have an initial peak departure time between 4:00 - 4:29 PM and a second peak at the median period of 5:00 - 5:29 PM.

- Kiss & Ride commuters depart over an elongated bell curve, with the uptick starting at 4:00 PM and sustaining through 5:59 PM before declining.

- Slightly more active commuters walk or bike home after work during the peak 5:00 - 5:29 PM window. However, this mode experiences a second peak at 6:00 - 6:29 PM, after the peak rush.

- Similar to the AM departure findings, Uber / Lyft commuters have a variable departure trend as there is no true pattern or consistency to their departure time. This may be attributed to their smaller base size, as Uber / Lyft commute mode has less than 100 respondents in the sample.

- All other modes – drive alone, Park & Ride, local bus / rail – follow the trend of the bell curve, peaking at the 5:00 -5:29 PM window.

**Figure 18. PM Departure Times: Commute From Work**
*By Primary Commute Mode*
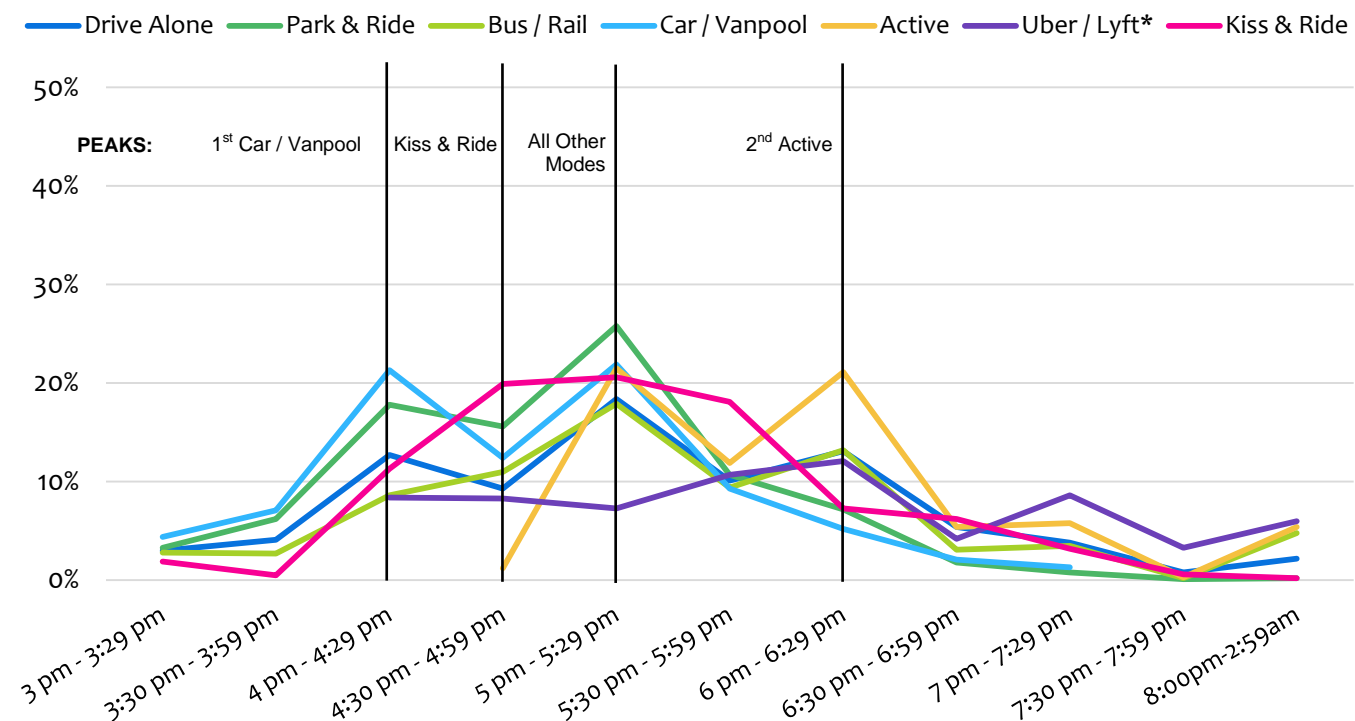


Q14. What time do you usually leave work? │ Motorcycle / Scooter omitted due to very small sample size. │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution.

Similar to the commute to work, the most commonly reported one-way commute length from work is between 1 hour and 1 hour and 14 minutes (26%). One-in-four employees (25%) travel home from work in under 30 minutes. Noticeably more commuters spend between 1 and 2 hours during the outbound commute (44%) than during the inbound commute (35%). Commute times from work tend to be longer than commute times to work.

**Figure 19. Duration of Commute From Work**
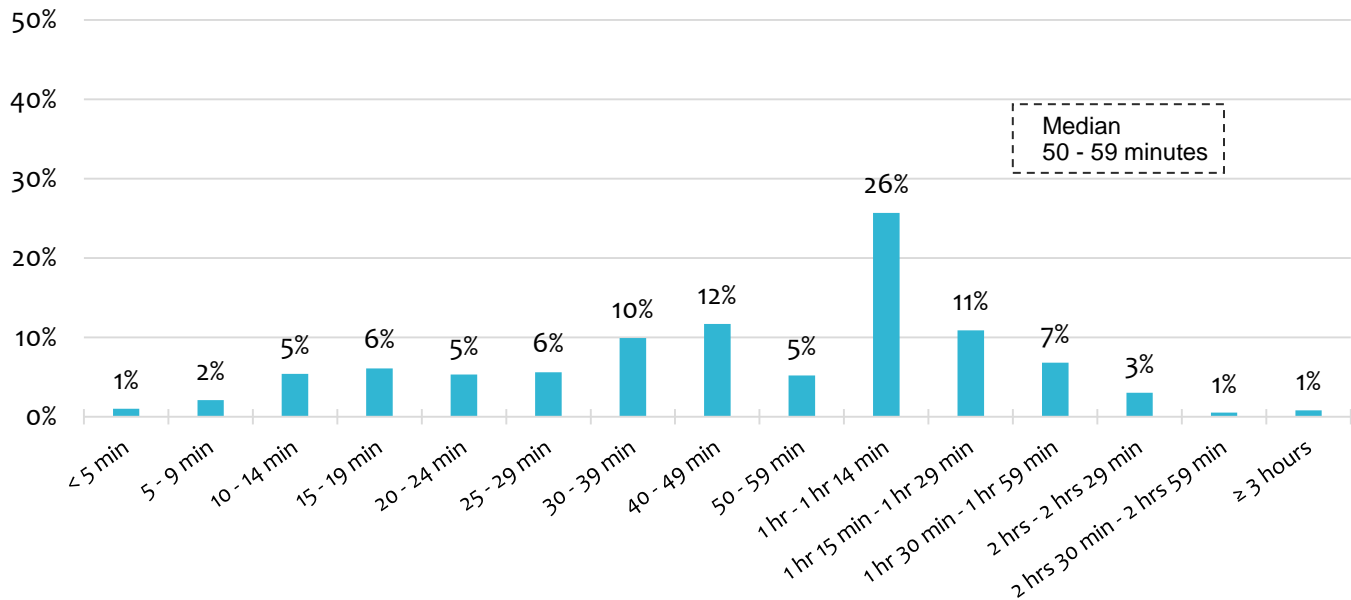


Q15. How long does it usually take you to get from work to home? │ Base: Total Downtown employees (n=7672)

The median time employees spend commuting from work is 50 - 59 minutes, or the 55.5 minute applied midpoint. Because the length of commute after work was captured by respondents in aided ranges, calculating the median minutes traveled from work is not an exact number but rather calculated through applied midpoint values, such as with number of miles traveled. Midpoints were applied to each range accordingly:

| Aided Range | Applied Midpoint | Aided Range | Applied Midpoint |
|---|---|---|---|
| < 5 minutes | 2.5 | 50 - 59 minutes | 55.5 |
| 5 - 9 minutes | 7.0 | 1 hour - 1 hr 14 minutes | 67.0 |
| 10 - 14 minutes | 12.0 | 1 hr 15 minutes - 1 hr 29 minutes | 82.0 |
| 15 - 19 minutes | 17.0 | 1 hr 30 minutes - 1 hr 59 minutes | 104.5 |
| 20 - 24 minutes | 22.0 | 2 hrs - 2 hrs 29 minutes | 134.5 |
| 25 - 29 minutes | 27.0 | 2 hrs 30 minutes - 2 hrs 59 minutes | 164.5 |
| 30 - 39 minutes | 34.5 | >= 3 hours | 190.0 |
| 40 - 49 minutes | 44.5 | | |

Commuters who walk register a median of 12 minutes for their commute into work as well as their commute from work. Park & Ride commuters endure the longest median commute at 67 minutes both to and from work. While local bus / rail commuters indicated they live close to work (median 5 - 9 miles), they indicated the same median length of commute – 40 - 49 minutes – as drive alone commuters living further from their place of work (median 10 - 19 miles).

**Figure 20. Median Minutes Traveled From Work**
*By Primary Commute Mode*
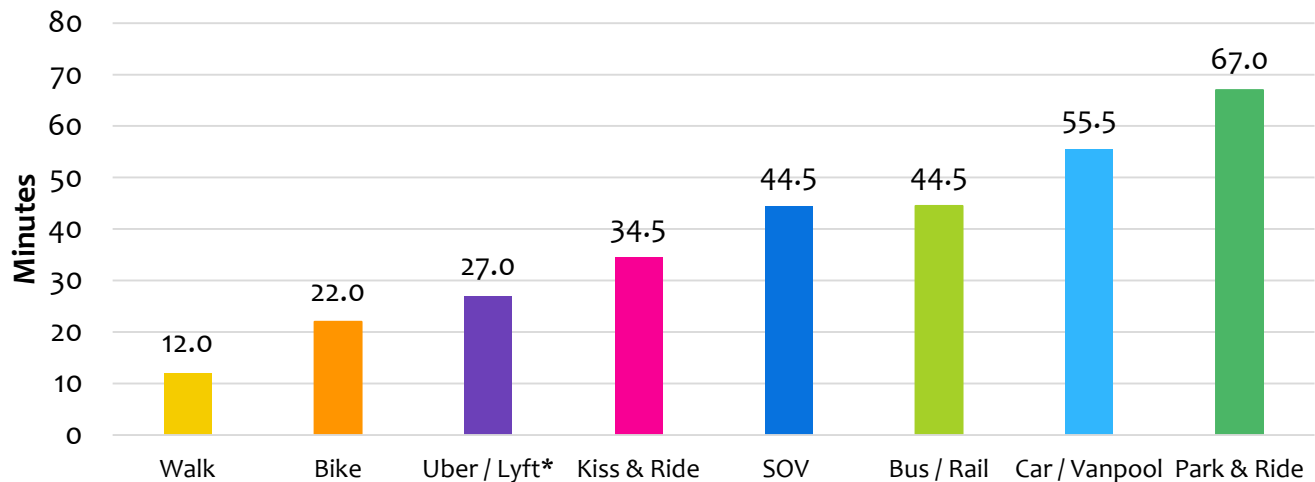


Q15. How long does it usually take you to get from work to home? │ Motorcycle / Scooter omitted from the graph due to small base size. │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution.

Most commuters, across modes, follow a similar curve where commute lengths after work follow an upward trend which culminates at 1 hour to 1 hour 14 minutes; following the same trends as commuting to work with interesting differences, noted below:

- Kiss & Ride commute lengths spike twice on travel from work at 25 – 29 minutes and again at 1 hour – 1 hour 14 minutes.

- Uber / Lyft commuters have a less consistent travel pattern with more spending 10 – 14 minutes commuting after work; their trendline remains flat relative to other modes, indicating a more variable commute pattern.

- Park & Ride commuters report the longest commute in both directions with two-in-five spending 1 hour – 1 hour 14 minutes commuting each way (See Figure 10. "Duration of Commute to Work," page 28).

**Figure 21. Duration of Commute From Work**
*By Primary Commute Mode*
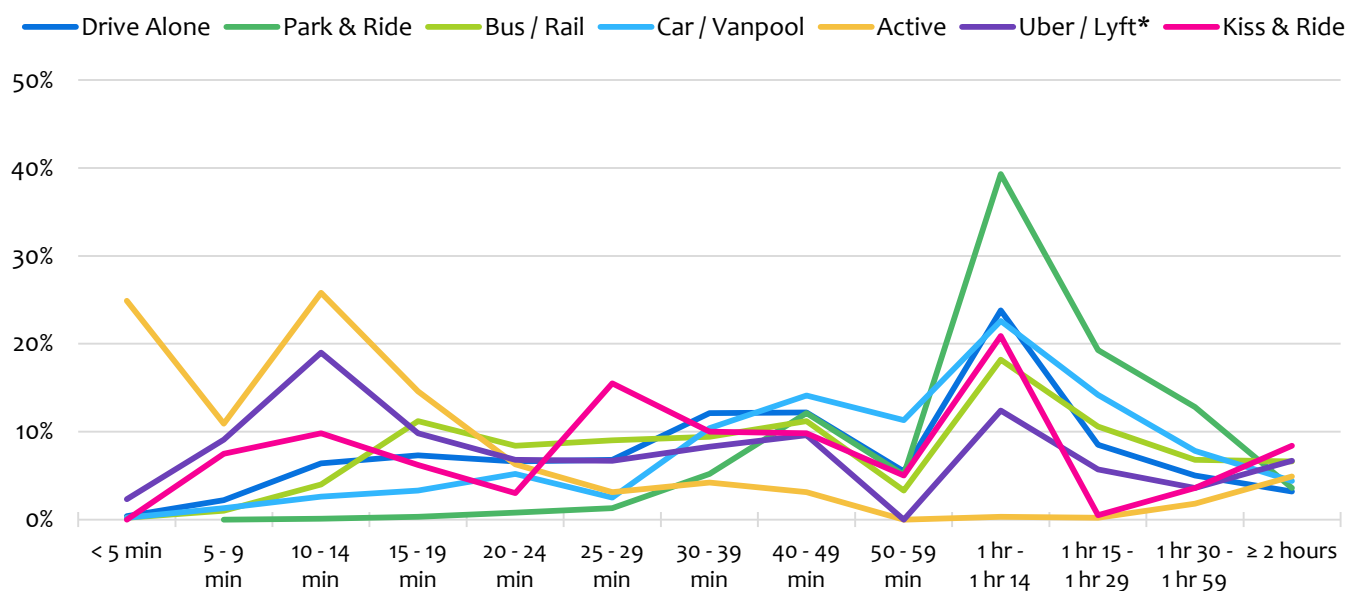


Q15. How long does it usually take you to get from work to home? │ Motorcycle / Scooter omitted from the graph due to small base size. │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution.

One-quarter of Downtown Houston employees (24%) make at least one stop during their commute home, which is slightly, but not significantly more than those making stops during their commute to work (21%).

**Figure 22. Number of Stops During Commute From Work**
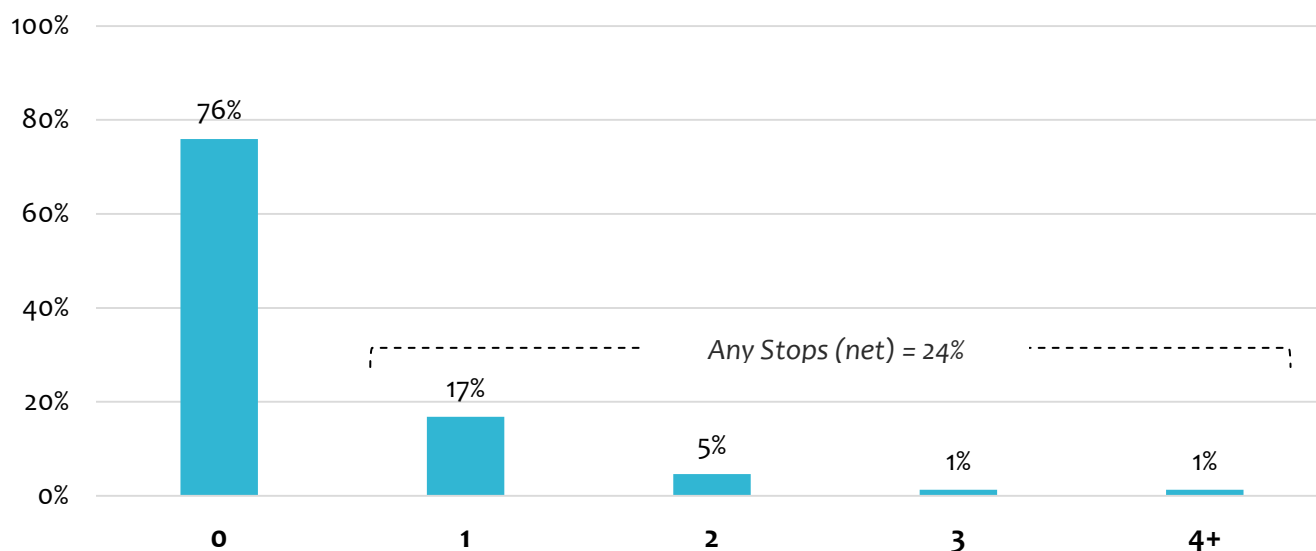


*Any Stops (net) = 24%*

Q16. How many stops do you usually make on your way from work? │ Base: Total Downtown employees (n=7672)

Like inbound stops, the likelihood of outbound stops is influenced by primary commute modes. While the majority across all modes tend to not make stops, those who commute by local bus / rail (36%) or Uber / Lyft (31%) are more likely to make any stops. Over one fifth (22%) of local bus / rail commuters make two or more stops on their way home from work.

**Figure 23. Number of Stops During Commute From Work**
*By Primary Commute Mode*
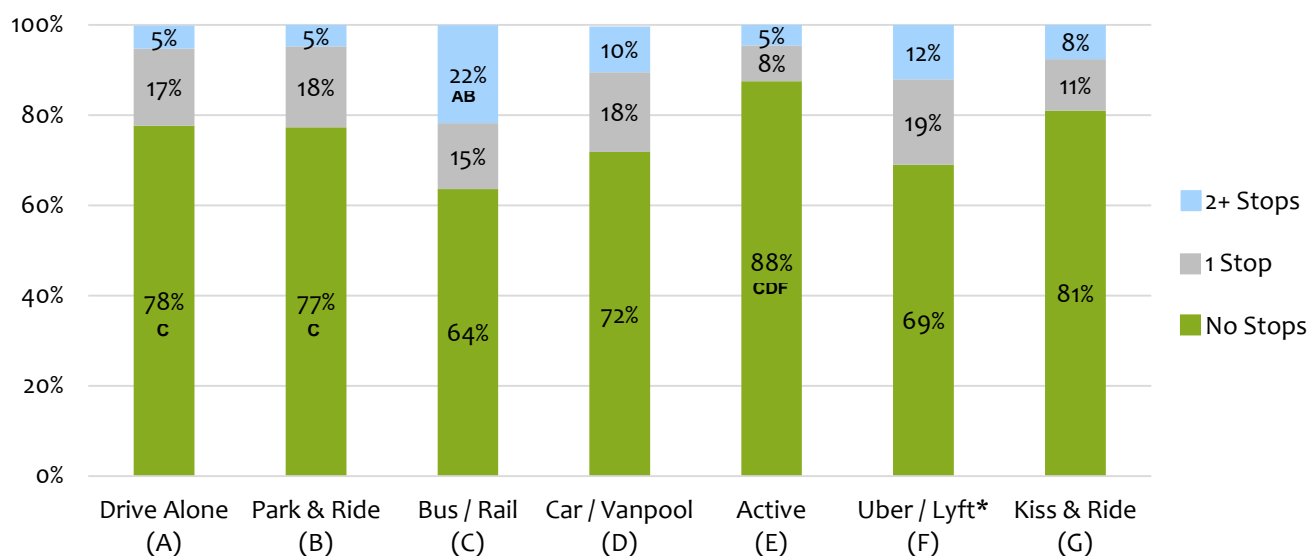


Q16. How many stops do you usually make on your way from work? │ Motorcycle / Scooter omitted due to very small base size. │ Base: Total Downtown employees (Drive Alone n=4344, Park & Ride n=1972, Local Bus / Rail n=466, Carpool / Vanpool n=476, Active n=160, Uber / Lyft* n=67, Kiss & Ride n=117) │ *Sample sizes less than 100 should be interpreted with caution. │ <sup>ABCDEFG</sup> indicates significant differences at a 95% confidence level.

Food and beverage remain a primary stop for Downtown commuters after work (39%); however, even more (44%) stop after work for groceries, far more than those who stop for groceries on their way in to work (10%). Dependent care (32%) remains a stop for one-third of commuters after work, which is similar to those stopping before work (33%).

### Figure 24. Stop Types During Commute From Work
*Among Those Who Make Stops*
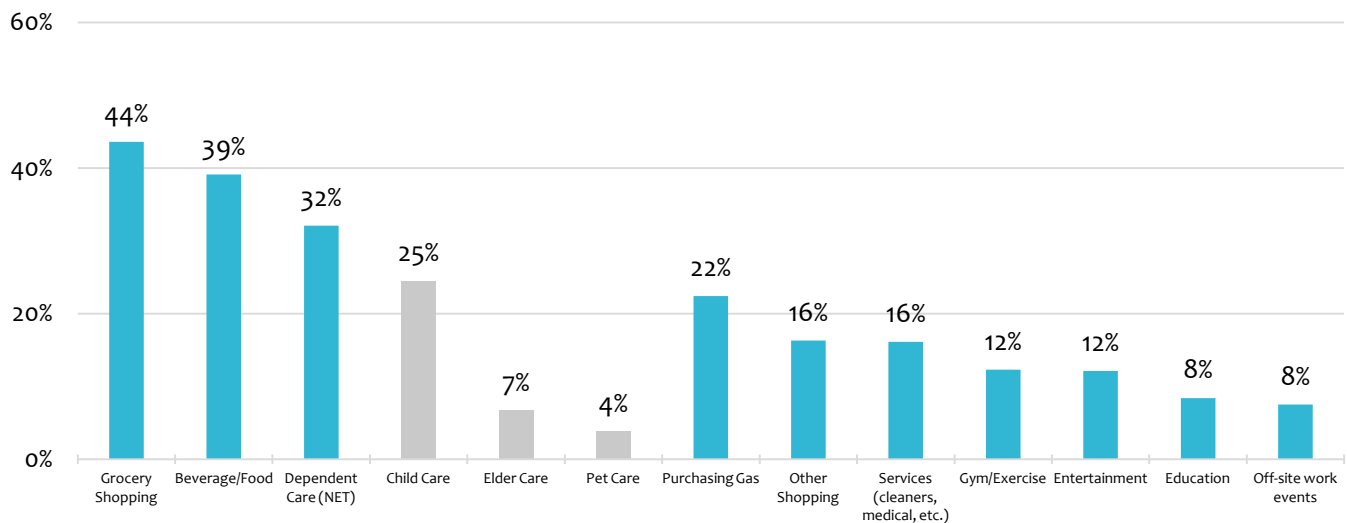


Q17. What type of stops do you usually make on your way from work? │ Some respondents utilize multiple types of Dependent Care. │ Base: Total Downtown employees who make stop(s) during commute from work (n=1532)

As with inbound commutes, the nature of stops made during outbound commutes vary by primary commute mode:

- Significantly more local bus / rail users stop after work to grocery shop compared to other commute modes.

- Slightly more Downtown employees driving alone stop after work for beverage or food (44%) than they do to grocery shop (38%).

- Drive alone commuters are also more likely to stop for childcare after work (31%) than other commute modes.

**Figure 25. Stop Types During Commute From Work**
*By Primary Commute Mode*
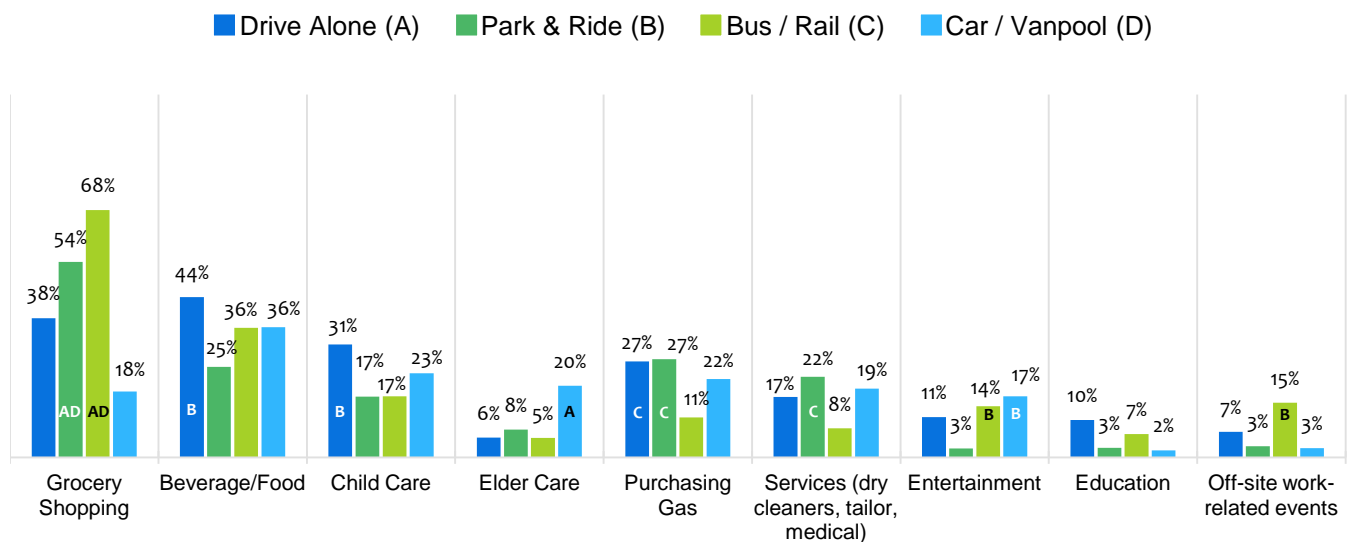
■ Drive Alone (A)   ■ Park & Ride (B)   ■ Bus / Rail (C)   ■ Car / Vanpool (D)



Q17. What type of stops do you usually make on your way from work? │ Base: Total Downtown employees who make stop(s) during commute from work (Drive Alone n=834, Park & Ride n=407, Local Bus / Rail n=115, Carpool / Vanpool n=103) │ ^ABCD indicates significant differences at a 95% confidence level.

## Work Schedule and Commute Mode

The majority of Downtown employees commute 5 days a week (59%). However, it appears that the number of days per week that employees typically commute Downtown correlates with the primary commute mode.

- Not surprisingly, those employed Downtown but primarily working at a non-Downtown location commute to the city center 1 day a week or less.

- Those traveling by Park & Ride and carpool or vanpool are more likely to commute five days a week.

- Those commuting by motorcycle / scooter, actively (by walking or biking), or via Uber / Lyft are more likely to report commuting either 1 day or less per week, or all 7 days a week, compared to those using other modes.

**Table 3. Work Schedule (Days Per Week)**
*By Primary Commute Mode*

| | TOTAL | Drive Alone (A) | Park & Ride (B) | Bus / Rail (C) | Car / Vanpool (D) | Motorcycle / Scooter * (E) | Active (F) | Uber / Lyft * (G) | Kiss & Ride (H) | Not Commute DT * (I) |
|---|---|---|---|---|---|---|---|---|---|---|
| **<1** | 3% | 3% | 2% | 4% | 1% | - | 16% ABCD | 10% ABD | 2% | 47% ABCDEFGH |
| **1** | 4% | 4% B | 1% | 4% B | 1% | 18% ABD | 3% | 16% ABCDF | 7% BD | 23% ABCDF |
| **2** | 5% | 6% B | 3% | 8% B | 4% | 2% | 3% | 8% | 4% | 2% |
| **3** | 8% | 9% F | 7% | 10% F | 6% | 2% | 1% | 10% | 9% | 9% |
| **4** | 13% | 12% AC | 17% | 7% | 17% C | 22% | 10% | 12% | 15% | - |
| **5** | 59% | 58% FGI | 69% ACEFGI | 50% GI | 70% ACFGI | 38% | 37% | 17% | 57% GI | 19% |
| **6** | 4% | 5% B | 1% | 9% ABD | 2% | - | 5% B | 8% B | 1% | - |
| **7** | 4% | 4% B | 0% | 7% BD | 1% | 18% ABD | 26% ABCDHI | 19% ABCD | 5% B | - |
| **Mean** | 4.37 | 4.35 I | 4.49 AGI | 4.36 I | 4.59 GI | 4.31 I | 4.55 I | 3.83 I | 4.29 I | 1.73 I |
| **Median** | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 5.00 | 1.00 |
| **N =** | 7672 | 4344 | 1972 | 466 | 476 | 25 | 160 | 67 | 117 | 27 |

Q5. How many days per week do you usually commute to Downtown? │ *Sample sizes less than 100 should be interpreted with caution. │ ABCDEFGHI indicates significant differences at a 95% confidence level. │ Summation of figures may show discrepancies of plus or minus 2% due to decimal rounding.

Downtown commuters were asked to identify the structure of their work schedule within these parameters:

5 / 40 (Work five 8-hour days per week)

9 / 80 (Work eight 9-hour days, one 8-hour day, and one day off in a 2-week period)

4 / 10 (Work four 10-hour days per week)

3 / 12 (Work three 12-hour days per week)

Other (Work a schedule different from the above)

Most employees work a 5-day, 40-hour work week. However, there are variances in other work structures by primary commute mode:

- Significantly more commuters who drive alone (68%), Kiss & Ride (77%), or use local bus / rail (69%) work five 8-hours days per week.

- Park & Ride (31%) and carpool / vanpool (37%) commuters are more likely to work a 9 / 80 schedule, where employees work eight 9-hour days and one 8-hour day with one day off over a two-week period.

- More motorcycle / scooter commuters work four 10-hour days per week (37%) than those who commute by any other mode (findings are based on a very small sample size of 25 respondents and should not be considered a conclusive finding).

- Those who are employed Downtown but primarily work at a non-Downtown location are more likely to work a schedule other than the structures outlined below (25%) (findings are based on a very small sample size of 27 respondents and should not be considered a conclusive finding).

### Table 4. Work Schedule Structure
*By Primary Commute Mode*

| | Total | Drive Alone (A) | Park & Ride (B) | Bus / Rail (C) | Car / Vanpool (D) | Motorcycle / Scooter * (E) | Active (F) | Uber / Lyft * (G) | Kiss & Ride (H) | Not Commute DT * (I) |
|---|---|---|---|---|---|---|---|---|---|---|
| **5 / 40** | 64% | 68% BDG | 57% | 69% BDG | 50% | 50% | 65% | 47% | 77% BDG | 65% |
| **9 / 80** | 19% | 14% | 31% ACFHI | 16% | 37% ACFHI | 12% | 13% | 20% | 12% | 0% |
| **4 / 10** | 6% | 5% | 7% | 7% | 6% | 37% ABCDFH | 7% | 13% H | - | 9% |
| **3 / 12** | 3% | 4% B | 0% | 2% | 3% B | - | 7% B | 7% B | - | - |
| **Other** | 8% | 9% | 4% | 6% | 5% | 2% | 9% | 13% B | 11% | 25% ABCD |
| **N =** | 7672 | 4344 | 1972 | 466 | 476 | 25 | 160 | 67 | 117 | 27 |

Q7. Which of the following best describes your work schedule? │ Base: Total Downtown employees (n=7672) │ *Sample sizes less than 100 should be interpreted with caution. │ ABCDEFGHI indicates significant differences at a 95% confidence level.

## Primary Commute Mode by Industry

As described in the Weighting section of this report (see page 8), the web panel and open link samples were each weighted separately and then again together as a whole. After weighting the entire sample as a whole, a "calibration weight" was applied to reduce possible bias from the open link sample. This involved weighting the entire data to questionnaire-level "calibration benchmarks." The three calibration variables used were D3 (industry), Q7 (work schedule), and Q5 (commuting frequency). The following are the weighted industries as a result:

**Table 5. Weighted Industry Representation**

| | | | |
|---|---|---|---|
| Energy | 19% | Leisure / Hospitality | 4% |
| Accounting | 15% | Architecture / Engineering | 4% |
| Utilities | 11% | Retail | 3% |
| Legal | 9% | Education | 2% |
| FIRE (NET) | 9% | Construction | 2% |
|    Real Estate | 4% | Transportation | 2% |
|    Financial Services | 4% | Nonprofit | 1% |
|    Insurance | 1% | Food Services | 1% |
| Information Technology (IT) | 7% | Healthcare | 1% |
| Consulting | 6% | Creative / Design | 1% |
| Government | 4% | Other | 1% |

D3. How would you describe your employer's main industry? │ Base: Total Downtown employees (n=7672)

Primary commute modes within individual industries vary. The most notable differences include:

- Most employees within each industry drive alone except for Utilities where employees drive solo (45%) or take Park & Ride (43%) at near equal rates.

- Most Leisure / Hospitality (75%) employees are drive alone commuters. The second most common commute mode for Leisure / Hospitality workers is local bus / rail (15%).

- Aside from Utilities, the industry with the highest share of Park & Ride commuters is Energy (33%).

- In Information Technology, after drive alone, the commute mode most used is Park & Ride (21%), followed by a relatively even distribution across local bus / rail (8%), carpool / vanpool (10%), and Uber / Lyft (7%).

- Similar to the overall trend, more Nonprofit employees are drive alone commuters; however, a considerable proportion are local bus / rail (15%) or active commuters (12%) relative to other industries.

Graphical depictions of commute mode composition by industries with a sample size of 90 or greater follow.

**Figure 26. Energy**
*By Commute Mode* (n=3382)



- 33%
- 5%
- 7%
- 1%
- 3%
- Motorcycle/Scooter, 1%
- 49%

**Primary Commute Mode Legend**

- ■ Drive Alone
- ■ Park & Ride
- ■ Local Bus / Rail
- ■ Car / Vanpool
- ■ Kiss & Ride
- ■ Active
- ■ Uber / Lyft
- ■ Employed, not work Downtown
- ■ Motorcycle/Scooter
- ■ Other

**Figure 27. Accounting**
*By Commute Mode* (n=960)



- 16%
- 10%
- 2%
- 1%
- 3%
- 2%
- 3%
- 1%
- 62%

**Figure 28. Utilities**
*By Commute Mode* (n=584)



- 43%
- 4%
- 5%
- 2%
- 2%
- 45%
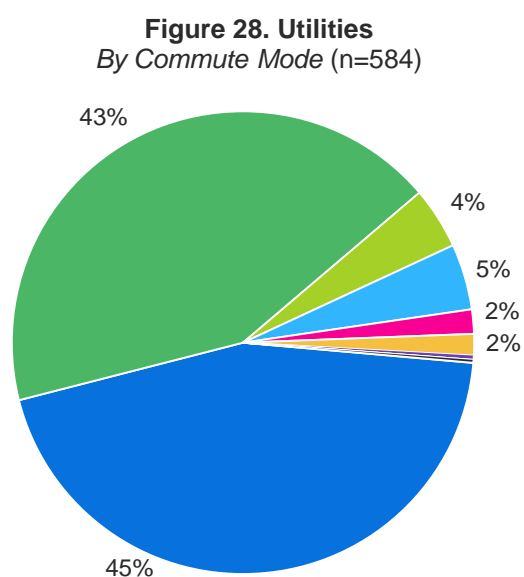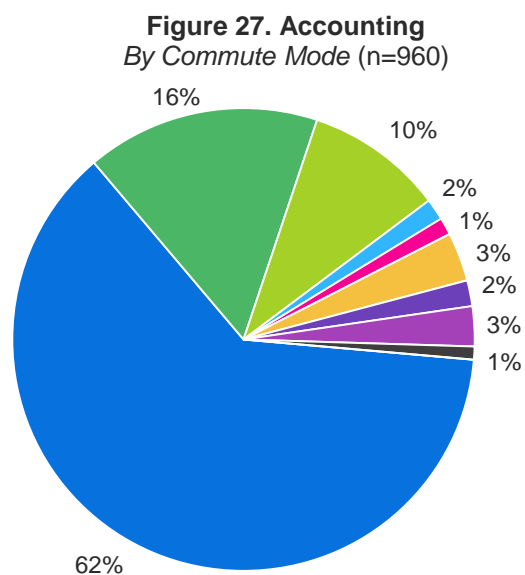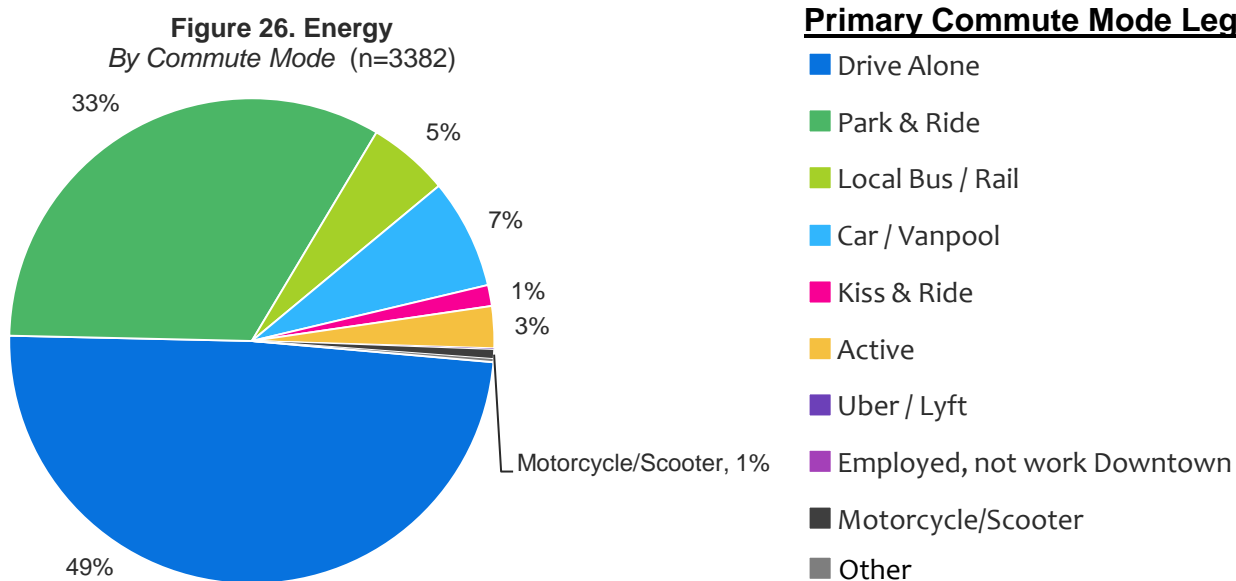
**Figure 29. Legal**
*By Commute Mode* (n=556)
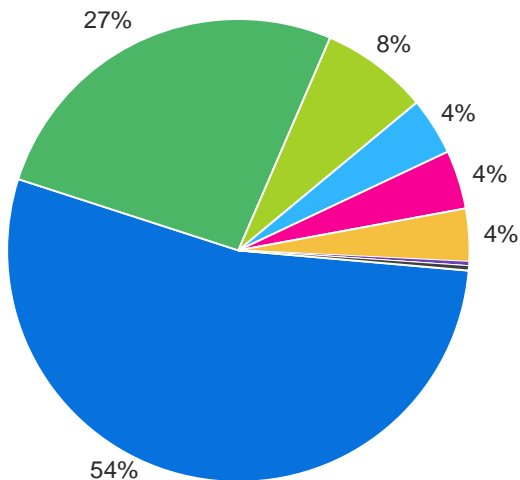


**Figure 30. FIRE**
*By Commute Mode* (n=538)
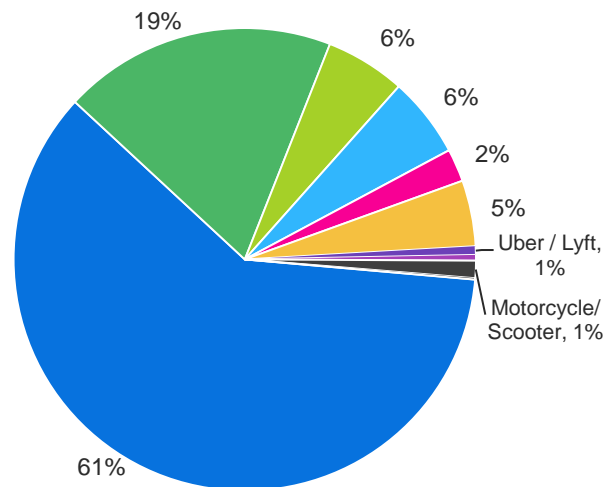


(FIRE: Finance, Insurance, Real Estate)

| ■ Drive Alone | ■ Park & Ride | ■ Local Bus / Rail | ■ Car / Vanpool | ■ Kiss & Ride |
| ■ Active | ■ Uber / Lyft | ■ Employed, not work Downtown | ■ Motorcycle/Scooter | ■ Other |
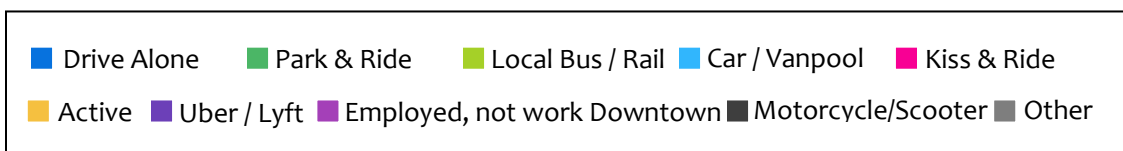
**Figure 31. Consulting**
*By Commute Mode* (n=297)
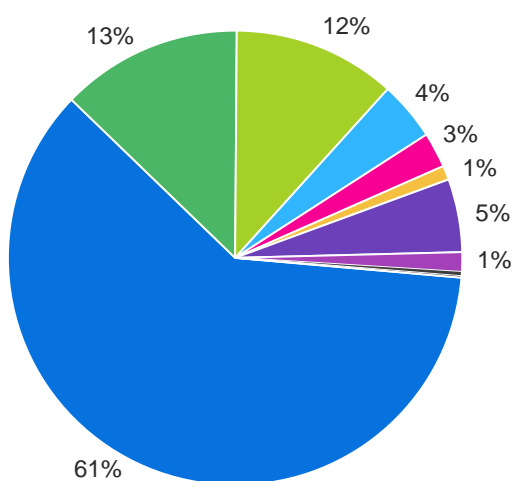


**Figure 32. Architecture / Engineering**
*By Commute Mode* (n=253)
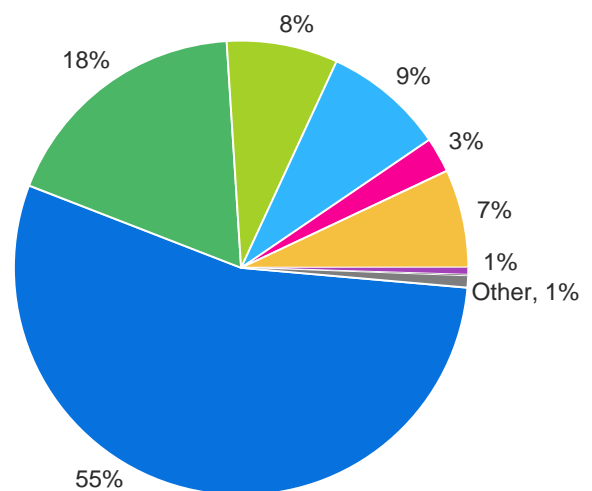
**Figure 33. Information Technology**
*By Commute Mode* (n=237)



8%
10%
21%
1%
7%
3%
49%
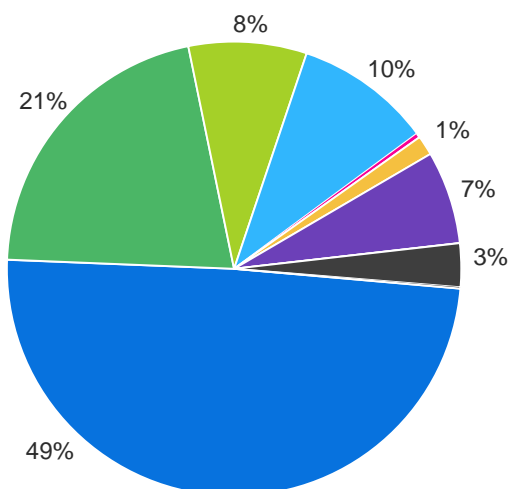
**Figure 34. Leisure / Hospitality**
*By Commute Mode* (n=225)
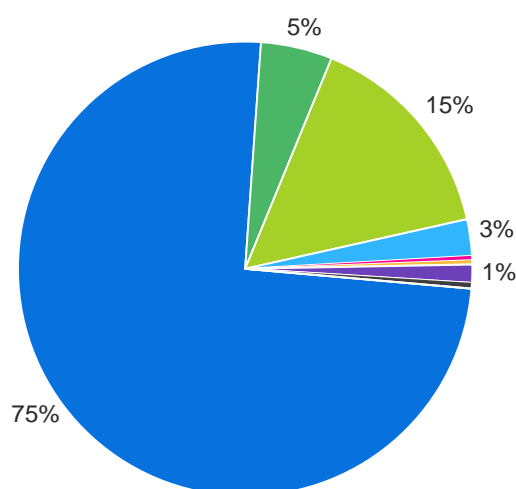


5%
15%
3%
1%
75%

| ■ Drive Alone | ■ Park & Ride | ■ Local Bus / Rail | ■ Car / Vanpool | ■ Kiss & Ride |
| ■ Active | ■ Uber / Lyft | ■ Employed, not work Downtown | ■ Motorcycle/Scooter | ■ Other |

**Figure 35. Non-Profit**
*By Commute Mode* (n=97)



7%
15%
2%
12%
64%
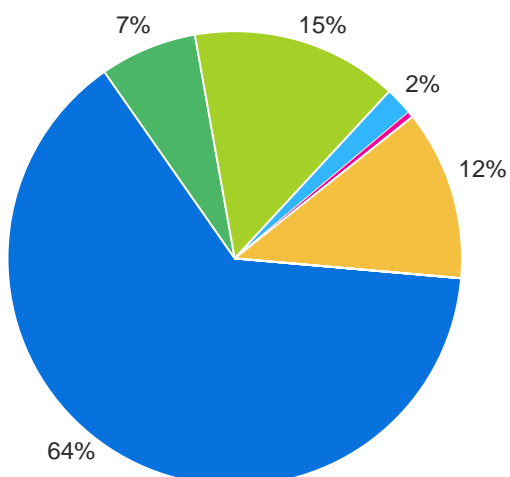
**Figure 36. Education**
*By Commute Mode* (n=90)



11%
8%
10%
3%
1%
4%
63%
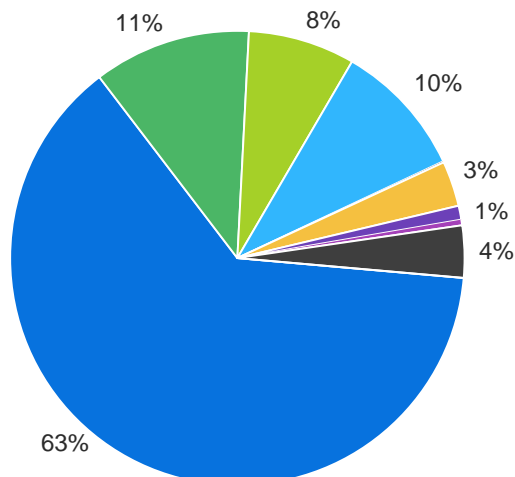
Q6. How do you usually commute to / from Downtown?

The most common work schedule across industries is a traditional 5-day, 40-hour structure. However, Energy workers are most likely to work a 9 / 80 schedule (57% work eight 9-hour days, one 8-hour day, and one day off in a 2-week period):

### Table 6. Work Schedule
*By Industry*

| | Accounting (A) | Architect / Engineer (B) | Consulting (C) | Energy (D) | FIRE (E) | IT (F) | Legal (G) | Leisure / Hospitality (H) | Utilities (I) | Education (J) | Nonprofit (K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **5 / 40** | 82% BDFIJ | 65% D | 76% DFIJ | 36% | 83% BDFIJ | 61% D | 78% BDFIJ | 78% DFIJ | 55% D | 55% D | 87% BDFIJ |
| **9 / 80** | 3% | 19% ACEGHK | 2% | 57% ABCEFGHIJK | 7% AC | 21% ACEGHK | 4% | 6% | 26% ACEGHK | 16% ADFIJ | 0% |
| **4 / 10** | 3% | 5% E | 6% E | 4% E | 1% | 11% ADEH | 5% E | 1% | 12% ACDEGHK | 18% ABCDEGHK | - |
| **3 / 12** | 1% | 6% ACDGI | - | 1% | 6% ACDGI | 5% ACDGI | 1% | 4% CD | 1% | - | - |
| **Other** | 11% DEFI | 5% | 16% BDEFI | 3% | 3% | 2% | 13% BDEFI | 11% DEF | 5% | 12% DEF | 13% DEF |
| **N =** | 960 | 253 | 297 | 3382 | 538 | 237 | 556 | 225 | 584 | 90 | 97 |

Q7. Which of the following best describes your work schedule? │ ABCDEFGHIJK indicates significant differences at a 95% confidence level. │ Summation of figures may show discrepancies of plus or minus 1% due to decimal rounding.

## Primary Commute Mode by Occupation

Downtown employees were provided with a list of 32 occupations from which to select the one that best describes their work. The most common responses were Office / Administrative Support (15%), Accountant / Auditor (13%), followed by Information Technology (11%).

### Table 7. Respondent Occupations

| | | | | | |
|---|---|---|---|---|---|
| Office / Administrative Support | 15% | Executive | 2% | Child Care | 1% |
| Accountant / Auditor | 13% | Transportation & Material Moving | 2% | Healthcare Practitioner | 1% |
| Information Technology | 11% | Architect | 2% | Food Service | 1% |
| Engineer | 8% | Retail | 2% | Research | 1% |
| Managerial | 7% | Artist / Designer / Performer / Media | 1% | Civil Servant | 1% |
| Analyst | 7% | Real Estate | 1% | Janitorial / Housekeeping | 1% |
| Consultant | 6% | Installation / Maintenance / Repair | 1% | Clergy | 0% |
| Customer Service | 4% | Advertising / Marketing | 1% | Social Scientist (Economist, Psychologist, Sociologist, etc.) | 0% |
| Financial Services | 4% | Law Enforcement | 1% | Social Worker | 0% |
| Attorney / Legal Practitioner | 3% | Building & Construction | 1% | Other | 1% |
| Sales | 2% | Educator / Student | 1% | | |

D4. How would you describe your occupation? │ Base: Total Downtown employees (n=7672) │ Summation of figures may show discrepancies of plus or minus 2% due to decimal rounding.

One-third of Downtown employees (33%) currently work in an occupation that represents 5% or less of the sample set. Among those occupations with 100 or more respondents, the following figures display which occupations represent a significantly greater proportion, by primary commute mode.

Employees working in office settings – Advertising or Marketing (82%), Real Estate (78%) and Sales (76%), Attorneys and other Legal Professionals (66%), or Accountants and Auditors (66%) – are more likely to drive alone than other occupations.

**Figure 37. Primary Commute Mode: Drive Alone**
*By Top Occupations*
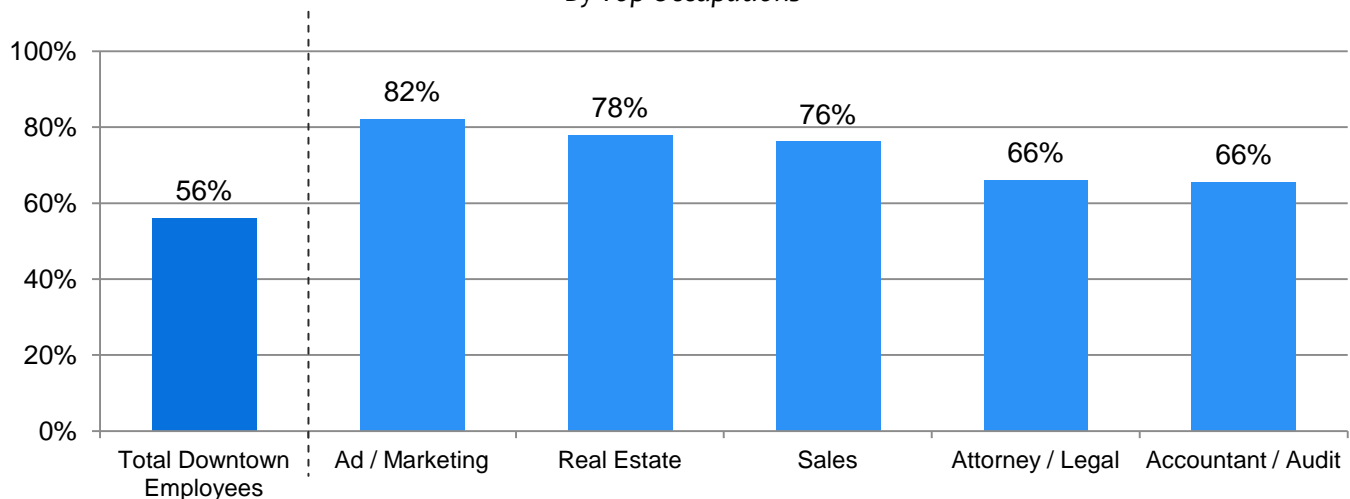


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (Total n=7672, Ad / Marketing n=103, Real Estate n=102, Sales n=167, Attorney / Legal n=343, Accountant / Audit n=1039)

While the majority of employees in the following occupations drive alone for their primary commute mode, significantly more respondents in the following occupations take Park & Ride than in other occupations: Analysts (37%), Financial Services (33%), Office / Administrative Support (33%), and Information Technology (31%).

**Figure 38. Primary Commute Mode: Park & Ride**
*By Top Occupations*
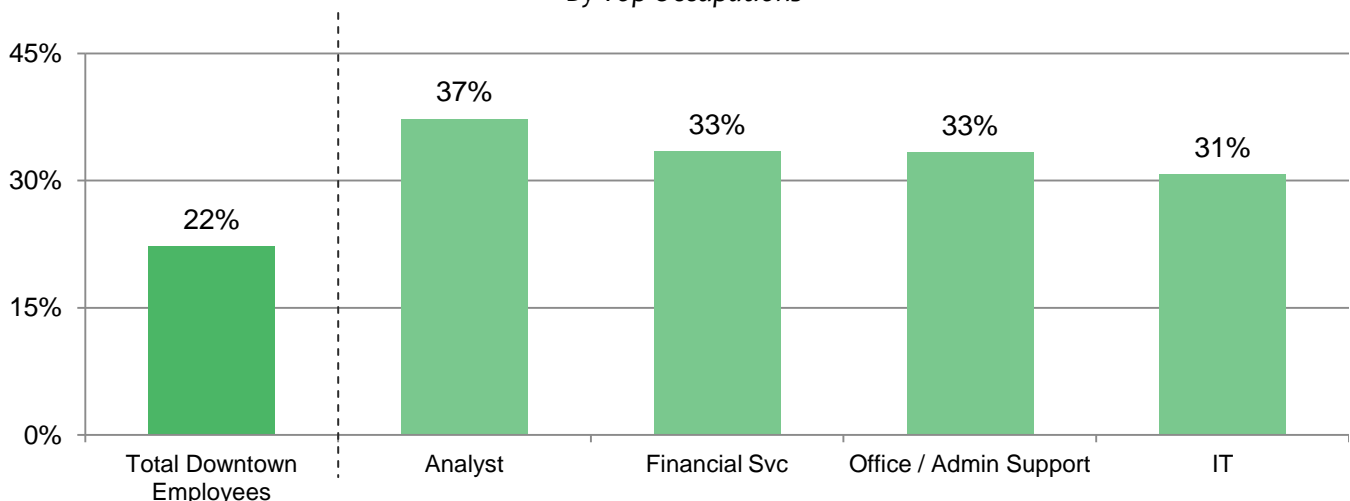


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (Total n=7672, Analyst n=687, Financial Svc n=326, Office / Admin Support n=872, IT n=794)

Although only one-in-ten Downtown employees (9%) primarily commute by local bus / rail, significantly more employees in Research (27%) and in a creative occupation like Artists, Designers, Media and Performance Art (26%) travel by this mode of public transportation. A considerable share (18%) of respondents employed in Customer Service also take local bus or rail transit.

**Figure 39. Primary Commute Mode: Local Bus / Rail**

*By Top Occupations*
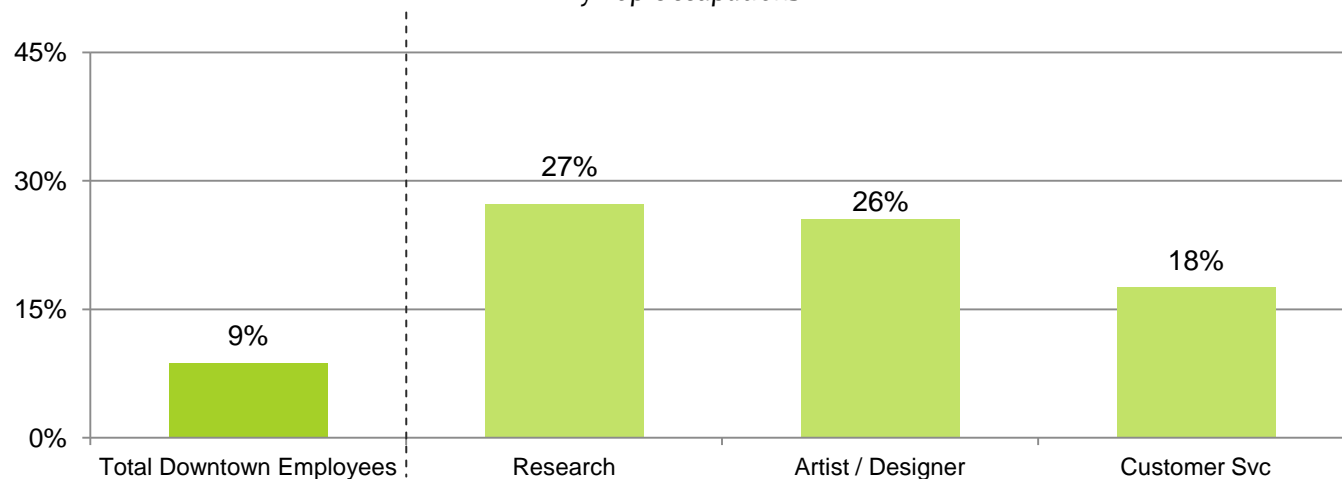


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (Total n=7672, Research n=90, Artist / Designer n=92, Customer Svc n=132)

Significant findings for the remaining commute modes based on occupation include:

- 5% of total Downtown employees commute by carpool or vanpool, but twice as many Analysts (10%) and three times as many engaged in Real Estate (15%) share rides to work.

- 3% of Downtown workers walk or bike to work; however, Architects (14%) and those in Legal professions (11%) are more likely to actively commute than those in other occupations.

- Few Downtown employees (2%) take an Uber or Lyft as their primary commute mode, but Consultants (5%) and those in Transportation (6%) are more likely to opt for this mode, albeit by a small percentage.

The range of occupations studied typically follow the 5-day, 40-hour week work schedule. The table below shows occupations that follow this trend, where most employees work a 5 / 40 schedule.

**Table 8. Work Schedule - 5/40 Structure**

*By Occupation*

|  | Account / Audit | Architect | Attorney / Legal | Consultant | Customer Svc | Executive | Financial Svc | Office / Admin Support | Sales | Ad / Marketing | Artist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **5 / 40** | 78% | 64% | 66% | 73% | 75% | 62% | 78% | 75% | 82% | 65% | 67% |
| **9 / 80** | 7% | 8% | 9% | 6% | 4% | 11% | 14% | 14% | 5% | 8% | 20% |
| **4 / 10** | 2% | 7% | 8% | 8% | 12% | 16% | 1% | 3% | 6% | 1% | 4% |
| **3 / 12** | 2% | 14% | 4% | - | 3% | - | - | 0% | 4% | 21% | - |
| **Other** | 11% | 7% | 13% | 13% | 7% | 11% | 8% | 8% | 3% | 6% | 10% |
| **N =** | 1039 | 130 | 343 | 438 | 132 | 183 | 326 | 872 | 167 | 103 | 92 |

Q7. Which of the following best describes your work schedule? │ Summation of figures may show discrepancies of plus or minus 1% due to decimal rounding.

The next table indicates occupations that are less traditional in that a greater portion or a majority work a different schedule, including:

- The majority of Engineers (51%) work a 9 / 80 schedule, or eight 9-hour days, one 8-hour day, and one day off in a 2-week period. A greater segment of Analysts (39%), Information Technology (29%), Managers (28%), Researchers (41%) and those in Real Estate (30%) also work a 9 / 80 schedule.

- Transportation employees vary the most in schedule, with less than two-in-five working a 5 / 40 but a sizable segment working either a 9 / 80 (23%) or 3 / 12 (21%, three 12-hour days per week).

### Table 9. Work Schedule – Non-Traditional Structure
*By Occupation*

|        | Analyst | Engineer | IT   | Managerial | Transportation | Research | Real Estate |
|--------|---------|----------|------|------------|----------------|----------|-------------|
| **5 / 40** | 56%     | 32%      | 57%  | 60%        | 38%            | 58%      | 56%         |
| **9 / 80** | 39%     | 51%      | 29%  | 28%        | 23%            | 41%      | 30%         |
| **4 / 10** | 3%      | 13%      | 7%   | 2%         | 1%             | -        | -           |
| **3 / 12** | 1%      | 0%       | 2%   | 0%         | 21%            | -        | 10%         |
| **Other**  | 2%      | 4%       | 5%   | 11%        | 17%            | 1%       | 5%          |
| **N =**    | 687     | 970      | 794  | 702        | 109            | 90       | 102         |

Q7. Which of the following best describes your work schedule? │ Summation of figures may show discrepancies of plus or minus 1% due to decimal rounding.

## Primary Commute Mode by Gender

The primary commute mode used by men and women is nearly identical. The one notable difference is the significantly greater number of females who commute by Park & Ride relative to their male counterparts (25% vs. 20%). Slightly, albeit not significantly, more females commute by Uber or Lyft.

### Figure 40. Primary Commute Mode
*By Gender*
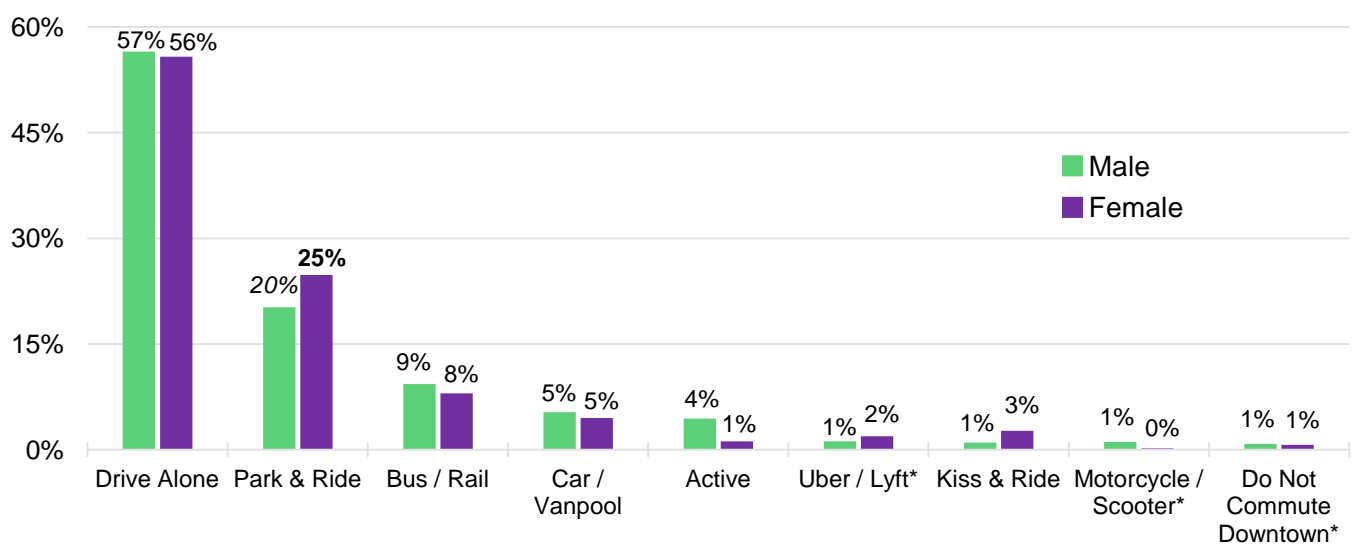


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (Males n=3795, Females n=3865) │ **Bold** percents are significantly greater than corresponding *italicized* percents at a 95% confidence level. │ *Sample sizes less than 100 should be interpreted with caution.

Male and female employees conduct a similar number of stops during their commutes to and from work; however, significantly more women, make any stops after work.

**Fig 41. Number of Stops : Commute To Work**
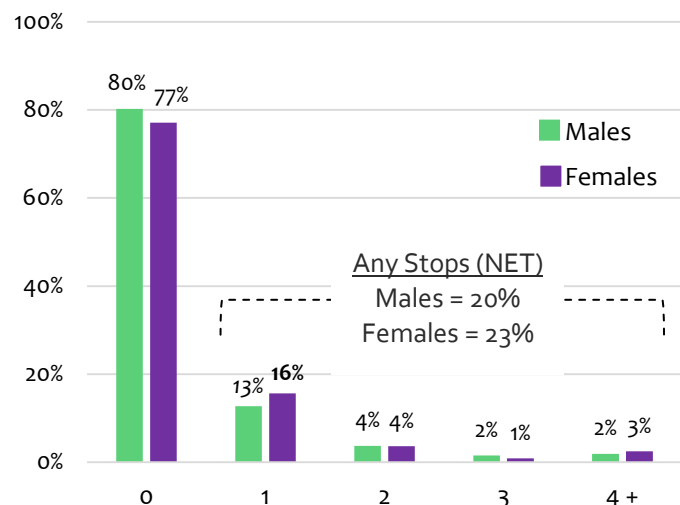
**Fig 42. Number of Stops : Commute From Work**
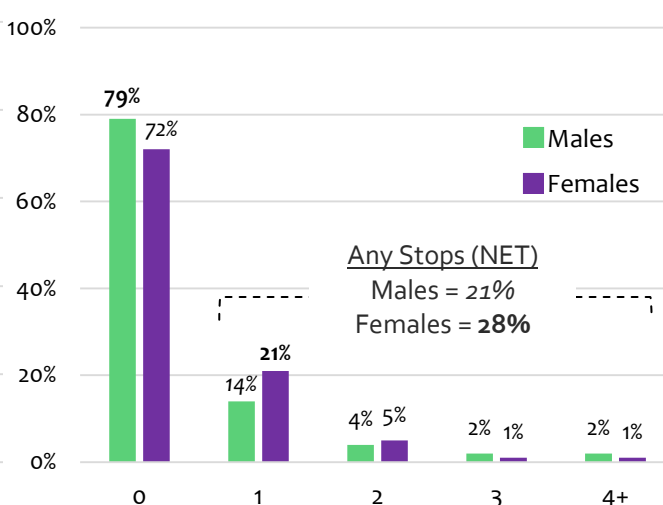


Q12. How many stops do you usually make on your way to work? │ Q16. How many stops do you usually make on your way from work?
Base: Total Downtown employees (Males n=3795, Females n=3865) │ Summation of NET figures may show discrepancies of plus or minus 1% due to decimal rounding. │ **Bold** percents are significantly greater than corresponding *italicized* percents at a 95% confidence level.

Both genders are more likely to stop before work for beverages or food, followed by dependent care. Both genders are more likely to stop after work for grocery shopping, followed by dependent care. On either leg of the trip, men are more likely to make entertainment related stops and women are more inclined to purchase gas.

### Table 10. Stop Types
*By Gender*

| | To Work | | From Work | |
|---|---|---|---|---|
| | Males | Females | Males | Females |
| Beverage/Food | **54%** | *37%* | 42% | 37% |
| Dependent Care (NET) | 32% | 35% | 30% | 34% |
|    Child Care | 27% | 29% | 22% | 27% |
|    Elder Care | 8% | 4% | 8% | 6% |
|    Pet Care | 3% | 2% | 4% | 4% |
| Purchasing Gas | *14%* | **22%** | 20% | 25% |
| Education | 15% | 13% | **12%** | *5%* |
| Entertainment | **15%** | *6%* | **20%** | *5%* |
| Grocery Shopping | **13%** | *6%* | 42% | 45% |
| Gym/Exercise | **12%** | *6%* | 16% | 9% |
| Off-site work-related events | 9% | 5% | 10% | 5% |
| Other Shopping | 8% | 4% | *12%* | **20%** |
| Services (dry cleaners, tailor, medical) | 8% | 4% | 17% | 15% |

Q13. What type of stops do you usually make on your way to work? │ Base: Total Downtown employees who make stop(s) during commute to work (Males n=507, Females n=702) │ Q17. What type of stops do you usually make on your way from work? │ Base: Total Downtown employees who make stop(s) during commute from work (Males n=578, Females n=952) │ **Bold** percents are significantly greater than corresponding *italicized* percents at a 95% confidence level.

## Primary Commute Mode by Age

Respondents were asked to input their age into the survey tool. The data set was weighted to balance the demographic profile of the sample, targeting population parameters as defined by the Longitudinal Employer-Household Dynamics (LEHD) program from the Center for Economic Studies at the U.S. Census Bureau. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the Downtown employee population, ensuring a representative sample.

The following tables define the weighted representation of the Generation Classifications as well as the age break ranges in this research:

**Table 11. Weighted Age Representation**

| Generation Classification | Definition | % |
|---|---|---|
| **Generation Z** | **< 23 years old** | 1% |
| **Millennials** | **23 - 38 years old** | 38% |
| **Generation X** | **39 - 54 years old** | 37% |
| **Boomers** | **55 - 73 years old** | 23% |

| Age Breaks | % |
|---|---|
| ≤ 19 years | 1% |
| 20 - 24 years | 5% |
| 25 - 29 years | 14% |
| 30 - 34 years | 11% |
| 35 - 39 years | 11% |
| 40 - 44 years | 11% |
| 45 - 49 years | 12% |
| 50 - 54 years | 12% |
| 55 - 59 years | 10% |
| 60 - 64 years | 9% |
| 64 - 69 years | 3% |
| 70 - 74 years | 1% |
| ≥ 75 years | 0% |
| *Median* | *43* |

D1. Please type in your age: │ Base: Total Downtown employees (n=7672)

**Age Break Analysis**

The age of Downtown employees influences their primary commute mode.

- Significantly more under the age of 50 years old are drive alone commuters (69%, 20-24; 59%, 25-29; 57%, 30-34; 64%, 35-39; 57%, 40-44; 61% 45-49 years old).

- Park & Ride commuters are more likely to be 50 years old and older (30%, 50-54; 31%, 55-59; 34%, 60-64; 41%, 65+).

- Those aged 20-29 are significantly more likely to commute by local bus / rail (13% each, 20–24 and 25–29).

- Commuters aged 25-29 (6%) are more likely than all other age brackets to actively commute, either by walking or biking.

**Figure 43. Primary Commute Mode**
*By Age Ranges*
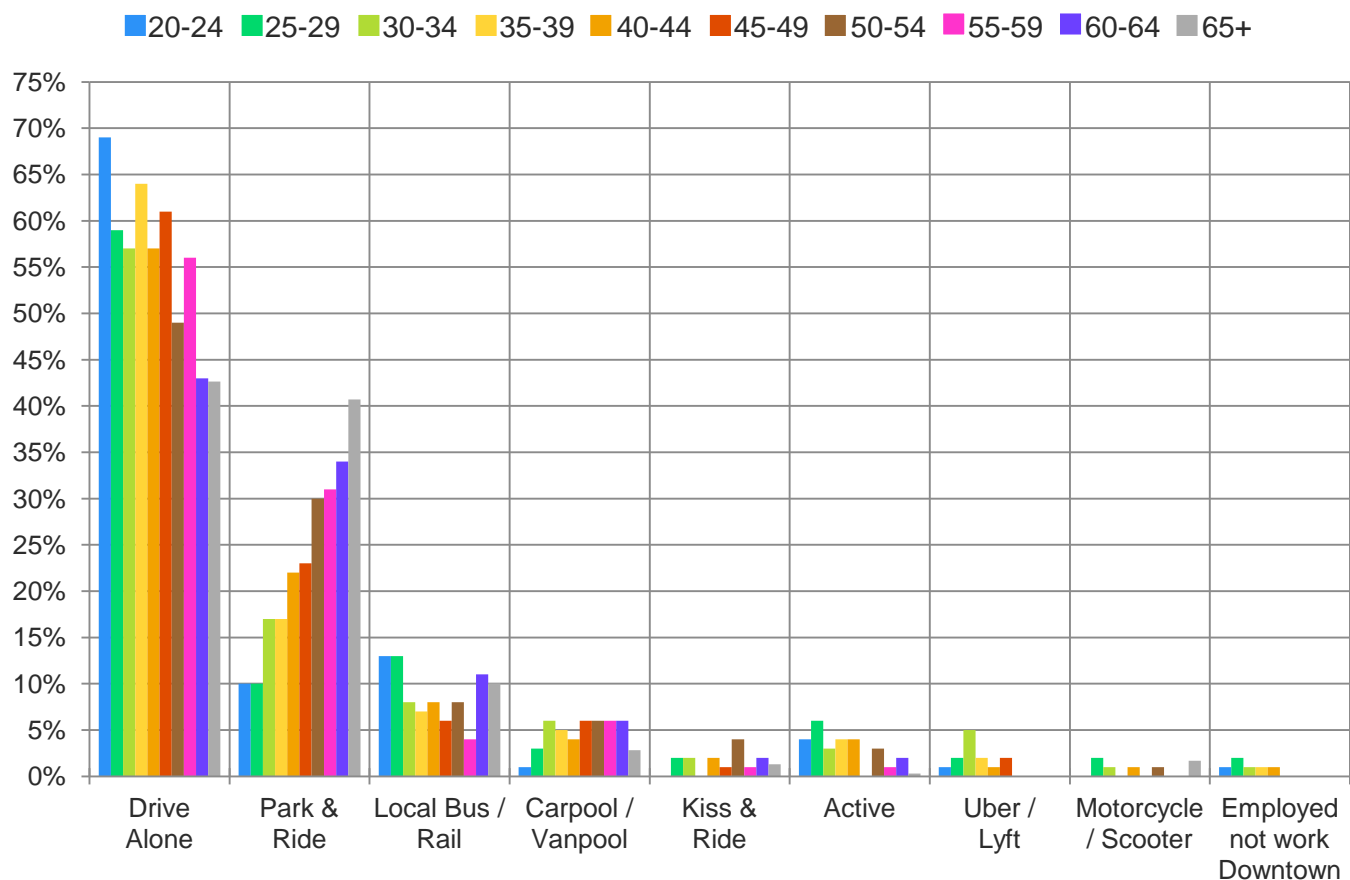


D1. Please type in your age: │ Base: Total Downtown employees (20-24 n=306, 25-29 n=879, 30-34 n=972, 35-39 n=1017, 40-44 n=949, 45-49 n=898, 50-54 n=849, 55-59 n=859, 60-64 n=651, 65+ n=238) │ ≤19 removed due to small base size. │ Q6. How do you usually commute to/from Downtown?

The age break distribution for Uber / Lyft commuters skews younger than the age break distribution for the overall Downtown Houston employee population, with a greater share falling into the 25-29 (22%) and 30-34 (37%) year old age brackets. The median age for Uber / Lyft commuters is 31-years-old.

**Figure 44. Age Breaks**

*Among Uber / Lyft Commuters*
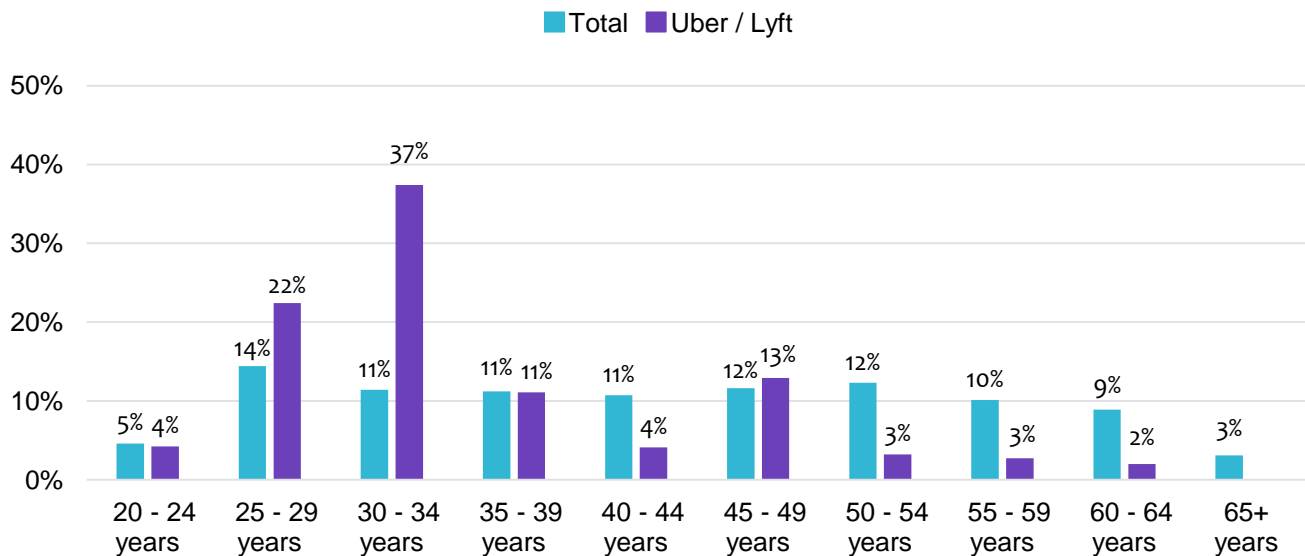


D1. Please type in your age. │ Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees (Uber / Lyft* n=67) │ *Sample sizes less than 100 should be interpreted with caution.

**Table 12. Median Age**

*By Primary Commute Mode*

| | Drive Alone | Park & Ride | Bus / Rail | Car / Vanpool | Motorcycle / Scooter * | Active | Uber / Lyft * | Kiss & Ride | Not Commute DT* |
|---|---|---|---|---|---|---|---|---|---|
| | 41 years | 50 years | 40 years | 47 years | 31 years | 35 years | 31 years | 50 years | 30 years |
| **N=** | 4344 | 1972 | 466 | 476 | 25 | 160 | 67 | 117 | 27 |

D1. Please type in your age. │ Base: Total respondent Downtown employees (Total n = 7654) │ *Sample sizes less than 100 should be interpreted with caution. │ Q6. How do you usually commute to/from Downtown?

As a general trend, younger Downtown employees travel a shorter distance to work and older employees travel a longer distance. The only exception to this trend is for those employees who live 10 to 19 miles from their place of employment, which demonstrates a relatively flat trend (16% - 19%) across age groups. The exception is the peak for those ages 60-64 (28%) who are based 10 to 19 miles from work. Younger Millennials and Gen Z respondents are distinctly more prone to live less than 9 miles from their workplace than older cohorts.

**Figure 45. Miles Traveled To / From Work**
*By Age Ranges*
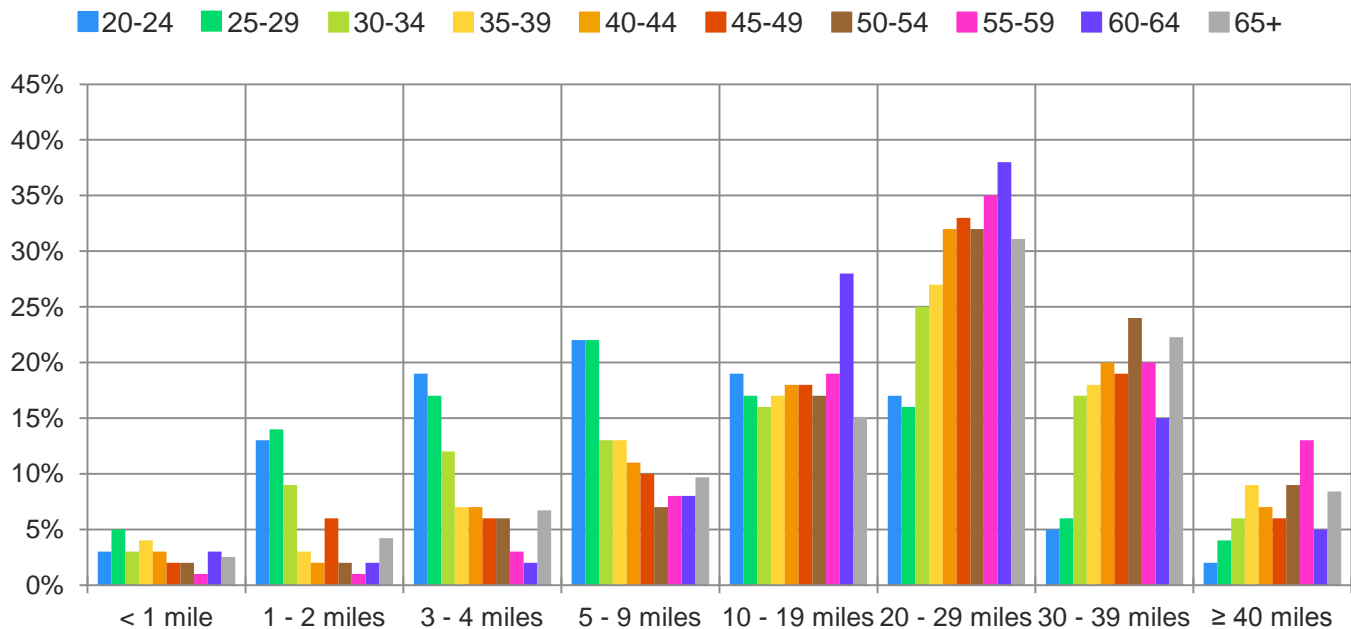


D1. Please type in your age. │ Base: Total Downtown employees (Total n=7618, 20-24 n=306, 25-29 n=879, 30-34 n=972, 35-39 n=1017, 40-44 n=949, 45-49 n=898, 50-54 n=849, 55-59 n=859, 60-64 n=651, 65+ n=238) │ ≤19 removed due to small base size. │ Q8. How many miles do you travel to work?

**Table 13. Median Miles Traveled To / From Work**
*By Age Ranges*

| Age | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 * | 75+ * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Median** | 7.0 | 7.0 | 14.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 3.5 |

D1. Please type in your age. │ Base: Total Downtown employees (Total n=7618, 20-24 n=306, 25-29 n=879, 30-34 n=972, 35-39 n=1017, 40-44 n=949, 45-49 n=898, 50-54 n=849, 55-59 n=859, 60-64 n=651, 65+ n=238) │ ≤19 removed due to small base size. │ Q8. How many miles do you travel to work?

**Generational Analysis**

Generation Z began entering the workforce in 2013[3], when the prior research on Downtown commute habits was conducted. While they comprise a minor segment of the Downtown commuter universe (1%), they mirror Millennials to some degree.

- More Downtown employees drive alone across generational classifications. Proportionally more Generation Z employees drive solo to work (73%) than their Millennial (60%), Gen X (56%), or Baby Boomer (49%) counterparts.

- Boomers are significantly less likely to commute by driving alone in a single-occupancy vehicle (49%) and significantly more likely to take Park & Ride (34%).

- Millennials make different commute decisions, being more likely to utilize local bus / rail (11%), an active mode (4%), or Uber / Lyft (3%) versus other generations.

**Generational Ages in 2019 are delineated as follows according to the Pew Research Center:**

|  | Generation Z | Millennials | Generation X | Boomers |
|---|---|---|---|---|
| **Ages** | 7 - 22 | 23 - 38 | 39 - 54 | 55 - 73 |

**Figure 46. Primary Commute Mode**
*By Generation Classification*
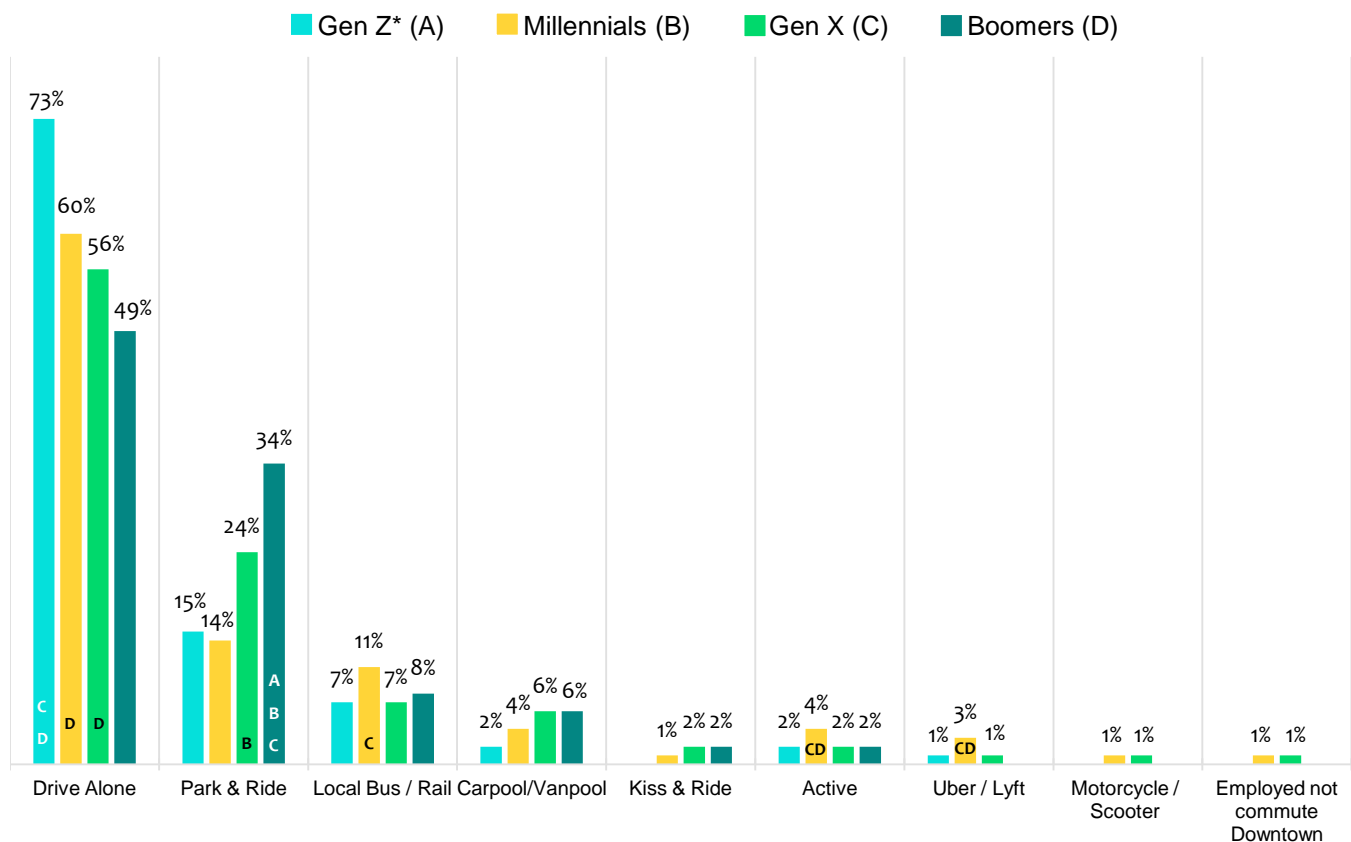


D1. Please type in your age. │ Base: Total respondent Downtown employees (Total n=7627, Gen Z* n=89, Millennials n=2930, Gen X n=2880, Boomers n=1728) │ *Sample sizes less than 100 should be interpreted with caution. │ Q6. How do you usually commute to/from Downtown? │ [EABCD] are significantly greater than corresponding columns at a 95% confidence level.

---

[3] http://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/ft_19-01-17_generations_2019/

More than two-in-five Gen Z (45%) and Millennial (44%) Downtown employees each live within 9 miles of their place of employment, significantly more than their Gen X and Boomer counterparts. Conversely, significantly more Gen X (61%) and Boomer (64%) employees live 20 or more miles away from work.

**Figure 47. Miles Traveled To / From Work**
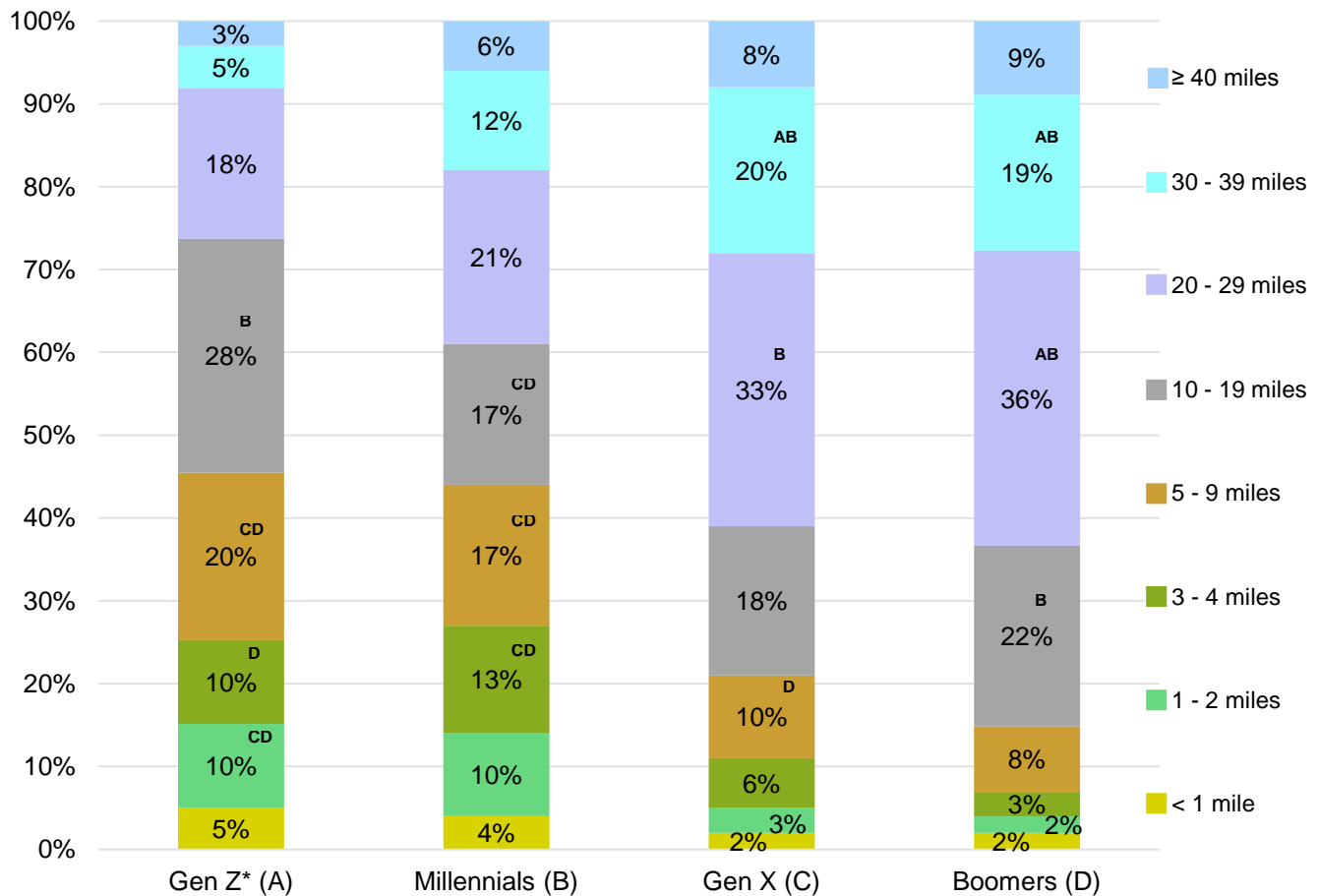
*By Generation Classification*

The median miles traveled by total Downtown employees is 20 – 29 miles (see "Figure 3. Miles Traveled To Work," page 17). Because commute distance was captured by respondents in aided ranges, the median commute distance was calculated through applied midpoint values. See the table on page 21 for midpoint values.

There is a divide by generation classification for distance traveled to work. Gen Z and Millennial employees travel a median 10 – 19 miles to work. Gen X and Boomer employees travel a median 20 – 29 miles.

**Figure 48. Median Miles Traveled To / From Work**
*By Generation Classification*
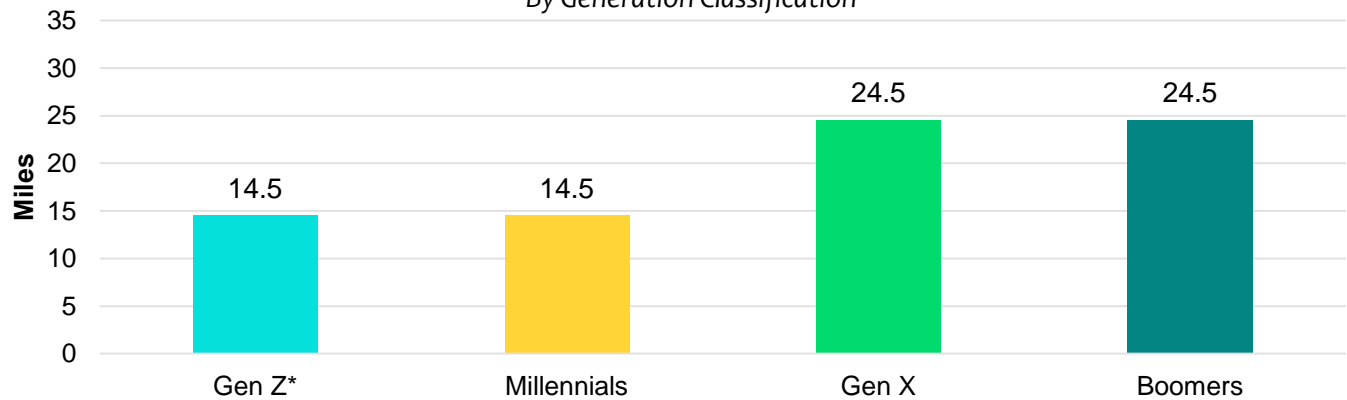


D1. Please type in your age. │ Base: Total respondent Downtown employees (Total n=7627, Gen Z* n=89, Millennials n=2930, Gen X n=2880, Boomers n=1728) │ *Sample sizes less than 100 should be interpreted with caution. │ Q8. How many miles do you travel to work?

**Home Zip Code Analysis**

The most reported employee home zip codes were 77007 (5%), followed by 77002 (3%), and 77008 (3%). Notable differences by age groups include:

- More 20 - 29 year olds are based in 77007 and, to a lesser extent, 77002 and 77008.

- More 25 - 29 year olds also reside in 77008, 77019, and 77006.

**Table 14. Home Zip Codes**
*By Age Breaks*

|       | Total | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 * | 75+ * |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|
| **77007** | 5% | 17% | 13% | 8% | 4% | 1% | 1% | 1% | 1% | 0% | 8% | - | - |
| **77002** | 3% | 6% | 6% | 3% | 3% | 3% | 2% | 3% | 1% | 3% | 1% | - | - |
| **77008** | 3% | 1% | 6% | 4% | 3% | 3% | 1% | 1% | 1% | 2% | 0% | - | - |
| **77494** | 2% | 0% | 0% | 2% | 3% | 3% | 4% | 4% | 1% | 1% | 0% | 7% | - |
| **77019** | 2% | 4% | 6% | 3% | 1% | 0% | 2% | 1% | 2% | 1% | 0% | 1% | - |
| **77479** | 2% | 3% | 1% | 2% | 2% | 3% | 2% | 3% | 1% | 2% | 0% | 3% | - |
| **77004** | 2% | 5% | 2% | 2% | 2% | 2% | 1% | 1% | 0% | 1% | 3% | - | - |
| **77006** | 2% | 4% | 6% | 2% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 2% | 21% |
| **77429** | 2% | 0% | 0% | 2% | 2% | 3% | 2% | 3% | 1% | 2% | 2% | - | - |
| **77388** | 2% | 2% | 2% | 1% | 1% | 2% | 2% | 1% | 2% | 1% | 1% | 1% | - |
| **N =** | **7672** | 306 | 879 | 972 | 1017 | 949 | 898 | 849 | 859 | 651 | 184 | 34 | 20 |

4. What is your home ZIP code? Base: Total Downtown employees │ *Sample sizes less than 100 should be interpreted with caution. │ NOTE: Only ZIP codes representing 2% or more of the survey population are displayed here.

The most populated zip codes by generational classifications confirm the concentration of Millennials in 77007 (10%) followed by 77002 (5%), 77008 (4%), 77019 (4%), and 77006 (3%). More Generation X employees are based in 77494 (4%). More Gen Z employees live in 77004 (5%).

**Table 15. Home Zip Codes**
*By Generational Classification*

|       | Total | Gen Z* | Millennials | Gen X | Boomers |
|-------|-------|--------|-------------|-------|---------|
| **77007** | 5% | 4% | 10% | 1% | 2% |
| **77002** | 3% | 2% | 5% | 2% | 2% |
| **77008** | 3% | - | 4% | 2% | 1% |
| **77494** | 2% | - | 1% | 4% | 1% |
| **77019** | 2% | 1% | 4% | 1% | 1% |
| **77479** | 2% | 2% | 2% | 3% | 1% |
| **77004** | 2% | 5% | 2% | 2% | 1% |
| **77006** | 2% | 2% | 3% | 1% | 1% |
| **77429** | 2% | 1% | 1% | 2% | 1% |
| **77388** | 2% | 2% | 1% | 2% | 1% |
| **N =** | 7672 | 89 | 2930 | 2880 | 1728 |

4. What is your home ZIP code? Base: Total Downtown employees │ *Sample sizes less than 100 should be interpreted with caution. │ NOTE: Only ZIP codes representing 2% or more of the survey population are displayed here.

**Household Composition Analysis**

The presence of one child in the household appears to lessen the prevalence of walking, biking, local transit, and Kiss & Ride as primary commute modes. There are marked differences between those with two or more children and those with no children across all primary commute modes:

- Employees with two or more children in their household are the least likely to walk or bike (6%, active) when commuting, with a strikingly greater share commuting by carpool or vanpool (58%). Employees with multiple children in their household are also more apt to drive alone (44%), Park & Ride (44%), or Uber / Lyft (49%) than those with fewer or no children.

- Active commuting via walking or biking (74%) is notably more prevalent among those with no children in their household. Commuting via local transit (41%) is also more common with those having no children at home.

### Figure 49. Number of Children in Household
*By Primary Commute Mode*
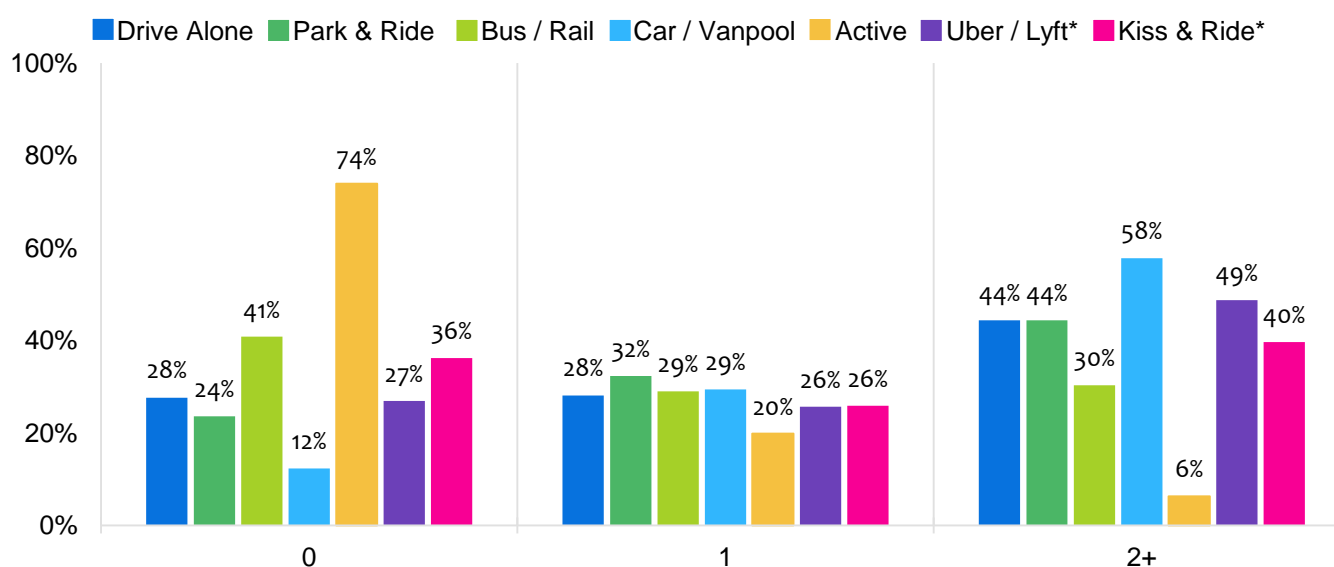


D6. Including yourself, how many people live in your household? Children │ Base: Total respondent Downtown employees (Total n=4283, Drive Alone n=2410, Park & Ride n=1194, Local Bus / Rail n=233, Carpool / Vanpool n=285, Active n=75, Uber / Lyft* n=34, Kiss & Ride n=52) │ *Sample sizes less than 100 should be interpreted with caution. │ Motorcycle / Scooter removed due to small sample size.

## Impact of Income on Primary Commute Mode

Survey respondents were asked to select their approximate annual household income from the following list of ranges:

| | |
|---|---|
| $0 - $24,999 | $125,000 - $149,999 |
| $25,000 - $49,999 | $150,000 - $174,999 |
| $50,000 - $74,999 | $175,000 - $199,999 |
| $75,000 - $99,999 | $200,000+ |
| $100,000 - $124,999 | |

Downtown employees reported a median household income of $100,000 - $124,999 annually.  However, there are variances in income distribution. Household income distribution steadily declines after a peak at $50,000 - $74,999 (17%), before spiking again at the upper range where another one-in-six Downtown employees (17%) report an annual household income of $200,000 or more.

**Figure 50. Annual Household Income**
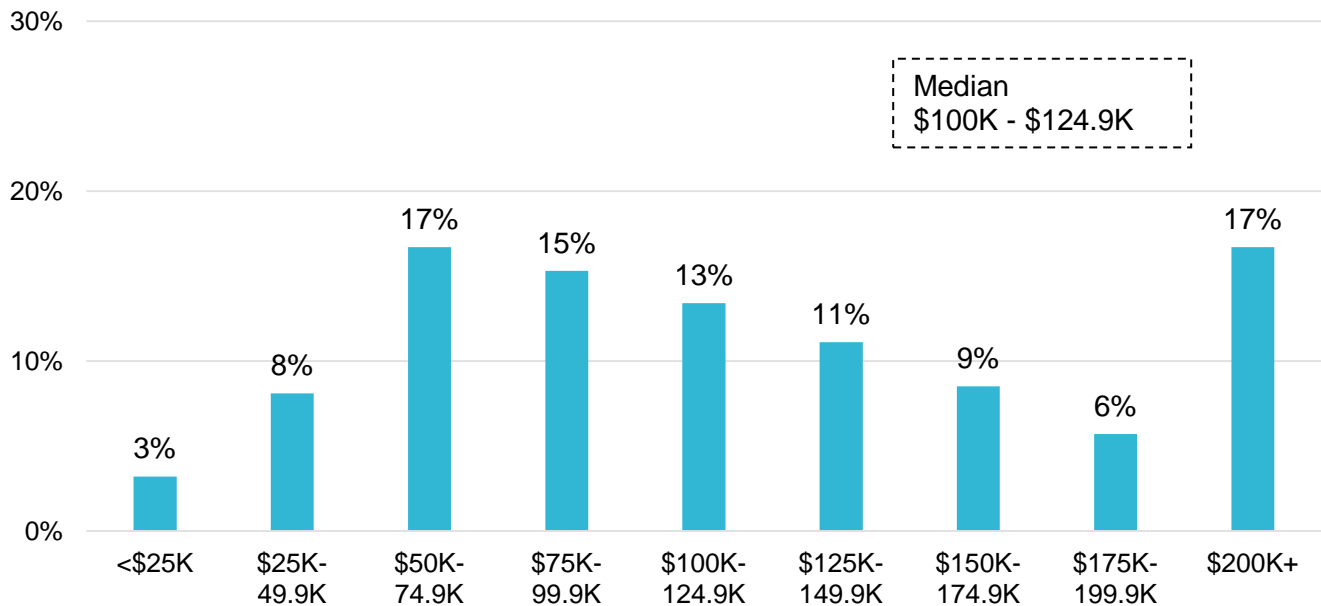


D5. What is your approximate household income? │ Base: Total respondent Downtown employees (Total n=7555)

Annual household income trends differ by commute distance:

- Downtown employees with shorter work commutes demonstrate a smooth bipolar convex curve for annual household income. In other words, more who live between 1 and 9 miles from work fall almost equally into the lowest and highest income brackets, with the middle income brackets noticeably less present.

- More Downtown employees commuting 10 – 19 miles to work fall into lower household income brackets, with approximately one-in-four making less than $75,000 annually (24%, < $25,000; 28%, $25,000 - $49,999; 25%, $50,000 - $74,999).

- Employees based 20 – 29 miles and 30 – 39 miles from work demonstrate a bell curve trend where fewer employees fall into the lower and upper income brackets. For those 20 – 29 miles from their place of employment, the curve is steeper with more falling into nearly all income brackets outside of < $25,000.

- Those living closest to their place of employment, or less than 1 mile, are equally represented across most household income brackets (with the exception of $25,000 - $49,999). The same is true for those living furthest from work, or 40 or more miles, with the exception of notable peaks at the lowest income level (9%, < $25,000) and middle income level (12%, $75,000 - $99,999).

## Figure 51. Miles Traveled To / From Work
### *By Annual Household Income*
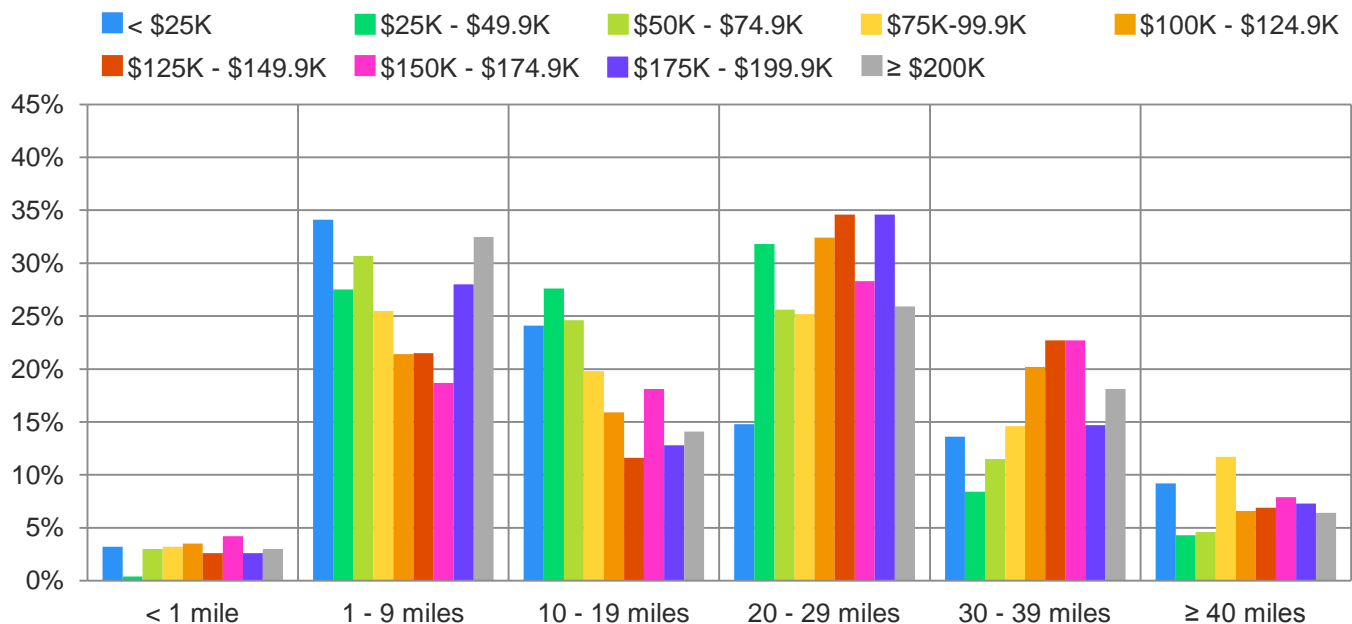


D5. What is your approximate household income? │ Base: Total respondent Downtown employees (Total n=7555, <$25K n=163, $25K-49.9K n=267, $50K-74.9K n=912, $75K-99.9K n=924, $100K-124.9K n=970, $125K-149.9K n=816, $150K-174.9K n=757, $175K-199.9K n=602, $200K+ n=2144) │ Q8. How many miles do you travel to work?

The most reported employee home zip codes were 77007 (5%), followed by 77002 (3%), and 77008 (3%). Notable differences by annual household incomes include:

- More with annual household incomes $50,000 and higher live in 77007.

- More with annual household incomes $175,000 and higher reside in 77008 or 77479. Furthermore, those with incomes $150,000 or higher are more apt to live in 77494.

**Table 16. Home Zip Codes**
*By Annual Household Income*

|  | Total | $0 - $24,999 | $25,000 - $49,999 | $50,000 - $74,999 | $75,000 - $99,999 | $100,000 - $124,999 | $125,000 - $149,999 | $150,000 - $174,999 | $175,000 - $199,999 | $200,000+ |
|---|---|---|---|---|---|---|---|---|---|---|
| **77007** | 5% | * | 2% | 7% | 5% | 4% | 5% | 5% | 5% | 5% |
| **77002** | 3% | 2% | 1% | 3% | 4% | 5% | 2% | 5% | 3% | 2% |
| **77008** | 3% | - | % | 1% | 2% | 2% | 3% | 3% | 4% | 5% |
| **77494** | 2% | 1% | - | 1% | 1% | 2% | 2% | 5% | 6% | 4% |
| **77019** | 2% | 1% | 2% | 2% | 2% | 1% | 1% | 1% | 2% | 4% |
| **77479** | 2% | * | * | 1% | 1% | 1% | 1% | 3% | 5% | 5% |
| **77004** | 2% | 2% | 6% | 3% | 2% | 1% | 1% | 1% | 2% | 1% |
| **77006** | 2% | 3% | 1% | 3% | 2% | 1% | 2% | 1% | 2% | 2% |
| **77429** | 2% | * | * | 1% | 1% | 4% | 3% | 1% | 1% | 1% |
| **77388** | 2% | 1% | 2% | 1% | 3% | 1% | 1% | 2% | 3% | 1% |
| **N =** | 7672 | 117 | 163 | 267 | 912 | 924 | 970 | 816 | 757 | 602 |

Q4. What is your home ZIP code? Base: Total Downtown employees │ NOTE: Only ZIP codes representing 2% or more of the survey population are displayed here. See "APPENDIX: Home ZIP Code by Household Income" for the full list by age distribution.

While commuters of all income brackets are represented in each primary commute mode, there are indications that income influences commute type.

- Nearly seven-in-ten commuters with total annual household earnings of $200,000 or more (68%) drive alone. Interestingly, a considerable number of those reporting annual household incomes on the lower end of the spectrum, $50,000 - $74,999 also report driving alone (60%).

- The highest rate of local bus / rail use (23%) was reported by the commuters with the lowest household incomes (23% <$25,000, 23% $25,000 - $49,999). Respondents with the lowest household incomes utilize local transit at more than twice the rate of respondents across all other income levels.

- Park & Ride commuters are distributed along a relatively flat bell curve, with the lowest rates of Park & Ride use reported by the households with the lowest and the highest incomes. Nonetheless, the composition of Park & Ride users generally represents a wide range of household income brackets.

- The highest rates of carpooling and vanpooling were reported by commuters with higher household incomes. One-tenth of those earning $125,000 - $149,999 (10%) or $175,000 - $199,999 (8%) commute via carpool or vanpool.

- While comprising a small segment of total Downtown employees, those who actively commute by walking or biking cover all income brackets evenly. Peaks, while small, are apparent at opposite ends of the income spectrum with 5% each of those reporting annual household incomes of less than $25,000 or $175,000 - $199,999 being active commuters.

**Figure 52. Primary Commute Mode**
*By Annual Household Income*
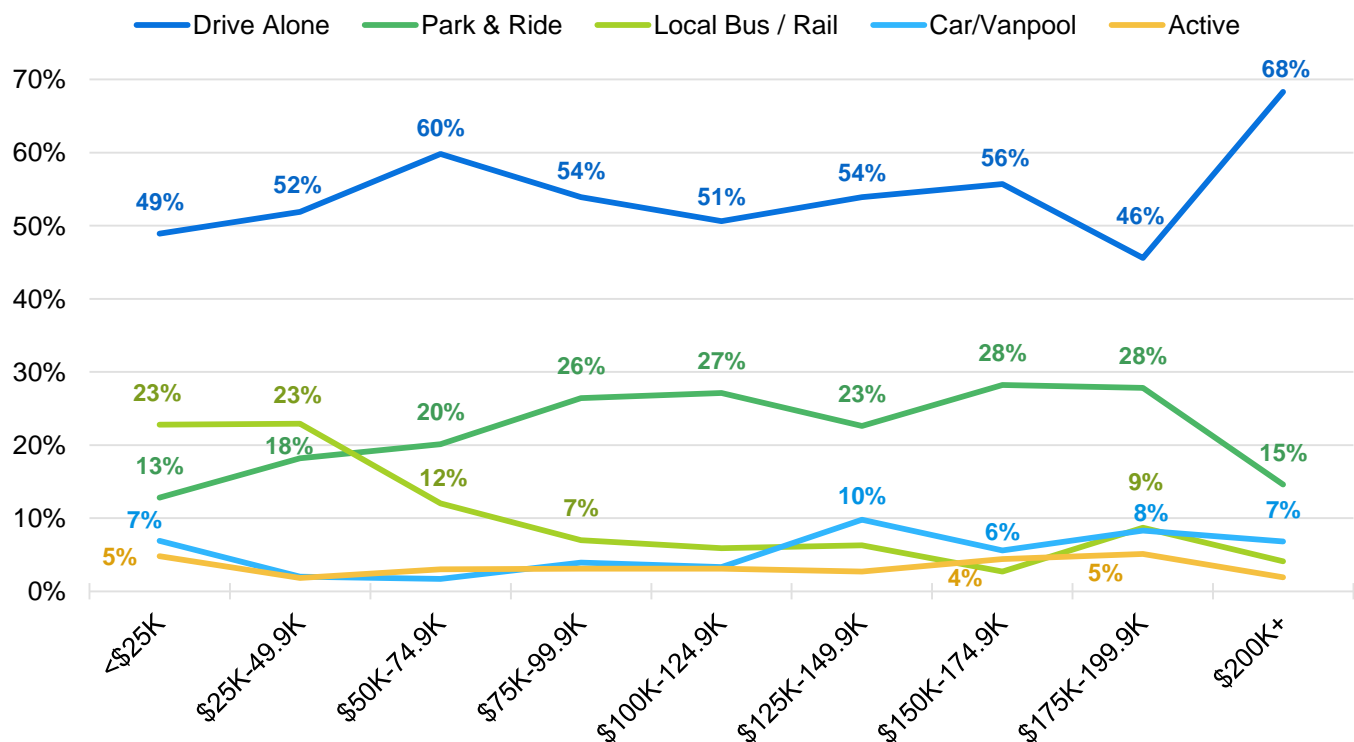


D5. What is your approximate household income? │ Base: Total respondent Downtown employees (Total n=7555, <$25K n=163, $25K-49.9K n=267, $50K-74.9K n=912, $75K-99.9K n=924, $100K-124.9K n=970, $125K-149.9K n=816, $150K-174.9K n=757, $175K-199.9K n=602, $200K+ n=2144) │ Q6. How do you usually commute to/from Downtown?

Reflecting the general Downtown employee population, the median annual household income is $100,000 - $124,999 for users of nearly all primary commute modes. The exceptions being carpool / vanpool commuters, reporting the highest median annual incomes of $125,000 - $149,999 and those who take local transit, reporting the lowest median annual household incomes of $50,000 - $74,999. Thirty-percent of local bus / rail commuters have annual household incomes under $50,000, hereafter referred to as low income local transit commuters.

**Table 17. Median Annual Household Income**
*By Primary Commute Mode*

|  |  |
|---|---|
| Drive Alone | $100K - $124.9K |
| Park & Ride | $100K - $124.9K |
| Local Bus / Rail | $50K – $74.9K |
| Carpool / Vanpool | $125K – 149.9K |
| Motorcycle / Scooter* | $100K - $124.9K |
| Active | $100K - $124.9K |
| Uber / Lyft* | $100K - $124.9K |
| Kiss & Ride | $100K - $124.9K |

D5. What is your approximate household income? │ Base: Total respondent Downtown employees (Total n=7555, <$25K n=163, $25K-49.9K n=267, $50K-74.9K n=912, $75K-99.9K n=924, $100K-124.9K n=970, $125K-149.9K n=816, $150K-174.9K n=757, $175K-199.9K n=602, $200K+ n=2144) │ Q6. How do you usually commute to/from Downtown?

Low income local transit commuters display different industry and occupation compositions than local transit commuters as a whole. Due to the small sample size, this result can be used as a guide but should not be considered a major finding.

In terms of Industry, overall, more who take the local bus or rail transit are in Accounting (17%) or Energy (12%). Low income local transit commuters work in Retail (15%), Leisure / Hospitality (16%) and, to a lesser degree, Food Services (11%) in higher rates. Interestingly, a considerable segment of low income local transit commuters indicated they work in an industry other than one of the twenty industries listed for respondents (see page 41).

**Figure 53. Industry Distribution**
*Among Low Income Local Transit Commuters*
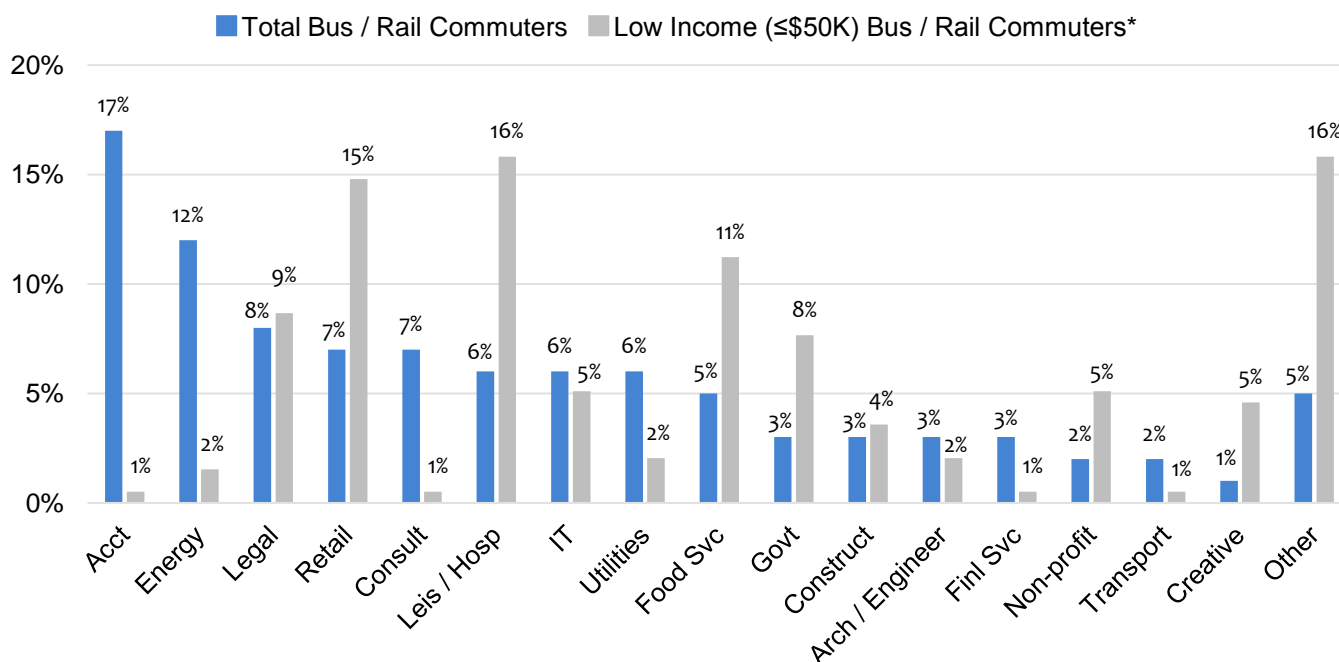


D3. How would you describe your employer's main industry? │ Base: Total Downtown employees (Bus / Rail n=466, Bus / Rail Commuters who make less than $50,000 household* n=64) │ *Sample sizes less than 100 should be interpreted with caution.

In terms of Occupation, overall, among those who take local bus or rail transit, while spread across various occupations, more are Accountants/Auditors (13%), Information Technology workers (13%), or Office / Administrative Support (11%). Low income local transit commuters comprise an even higher percent of Office / Administrative Support (21%), Customer Service reps (18%), workers in Retail (14%), Janitorial (8%), Law Enforcement (5%), and Artist/Designers (6%).

**Figure 54. Occupation Distribution**

*Among Low Income Local Transit Commuters*
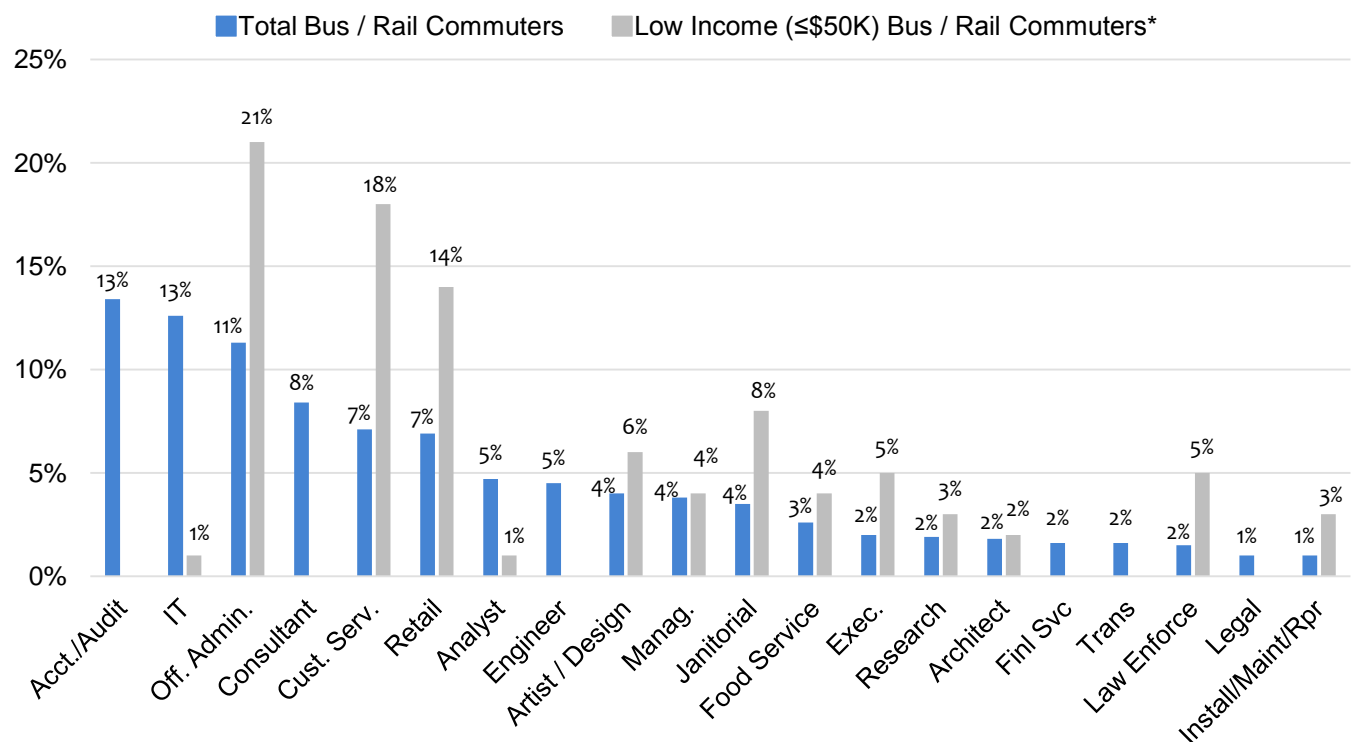


D4. How would you describe your occupation? │ Base: Total Downtown employees (Bus / Rail n=466, Bus / Rail Commuters who make less than $50,000 household* n=64) │ *Sample sizes less than 100 should be interpreted with caution.

## Motivation Profiles by Primary Commute Mode

### Drive Alone Commuters

There are two geographic concentrations where drive alone commuters reside. The most dense are within zip codes 77007 and 77008 inside Loop 610. The other is spread across the outer ring between Beltway 8 and the Grand Parkway (SH99). The following choropleth map shows the concentrations of commuters driving alone in a single-occupancy vehicle (SOV) by their residential zip code. The sum of drive alone commuters by zip code was divided by the total number of respondents to determine the concentration of drive alone commuters by zip code.

**Map 8. Drive Alone Commuters Surveyed - Residential Zip Code**
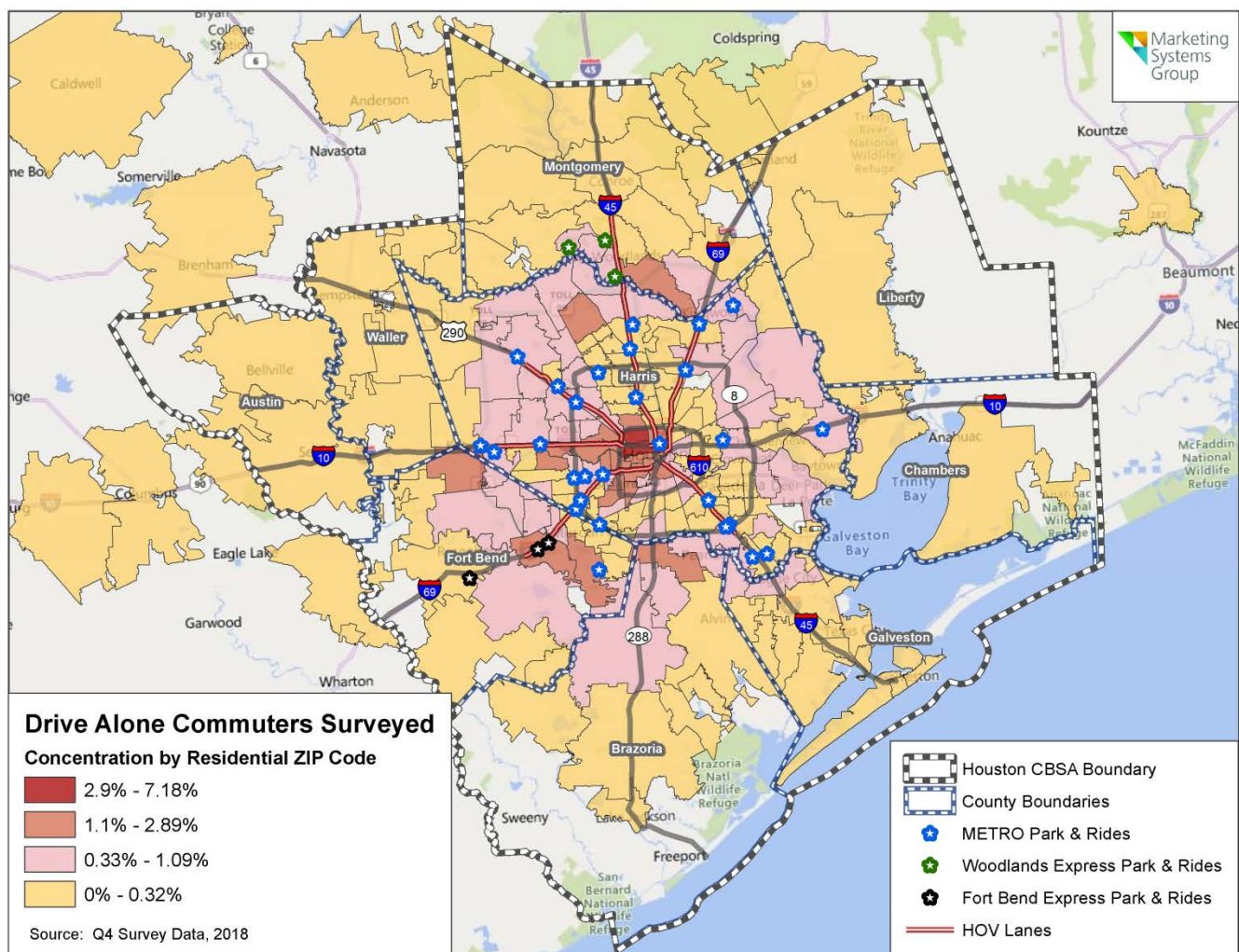


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually drive alone (n=4344)

Drive alone survey respondents were asked whether they drive an electric vehicle; approximately 15% of drive alone respondents indicate that they do. These affirmative respondents were then asked whether the facility at which they park provides EV charging stations. Among survey respondents driving electric vehicles, 29% reported that EV charging stations are available at the facility where they park, 32% reported that EV charging stations are not available at the facility where they park, and 39% reported that they did not know whether EV charging stations are available at the facility where they park.

## Motivation for Drive Alone Commuters

The top reason SOV commuters indicate they drive alone is that they have no other way to commute to work (17%), followed by preference for independence / flexibility (16%), and by parking is provided / subsidized (14%). Most respondents included their preference for independence and flexibility (61%) in the top 5 reasons they choose to primarily drive alone to work.

**Figure 55. Top Reasons: Drive Alone**
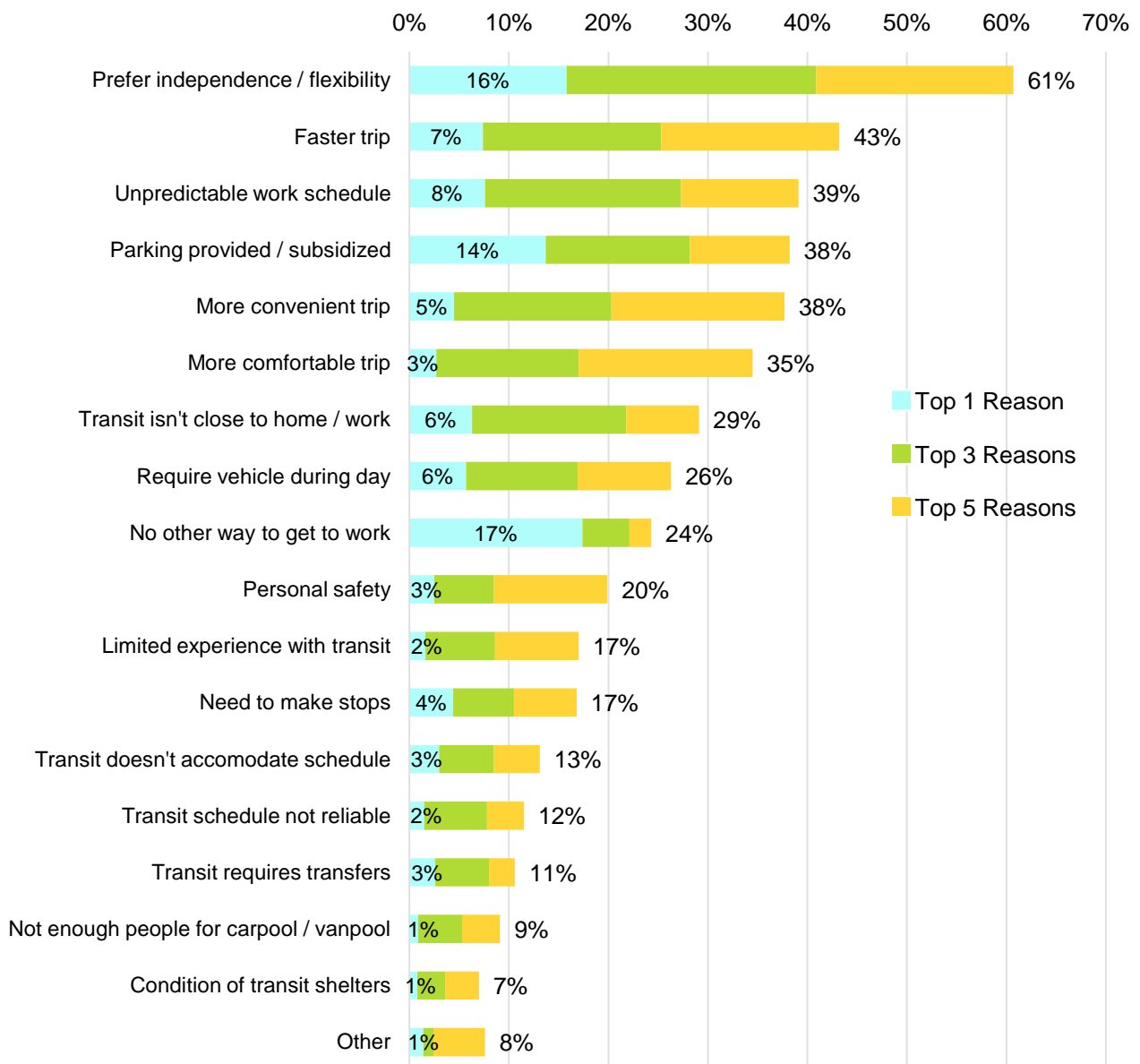


Q24. I drive alone because of the following: │ Base: Total Downtown employees who usually drive alone (n=4344)

## Park & Ride Commuters

Park & Ride commuters are largely concentrated along the outer rim of Beltway 8, surrounding the northern and western borders. The following choropleth map shows the concentration of Park & Ride commuters by their residential zip code. The sum of Park & Ride commuters by zip code was divided by the total number of respondents to determine their concentration by zip code.

**Map 9. Park & Ride Commuters Surveyed - Residential Zip Code**
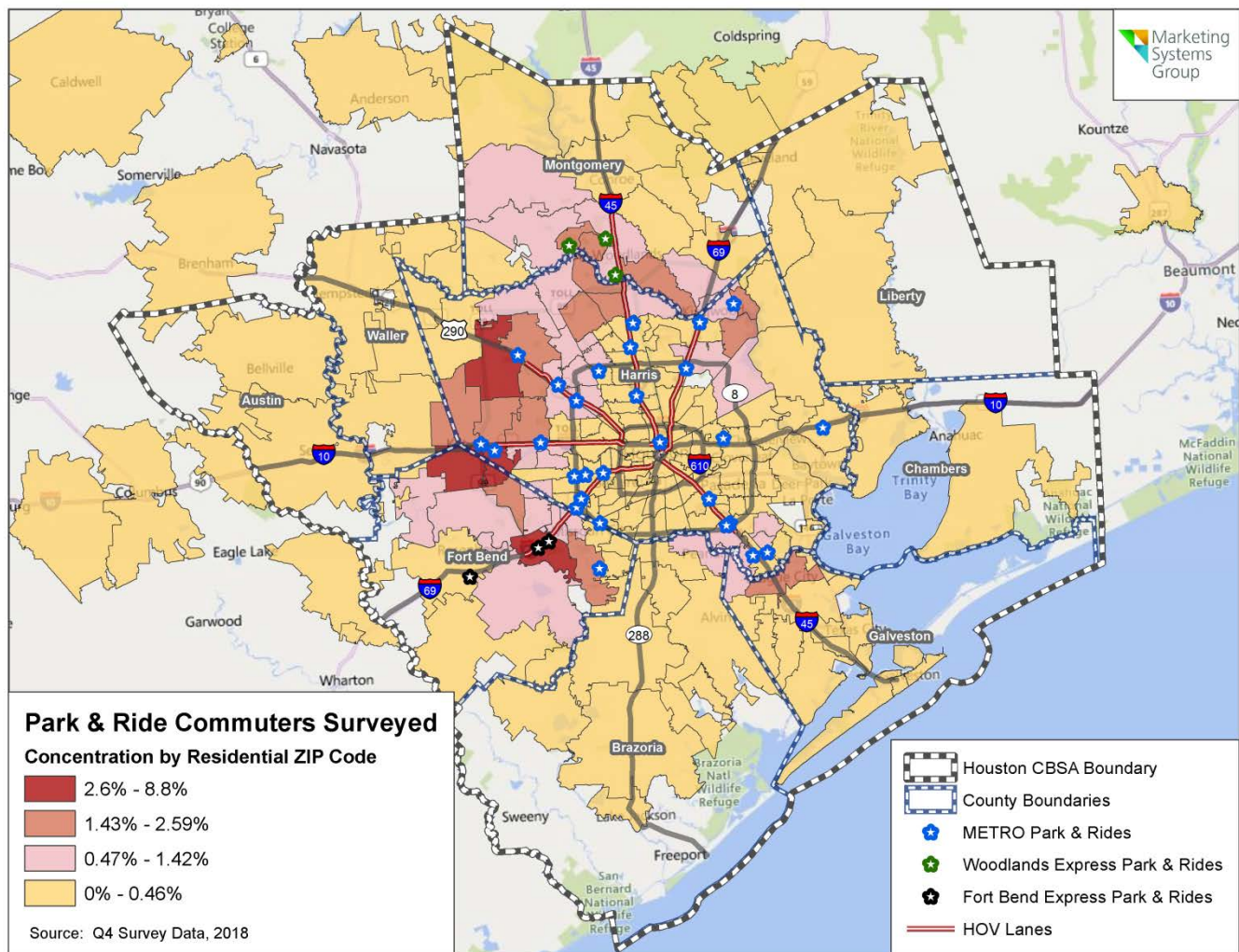


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by Park & Ride (n=1972)

## Motivation for Park & Ride Commuters

The primary motivation for using Park & Ride among commuters who opt for this mode is to avoid traffic, with nearly one-half (46%) selecting avoid driving in traffic as their top reason. The majority of Park & Ride commuters (83%) included "avoid driving in traffic" in their top 5 reasons for selecting the service. Three-quarters (73%) also specified reducing the stress of commuting as one of their top 5 reasons for choosing Park & Ride. Secondary influencers cited at near equal rates included employer subsidizes transit (58%), reduced vehicle wear and tear (58%), and avoiding parking related hassles and costs (55%).

**Figure 56. Top Reasons: Park & Ride**
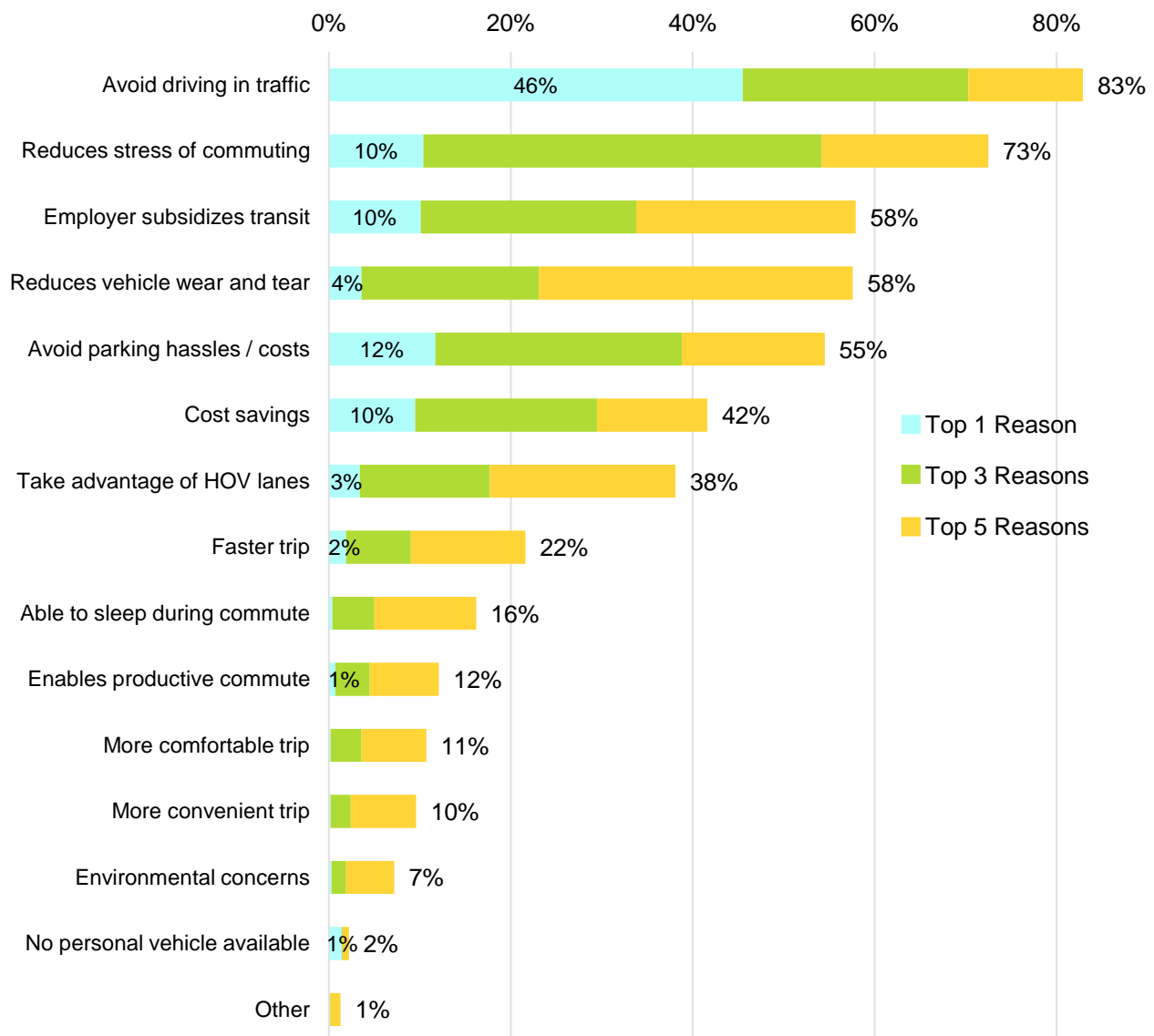


Q39. I take Park & Ride because of the following: │ Base: Total Downtown employees who usually commute by Park & Ride (n=1972)

## Local Bus / Rail Commuters

The following choropleth map shows the concentration of local bus / rail commuters by their residential zip code. The sum of local bus / rail commuters by zip code was divided by the total number of respondents to determine their concentration by zip code. The heaviest concentration of residences for local transit commuters lies to the immediate west of the METRORail Red Line.

**Map 10. Local Bus / Rail Commuters Surveyed - Residential Zip Code**
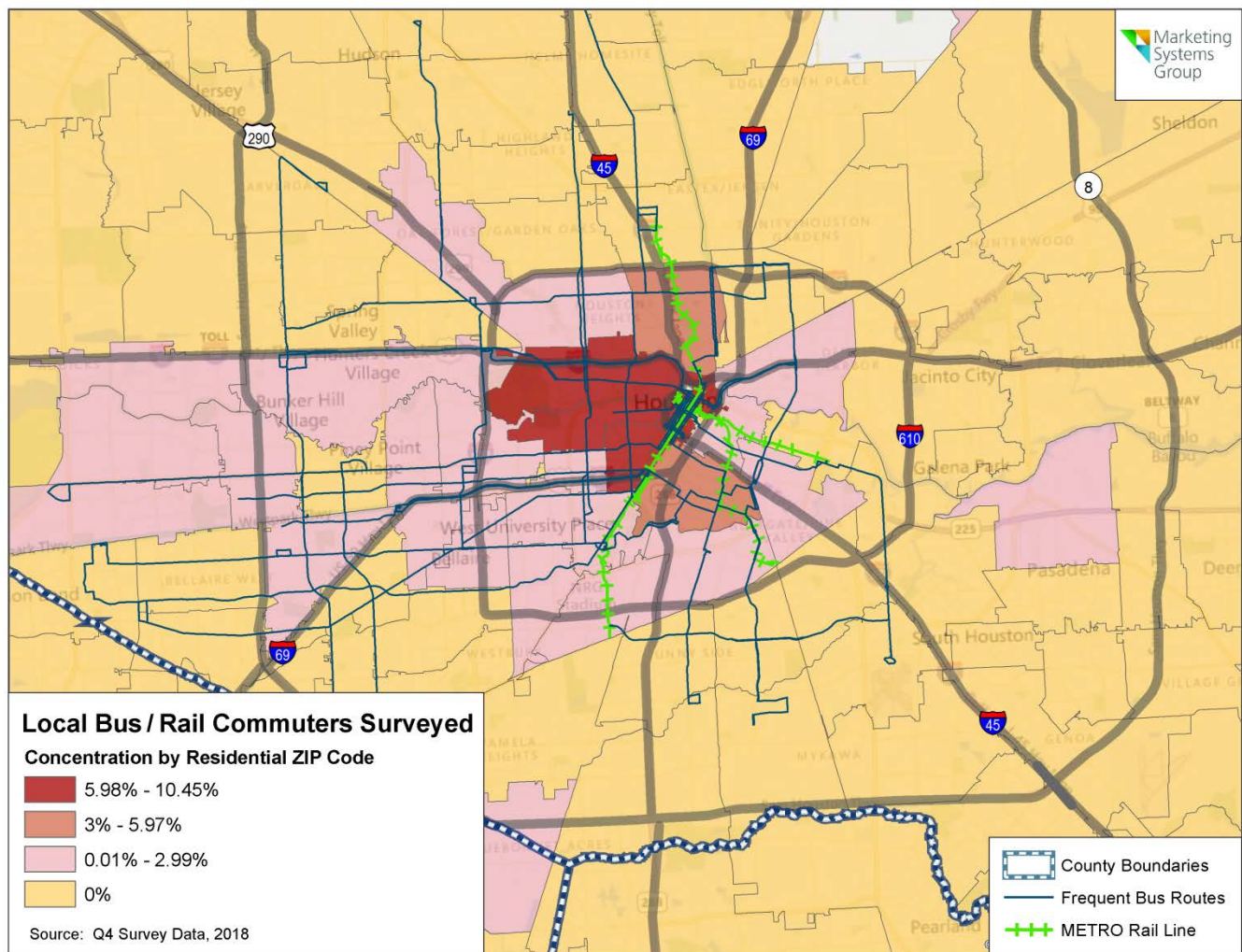


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by local bus / rail (n=466)

Respondents who primarily commute by local transit were asked how they complete their trip, if their transit journey does not end at their work address. Of the 80% of local transit respondents whose transit journey does not end at their work address, fewer than 2% reported completing their trip via bicycle.

Nearly half of local bus / rail commuters (49%) take METRO Local Buses (Routes 001 - 099). Almost one-in-four each take METRO Express Buses (23%) or METRORail (22%). Just 1% commute by Greenlink.

**Figure 57. Transit Service Travel**
*Among Local Bus / Rail Commuters*



Greenlink, 1%

METRO Local Bus
(Route # 001 - 099), 49%

METRORail, 22%

METRO Express Bus
(Route # 100 - 199), 23%
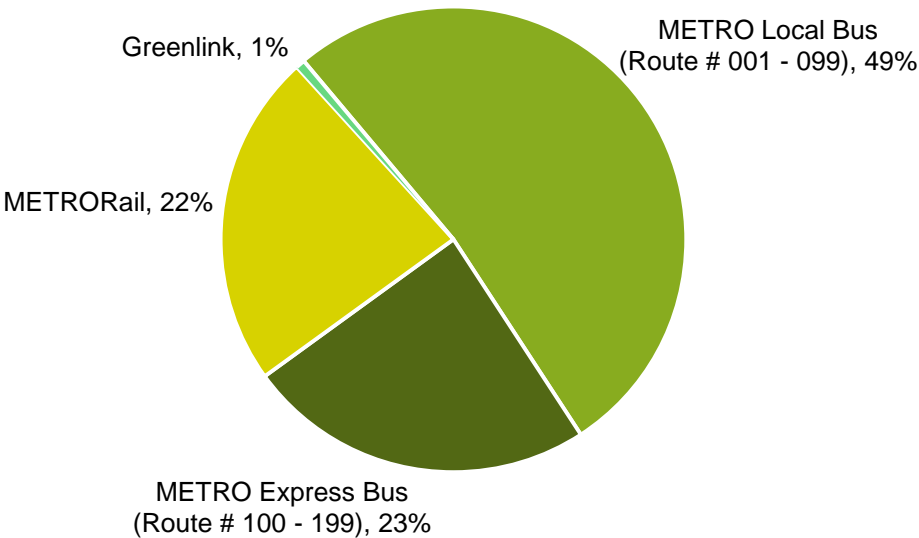
Q31. I usually travel to work on the following bus or rail transit service: │ Base: Total Downtown employees (Local Bus / Rail n=466)

Of the Downtown commuters who take a local transit to work, the majority (67%) do not make any transfers. Among the one-third (33%) who do transfer, most make one (18%) or two (14%) transfers. Fewer than 1% make three transfers.

**Figure 58. Number of Transfers**
*Among Local Bus / Rail Commuters*



| | |
|---|---|
| 0 | 67.3% |
| Transfers (NET) | 32.7% |
| 1 | 17.6% |
| 2 | 14.3% |
| 3 | 0.8% |
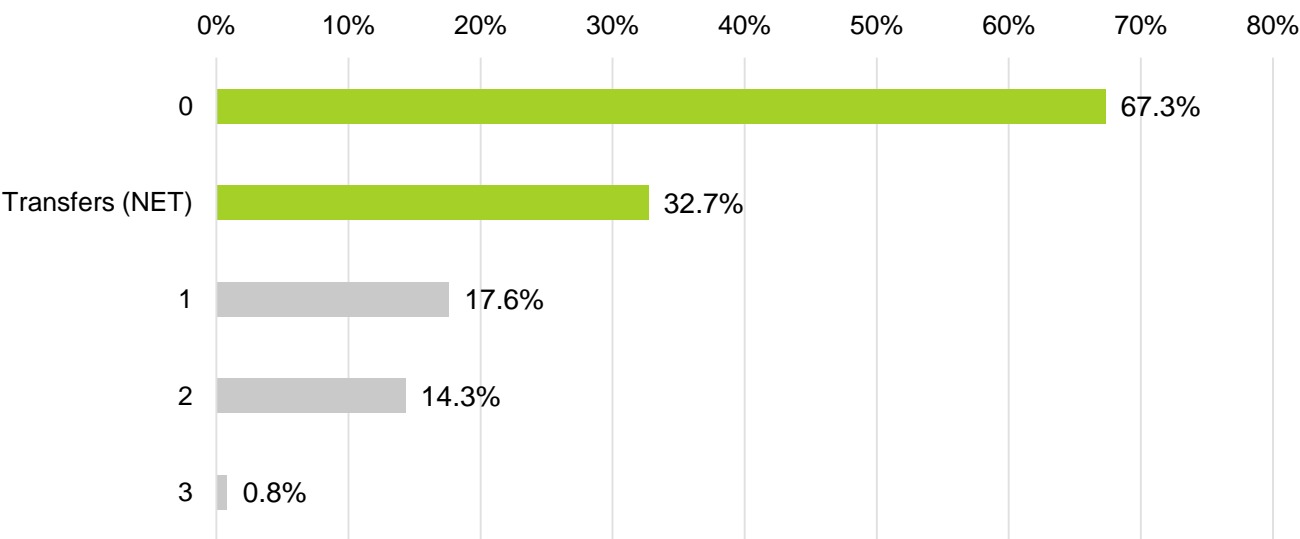
Q37. How many transfers does your commute involve? │ Base: Total Downtown employees (Local Bus / Rail n=466)

Two-thirds of local bus / rail commuters who make transfers are employed in the Nonprofit industry (67%). Another third that make transfers work in Architecture / Engineering (37%) or Leisure / Hospitality (35%). While not conclusive, due to small sample sizes, it was observed that more employees in Food Services (16%), Accounting (13%), Construction (11%), and Education (10%) make two transfers during their commutes.

**Table 18. Industry**
*By Number of Transfers*

|  | Any | 1* | 2* | 3** | None |
|---|---|---|---|---|---|
| Nonprofit | 67% | 0% | 0% | 67% | 2% |
| Architecture / Engineering | 37% | 3% | 0% | 33% | 4% |
| Leisure / Hospitality | 35% | 27% | 8% | 0% | 0% |
| Retail | 29% | 18% | 10% | 0% | 4% |
| Food Services | 23% | 7% | 16% | 0% | 2% |
| Accounting | 20% | 8% | 13% | 0% | 20% |
| Construction | 11% | 0% | 11% | 0% | 1% |
| Transportation | 11% | 9% | 2% | 0% | 0% |
| Education | 10% | 0% | 10% | 0% | 0% |
| Information / Technology | 7% | 4% | 3% | 0% | 8% |
| Energy | 7% | 5% | 2% | 0% | 16% |
| Creative / Design | 6% | 0% | 6% | 0% | 1% |
| Legal | 6% | 2% | 4% | 0% | 10% |
| Utilities | 4% | 3% | 1% | 0% | 7% |
| Consulting | 3% | 3% | 0% | 0% | 10% |
| Insurance | 3% | 3% | 0% | 0% | 0% |
| Financial Services | 1% | 0% | 1% | 0% | 5% |
| Government | 0% | 0% | 0% | 0% | 4% |
| Real Estate | 0% | 0% | 0% | 0% | 2% |
| Other | 20% | 9% | 11% | 0% | 2% |
| N = | 98 | 64 | 30 | 4 | 362 |

D3. How would you describe your employer's main industry? │ Base: Total Downtown employees (Local Bus / Rail n=466) │ * Sample sizes less than 100 should be interpreted with caution. │ ** Extremely small base size, insufficient basis from which to draw definitive conclusions.

## Motivation for Local Bus / Rail Commuters

Cost savings is the most reported top motivator for choosing to commute to Downtown by local bus / rail, both as the top reason (27%) and as one of commuters' top 5 reasons (59%). Avoiding traffic (57%) and parking related inconveniences and costs (53%) are the next most reported reasons. One-in-five local transit commuters (19%) ranked "no personal vehicle available" as their top reason for choosing to commute via local bus / rail.

**Figure 59. Top Reasons: Local Bus / Rail**
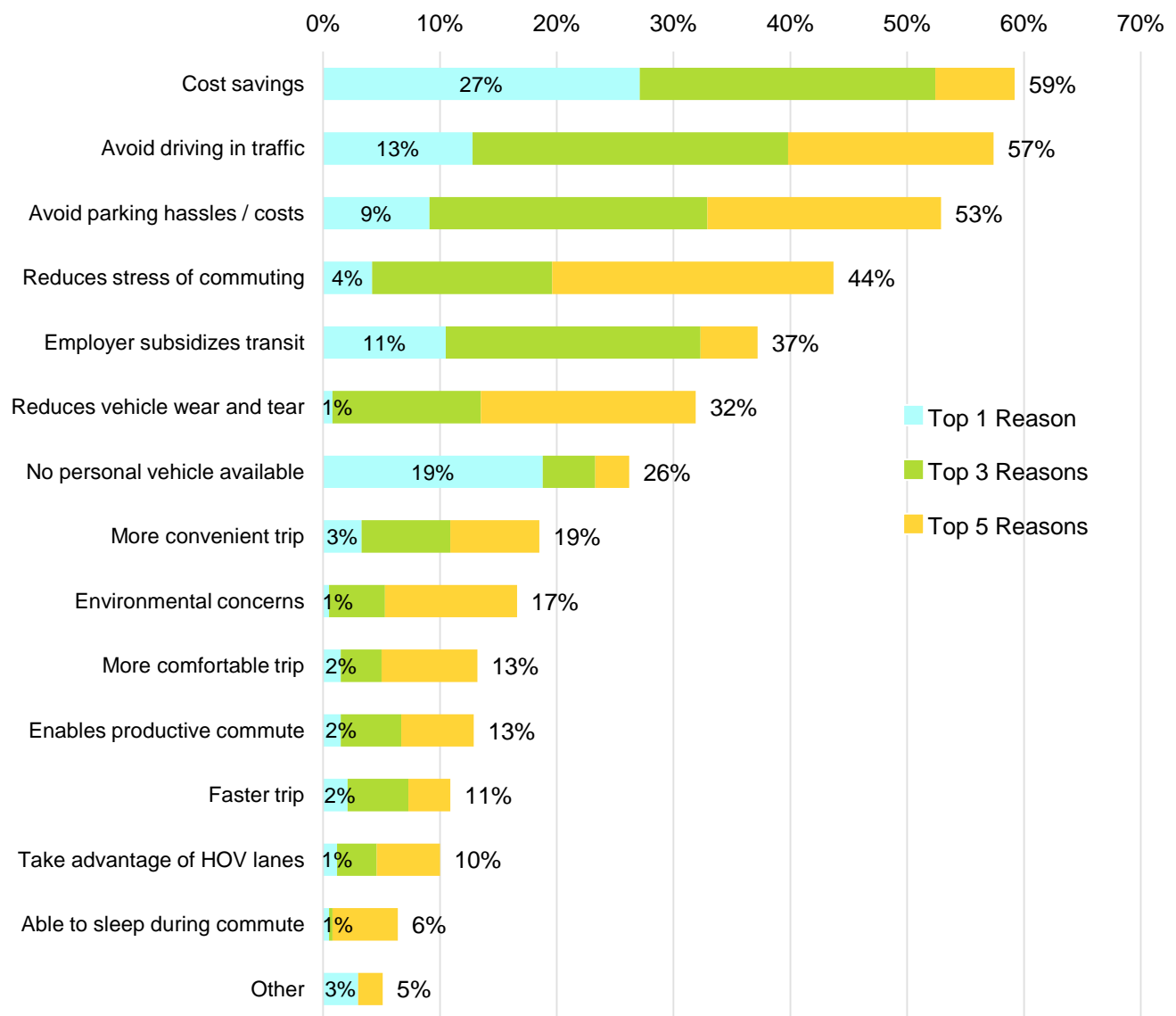
## Carpool Commuters

The following choropleth map shows the concentration of carpool commuters by their residential zip code. The sum of commuters by carpool by zip code was divided by the total number of respondents to determine the concentration of carpoolers by zip code. There are two concentrations of carpool commuters: those residing outside of Beltway 8 and those living between Loop 610 and Beltway 8. The heaviest concentration of carpool commuters reside along the Fort Bend Express Park & Ride.

**Map 11. Carpool Commuters Surveyed - Residential Zip Code**
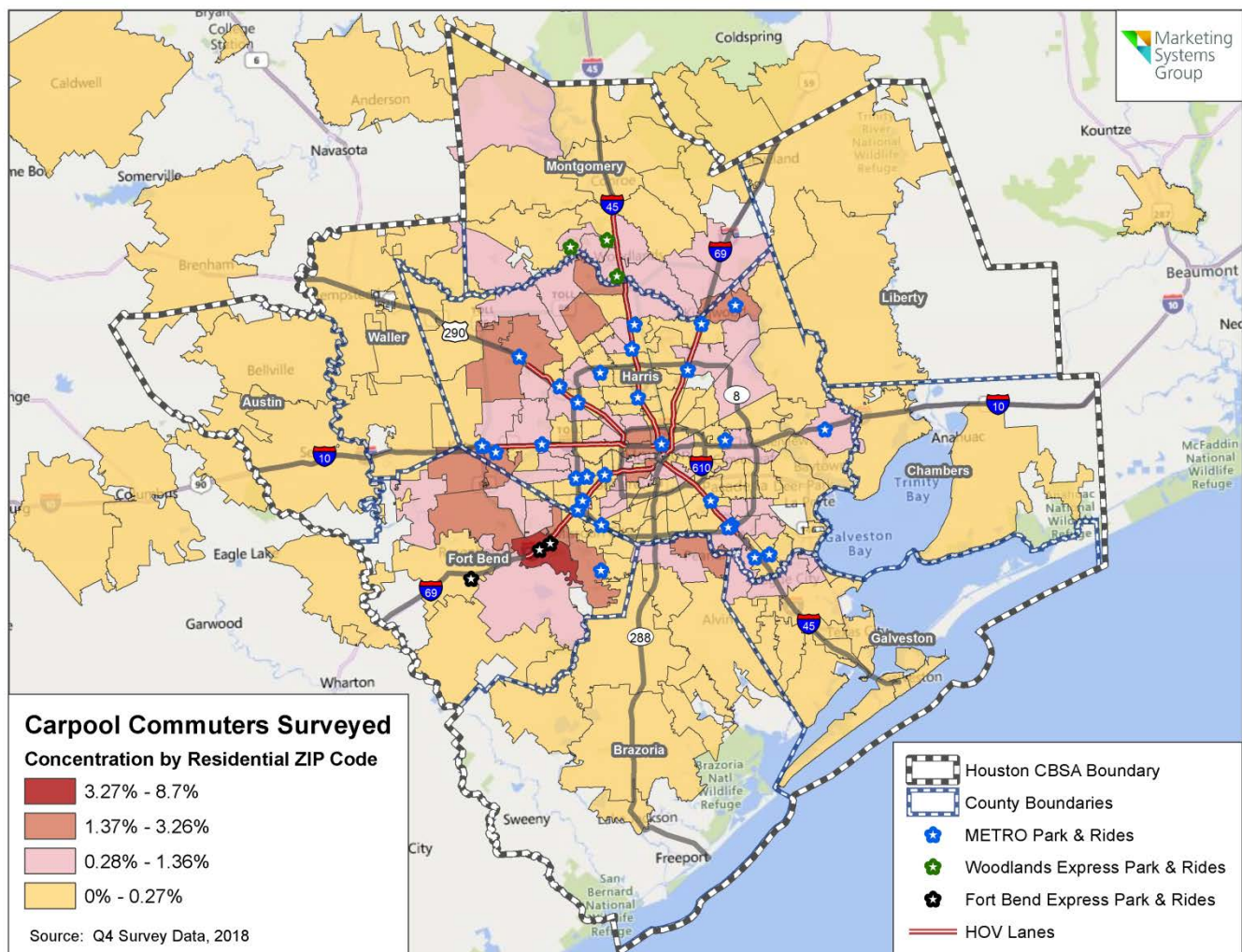


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by carpool (n=370)

## Motivation for Carpoolers

Most Downtown employees commuting via carpooling do so to take advantage of HOV lanes (58%, top 5 reasons). In fact, one-in-five who carpool indicate HOV lanes as their top reason. The next most reported reasons include cost savings (49%, top 5 reasons), someone else needs a ride (45%, top 5 reasons), parking provided / subsidized by employer (40%, top 5 reasons), and faster trip (38%, top 5 reasons).

**Figure 60. Top Reasons: Carpool**
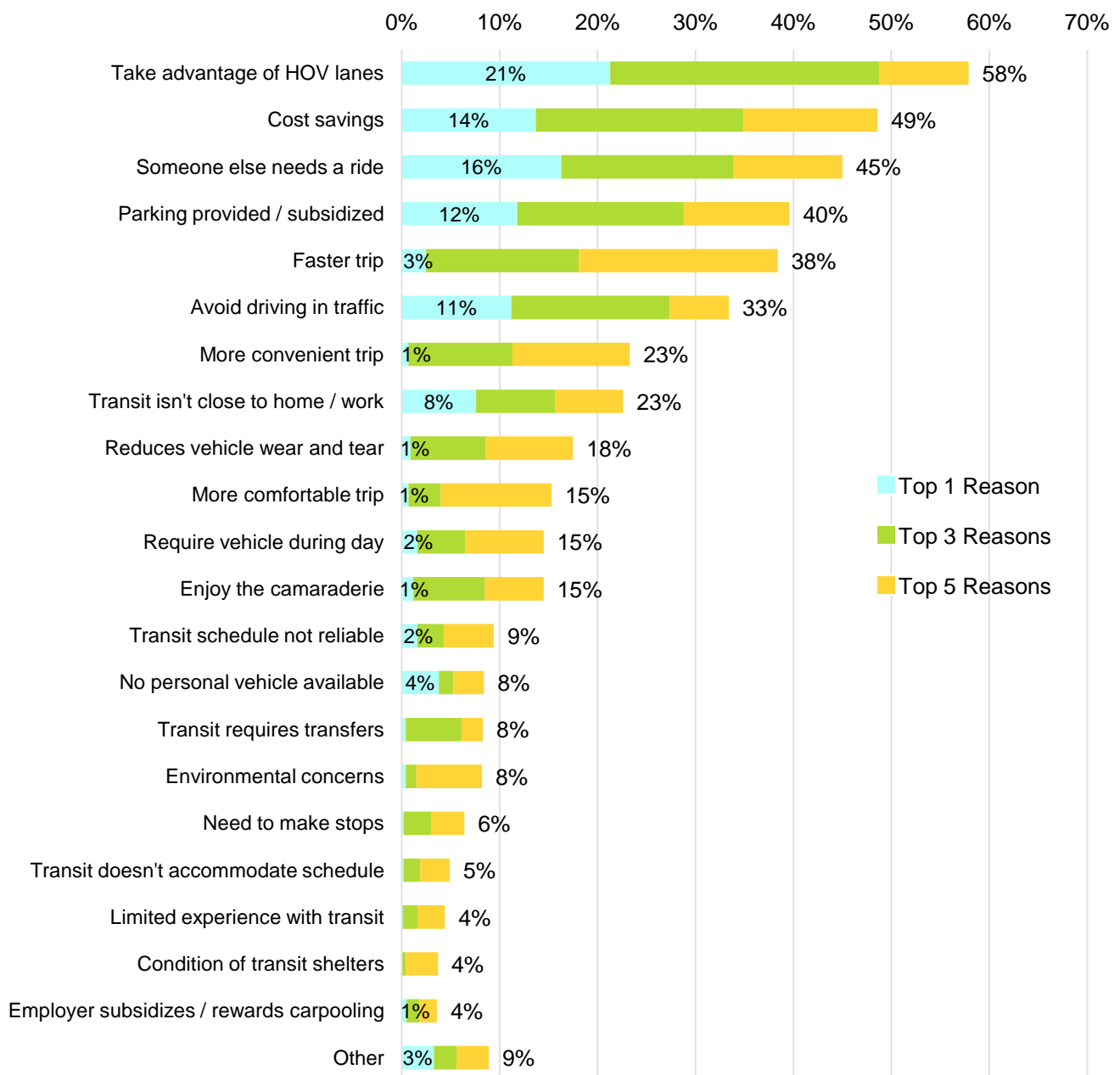


Q50. I carpool because of the following: │ Base: Total Downtown employees who usually commute by carpool (n=370)

## Vanpool Commuters

The following choropleth map shows the concentration of vanpool commuters by their residential zip code. The sum of commuters by vanpool by zip code was divided by the total number of respondents to determine the concentration of vanpoolers by zip code. The heaviest concentration of vanpool commuters reside in Fort Bend County; the majority of Fort Bend County falls outside of METRO's service area.

### Map 12. Vanpool Commuters Surveyed - Residential Zip Code
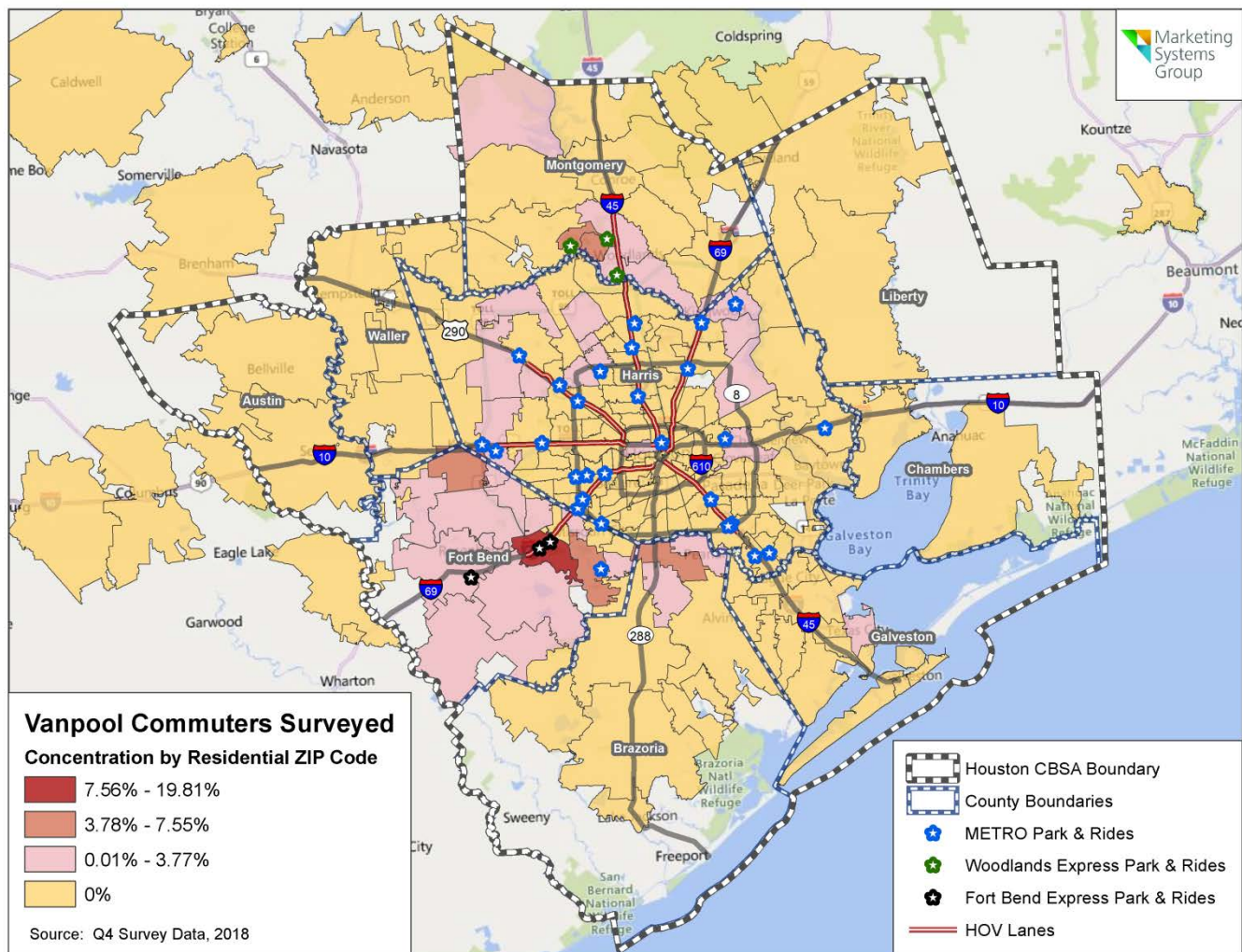


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by vanpool (n=106)

## Motivation for Vanpoolers

Most vanpool commuters (57%) indicated reducing the stress of commuting was in the top 5 reasons for selecting vanpool as their primary commute mode. Just under half also ranked cost savings (46%), reducing wear on vehicle (45%), and avoiding driving in traffic (44%) among their top 5 reasons for commuting by vanpool. The most common top reasons for commuting by vanpool were cost savings (19%) and avoiding required transfers with transit (15%).

**Figure 61. Top Reasons: Vanpool**



Q44. I vanpool because of the following: │ Base: Total Downtown employees who usually commute by vanpool (n=106)

## Kiss & Ride Commuters

The following choropleth map shows the concentration of Kiss & Ride commuters by their residential zip code. The sum of commuters who Kiss & Ride by zip code was divided by the total number of respondents to determine their concentration by zip code. Kiss & Ride commuters cover many zip codes across Houston, but the heaviest concentration of such commuters reside inside Loop 610.

**Map 13. Kiss & Ride Commuters Surveyed - Residential Zip Code**
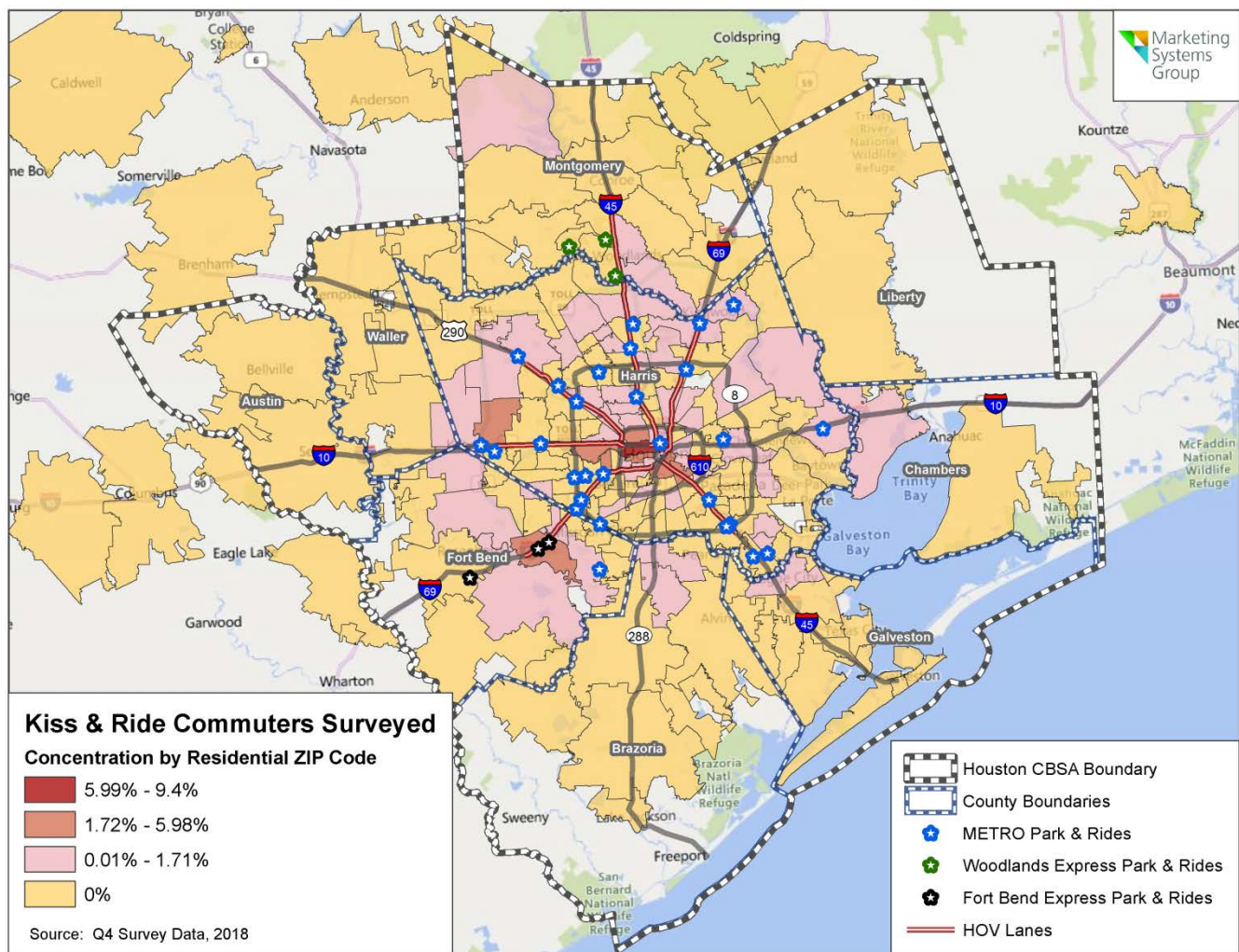


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by Kiss & Ride (n=117)

**Motivation for Kiss & Ride Commuters**

The most reported primary impetus for commuters who are dropped off to work by a family member or friend is not having a personal vehicle available to them, with one-quarter citing this as their top reason (24%). The other main rationale for commuting by Kiss & Ride, are the cost savings (58%, top 5 reasons) and to avoid parking costs and inconveniences (54%, top 5 reasons). Kiss & Ride commutes are largely a family affair, as less than 1% indicate they are dropped off by a friend. All others commute with a family member, namely their spouse (61%) or child (25%).

**Figure 62. Top Reasons: Kiss & Ride**

| Reason | Top 1 | Top 5 |
|---|---|---|
| Cost savings | 20% | 58% |
| Avoid parkng hassles / costs | 13% | 54% |
| Take advantage of HOV lanes | 10% | 34% |
| Mutual convenience | 9% | 32% |
| Faster trip | 8% | 31% |
| No personal vehicle available | 24% | 28% |
| More comfortable trip | 1% | 28% |
| More convenient trip | 1% | 25% |
| Opportunity to talk | 3% | 24% |
| Avoid driving in traffic | 8% | 19% |
| Reduces stress of commuting | | 18% |
| Transit schedule not reliable | 1% | 11% |
| Environmental concerns | | 11% |
| Limited experience with transit | | 10% |
| Transit isn't close to home / work | 3% | 7% |
| Condition of transit shelters | | 6% |
| Transit doesn't accommodate schedule | | 5% |
| Transit requires transfers | | 5% |
| Need to make stops | | 3% |
| Other | 1% | 4% |

Legend: Top 1 Reason / Top 3 Reasons / Top 5 Reasons

Q78. I am dropped off by a family member / friend because of the following: │ Base: Total Downtown employees who usually commute by Kiss & Ride (n=117)

## Uber / Lyft Commuters

The following choropleth map shows the concentration of Uber / Lyft commuters by their residential zip code. The sum of Uber / Lyft commuters by zip code was divided by the total number of respondents to determine their concentration by zip code. While Uber / Lyft commuters are spread across Houston, a heavier concentration reside inside Loop 610.

**Map 14. Uber / Lyft Commuters Surveyed - Residential Zip Code**
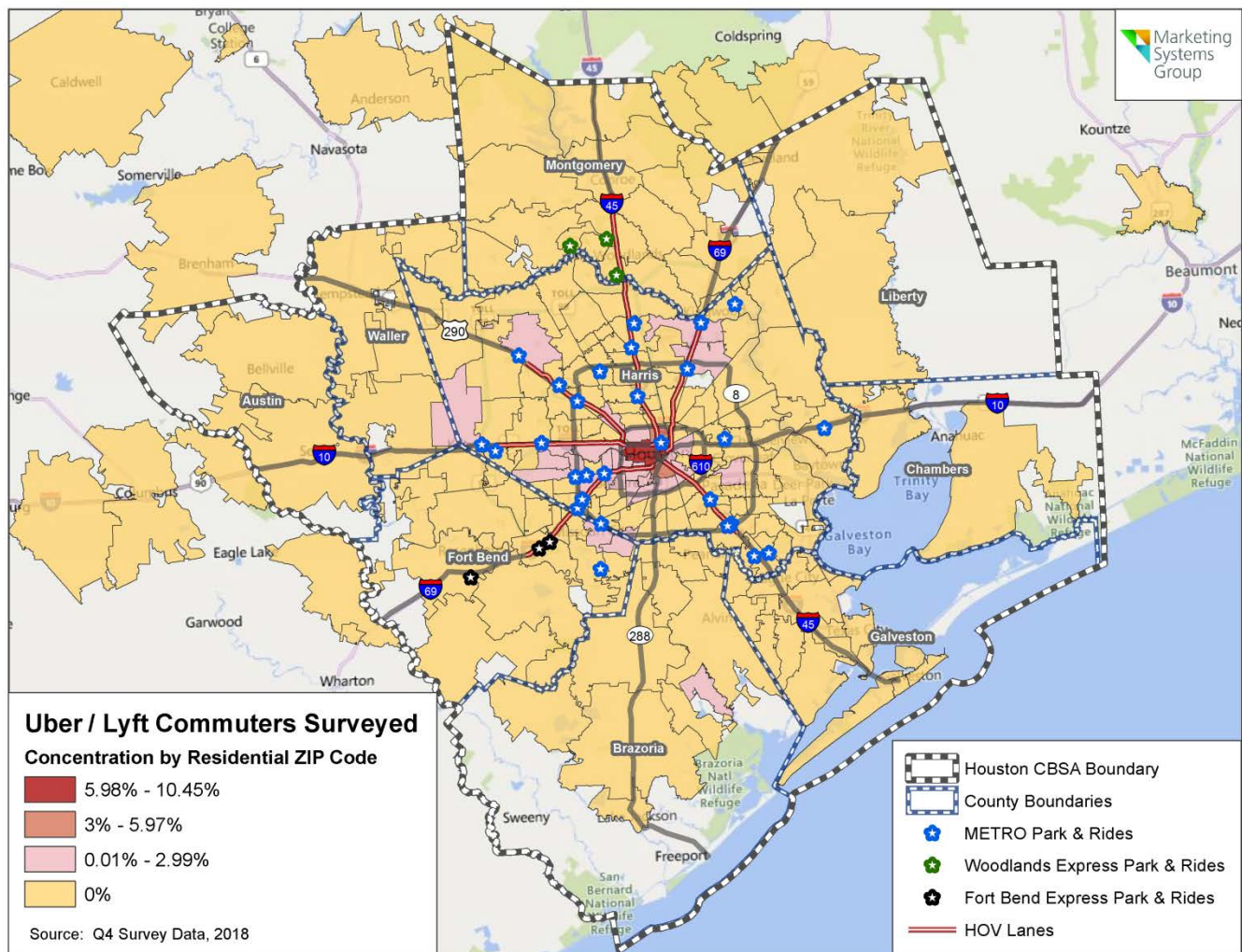


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by Uber / Lyft* (n=67) │ *Sample sizes less than 100 should be interpreted with caution.

## Motivation for Uber / Lyft Commuters

One-third of employees (36%) commuting Downtown by Uber or Lyft indicated their primary reason for doing so is to avoid parking inconveniences and costs. Among the top 5 reasons for choosing Uber or Lyft were parking issues (50%), commuter preference for the convenience of Uber / Lyft (43%), and close proximity to work (42%).

**Figure 63. Top Reasons: Uber / Lyft***
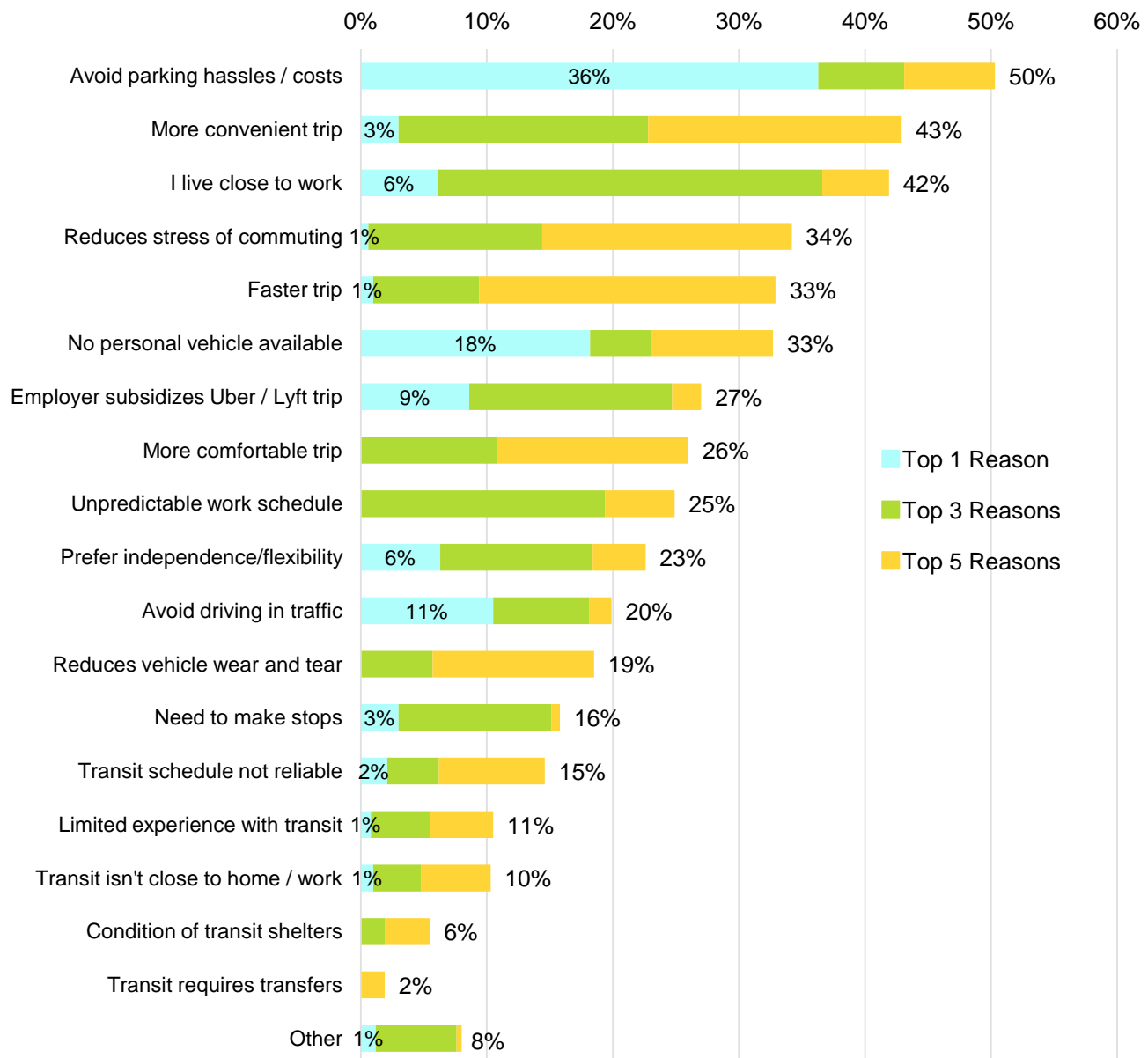


Q56. I use Uber / Lyft because of the following: │ Base: Total Downtown employees who usually commute by Uber / Lyft* (n=67) │ *Sample sizes less than 100 should be interpreted with caution.

Most (59%) who utilize Uber or Lyft as their primary commute mode take the service on both legs of their journey. Uber / Lyft commuters spend a median of $12 one way on their commute to or from Downtown. One-third (36%) apply corporate discounts to their trip; and nearly all (89%) would opt for Uberpool or Lyftpool, where travelers are matched with other riders heading in the same direction in exchange for a cheaper fare, if it were available.

## Pedestrian Commuters

The following choropleth map shows the concentration of pedestrian commuters by their residential zip code. The sum of pedestrians by zip code was divided by the total number of respondents to determine the concentration of pedestrians by zip code. The heaviest concentration of pedestrian commuters resides in zip Code 77002.
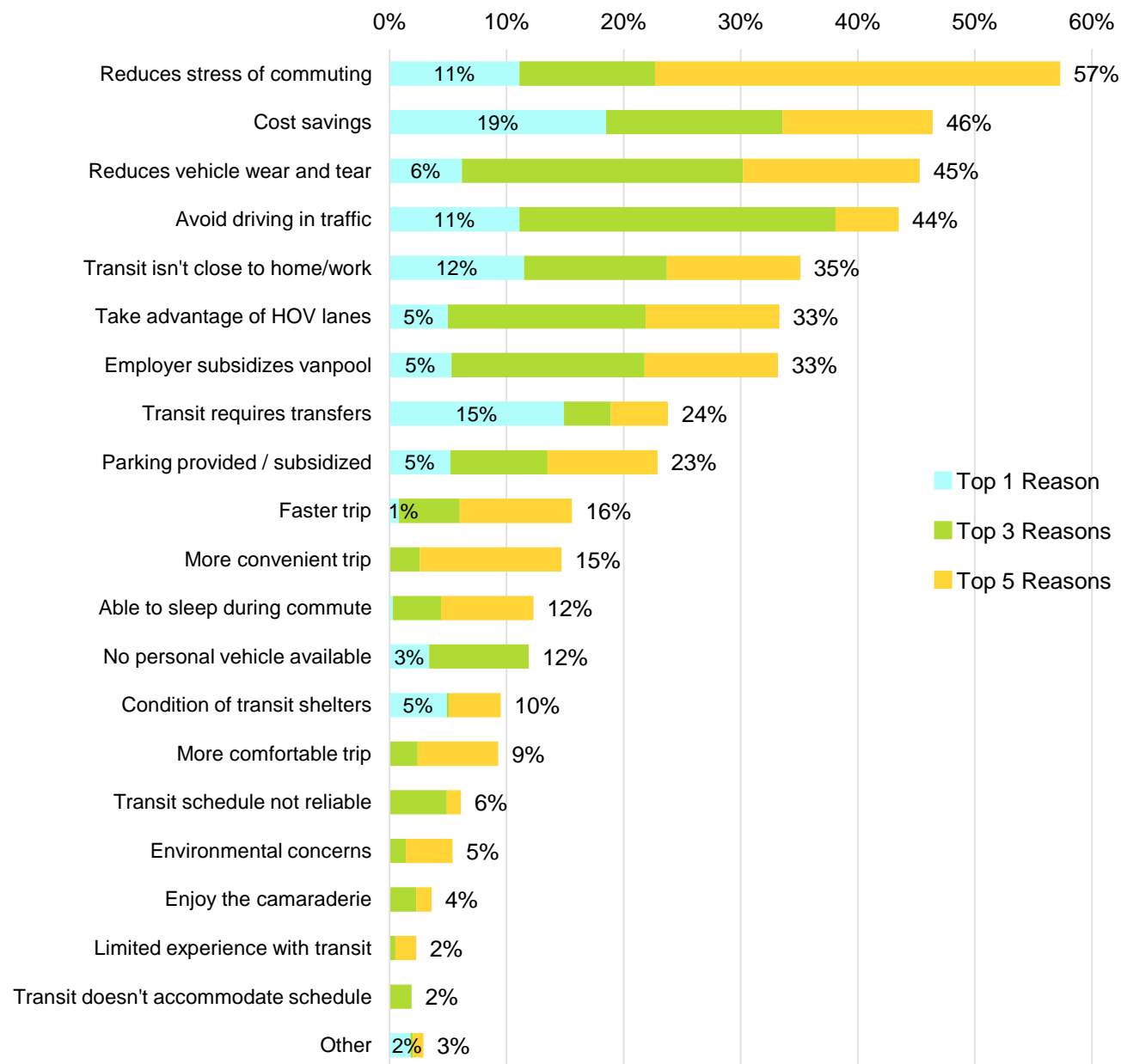
**Map 15. Pedestrian Commuters Surveyed - Residential Zip Code**
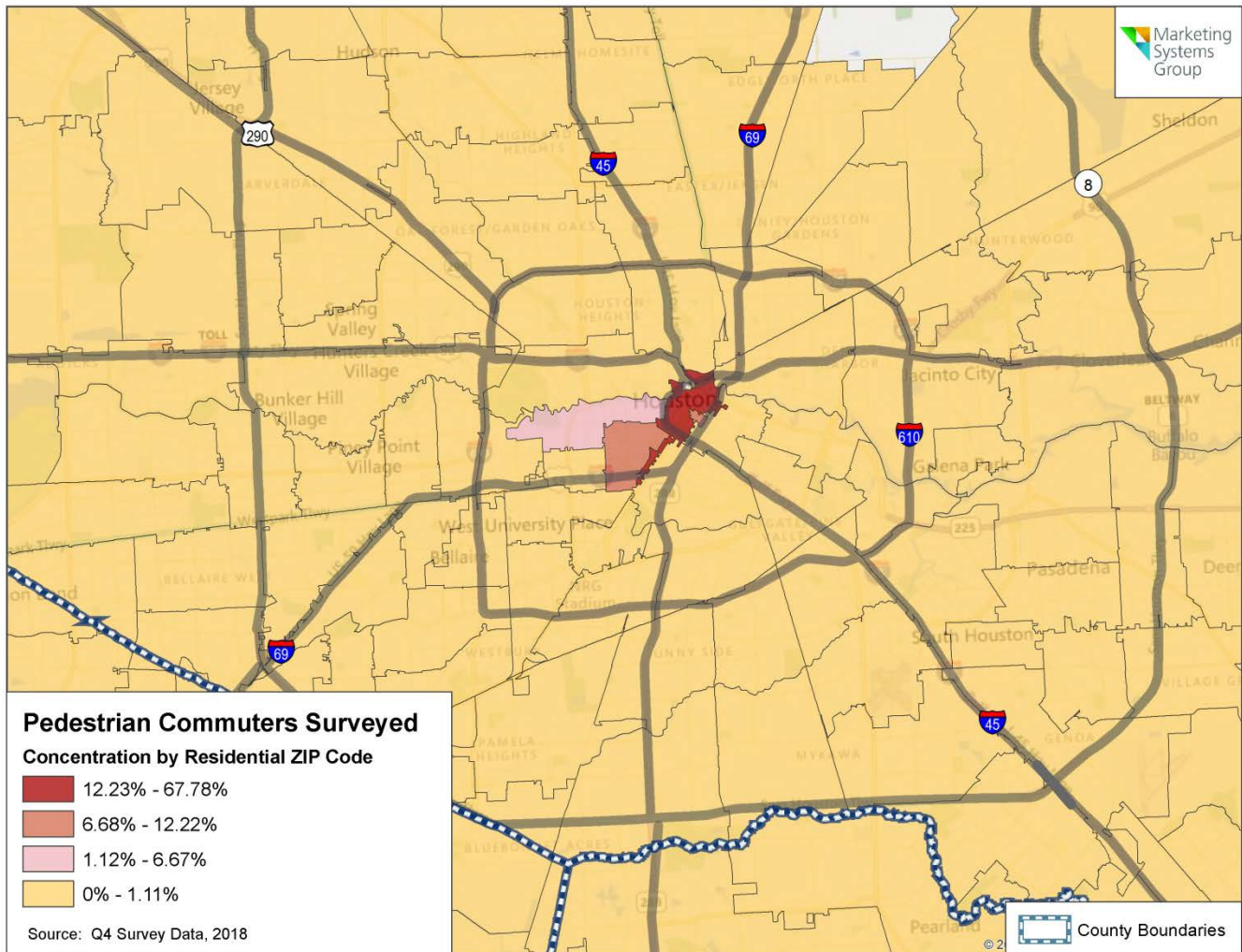


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by walking* (n=91) │ *Sample sizes less than 100 should be interpreted with caution.

**Motivation for Walkers**

Close proximity to their place of employment is the prevailing reason cited by Downtown employees commuting by walking (45%, top reason; 85%, top 5 reasons). More than half (56%) also name exercise and health benefits.

**Figure 64. Top Reasons: Walking***
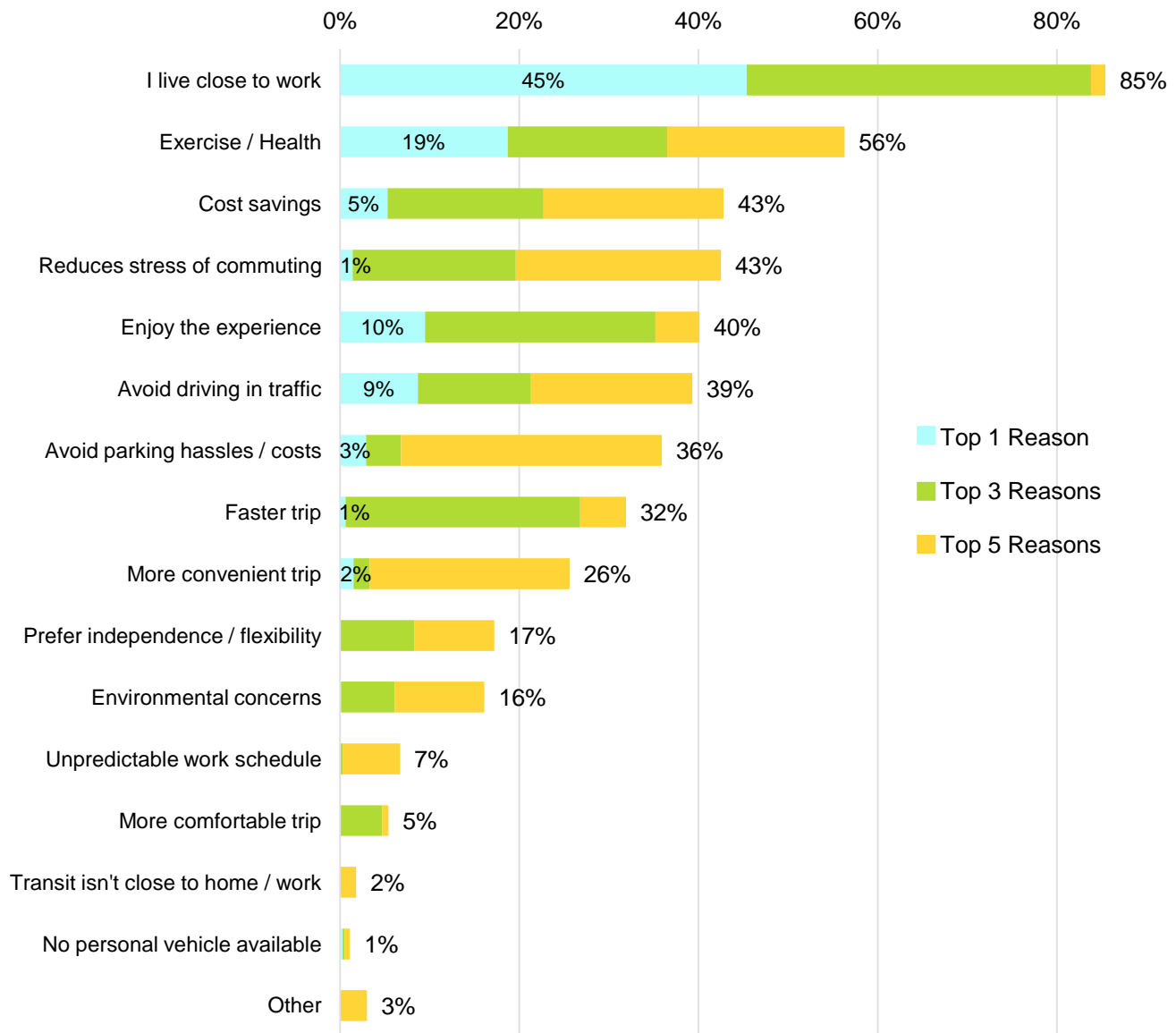
Most commuters who walk described their sidewalk quality as adequate (59%) and indicated there are signals at their pedestrian crossings (54%). However, one-quarter, indicated the condition of their commute was less than desirable with poorly lit walkways (28%) and low quality sidewalks (22%). One-in-ten commuters who walk report feeling unsafe at major street crossings (10%).

**Figure 65. Condition and Quality of Walk Commute***
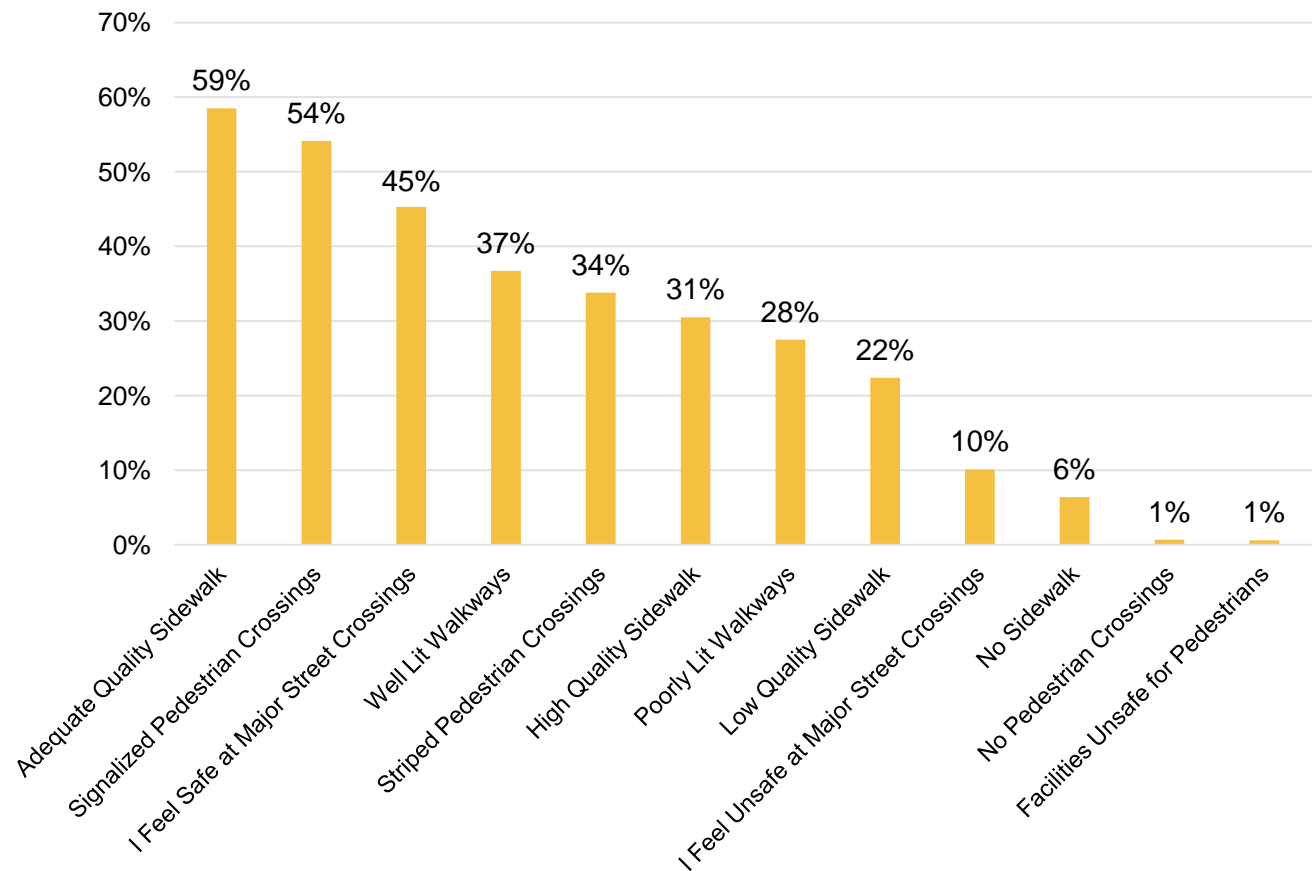


Q75. Which of the following describe the general conditions of the sidewalk along your work commute? │ Base: Total Downtown employees who usually commute by walking* (n=91) │ *Sample sizes less than 100 should be interpreted with caution.

## Bicycle Commuters

The following choropleth map shows the concentration of bicycle commuters by their residential zip code. The sum of bicyclists by zip code was divided by the total number of respondents to determine the concentration of bicyclists by zip code. The heaviest concentration of bicycle commuters lives inside Loop 610.

**Map 16. Bicycle Commuters Surveyed - Residential Zip Code**
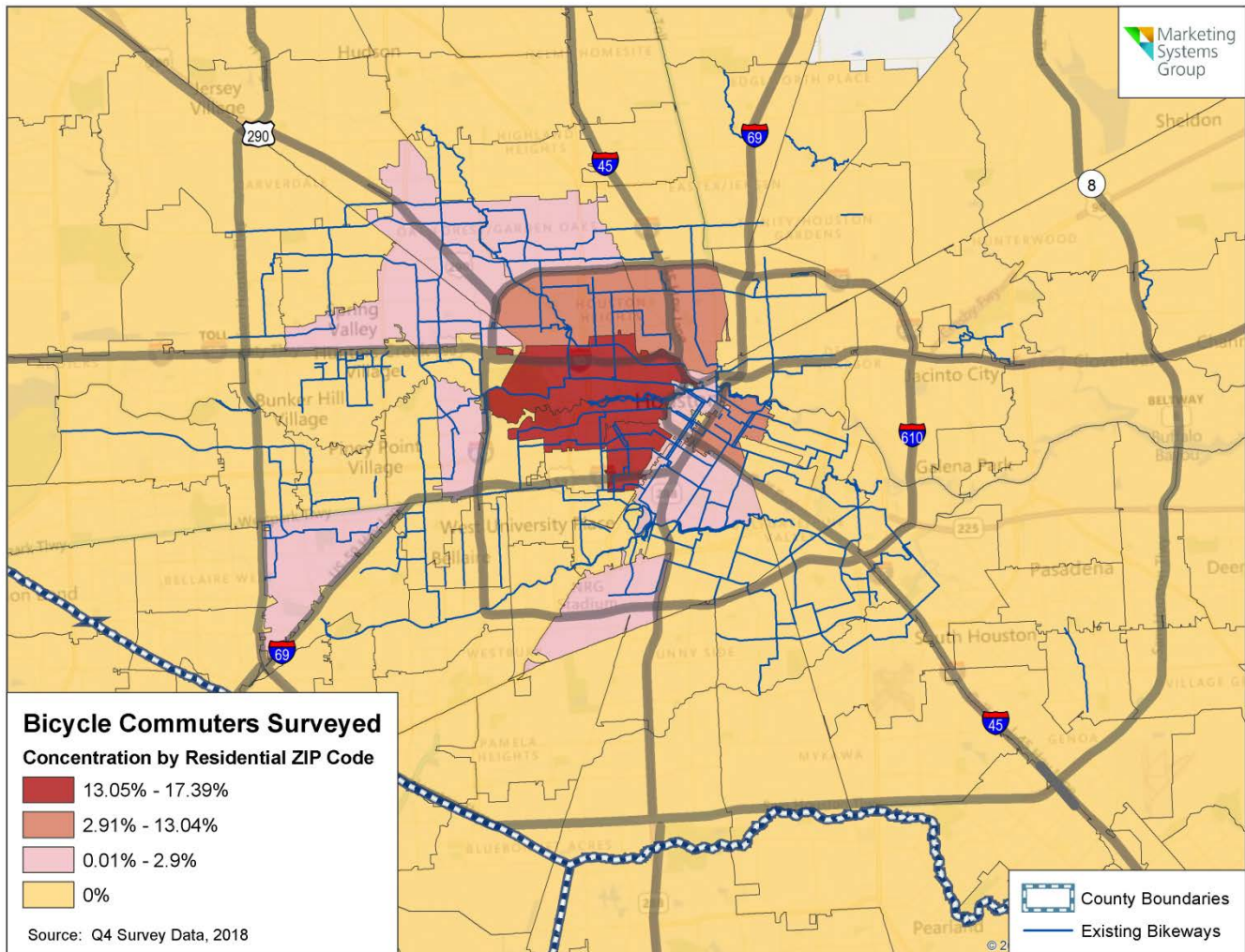


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by bicycle* (n=69) │ *Sample sizes less than 100 should be interpreted with caution.

## Motivation for Bicyclists

Commuters who primarily bike to work indicated this decision is based on equal parts joy and exercise. One-half (50%) indicated exercise and health is the top reason they choose to bike, with three-quarters (78%) including exercise in their top 5 reasons. Another three-in-four employees (78%) indicated they enjoy the experience. Secondary influencers include the associated cost savings with biking (60%) as well as the commuter's close proximity to work (51%).

**Figure 66. Top Reasons: Bicycle***
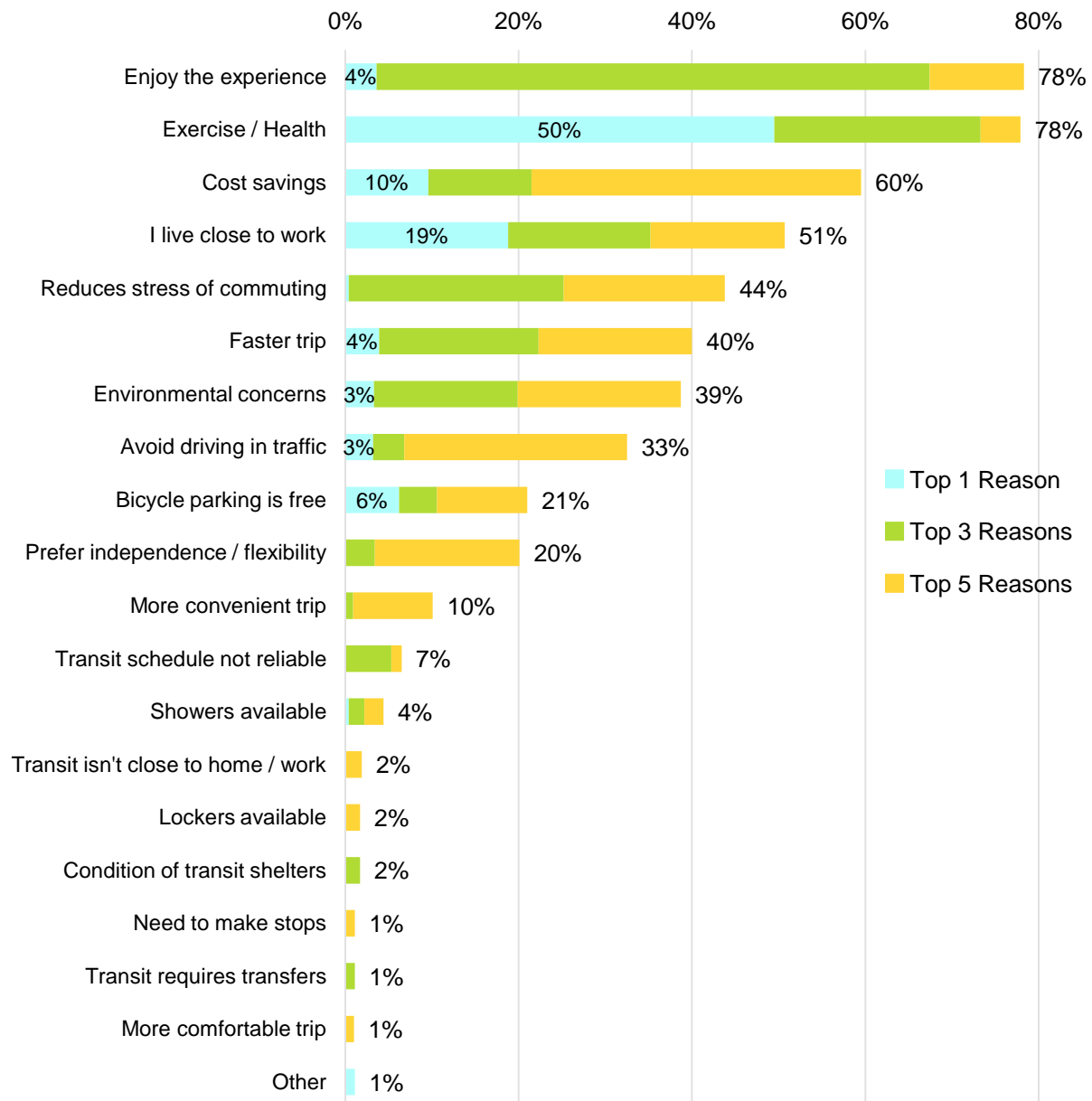


Q68. I bike to work because of the following: │ Base: Total Downtown employees who usually commute by bicycle* (n=69) │ *Sample sizes less than 100 should be interpreted with caution.

The vast majority of bike commuters (94%) commute via the street, either directly on the street (93%) or on an on-street bike lane (53%). The next most common avenue for commuting by bike was off-street shared use trails (54%). Since survey respondents were asked to "Select all that Apply," most respondents selected multiple facility types; thus the percentages in the figure below add to substantially more than 100.

**Figure 67. Facility Used During Bike Commute**
*Among Bicycle Commuters\**
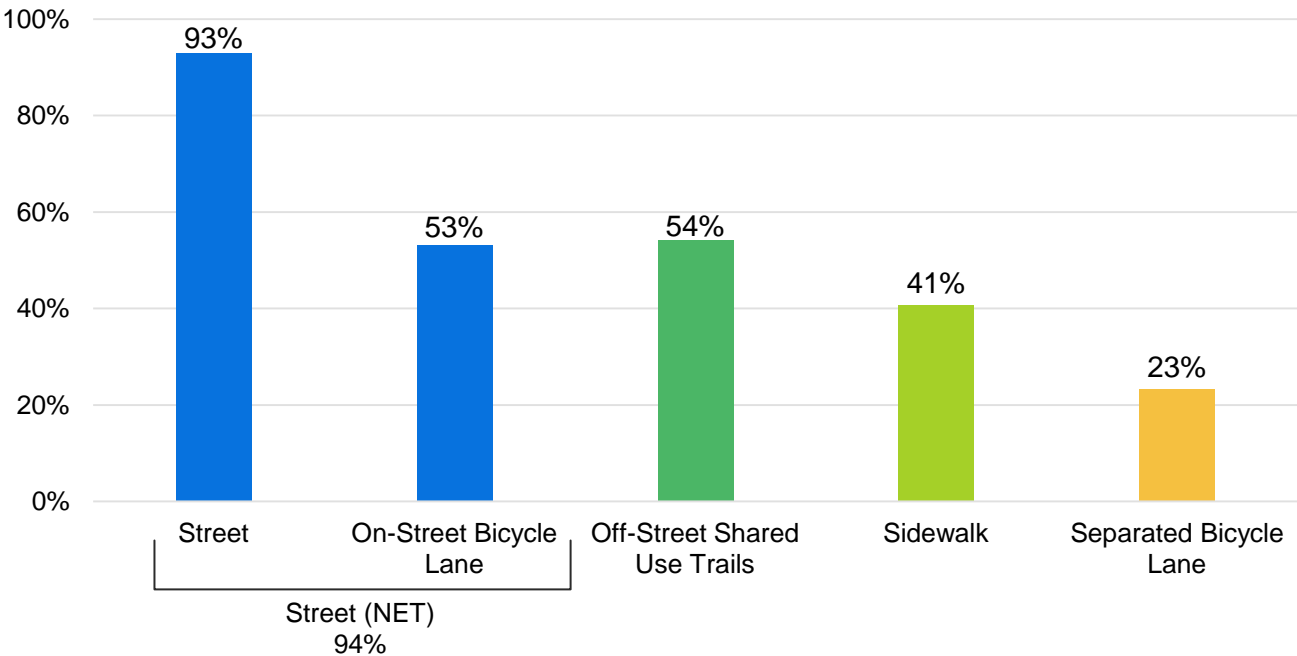
More than half of bike commuters (55%) indicated that there are bicycle lanes partially through their trip, with one-quarter (26%) saying there are no bike lanes along their route.

**Figure 68. Presence of Bicycle Lanes Throughout Trip**
*Among Bicycle Commuters\**
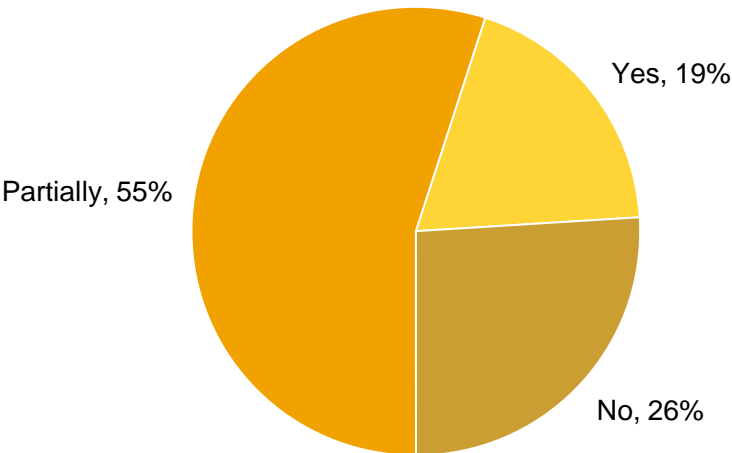
## Employed by a Downtown Businesses but Primarily Work at a Non-Downtown Location

Downtown employees primarily working at a non-Downtown location are concentrated heavily in Fort Bend County. The following choropleth map shows the concentration of Downtown employees who do not commute Downtown by their residential zip code. The sum of those commuting to a non-Downtown location by zip code was divided by the total number of respondents to determine their concentration by zip code.

**Map 17. Office Outside Downtown Surveyed - Residential Zip Code**
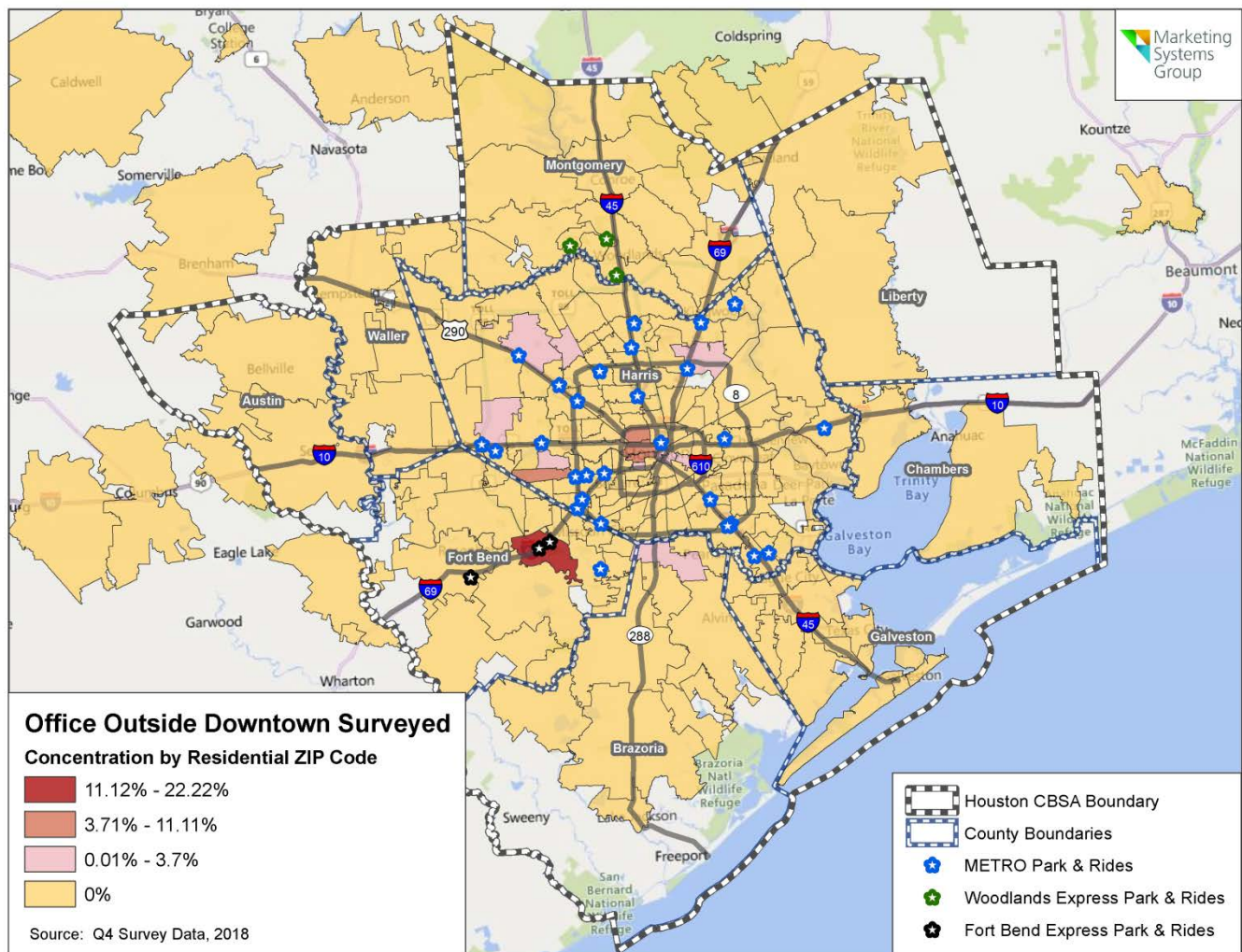


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who primarily work at a non-Downtown location* (n=27) │ *Sample sizes less than 100 should be interpreted with caution.

**Motivation for Primarily Working at a Non-Downtown Location**

The dominant reason this segment does not commute to their place of employment Downtown is that their position involves on-site provision of service at locations outside of Downtown (73%). One-in-five (19%) work remotely from home.

**Figure 69. Reasons For Primarily Working at a Non-Downtown Location***

## Motorcycle / Moped Commuters

The following choropleth map shows the concentration of motorcycle or moped commuters by their residential zip code. The sum of motorcycle / moped commuters by zip code was divided by the total number of respondents to determine their concentration by zip code. While motorcycle / moped commuters reside across pockets of Houston, the heaviest concentration are based in the Heights.

**Map 18. Motorcycle Commuters Surveyed - Residential Zip Code**
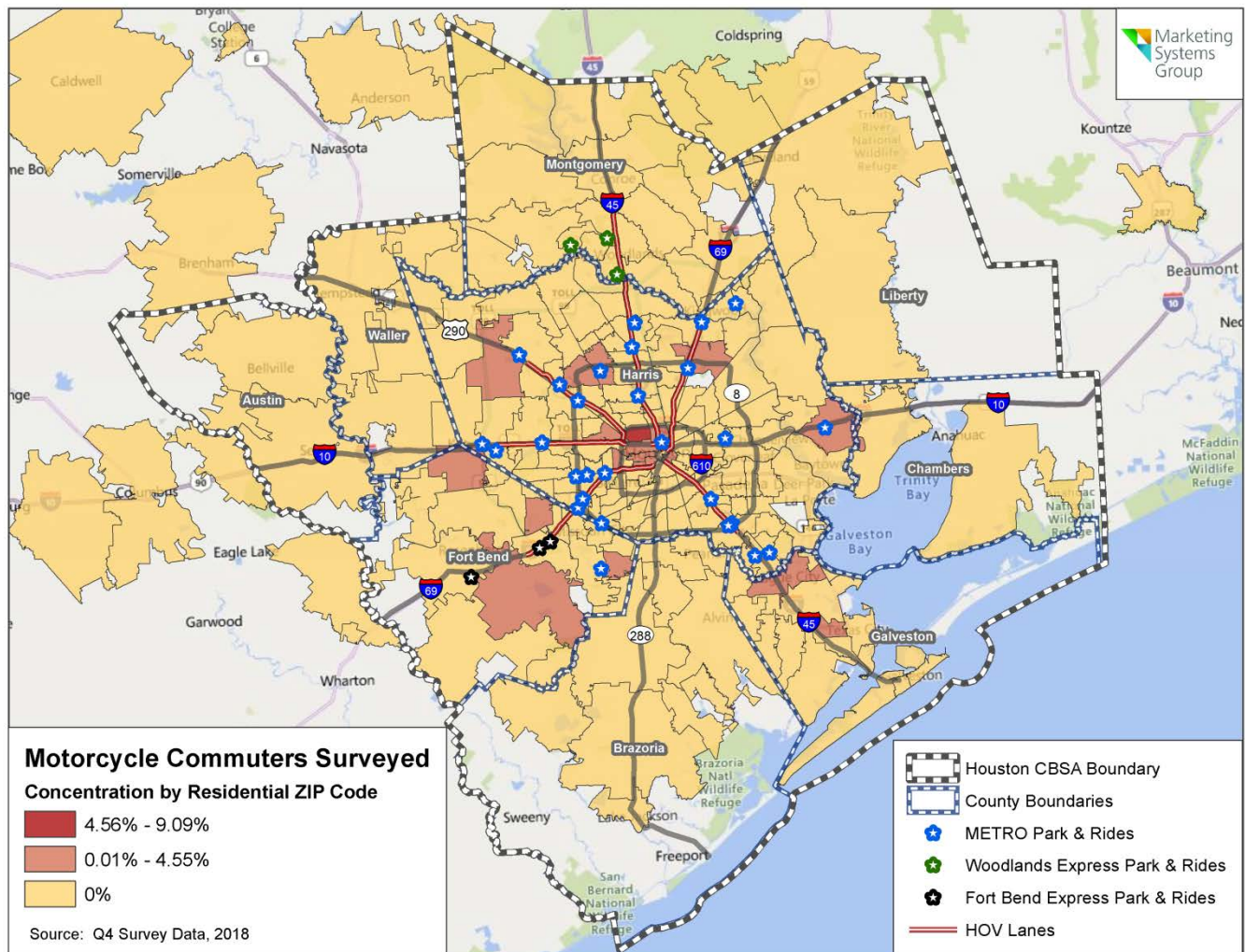


**Motorcycle Commuters Surveyed**
**Concentration by Residential ZIP Code**

- 4.56% - 9.09%
- 0.01% - 4.55%
- 0%

Source: Q4 Survey Data, 2018

Legend:
- Houston CBSA Boundary
- County Boundaries
- METRO Park & Rides
- Woodlands Express Park & Rides
- Fort Bend Express Park & Rides
- HOV Lanes

Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by motorcycle / moped* (n=22) │ *Sample sizes less than 100 should be interpreted with caution.

**Motivation for Motorcycle / Moped Commuters**

More Downtown employees commuting primarily by motorcycle or moped cite the benefits of independence / flexibility (36%) and inexpensive or free parking (30%) as their top reason for choosing the mode. Overall, the top contributing factors for choosing to commute by motorcycle / moped is employer-provided or subsidized parking (65%), the need for a vehicle during the day (59%), and cost savings (56%).

**Figure 70. Top Reasons: Motorcycle / Moped\***
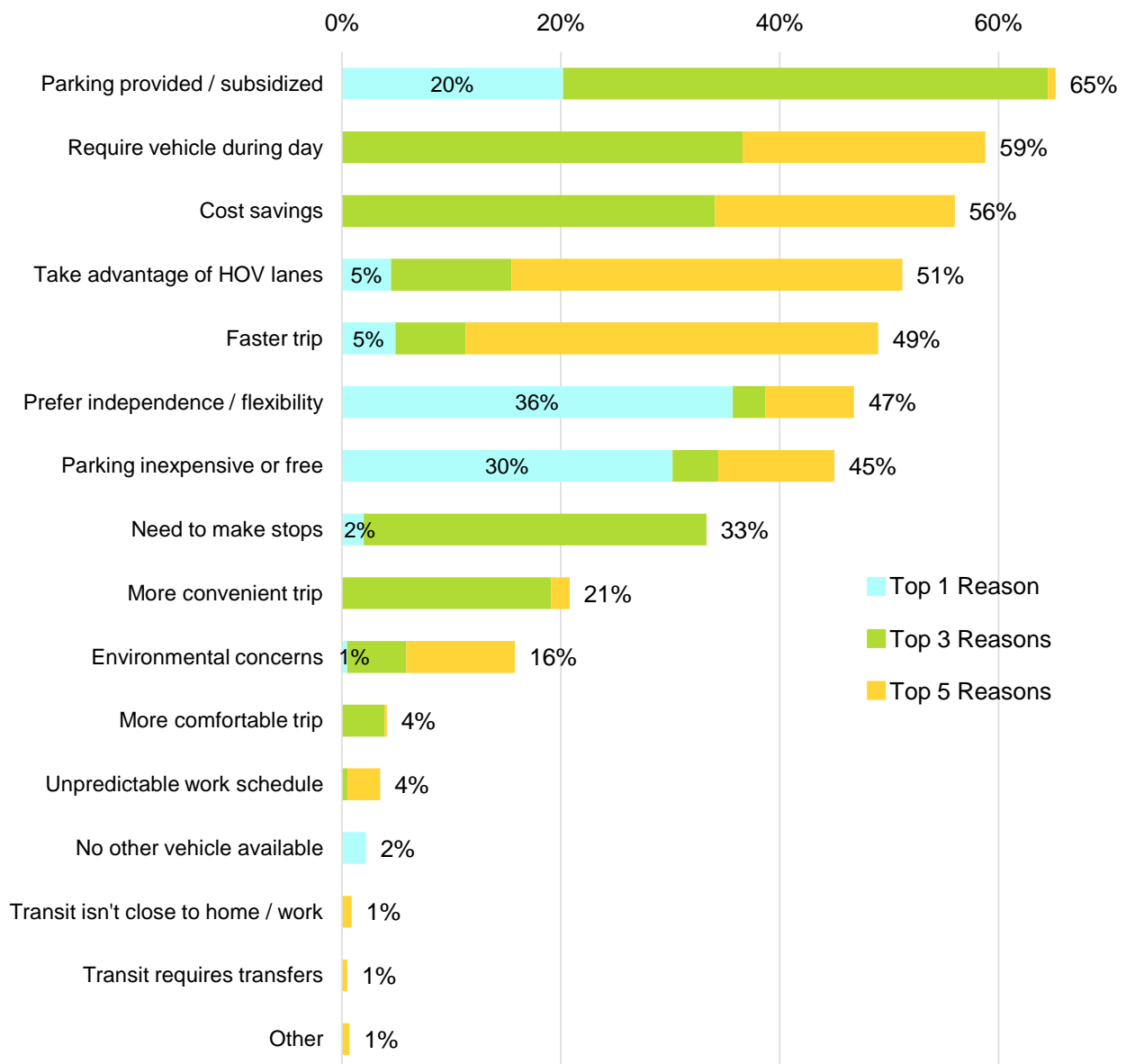


Q64. I take a motorcycle / moped because of the following: │ Base: Total Downtown employees who usually commute by motorcycle / moped* (n=22) │ *Sample sizes less than 100 should be interpreted with caution.

## METRO Frequent Service Network

In August 2015 METRO implemented a New Bus Network, resulting from METRO's System Reimagining, the first comprehensive overhaul of its transit system since the agency's inception in the 1970s. The System Reimagining Project redesigned METRO's local bus service: focusing on consistency, predictability, and legibility.

Routes in METRO's Frequent Service Network come every 15 minutes or better, 15 hours a day, 7 days a week.

**Map 19. METRO Frequent Service Network**
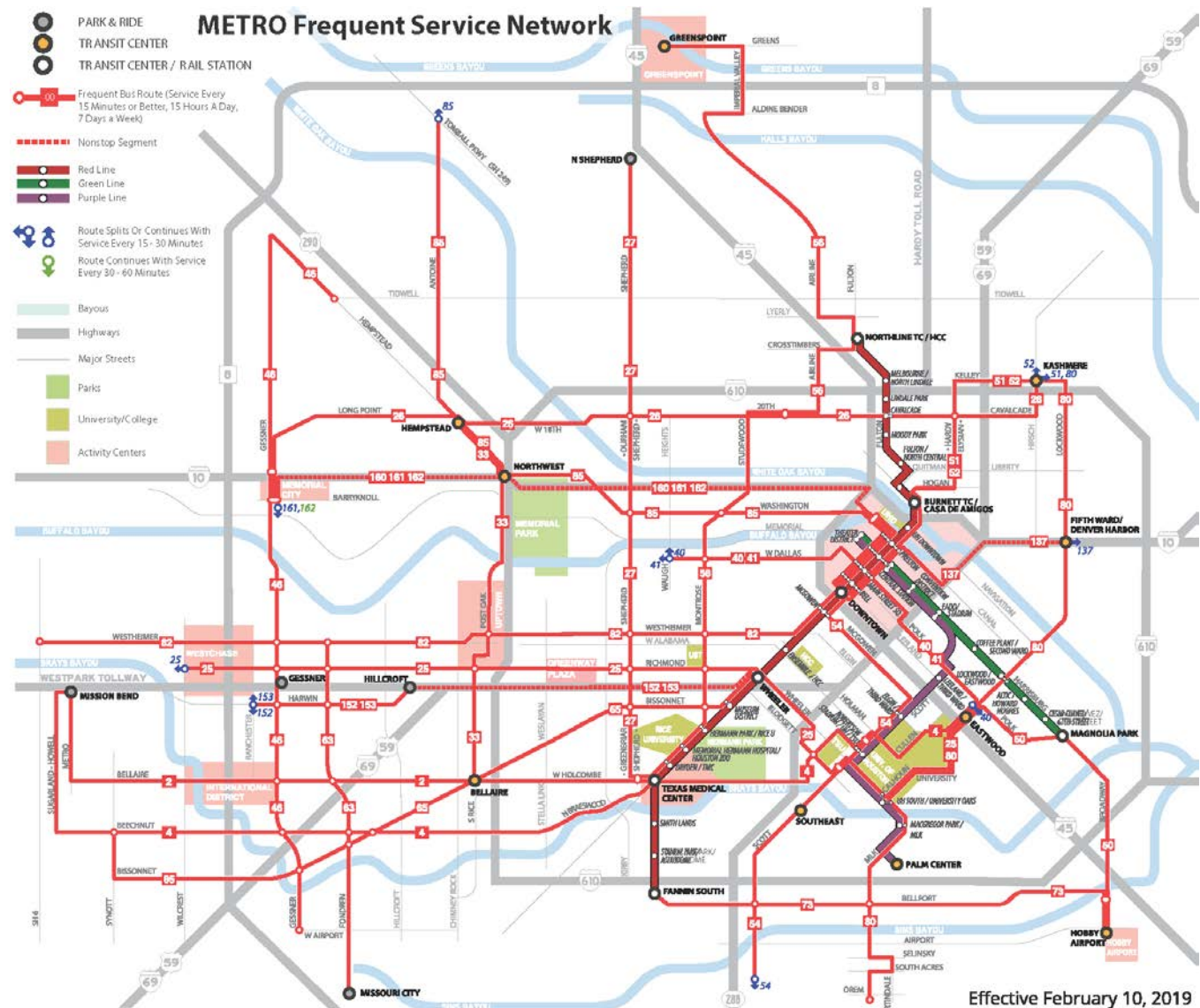


Source: METRO Transportation Network System Map – Effective February 10, 2019 (RideMETRO.org)

The following choropleth map shows concentrations of commuters driving alone in a single-occupancy-vehicle (SOV) by their residential zip code with METRO's Frequent Service Network overlaid. The heaviest concentration of commuters who drive alone to work reside inside the northwest corner of Loop 610 (north of Buffalo Bayou and west of Montrose / Studewood and Airline Dr.) in and around the "Greater Heights" and "Rice Military" neighborhoods. Four frequent bus routes serve these neighborhoods, with the 27 and 56 running North / South and the 26 and 85 running East / West.

**Map 20. METRO Frequent Service Network + Drive Alone Commuters Surveyed**
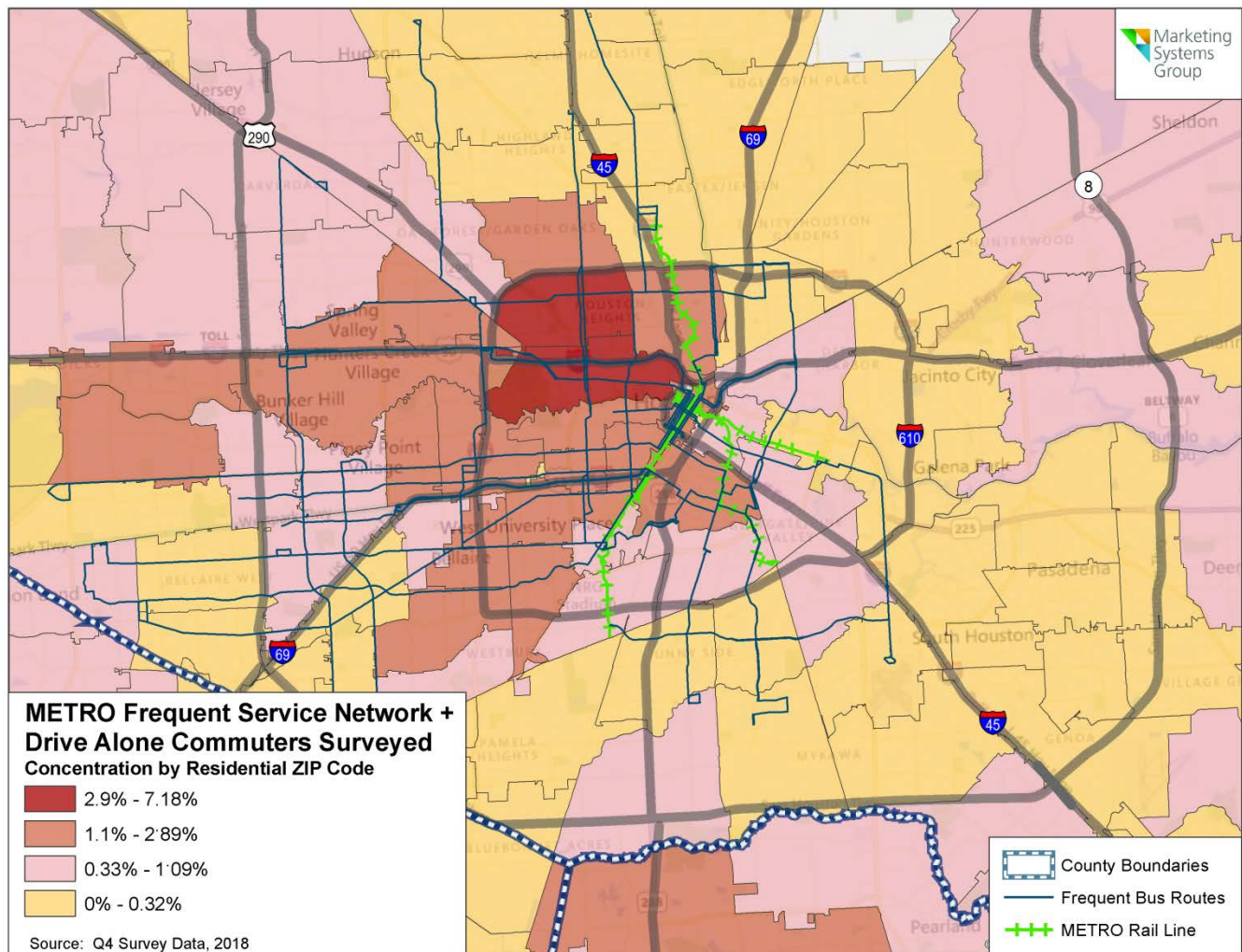


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually drive alone (n=4344)

Local bus / rail commuters largely reside inside Loop 610; however, local transit commuters are also concentrated along the western stretch of IH-10 and in zip codes south of IH-10 and North of Westheimer. The following choropleth map shows the concentration of local bus / rail commuters by their residential zip codes with METRO's Frequent Service Network overlaid.

**Map 21. METRO Frequent Service Network + Local Transit Commuters Surveyed**
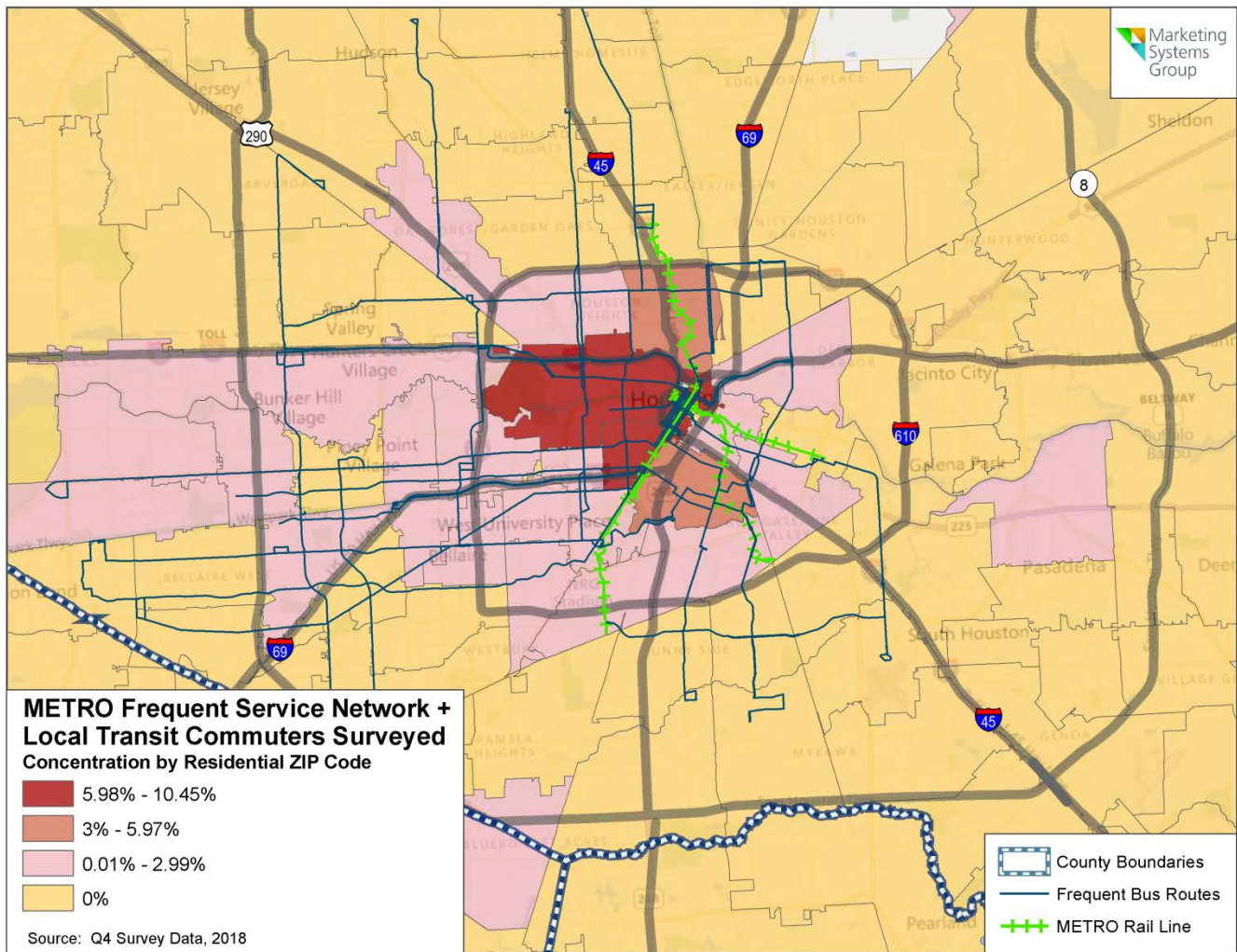


Q6. How do you usually commute to/from Downtown? │ Base: Total Downtown employees who usually commute by local bus / rail (n=466)

## Primary vs. Secondary Mode

Respondents were asked to select the transportation mode they choose when they do not commute by their primary mode. Downtown employees selected from a list of the remaining twelve alternative travel options, which were not selected as their primary commute choice:

| | | |
|---|---|---|
| Drive Alone | Uber / Lyft | Dropped off by a family member / friend [Kiss and Ride] |
| Local Bus / Rail | Motorcycle / Moped | Employed Downtown, but primarily work at non-Downtown location |
| Park & Ride | Bicycle | Scooter [Motorized, Electrical, Kick] |
| Vanpool | Walk | Other |
| Carpool | | |

More Downtown commuters opt to drive to work when they do not commute by their primary travel mode. However, Uber / Lyft prove to be a viable back-up option, preferred - in some instances - over public transit.

- Nearly as many drive alone commuters call an Uber / Lyft (20%) as opt for Kiss & Ride (23%) on the days they do not drive. Public transit is the preferred alternative option for less than one-in-five drive alone commuters (17% net; 9%, Park & Ride; 8%, local bus / rail). Interestingly, 2% will actively commute, suggesting they live within walking or biking range but choose to drive daily.

- Among those who primarily commute via local transit, more, but to a lesser degree than those taking other primary commute modes, will drive alone (36%). However, almost as many opt for Uber / Lyft (17%) as do Kiss & Ride (21%). Further, one-in-ten (9%) will walk or bike on days they do not take local transit.

- Most who share rides opt to drive alone when they do not carpool / vanpool (69%) or Kiss & Ride (48%). However, the next largest segment of these commuters select public transit, either Park & Ride (15% carpool / vanpool, 9% Kiss & Ride) or local bus / rail (4% carpool / vanpool, 8% Kiss & Ride).

- Eight-in-ten Park & Ride users (81%) opt to drive alone when they do not utilize Park & Ride. They are more apt to share a ride in a carpool or vanpool (8%) or Kiss & Ride (5%) than they are to choose local bus or rail service (2%) as an alternative to Park & Ride.

- When Uber / Lyft commuters travel another way, they are slightly more prone to take public transit (35% net; 10%, Park & Ride; 25%, local bus / rail) than they are to drive alone (33%). Less than one-in-ten (8%) walk as an alternative.

- A considerable segment of commuters selected "other" as their secondary means of conveyance. This is most evident for drive alone (27%) and Kiss & Ride (19%) commuters. The survey did not qualify "other" alternative mode(s), but possibilities include telework / working remotely, respondents do not have a dominant secondary commute mode, or other unidentified options.

## Table 19. Commute Mode
*Primary vs. Secondary*

## Secondary Commute Mode

| Secondary Commute Mode | % | Primary Commute Mode | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Drive Alone (A) | Park & Ride (B) | Bus / Rail (C) | Car / Vanpool (D) | Motor / Scooter (E) * | Active (F) | Uber / Lyft * (G) | Kiss & Ride (H) |
| Drive Alone | 28.2% | - | 81% | 36% | 69% | 43% | 44% | 33% | 48% |
| Kiss & Ride | 16.8% | 23% | 5% | 21% | 2% | 11% | 10% | 11% | - |
| Uber / Lyft | 13.5% | 20% | 1% | 17% | 8% | - | 10% | - | 13% |
| Carpool | 7.6% | 10% | 7% | 4% | 2% | - | 3% | 7% | 1% |
| Park & Ride | 6.7% | 9% | - | 5% | 15% | 22% | 0% | 10% | 9% |
| Local Bus/Rail | 5.9% | 8% | 2% | - | 4% | 5% | 13% | 25% | 8% |
| Walk | 1.4% | 1% | - | 8% | 0% | 0% | 1% | 8% | 1% |
| Bicycle | 0.9% | 1% | - | 1% | 0% | 19% | 5% | - | 0% |
| Vanpool | 0.6% | 1% | 1% | 2% | - | - | - | 6% | - |
| Motorcycle/ Moped | 0.6% | 1% | 0% | - | 0% | - | 1% | 0% | - |
| Scooter | 0.1% | 0% | - | 0% | 0% | - | - | - | - |
| Other | 17.0% | 27% | 3% | 5% | 0% | - | 10% | 2% | 19% |
| N = | | 4344 | 1972 | 466 | 476 | 25 | 160 | 67 | 117 |

Combo Table / Summary Table (A29 / B36 / C43 / D49 / E55 / F63 / G67 / H73 / I77 / J81 / K83 / L87)
When you do not travel by (…), how do you get to / from work? │ Base: Total Downtown employees (Total n=7627)

## Influence of Incentives on Primary Commute Mode

The majority of Downtown employees (79%) receive one or more employer-provided transportation incentives. The incentives most commonly reported by survey respondents include: free parking (26%), a transportation allowance (22%), followed by pre-tax parking deductions or parking subsidies (15% each).

**Figure 71. Employer-Provided Incentives\*\***
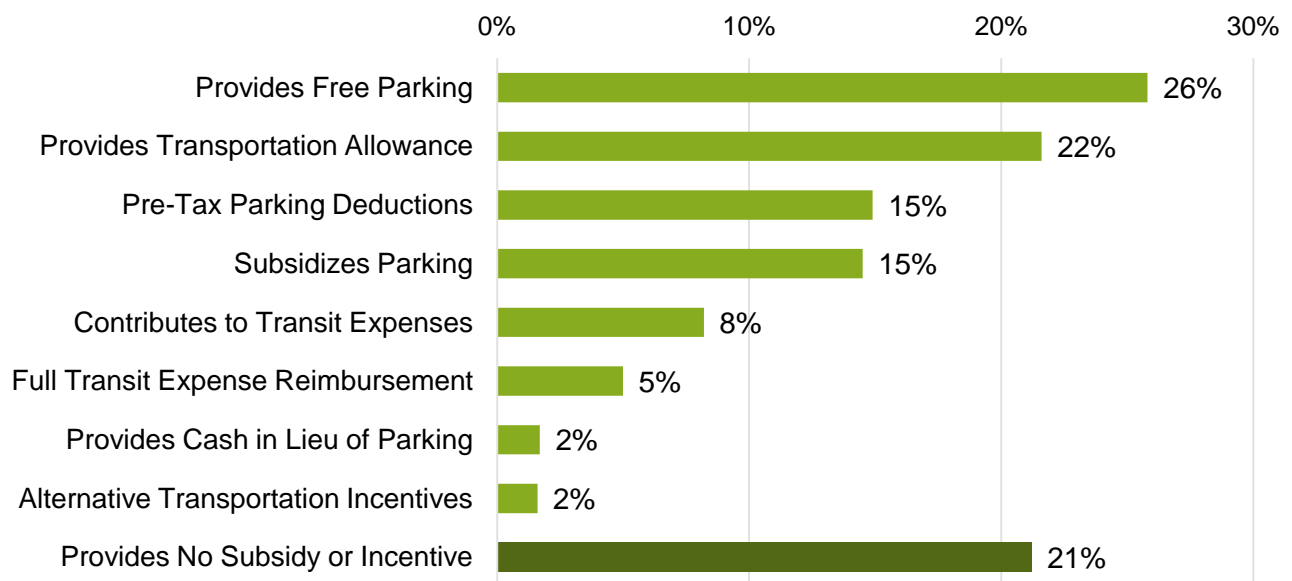


Combo Table / Summary Table (A25 / B33 / C40 / D48 / E54 / F59 / G65 / H71 / I76 / J79 / K84 / L86) │Q25. How does your employer subsidize your commute? │ Base: Total Downtown employees (n=7672)** │ **Note, only responses garnering 2% or more are displayed here; not all incentives were asked of every respondent, determined by their primary commute modes.

Fewer in the Consulting industry (57%) receive any employer-provided commuter subsidies or incentives. Notable employer offers by industry include:

- Most commuters employed in Energy (91%) or Utilities (96%) receive employer-provided commute benefits. Utility workers are most likely to receive a transportation allowance (40%), subsidized parking (22%), or employer contributions to transit expenses (21%).

- Most industries offer free parking, especially Education (52%), Nonprofit (52%), Leisure / Hospitality (48%), and FIRE industries (46% Finance, Insurance, and Real Estate).

- Notably, Accounting (6%) and Consulting (11%) are significantly less likely to have access to free parking. Those in Accounting (35%) and Consulting (24%) are significantly more likely to receive pre-tax parking deductions from their paycheck than other industries.

  o Those in Accounting are most likely to work for a Downtown business but primarily work in a Non-Downtown location and those in Consulting are more likely to commute by Uber / Lyft (pages 42-43).

- Those in Information Technology or the Legal industry are most likely to receive a transportation allowance (27%, Information Technology; 31%, Legal) or subsidized parking (10%, Information Technology; 23%, Legal). Information Technology is most likely to provide cash in lieu of a parking spot (11%).

**Table 20. Employer-Provided Incentives**
*By Industry*

| | Accounting (A) | Architect / Engineer (B) | Consult (C) | Energy (D) | FIRE (E) | IT (F) | Legal (G) | Leisure / Hosp (H) | Utilities (I) | Edu (J) | Non-Profit (K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Provides Any (Net)** | 70% C | 77% C | 57% | 91% ABCEFGH | 78% C | 77% C | 84% AC | 74% C | 96% ABCDEFGHJK | 87% AC | 81% C |
| Free Parking | 6% | 26% AC | 11% | 23% AC | 46% ABCDFGI | 32% ACDGI | 17% A | 48% ABCDFGI | 18% A | 52% ABCDFGI | 52% ABCDFGI |
| Transportation Allowance | 18% CH | 22% CH | 11% | 21% CEH | 13% | 27% ACEH | 31% ACDEH | 5% | 40% ABCDEFGHJK | 15% | 20% H |
| Pre-tax parking Deductions from Paycheck | 35% BCDEFGHIJK | 16% FH | 24% DEFGHIJK | 11% | 12% F | 5% | 14% FH | 4% | 16% DFH | 4% | 4% |
| Subsidizes Parking | 5% | 11% AE | 8% | 26% ABCEFK | 4% | 10% A | 23% ABCEF | 17% AE | 22% ABCEF | 11% | 8% |
| Contributes to Transit Expenses | 6% H | 6% H | 4% | 14% ABCEFGHK | 4% | 4% | 6% H | - | 21% ABCDEFGHJK | 6% | 0% |
| Full Transit Expense Reimbursement | 8% EHI | 4% | 5% I | 8% EHI | 3% | 6% I | 7% I | 1% | 2% | - | 2% |
| Incentive to Encourage Alt. Transportation | 2% | 2% | 2% | 2% | 0% | 0% | 2% | | 4% | | |
| Provides Cash in Lieu of a Parking Spot | 1% | 0% | - | 1% | 0% | 11% ABCDEGHI | 2% DI | - | 0% | 4% I | 2% |
| Provides Access to Shared Vehicles | 1% | 0% | 0% | 1% | * | 5% ACDEGI | - | 0% | - | - | - |
| Pre-tax carpool Paycheck Deductions | 0% | - | 0% | 0% | 0% | 1% | - | - | 0% | 6% ACDEGI | - |
| **Provides None** | 30% DGI | 24% DI | 44% ABDEFGHIJK | 10% I | 24% DI | 24% DI | 16% DI | 28% DGI | 4% | 17% I | 19% I |
| **N =** | 960 | 253 | 297 | 3382 | 538 | 237 | 556 | 225 | 584 | 90 | 97 |

Combo Table / Summary Table (A25 / B33 / C40 / D48 / E54 / F59 / G65 / H71 / I76 / J79 / K84 / L86) │Q25. How does your employer subsidize your commute? │ Base: Total Downtown employees (n=7672)** │ **Note, only responses  garnering 2% or more are displayed here; not all incentives were asked of every respondent, determined by their primary commute modes. │ Column summation does not necessarily total 100% due to decimal rounding. In cases where rounding occurs in the same direction on the values for multiple modes in a given column, a variance of as much as 2% can result.

Similar to the findings among industry, occupations in Accounting / Auditing or Consultants, as well as those in Transportation, are least likely to receive any incentives or subsidies from their employers.

- The most common employer provided commuter benefit is free parking, especially for Executives (54%) and Real Estate workers (52%), followed by Advertisers / Marketers (45%) and Sales Representatives (40%).

- Transportation allowances are received by one-quarter or more Analysts (29%), Architects (28%), Office / Admin Support (26%), Information Technology (26%), Engineers (25%), and Advertisers / Marketers (25%).

- Those in Financial Services are just as likely to receive pre-tax parking deductions from their paycheck (25%) as free parking (23%). Consultants (29%), Accountants / Auditors (22%) and, to a lesser extent, Architects (28%) are more likely to receive pre-tax parking deductions than they are to receive free parking.

- Sales reps are most likely to receive free (40%) or subsidized (31%) parking.

### Table 21. Employer-Provided Incentives
*By Occupation*

| | Accting / Audit (A) | Analyst (B) | Archtect (C) | Consult (D) | Cust Svc (E) | Engnr (F) | Exec (G) | Fin Svc (H) | IT (I) | Mgr (J) | Office / Adm (K) | Sales (L) | Transport (M) | Ad / Mrkt (N) | Real Est (O) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Provides Any (Net)** | 70% | 86% ADEM | 82% D | 63% | 74% | 92% ACDEI KMQ | 89% ADM | 86% AD | 79% AD | 87% ADEIM | 86% ADEIM | 82% D | 69% | 93% ADM | 79% |
| Free Parking | 14% D | 17% D | 24% D | 5% | 33% ABDI | 35% ABHIK | 54% ABCDE FHIJM | 23% AD | 19% D | 34% ABIK | 24% AD | 40% ABHIK | 27% D | 45% ABHIK | 52% ABCDH IK |
| Transportation Allowance | 18% | 29% ADJL | 28% H | 18% | 24% | 25% H | 18% | 13% | 26% AH | 22% | 26% ADH | 14% | 20% | 25% | 15% |
| Pre-tax Parking Deductions | 22% EFGIJ MO | 15% E | 28% BEFGI JMNO | 29% BEFGI JKLMNO | 5% | 11% | 7% | 25% BEFGI JMNO | 12% | 13% | 18% EF | 12% | 5% | 6% | 6% |
| Subsidizes Parking | 10% | 18% ADE | 25% ADEH | 7% | 4% | 15% ADE | 10% | 11% | 17% ADE | 20% ADEH | 16% ADE | 31% ADEFG HIK | 22% DE | 26% ADEH | 18% DE |
| Contributes to Transit Expenses | 4% | 14% ADGL | 6% | 6% | 11% AL | 13% ADGL | 2% | 17% ADGJK LO | 11% AL | 9% AL | 9% A | 1% | 7% | 4% | 2% |
| Cash in Lieu of a Parking Spot | 0% | 3% ADJ | 2% AJ | * | * | 3% ADJ | 8% ADEHJK | 1% | 3% ADJ | - | 1% | 1% | 8% ADEHJK | - | - |
| Access to Shared Vehicles | * | 2% A | 3% AJ | 1% | - | 0% | - | 0% | 2% A | 0% | 0% | - | 8% ADEFH JK | 0% | - |
| Provides Bicycle Store / Parking | * | 1% A | 7% ABDEF HIJKL | 1% | - | 1% A | - | - | 0% | * | 0% | - | - | 0% | - |
| Full Carpool Expense Reimbursed | - | - | - | - | - | - | 7% ABDEFHIJK | - | - | * | - | - | - | - | - |
| **Provides None** | 30% BFGHI JKN | 14% | 19% F | 38% BCFGH IJKLN | 26% FJK | 8% | 12% | 14% | 21% FJK | 13% | 14% F | 18% | 31% BFJKN | 7% | 21% F |
| N = | 1039 | 687 | 130 | 438 | 132 | 970 | 183 | 326 | 794 | 702 | 872 | 167 | 109 | 103 | 102 |

Combo Table / Summary Table (A25 / B33 / C40 / D48 / E54 / F59 / G65 / H71 / I76 / J79 / K84 / L86) │ Q25. How does your employer subsidize your commute? │ Base: Total Downtown employees (n=7672)** │ **Note, only responses garnering 2% or more are displayed here; not all incentives were asked of every respondent, determined by their primary commute modes. │ Legal, Artists, and Researchers omitted from graph due to insignificant findings. │ Column summation does not necessarily total 100% due to decimal rounding. In cases where rounding occurs in the same direction on the values for multiple modes in a given column, a variance of as much as 2% can result.

## Dominant Commute Modes

Of the thirteen modal options provided in the survey (shown below), the vast majority (87%) of survey respondents indicated that they commute via one of the three most prevalent modes (56%, drive alone; 22%, Park & Ride; 9%, local bus / rail).

| | | |
|---|---|---|
| Drive Alone | Uber / Lyft | Dropped off by a family member / friend [Kiss and Ride] |
| Local Bus / Rail | Motorcycle / Moped | Employed Downtown, but primarily work at non-Downtown location |
| Park & Ride | Bicycle | Scooter [Motorized, Electrical, Kick] |
| Vanpool | Walk | Other |
| Carpool | | |

### Generational / Age Differences

Generally, younger Downtown employees travel a shorter distance to work and older employees travel a further distance. While more commuters drive alone, incidence to do so decreases as commuter ages rise. Park & Ride use is highest among older travelers. Local Bus / Rail use is higher among younger travelers.

**Figure 72. Dominant Commute Modes**
*By Age Ranges*
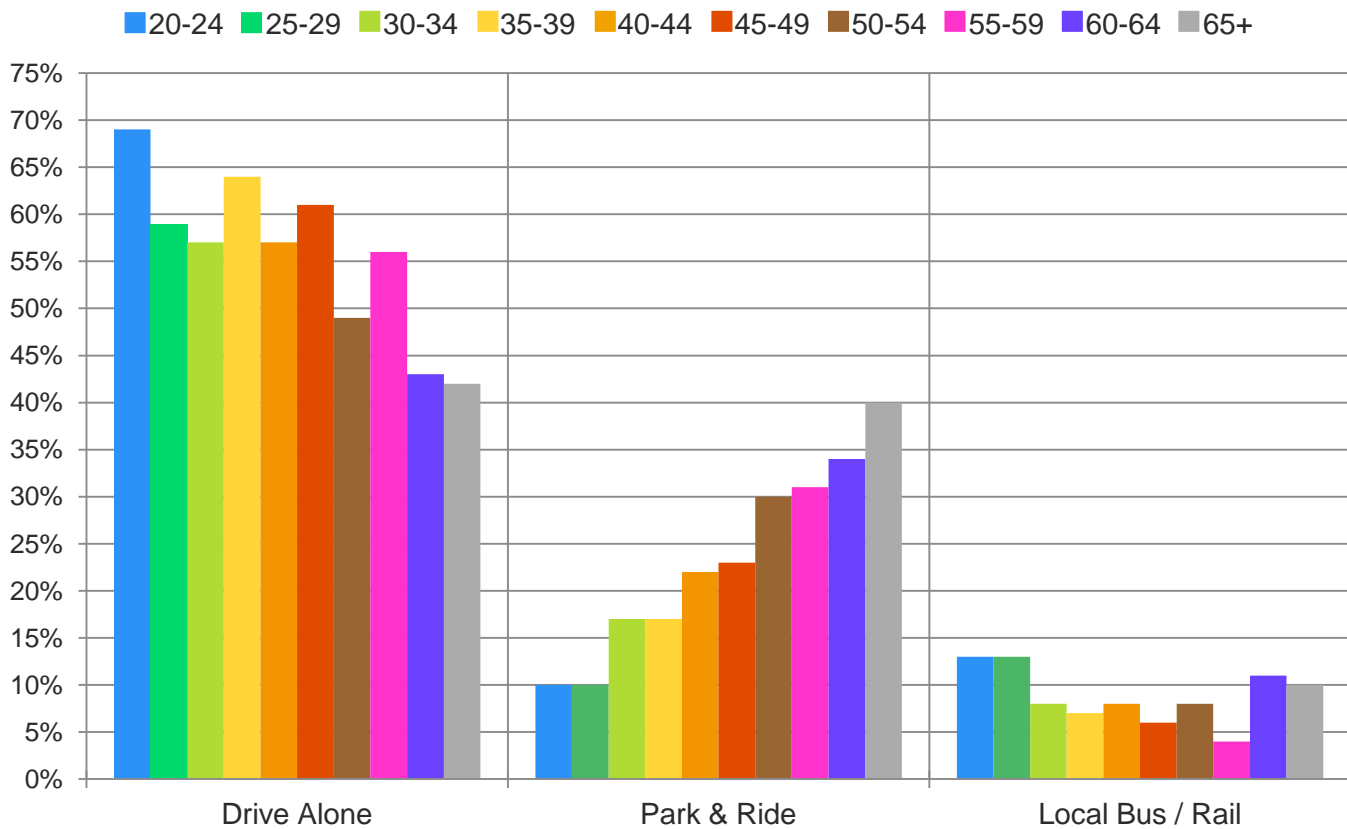


D1. Please type in your age. │ Base: Total Downtown employees (Total n=7618, 20-24 n=306, 25-29 n=879, 30-34 n=972, 35-39 n=1017, 40-44 n=949, 45-49 n=898, 50-54 n=849, 55-59 n=859, 60-64 n=651, 65+ n=238) │ ≤19 removed due to small base size. │ Q6. How do you usually commute to/from Downtown?

## Mode Choice Motivation

Survey respondents were offered menus of possible motivations for choosing their primary commute mode with the objective of ascertaining which factors govern people's mode decisions.

## Motivation for Drive Alone Commuters

Single-occupancy vehicle (SOV) commuters overwhelmingly selected preference for independence and flexibility among their top motivators for driving alone (16%, top reason; 25%, top 3 reasons; 20%, top 5 reasons). The next most common reason cited was faster trip (43%, top 5 reasons). Unpredictable work schedule, parking provided / subsidized, and more convenient trip were cited at near equal levels among other top 5 reasons (39%, 38%, 38%).

**Figure 73. Top Reasons: Drive Alone (Over 30% Respondents)**
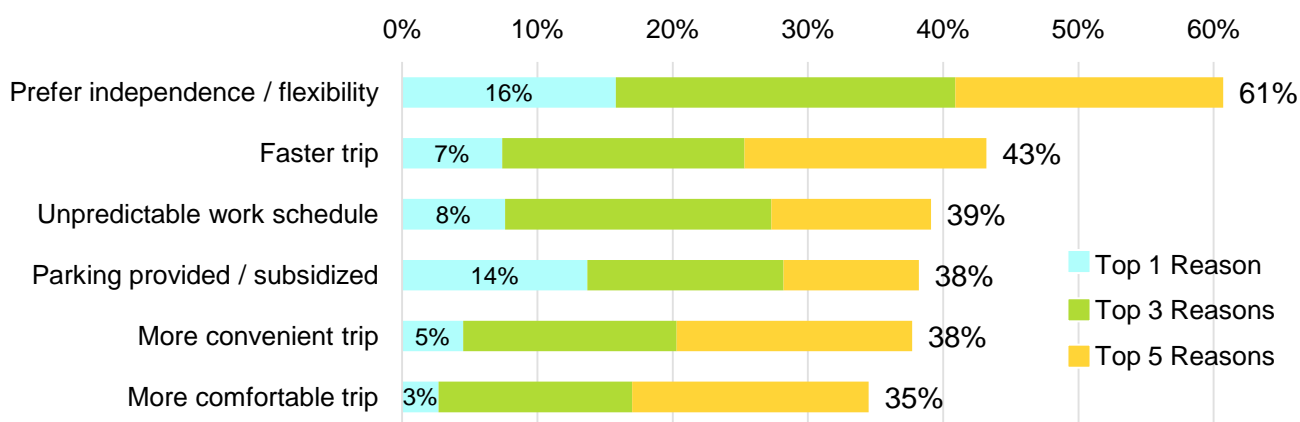


Q24. I drive alone because of the following: │ Base: Total Downtown employees who usually drive alone (n=4344)

## Motivation for Park & Ride Commuters

Traffic avoidance (83%) and reducing stress of commute (73%) featured prominently among the top 5 reasons reported by Park & Ride commuters. Other top 5 reasons cited at near equal levels include employer subsidizes transit (58%), reduced vehicle wear and tear (58%), and avoid parking hassles / costs (55%).

**Figure 74. Top Reasons: Park & Ride (Over 30% Respondents)**
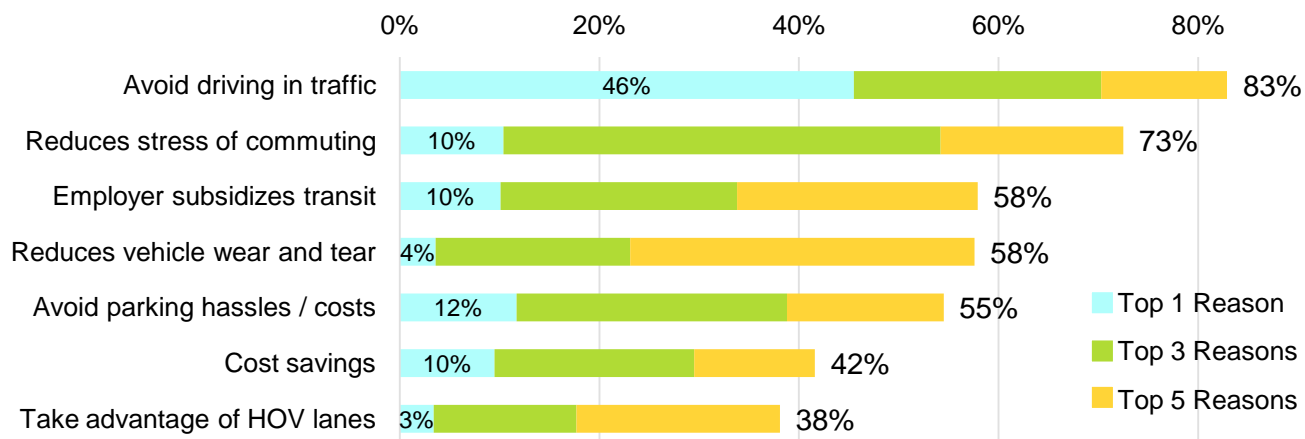


Q39. I take Park & Ride because of the following: │ Base: Total Downtown employees who usually commute by Park & Ride (n=1972)

**Motivation for Local Bus / Rail Commuters**

Cost savings is the most reported top motivator for choosing to commute to Downtown by local bus / rail, both as the top reasons (27%) and as one of commuters' top 5 reasons (59%). Other top five motivations included avoiding traffic (57%), avoiding parking related inconveniences and costs (53%), reduces stress (44%), and employer subsidies (37%).

**Figure 75. Top Reasons: Local Bus / Rail (Over 30% Respondents)**
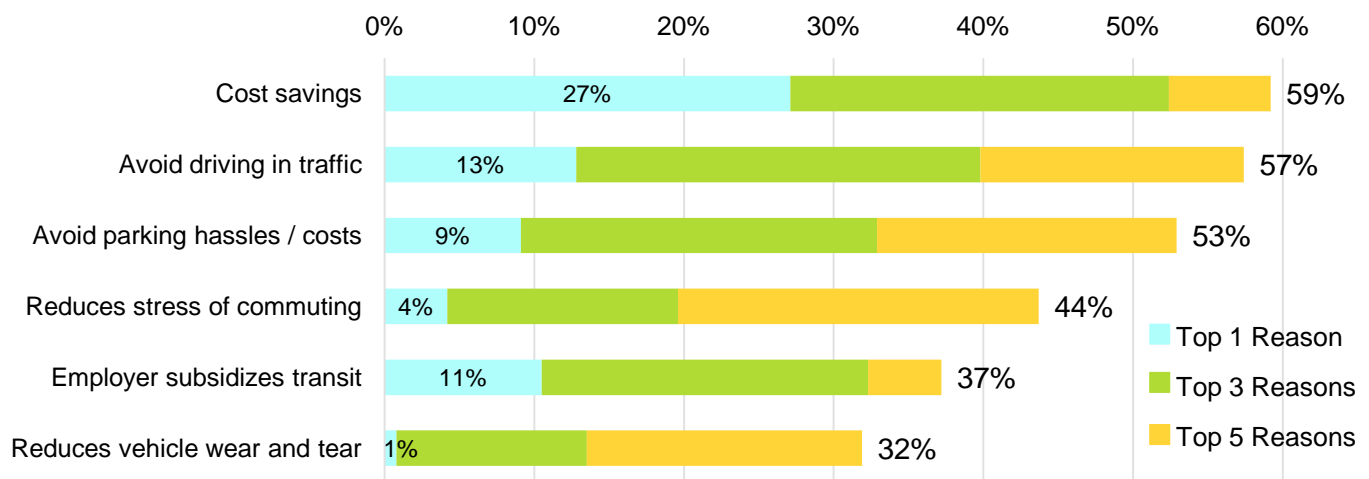


Q32. I take the local bus / rail because of the following: │ Base: Total Downtown employees who usually commute by local bus / rail (n=466)

**Park & Ride Corridors**

The highest number of Downtown commuters utilizing Park & Ride travel along the following corridors: IH-45 North Corridor (22%, IH-45 North Corridor NET), IH-10 West Katy Corridor (19%),  followed by SH-290 Northwest Corridor (16%), with the IH-45 Gulf Corridor and IH-69 Southwest Corridor tied for fourth (13%).

**Figure 76. Primary Park & Ride Corridors Utilized**
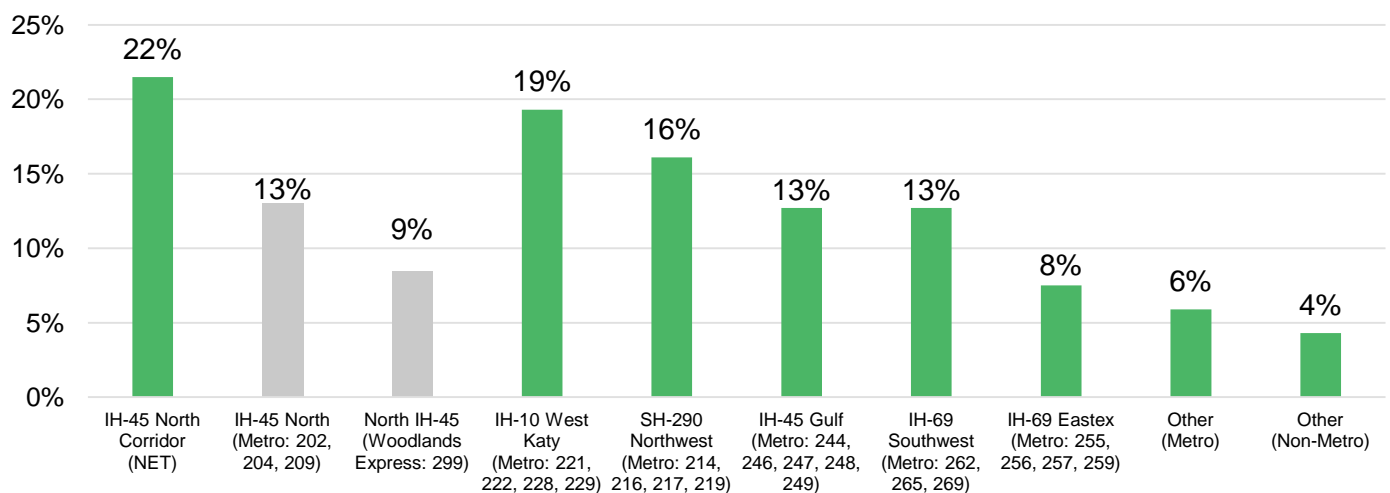


Q38. I usually travel to work using the following Park & Ride Service: │ Base: Total Downtown employees who usually commute by Park & Ride (n=1972)

## APPENDIX: Survey Instrument

**2018 Downtown Commute Survey**

**(FULL WEB VERSION)**

### INTRODUCTION SCREEN

Central Houston is a 501(c)(6) not for profit organization which serves as an advocate of Downtown redevelopment and revitalization and catalyst for collaboration and coordinated development through facilitation and leadership.

Central Houston is conducting a survey of Downtown employees to gain insight into commute behavior, understand transit challenges, and identify actions to improve employees' access to Downtown. Completing this survey will help us prioritize our efforts, as we strive to improve transportation for Downtown workers.

Your survey answers will be kept confidential. (If you already completed this survey in the past couple weeks, thank you! Your participation is not needed a second time).

This survey will take approximately 5 - 7 minutes. The survey will be active from October 16th to October 30th, 2018.

### SCREENER

Do you prefer to take the survey in English or Spanish?
¿Prefiere llenar sus encuestas en inglés o en español?

- English
- Español

### GENERAL COMMUTE QUESTIONS

(* Response Required)

*Q1.  Do you work in Downtown Houston?

- Yes
- No  [Survey Complete]

*Q2.  What is your work street address?

_____

*Q3.  What is your work ZIP code?

__ __ __ __ __ (ALLOW 5-DIGIT NUMBER)

*Q4.  What is your home ZIP code?

__ __ __ __ __ (ALLOW 5-DIGIT NUMBER)

*Q5.   How many days per week do you usually commute to Downtown? (Select one)

- <1
- 1
- 2
- 3
- 4
- 5
- 6
- 7

*Q6.   How do you usually commute to / from Downtown? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- I am employed Downtown, but primarily work at a non-Downtown location
- Scooter [Motorized, Electrical, Kick]
- Other

Q7.   Which of the following best describes your work schedule? (Select one)

- 5 / 40 (Work five 8-hour days per week)
- 9 / 80 (Work eight 9-hour days, one 8-hour day, and one day off in a 2-week period)
- 4 / 10 (Work four 10-hour days per week)
- 3 / 12 (Work three 12-hour days per week)
- Other (Work a schedule different from the above)

**GENERAL WORK TRIP QUESTIONS**

Q8.   How many miles do you travel to work? (Select one)

- < 1 mile
- 1 - 2 miles
- 3 - 4 miles
- 5 - 9 miles
- 10 - 19 miles
- 20 - 29 miles
- 30 - 39 miles
- 40 - 49 miles
- 50 - 59 miles
- 60 - 69 miles
- ≥ 70 miles

Q9.   Which of the following best describes the location where you live? (Select one)

- Inside Loop 610
- Between Loop 610 and Beltway 8
- Between Beltway 8 and the Grand Parkway (SH 99)
- Outside the Grand Parkway (SH 99)

Q10.  What time do you usually leave your home to go to work? (Select one from each column)

| [DROP DOWN LIST] | [DROP DOWN LIST] | [DROP DOWN LIST] |
|---|---|---|
| 4 | :00-29 | AM |
| 5 | :30-59 | PM |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 1 | | |
| 2 | | |
| 3 | | |

Q11.  How long does it take you to get to work? (Select one from each column)

| [DROP DOWN LIST] | [DROP DOWN LIST] |
|---|---|
| Hour(s) | Minutes |
| 0 | < 5 |
| 1 | 5-9 |
| 2 | 10-14 |
| 3 | 15-19 |
| | 20-24 |
| | 25-29 |
| | 30-39 |
| | 40-49 |
| | 50-59 |

Q.12.  How many stops do you usually make on your way **to** work? (Select one)

- 0
- 1
- 2
- 3
- 4 +

Q13.  What type of stops do you usually make on your way to work? (Select all that apply)

- Beverage/Food
- Child Care
- Education
- Elder Care
- Entertainment
- Grocery Shopping
- Gym/Exercise
- Off-site work-related events
- Other Shopping
- Pet Care
- Purchasing Gas
- Services (dry cleaners, tailor, medical, dental, etc.)

Q14.   What time do you usually leave work? (Select one from each column)

| [DROP DOWN LIST] | [DROP DOWN LIST] | [DROP DOWN LIST] |
|---|---|---|
| 2 | :00-29 | AM |
| 3 | :30-59 | PM |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 1 | | |

Q15. How long does it usually take you to get from work to home? (Select one from each column)

| [DROP DOWN LIST] | [DROP DOWN LIST] |
|---|---|
| Hour(s) | Minutes |
| 0 | < 5 |
| 1 | 5-9 |
| 2 | 10-14 |
| 3 | 15-19 |
| | 20-24 |
| | 25-29 |
| | 30-39 |
| | 40-49 |
| | 50-59 |

Q.16.   How many stops do you usually make on your way **from** work? (Select one)

- 0
- 1
- 2
- 3
- 4+

Q17.   What type of stops do you usually make on your way from work? (Select all that apply)

- Beverage/Food
- Child Care
- Education
- Elder Care
- Entertainment
- Grocery Shopping
- Gym/Exercise
- Off-site work-related events
- Other Shopping
- Pet Care
- Purchasing Gas
- Services (dry cleaners, tailor, medical, dental, etc.)

**MODE SPECIFIC QUESTIONS**

Respondents will be directed to one of the following additional question sets, based on their response to the primary commute mode question (Q6).

- A. **DRIVE ALONE Q24-30**
- B. **LOCAL BUS / RAIL Q31-37**
- C. **PARK & RIDE Q38-43**
- D. **VANPOOL Q44-49**
- E. **CARPOOL Q50-55**
- F. **UBER / LYFT Q56-63**
- G. **MOTERCYCLE / MOPED Q64-67**
- H. **BICYCLE Q68-73**
- I. **WALK Q74-77**
- J. **KISS & RIDE Q78-81**
- K. **NON-DOWNTOWN LOCATION Q82-84**
- L. **SCOOTER Q85-87**

Q18 – Q23 are not in the public survey; they are used internally for survey instrument beta-testing.

Following completion of primary commute mode question set, respondents will be directed to the demographic questions (D1-D9a).

**A. DRIVE ALONE COMMUTE QUESTIONS (6 Questions)**

Q24.  I drive alone because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ●   No other way to get to work <br> ●   Parking provided / subsidized by employer <br> ●   Transit requires me to make transfers <br> ●   Transit is not close to my home / work <br> ●   Condition of transit shelters <br> ●   Transit schedule not reliable <br> ●   Transit does not accommodate my work schedule <br> ●   Unfamiliar / Limited experience with transit <br> ●   Not enough people for carpool / vanpool <br> ●   Require vehicle during day <br> ●   Need to make stops going to or from work <br> ●   Prefer independence / flexibility <br> ●   Unpredictable work schedule <br> ●   More comfortable trip <br> ●   More convenient trip <br> ●   Personal safety <br> ●   Faster trip <br> ●   Other | 1 _____ <br> 2 _____ <br> 3 _____ <br> 4 _____ <br> 5 _____ |

Q25.  How does your employer subsidize your commute? (Select all that apply)

- Provides Free Parking
- Subsidizes Parking
- Provides Transportation Allowance
- Pre-tax Parking Deductions from Paycheck
- Provides No Subsidy or Incentive

Q26.  What is the typical rate you pay for parking? (Please fill in the applicable blank)

$_____  Daily

$_____  Monthly

Q27. After parking, how long does it usually take you to get to work? (Select one)

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q28. If your parking space is not at your work address, how do you complete your trip? (Select one)

- Not Applicable
- Walk in Tunnels / Skywalks
- Walk on street level
- Greenlink
- Private Shuttle
- Bicycle
- Bus
- Rail

Q29. When you do not drive alone, how do you get to / from work?  (Select one)

- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

Q30. If you drive an electric vehicle, does the facility at which you park provide EV charging stations?

- Not applicable
- Yes
- No
- Don't know

**B. LOCAL BUS / RAIL COMMUTE QUESTIONS (7 Questions)**

Q31.  I usually travel to work on the following bus or rail transit service: (Select one)

- METRO Local Bus (Route # 001 - 099)
- METRO Express Bus (Route #100 - 199)
- METRO Rail
- Greenlink


Q32.  I take the local bus / rail because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

|  | Rank Your Top Five |
|---|---|
| ● No personal vehicle available<br>● Cost savings<br>● Employer subsidizes transit<br>● Avoid driving in traffic<br>● Avoid parking related hassles / costs<br>● Enables productive commute<br>● Reduces wear and tear on my vehicle<br>● Reduces the stress of commuting<br>● More convenient trip<br>● More comfortable trip<br>● Able to sleep during commute<br>● Take advantage of HOV lanes<br>● Faster trip<br>● Environmental concerns<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q33.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Full Transit Expense Reimbursement
- Contributes to Transit Expenses
- Pre-tax Transit Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Incentives to Encourage Alternative Transportation
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

Q34.  After exiting the local bus or rail, how long does it usually take you to get to work?  (Select one)

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q35.  If your transit journey does not end at your work address, how do you complete your trip? (Select one)

- Walk in Tunnels / Skywalks
- Walk on street level
- Greenlink
- Private Shuttle
- Bicycle
- Bus
- Rail
- Not Applicable

Q36.  When you do not take local bus / rail, how do you get to / from work? (Select one)

- Drive Alone
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

Q37.  How many transfers does your commute involve? (Select one)

- 0
- 1
- 2
- 3
- 4+

**C. Park & Ride Commute Questions (6 Questions)**

Q38.  I usually travel to work using the following Park & Ride Service: (Select one)

- METRO: **North Corridor** (202, 204, 209)
- METRO: **Northwest Corridor** (214, 216, 217, 219)
- METRO: **Katy Corridor** (221, 222, 228, 229)
- METRO: **East Corridor** (236, 237)
- METRO: **Gulf Corridor** (244, 246, 247, 248, 249)
- METRO: **Eastex Corridor** (255, 256, 257, 259)
- METRO: **Southwest Corridor** (262, 265, 269)
- METRO: **Seton Lake** (212) or **West Loop** (261)
- **The Woodlands Express Park & Ride** (299)
- **Pearland Park & Ride**
- **Fort Bend Express**
- Other

Q39.  I take Park & Ride because of the following (Rank the top five):

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

|  | Rank Your Top Five |
|---|---|
| ● No personal vehicle available<br>● Avoid driving in traffic<br>● Avoid parking related hassles / costs<br>● Reduces the stress of commuting<br>● Cost savings<br>● Employer subsidizes transit<br>● Enables productive commute<br>● More convenient trip<br>● More comfortable trip<br>● Able to sleep during commute<br>● Take advantage of HOV lanes<br>● Faster trip<br>● Reduces wear and tear on my vehicle<br>● Environmental concerns<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q40.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Full Transit Expense Reimbursement
- Contributes to Transit Expenses
- Pre-tax Transit Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Incentives to Encourage Alternative Transportation
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

Q41.  After exiting the Park & Ride, how long does it usually take you to get to work?  (Select one)

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q42.  If your journey does not end at your work address, how do you complete your trip? (Select one)

- Walk in Tunnels / Skywalks
- Walk on street level
- Greenlink
- Private Shuttle
- Bicycle
- Bus
- Rail
- Not Applicable

Q43.  When you do not take Park & Ride, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**D. Vanpool Commute Questions (6 Questions)**

Q44.  I vanpool because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● No personal vehicle available<br>● Parking provided / subsidized by employer<br>● Transit requires me to make transfers<br>● Transit is not close to my home/work<br>● Condition of transit shelters<br>● Transit schedule not reliable<br>● Transit does not accommodate my work schedule<br>● Unfamiliar / Limited experience with transit<br>● Require vehicle during day<br>● Reduces the stress of commuting<br>● Avoid driving in traffic<br>● Enjoy the camaraderie<br>● Able to sleep during commute<br>● Take advantage of HOV lanes<br>● Reduces wear and tear on my vehicle<br>● Employer subsidizes vanpool<br>● Environmental concerns<br>● More comfortable trip<br>● More convenient trip<br>● Cost savings<br>● Faster trip<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q45.  Does your vanpool drop you off at your work address? (Select one)

- Yes
- No
- Sometimes

Q46.  If the driver does not drop you at your work address, how do you complete your trip? (Select one)

- Walk in Tunnels / Skywalks
- Walk on street level
- Greenlink
- Private Shuttle
- Bicycle
- Bus
- Rail

Q47.  If the driver does not drop you at your work address, how long does it take to complete your trip?

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q48.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Free Parking
- Provides Transportation Allowance
- Full Vanpool Expense Reimbursement
- Contributes to Vanpool Expenses
- Pre-tax Vanpool Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Provides Preferential or Reduced Cost Parking for Vanpools
- Incentives to Encourage Alternative Transportation
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive


Q49.  When you do not vanpool, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**E. Carpool Commute Questions (6 Questions)**

Q50. I carpool because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● No personal vehicle available <br> ● Someone else needs a ride <br> ● Parking provided / subsidized by employer <br> ● Transit requires me to make transfers <br> ● Transit is not close to my home / work <br> ● Condition of transit shelters <br> ● Transit schedule not reliable <br> ● Transit does not accommodate my work schedule <br> ● Unfamiliar / Limited experience with transit <br> ● Require vehicle during day <br> ● Need to make stops going to or from work <br> ● Enjoy the camaraderie <br> ● Avoid driving in traffic <br> ● Take advantage of HOV lanes <br> ● Reduces wear and tear on my vehicle <br> ● Employer subsidizes or rewards carpooling <br> ● Environmental concerns <br> ● More comfortable trip <br> ● More convenient trip <br> ● Cost savings <br> ● Faster trip <br> ● Other | 1 _____ <br> 2 _____ <br> 3 _____ <br> 4 _____ <br> 5 _____ |

Q51. Does your carpool drop you off at your work address? (Select one)

- Yes
- No
- Sometimes

Q52. If the driver does not drop you at your work address, how do you complete your trip to work?

- Walk in Tunnels / Skywalks
- Walk on street level
- Greenlink
- Private Shuttle
- Bicycle
- Bus
- Rail

Q53. If the driver does not drop you at your work address, how long does it take to complete your trip?

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q54. How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Free Parking
- Provides Transportation Allowance
- Full Carpool Expense Reimbursement
- Contributes to Carpool Expenses
- Pre-tax Carpool Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Provides Preferential or Reduced Cost Parking for Carpools
- Incentives to Encourage Alternative Transportation
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

Q55. When you do not carpool, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**F. Uber / Lyft (7 Questions)**

Q56. I use Uber / Lyft because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● Avoid driving in traffic<br>● Need to make stops going to or from work<br>● No personal vehicle available<br>● Avoid parking related hassles / costs<br>● Employer subsidizes my Uber / Lyft trip<br>● I live close to work<br>● Unpredictable work schedule<br>● Prefer independence/flexibility<br>● More comfortable trip<br>● More convenient trip<br>● Reduces wear and tear on my vehicle<br>● Faster trip<br>● Not enough people for carpool / vanpool<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Condition of transit shelters<br>● Transit schedule not reliable<br>● Reduces the stress of commuting<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q57. How much does your average trip to / from Downtown cost? (one-way) (Select one)

- <$5
- $5 - $9
- $10 - $14
- $15 - $19
- $20 - $24
- $25 - $29
- $30 - $34
- $35 - $39
- $40 - $44
- $45 - $49
- $50 or more

Q58. Do corporate discounts apply to your trip?

- Yes
- No

Q59.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Provides Cash in Lieu of a Parking Spot
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive


Q60.  If Uberpool / Lyftpool were available, would you use it? (get matched with other riders heading in the same direction and get a cheaper fare)

- Yes
- No


Q61.  Does your Downtown destination have a designated Uber / Lyft pick-up / drop-off location?

- Yes
- No
- Don't know


Q62.  On which leg(s) of your journey do you routinely utilize Uber / Lyft?

- To work
- From work
- Both


Q63.  When you do not use Uber / Lyft, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**G. Motorcycle / Moped (4 Questions)**

Q64.  I take a motorcycle / moped because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● No other vehicle available<br>● Parking inexpensive or free<br>● Parking provided / subsidized by employer<br>● Prefer independence / flexibility<br>● Require vehicle during day<br>● Need to make stops going to or from work<br>● Take advantage of HOV lanes<br>● Cost savings<br>● Faster trip<br>● Unpredictable work schedule<br>● Environmental concerns<br>● More comfortable trip<br>● More convenient trip<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Condition of transit shelters<br>● Transit schedule not reliable<br>● Transit does not accommodate my work schedule<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q65.  How does your employer subsidize or incentivize your commute? (Select all that apply)
- Provides Free Parking
- Subsidizes Parking
- Provides Transportation Allowance
- Pre-tax Parking Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Provides No Subsidy or Incentive

Q66.  After parking, how long does it take you to get to work?  (Select one)

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q67.  When you do not use a motorcycle / moped, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**H. Bicycle (6 Questions)**

Q68.  I bike to work because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● Exercise / Health<br>● Enjoy the experience<br>● I live close to work<br>● Prefer independence / flexibility<br>● Environmental concerns<br>● Faster trip<br>● Employer / Building Provides Showers<br>● Employer / Building Provides Lockers<br>● Require vehicle during day<br>● Bicycle parking is free<br>● More comfortable trip<br>● More convenient trip<br>● Avoid driving in traffic<br>● Cost savings<br>● Unpredictable work schedule<br>● Need to make stops going to or from work<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Condition of transit shelters<br>● Transit schedule not reliable<br>● Reduces the stress of commuting<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q69.  Are there bicycle lanes throughout your trip?

- Yes
- No
- Partially

Q70.  During your work commute, where do you ride your bicycle? (Select all that apply)

- Sidewalk
- Street
- On-Street Bicycle Lane
- Separated Bicycle Lane
- Off-Street Shared Use Trails
- Other

Q71.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Provides Cash in Lieu of a Parking Spot
- Incentives to Encourage Alternative Transportation
- Provides Shower Facilities
- Provides Lockers
- Provides Bicycle Storage / Parking
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

Q72.  After parking your bike, how long does it take you to get to work? (Select one)

- <5 minutes
- 5 to 9 minutes
- 10 to 14 minutes
- 15 minutes or longer

Q73.  When you do not bike, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**I. Walk (4 Questions)**

Q74.  I walk to work because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● Exercise / Health<br>● Enjoy the experience<br>● I live close to work<br>● Prefer independence / flexibility<br>● Environmental concerns<br>● Faster trip<br>● Employer / Building Provides Showers<br>● Employer / Building Provides Lockers<br>● More comfortable trip<br>● More convenient trip<br>● Cost savings<br>● Avoid driving in traffic<br>● Avoid parking related hassles / costs<br>● Unpredictable work schedule<br>● Need to make stops going to or from work<br>● No other vehicle available<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Transit schedule not reliable<br>● Reduces the stress of commuting<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q75.  Which of the following describe the general conditions of the sidewalk along your work commute? (Select all that apply)

- High Quality Sidewalk
- Adequate Quality Sidewalk
- Low Quality Sidewalk
- No Sidewalk
- Signalized Pedestrian Crossings
- Striped Pedestrian Crossings
- No Pedestrian Crossings
- Well Lit Walkways
- Poorly Lit Walkways
- I Feel Safe at Major Street Crossings
- I Feel Unsafe at Major Street Crossings
- Facilities Unsafe for Pedestrians

Q76.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Provides Cash in Lieu of a Parking Spot
- Incentives to Encourage Alternative Transportation
- Provides Shower Facilities
- Provides Lockers
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

Q77.   When you do not walk, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

**J.  I am dropped off by a family member / friend [Kiss & Ride] (4 Questions)**

Q78.  I am dropped off by a family member / friend because of the following:

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● No personal vehicle available<br>● Mutual convenience<br>● Opportunity to talk<br>● Faster trip<br>● Take advantage of HOV lanes<br>● Avoid driving in traffic<br>● Environmental concerns<br>● More comfortable trip<br>● More convenient trip<br>● Cost savings<br>● Reduces the stress of commuting<br>● Need to make stops going to or from work<br>● Avoid parking related hassles / costs<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Condition of transit shelters<br>● Transit schedule not reliable<br>● Transit does not accommodate my work schedule<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q79.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Transportation Allowance
- Provides Cash in Lieu of a Parking Spot
- Provides Access to Shared Vehicles
- Incentives to Encourage Alternative Transportation
- Provides No Subsidy or Incentive

Q80.  What is your relationship to the person who usually drops you off? (Select one)

- Spouse
- Partner
- Friend
- Parent
- Child
- Other Relation

Q81.  When you are not dropped off by a family member / friend, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- Scooter [Motorized, Electrical, Kick]
- Other

**K. I am employed Downtown, but primarily work at non-Downtown location (3 Questions)**

Q82.  Which of the following best describes why you rarely travel to your office? (Select one)

- My position involves on-site sales
- My position involves on-site provision of service
- I work remotely from my home
- I work remotely from a job site in closer proximity to my home
- Other

Q83.  When you do travel to your office, how do you get to / from work? (Select one)

- Drive Alone
- Local Bus / Rail
- Park & Ride
- Vanpool
- Carpool
- Uber / Lyft
- Motorcycle / Moped
- Bicycle
- Walk
- I am dropped off by a family member / friend [Kiss and Ride]
- Scooter [Motorized, Electrical, Kick]
- Other

Q84.  How does your employer subsidize or incentivize your commute? (Select all that apply)

- Provides Free Parking
- Subsidizes Parking
- Provides Transportation Allowance
- Full Transit Expense Reimbursement
- Full Vanpool Expense Reimbursement
- Contributes to Transit Expenses
- Contributes to Vanpool Expenses
- Pre-tax Transit Deductions from Paycheck
- Pre-tax Vanpool Deductions from Paycheck
- Able to work from home
- Pre-tax Parking Deductions from Paycheck
- Provides Cash in Lieu of a Parking Spot
- Provides Shower Facilities
- Provides Lockers
- Provides Bicycle Storage / Parking
- Incentives to Encourage Alternative Transportation
- Provides Preferential or Reduced Cost Parking for Carpools
- Provides Preferential or Reduced Cost Parking for Vanpools
- Provides Access to Shared Vehicles
- Provides No Subsidy or Incentive

**L. Scooter [Motorized, Electrical, Kick] / Other (3 Questions)**

Q85.  I travel via Scooter or by other means because of the following (Rank the top five):

Please click or drag each attribute from the left hand column to the right in order to rank your Top 5 Reasons.

| | Rank Your Top Five |
|---|---|
| ● No other vehicle available<br>● Exercise / Health<br>● Enjoy the experience<br>● I live close to work<br>● Prefer independence / flexibility<br>● Environmental concerns<br>● Faster trip<br>● Employer / Building Provides Showers<br>● Employer / Building Provides Lockers<br>● More comfortable trip<br>● More convenient trip<br>● Cost savings<br>● [PN: SHOW ONLY IF Q6=13) Avoid driving in traffic<br>● Unpredictable work schedule<br>● Avoid parking related hassles / costs<br>● Need to make stops going to or from work<br>● Transit requires me to make transfers<br>● Transit is not close to my home / work<br>● Transit schedule not reliable<br>● Transit does not accommodate my work schedule<br>● Unfamiliar / Limited experience with transit<br>● Other | 1 _____<br>2 _____<br>3 _____<br>4 _____<br>5 _____ |

Q86.  How does your employer subsidize or incentivize your commute? (Select all that apply)

● Provides Free Parking
● Subsidizes Parking
● Provides Transportation Allowance
● Full Transit Expense Reimbursement
● Full Vanpool Expense Reimbursement
● Contributes to Transit Expenses
● Contributes to Vanpool Expenses
● Pre-tax Transit Deductions from Paycheck
● Pre-tax Vanpool Deductions from Paycheck
● Able to work from home
● Pre-tax Parking Deductions from Paycheck
● Provides Cash in Lieu of a Parking Spot
● Provides Shower Facilities
● Provides Lockers
● Provides Scooter Storage / Parking
● Incentives to Encourage Alternative Transportation
● Provides No Subsidy or Incentive

Q87.  When you do not travel by Scooter or by other means, how do you get to / from work? (Select one)

● Drive Alone
● Local Bus / Rail
● Park & Ride
● Vanpool
● Carpool
● Uber / Lyft
● Motorcycle / Moped
● Bicycle
● Walk
● I am dropped off by a family member / friend [Kiss and Ride]
● Scooter [Motorized, Electrical, Kick] or Other

## DEMOGRAPHIC QUESTIONS (ASK ALL)

These last questions are for classification purposes only. Providing demographic information allows us to ensure that the survey findings are statistically significant.

D1. Please type in your age:
(If you're older than 98, type in 98)


__ __


D2. What is your gender?

- Male
- Female


D3. How would you describe your employer's main industry? (Select one)

- Accounting
- Architecture / Engineering
- Construction
- Consulting
- Creative / Design
- Education
- Energy
- Financial Services
- Food Services
- Government
- Healthcare
- Information / Technology
- Insurance
- Legal
- Leisure / Hospitality
- Nonprofit
- Real Estate
- Retail
- Transportation
- Utilities
- Other *(Please specify)*: _____

D4.    How would you describe your occupation? (Select one)

- Accountant / Auditor
- Advertising / Marketing
- Analyst
- Architect
- Artist / Designer / Performer / Media
- Attorney / Legal Practitioner
- Building & Construction
- Child Care
- Civil Servant
- Clergy
- Consultant
- Customer Service
- Educator / Student
- Engineer
- Executive
- Financial Services
- Food Service
- Healthcare Practitioner
- Information / Technology
- Installation / Maintenance / Repair
- Janitorial / Housekeeping
- Law Enforcement
- Managerial
- Office / Administrative Support
- Real Estate
- Research
- Retail
- Sales
- Social Scientist (Economist, Psychologist, Sociologist, etc.)
- Social Worker
- Transportation & Material Moving
- Other *(Please specify)*: _____

D5.    What is your approximate household income? (Select one)

- $0 - $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,999
- $100,000 - $124,999
- $125,000 - $149,999
- $150,000 - $174,999
- $175,000 - $199,999
- $200,000+

D6.    Including yourself, how many people live in your household?

__ __ Adults
__ __ Children

D7.     Are you of Hispanic or Latino origin or descent?

- Yes
- No


D8.     Do you consider yourself:

- White
- Black or African American
- Asian
- Native American/American Indian/Alaska Native
- Native Hawaiian/Pacific Islander
- Mixed
- Another Race *(Please specify)*: _____


D9. What is the last grade of school you completed?

- 8th grade or less
- Some high school
- Graduated high school and received diploma or GED (include vocational or technical school)
- Some college
- Graduated college
- Post-graduate


D9a. Was that an associate's degree, a bachelor's degree, or another degree?

- Associate's degree
- Bachelor's degree
- Other

APPENDIX B: Maps & Map Definitions

Map 1.



**Residential Density of Downtown Employees**

- 879 - 1,812
- 378 - 878
- 150 - 377
- 50 - 149
- 1 - 49

LEHD, 2015 LODES Dataset

Houston CBSA Boundary

County Boundaries

METRO Park & Rides

Woodlands Express Park & Rides

Fort Bend Express Park & Rides
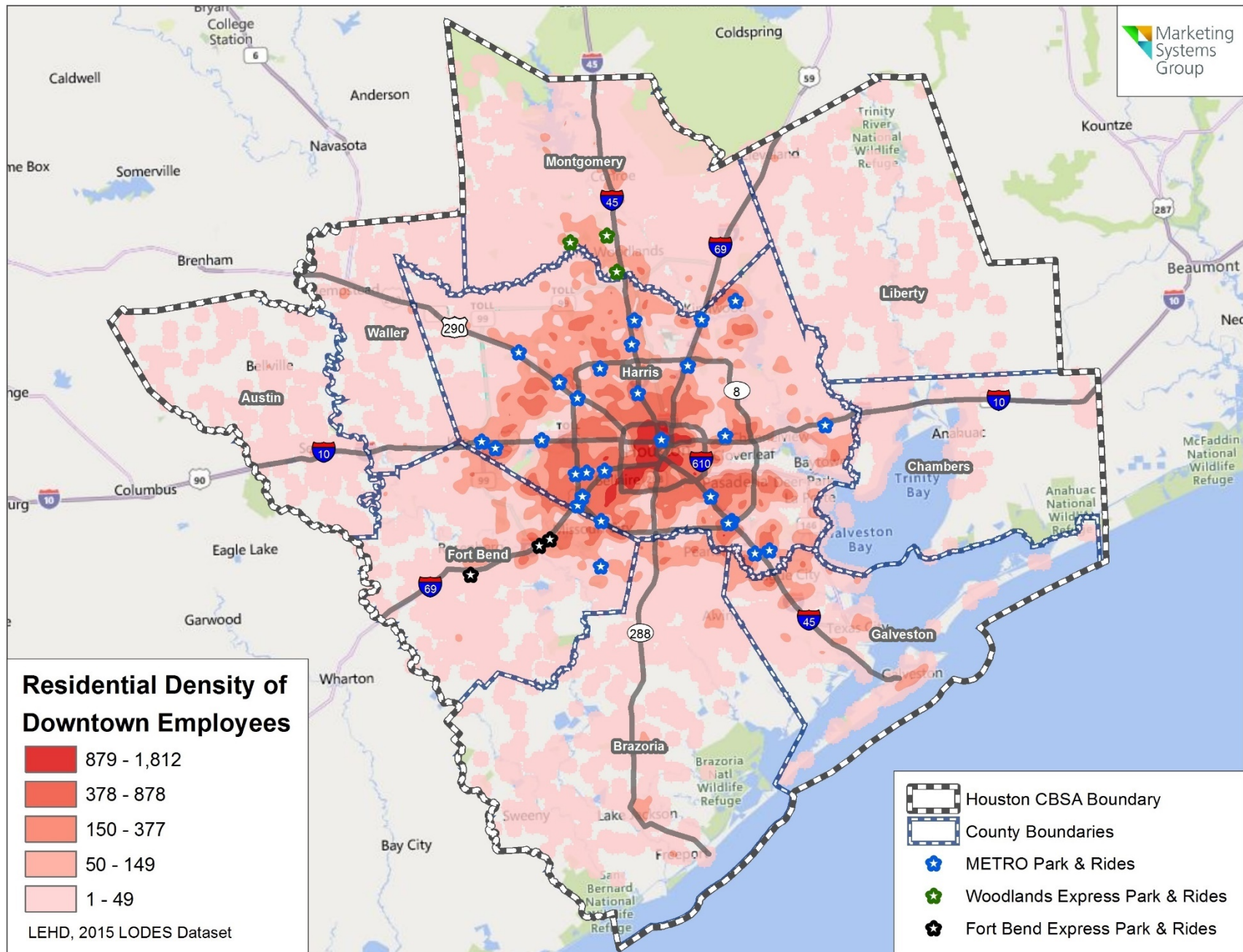
| Map Title | **Residential Density of Downtown Employees** |
|---|---|
| Description | Kernel density map (heat map) for the core based statistical area (CBSA) of Houston. |
| Source | LEHD, 2015 LODES dataset |
| Report Reference | Map 1., page 5 |
| Associated Files | 2018_Map1.png<br>2018_Map1.jpg<br>2018_Map1.pdf<br>LEHD_rawdata.xlsx<br>Res_block_cnt_map2 Shapefile<br>h_geocode_heat.tif |
| Notes | A total of 614 census blocks were identified as "Downtown" Houston: |

| ZIP_ID | # of blocks |
|---|---|
| 77002 | 533 |
| 77003 | 23 |
| 77007 | 10 |
| 77010 | 21 |
| 77020 | 19 |
| 77201 | 7 |

The total number of "Downtown" primary jobs located in these blocks: 169,240

| ZIP ID | Primary Jobs |
|---|---|
| 77002 | 154,432 |
| 77003 | 880 |
| 77007 | 39 |
| 77010 | 13,044 |
| 77020 | 805 |
| 77201 | 40 |

See LEHD_rawdata.xlsx enclosed

147,813 of the 169,240 jobs reside within the CBSA of Houston and account for a total of 38,079 census blocks.  See Res_block_cnt_map2 shapefile.

Hotspots in the map display were generated using a 1 mile radius. See h_geocode_heat.tif enclosed for kernel density output of 1 mile radius.

**Map 2.**



Downtown Study Area

77009
77026
77020
77007
77021
77002
77019
77010
77003
77011
77006
77004
77023

| | |
|---:|:---|
| **Map Title** | **Downtown Study Area** |
| Description | Map centered on the Downtown Study Area, showing highways, city streets, and adjacent zip codes. |
| Source | US Census Bureau |
| Report Reference | Map 2., page 11 |
| Associated Files | 2018_Map2.png<br>2018_Map2.jpg<br>2018_Map2.pdf<br>Houston_Streets Shapefile<br>Downtown_Highways Shapefile<br>Downtown_Zips Shapefile |

**Map 3.**



**Downtown Survey Respondents**

**Concentration by Workplace Location**

- 7.81% - 13.29%
- 2.49% - 7.8%
- 0.71% - 2.48%
- 0.01% - 0.7%

Source: Q4 Survey Data, 2018

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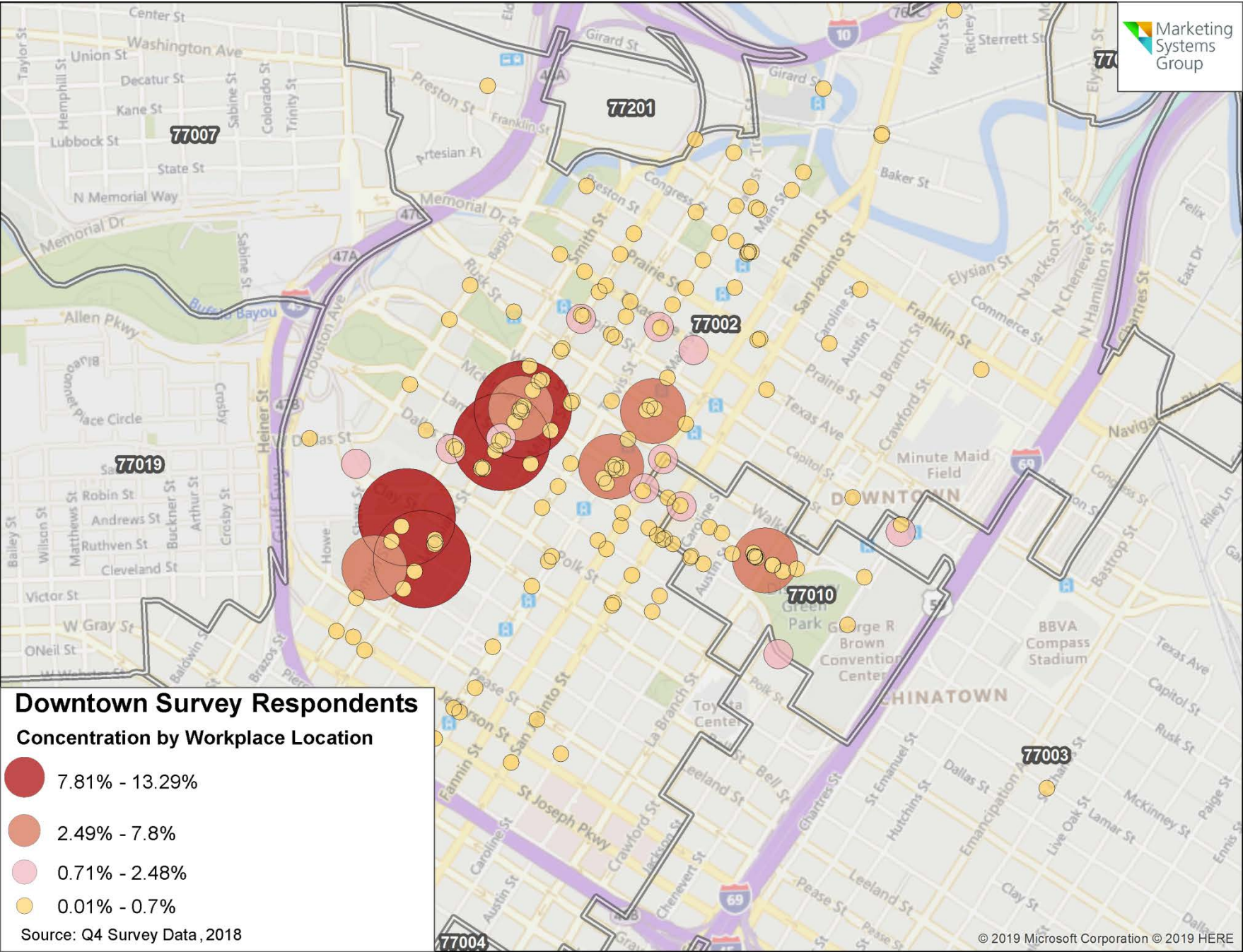
| | |
|---|---|
| **Map Title** | **Downtown Survey Respondents – Concentration by Workplace Location** |
| Description | Choropleth map displaying the concentration of employees by reported workplace.<br><br>Workplace locations were geocoded based on Q2 (address) and Q3 (ZIP code) information per survey responses. Geocoding of survey responses included 99.86% (7,661 of 7,672) that were successfully geocoded; 87.40% (6,696 of 7,661) were geocoded to the exact address; and the remaining 12.60% (965 of 7,661) were matched to the ZIP code centroid.<br>There were 11 records in total that could not be geocoded.<br>The map displays only those records matched at the address level. |
| Source | Q2 & Q3 survey data (address and ZIP code of reported workplace) |
| Report Reference | Map 3., page 12 |
| Associated Files | 2018_Map3.png<br>2018_Map3.jpg<br>2018_Map3.pdf<br>Map_17_geocoding |

**Map 4.**



**Houston Region Population**

**Concentration by Residential ZIP Code**

- 0.96% - 1.78%
- 0.52% - 0.95%
- 0.23% - 0.51%
- 0% - 0.22%

American Community Survey, 2017 5yr Estimates

Houston CBSA Boundary

County Boundaries

METRO Park & Rides

Woodlands Express Park & Rides

Fort Bend Express Park & Rides
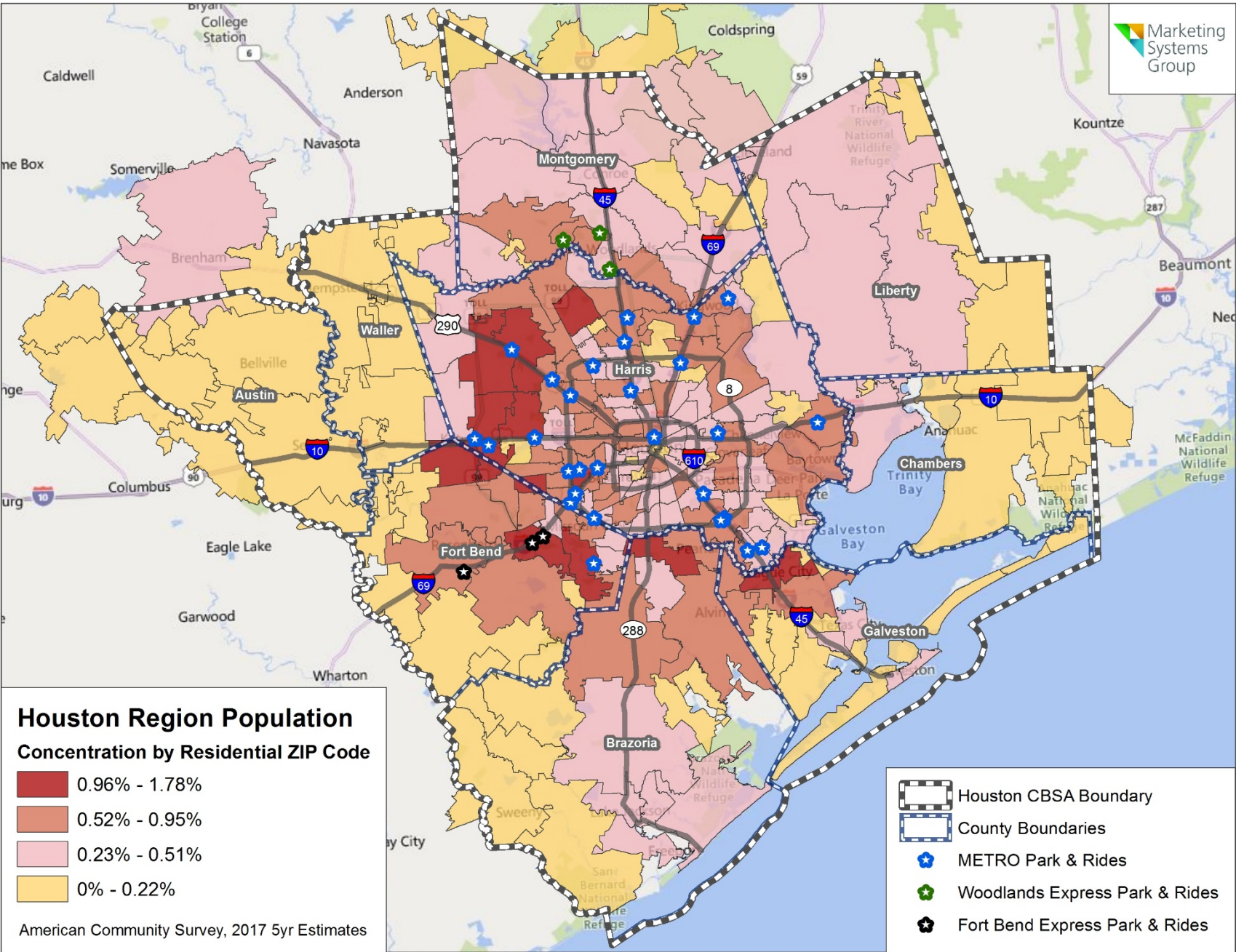
| | |
|---:|:---|
| **Map Title** | **Houston Region Population – Concentration By Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of the Houston CBSA population by ZIP code. |
| Source | American Community Survey (ACS), 2017 5yr Estimates. |
| Report Reference | Map 4., page 14 |
| Associated Files | 2018_Map4.png<br>2018_Map4.jpg<br>2018_Map4.pdf<br>Maps_1_3_Data.xlsx<br>See Map_1_ACS Shapefile |

**Map 5.**



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**Downtown Employees Surveyed**

**Concentration by Residential ZIP Code**

| | |
|---|---|
| ■ | 2.33% - 5.23% |
| ■ | 1.19% - 2.32% |
| ■ | 0.48% - 1.18% |
| ■ | 0.01% - 0.47% |

Source: Q4 Survey Data, 2018
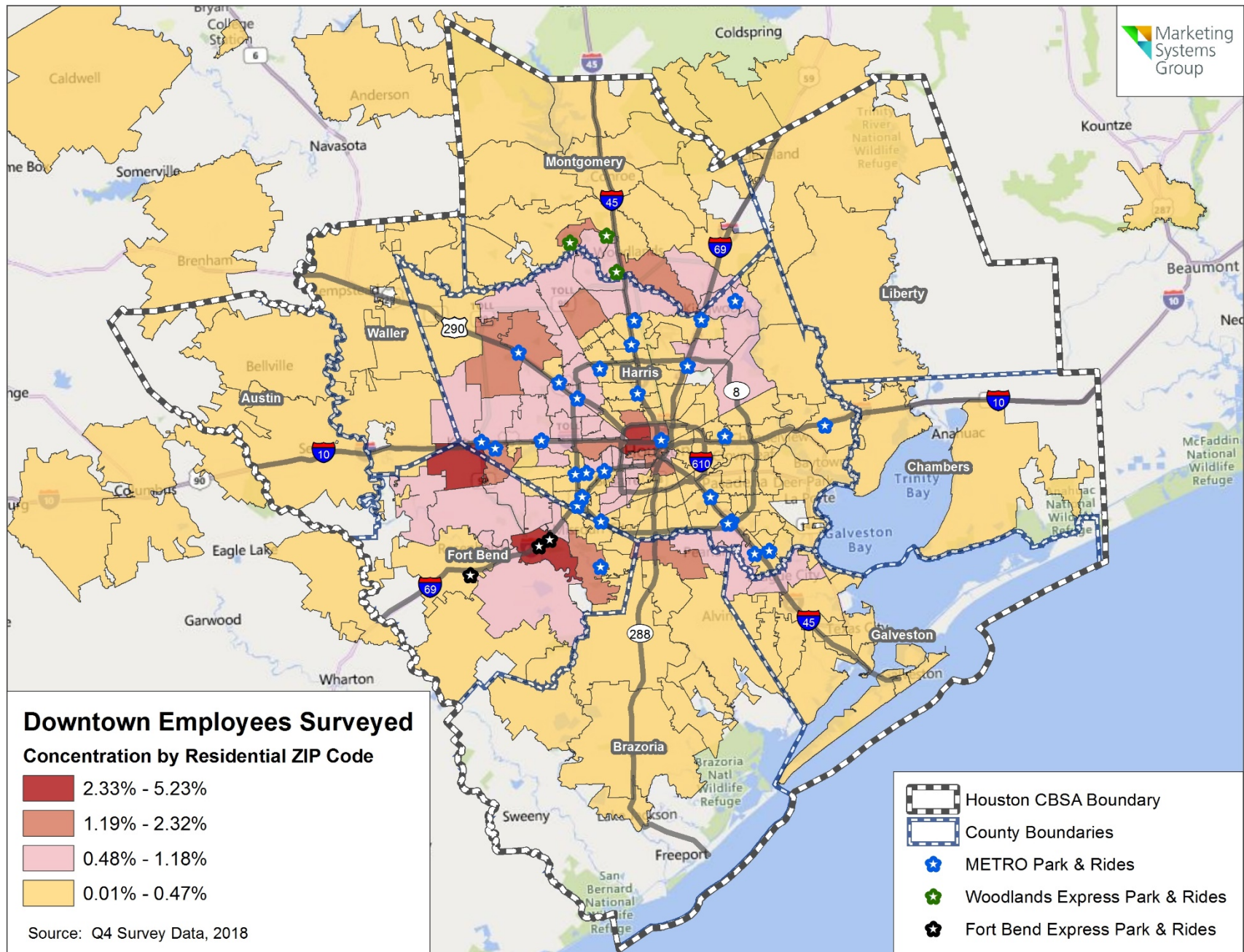
| | |
|---|---|
| ▦ | Houston CBSA Boundary |
| ▭ | County Boundaries |
| ★ | METRO Park & Rides |
| ✿ | Woodlands Express Park & Rides |
| ✿ | Fort Bend Express Park & Rides |

| | |
|---|---|
| **Map Title** | **Downtown Employees Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees' residential ZIP code. |
| Source | Q4 survey data, 2018 |
| Report Reference | Map 5., page 15 |
| Associated Files | 2018_Map5.png<br>2018_Map5.jpg<br>2018_Map5.pdf<br>Maps_1_3_Data.xlsx<br>q4_map3_data.xlsx<br>Q4_Map_3 Shapefile |

**Map 6**.
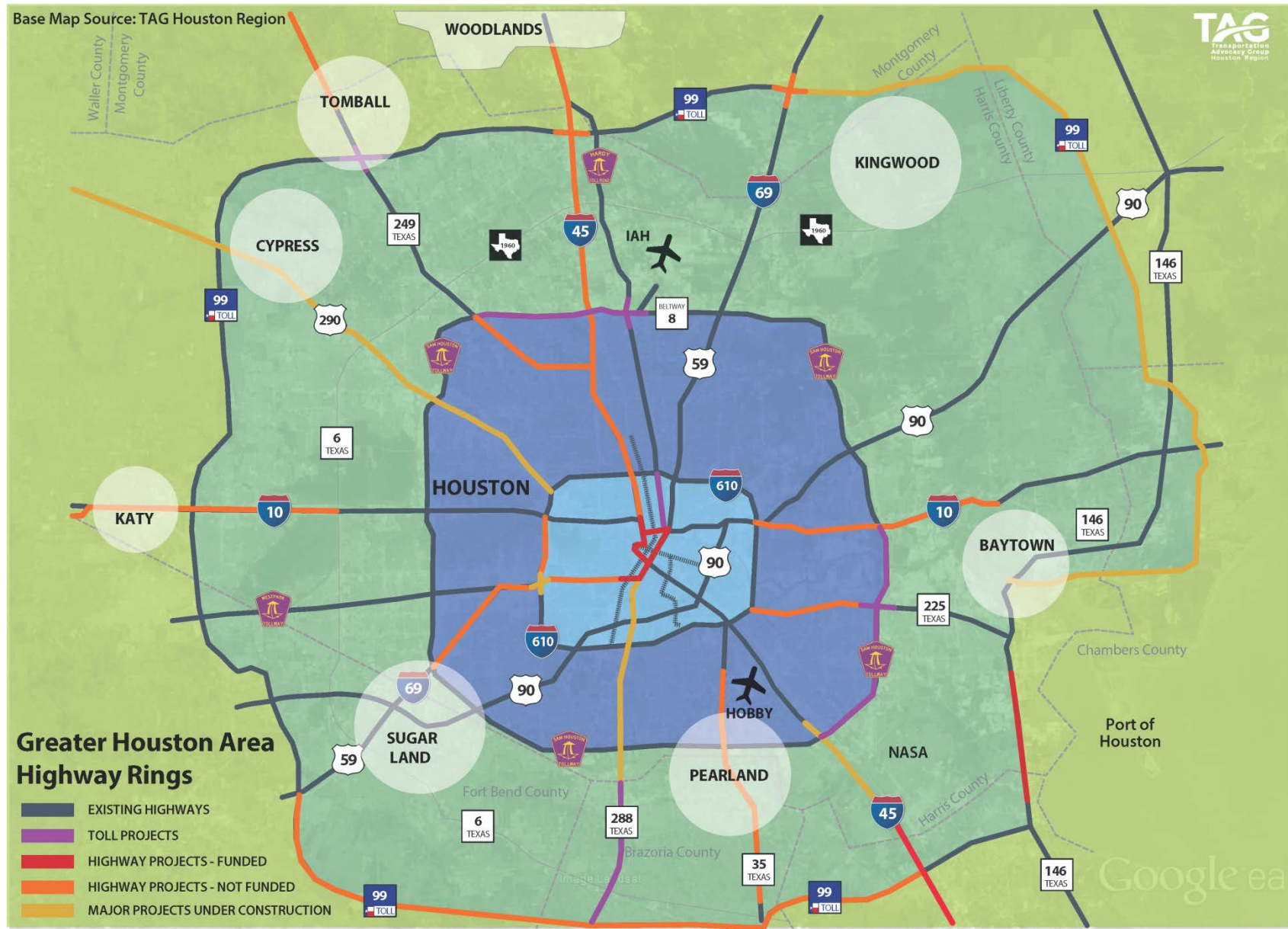


Base Map Source: TAG Houston Region

**Greater Houston Area Highway Rings**

- EXISTING HIGHWAYS
- TOLL PROJECTS
- HIGHWAY PROJECTS - FUNDED
- HIGHWAY PROJECTS - NOT FUNDED
- MAJOR PROJECTS UNDER CONSTRUCTION

**Regional Geographies:** | **Inside** Loop 610 | **Between** Loop 610 and Beltway 8 | **Between** Beltway 8 and the Grand Parkway (SH 99) | **Outside** the Grand Parkway (SH 99)

| | |
|---|---|
| **Map Title** | **Greater Houston Area Highway Rings** |
| Description | Schematic map of the Greater Houston area showing existing highways, planned highways projects, and highway projects currently under construction. |
| Base Map Source | https://www.taghouston.net/ |
| Report Reference | Map 6., page 16 |
| Associated Files | 2018_Map6.png<br>2018_Map6.jpg<br>2018_Map6.pdf |

**Map 7.**
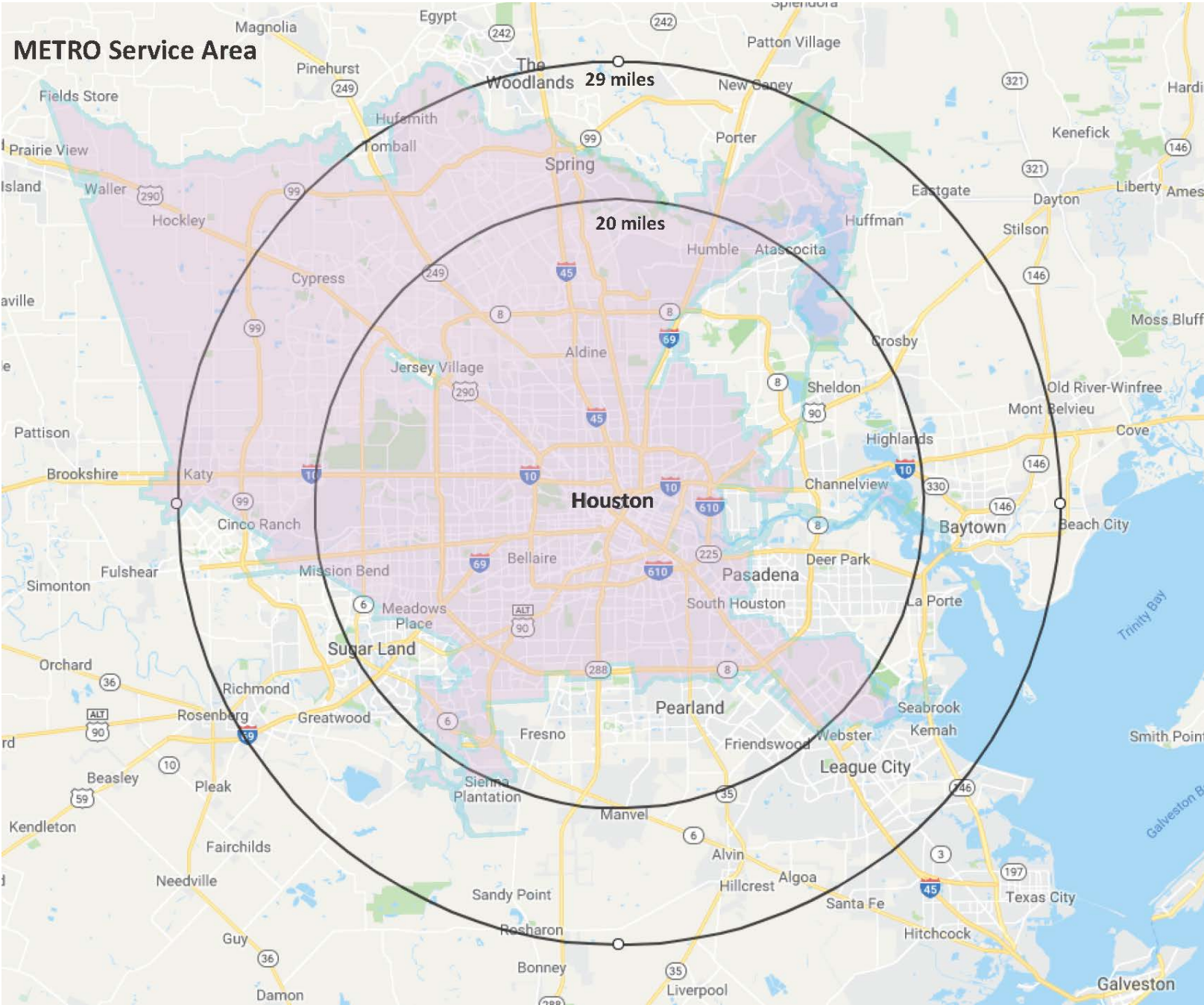
| | |
|---|---|
| **Map Title** | **METRO Service Area** |
| Description | METRO Service Area overlaid on the Greater Houston area, with radial 20 mile and 29 mile rings to indicate median commute distances of survey respondents. |
| Source | https://www.google.com/maps/@29.7660129,-95.6282194,10.11z |
| Report Reference | Map 7., page 20 |
| Associated Files | 2018_Map7.png<br>2018_Map7.jpg<br>2018_Map7.pdf |

**Map 8.**



**Drive Alone Commuters Surveyed**

**Concentration by Residential ZIP Code**

- 2.9% - 7.18%
- 1.1% - 2.89%
- 0.33% - 1.09%
- 0% - 0.32%

Source: Q4 Survey Data, 2018

Marketing Systems Group
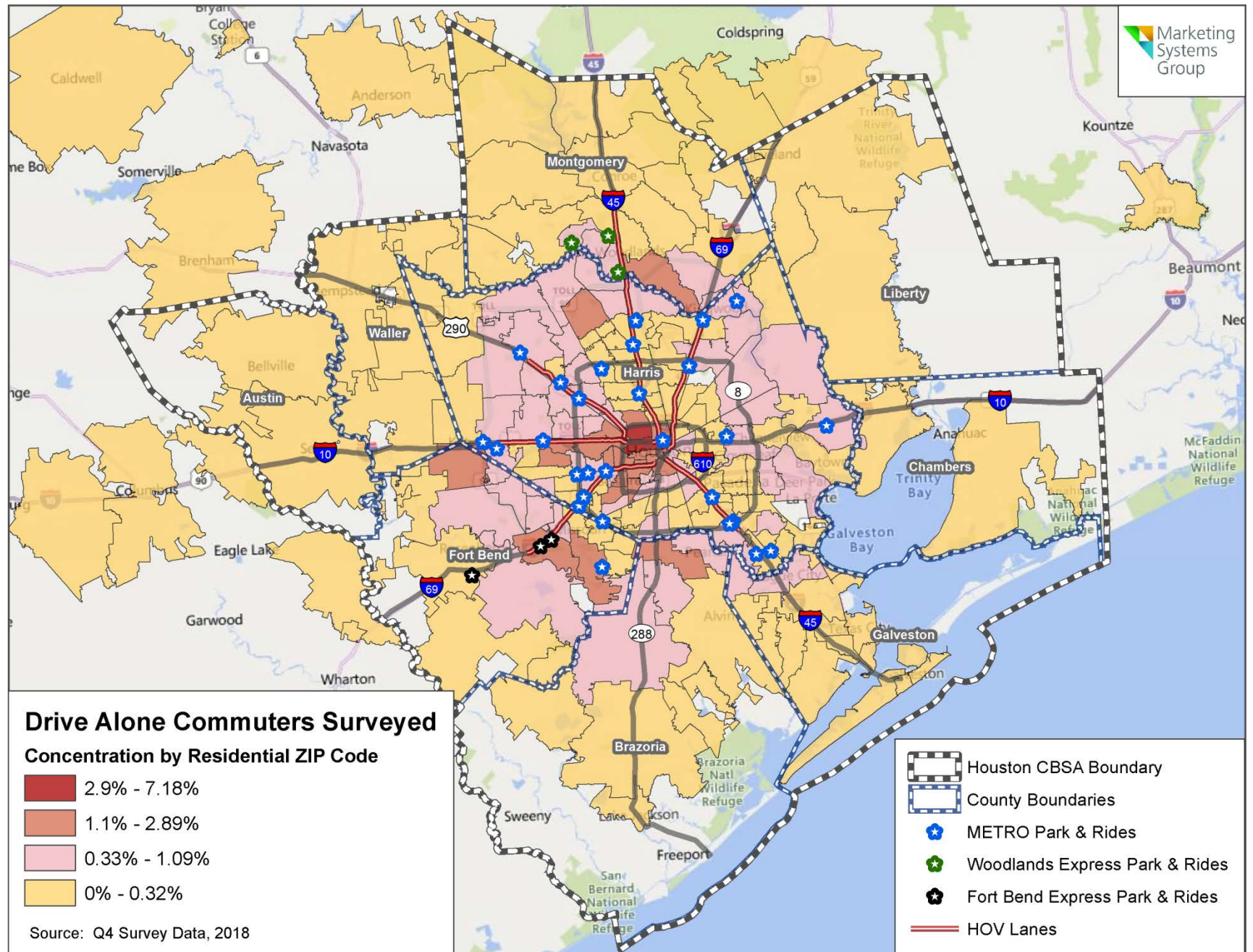
| | Houston CBSA Boundary |
| | County Boundaries |
| | METRO Park & Rides |
| | Woodlands Express Park & Rides |
| | Fort Bend Express Park & Rides |
| | HOV Lanes |

| | |
|---|---|
| **Map Title** | **Drive Alone Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of employees by ZIP code that usually commute to/from Downtown Houston by driving alone. |
| Source | Q4 ZIP code and Q6 from survey code = A |
| Report Reference | Map 8., page 65 |
| Associated Files | 2018_Map8.png<br>2018_Map8.jpg<br>2018_Map8.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 9.**



## Park & Ride Commuters Surveyed

**Concentration by Residential ZIP Code**

- 2.6% - 8.8%
- 1.43% - 2.59%
- 0.47% - 1.42%
- 0% - 0.46%

Source: Q4 Survey Data, 2018

- Houston CBSA Boundary
- County Boundaries
- METRO Park & Rides
- Woodlands Express Park & Rides
- Fort Bend Express Park & Rides
- HOV Lanes
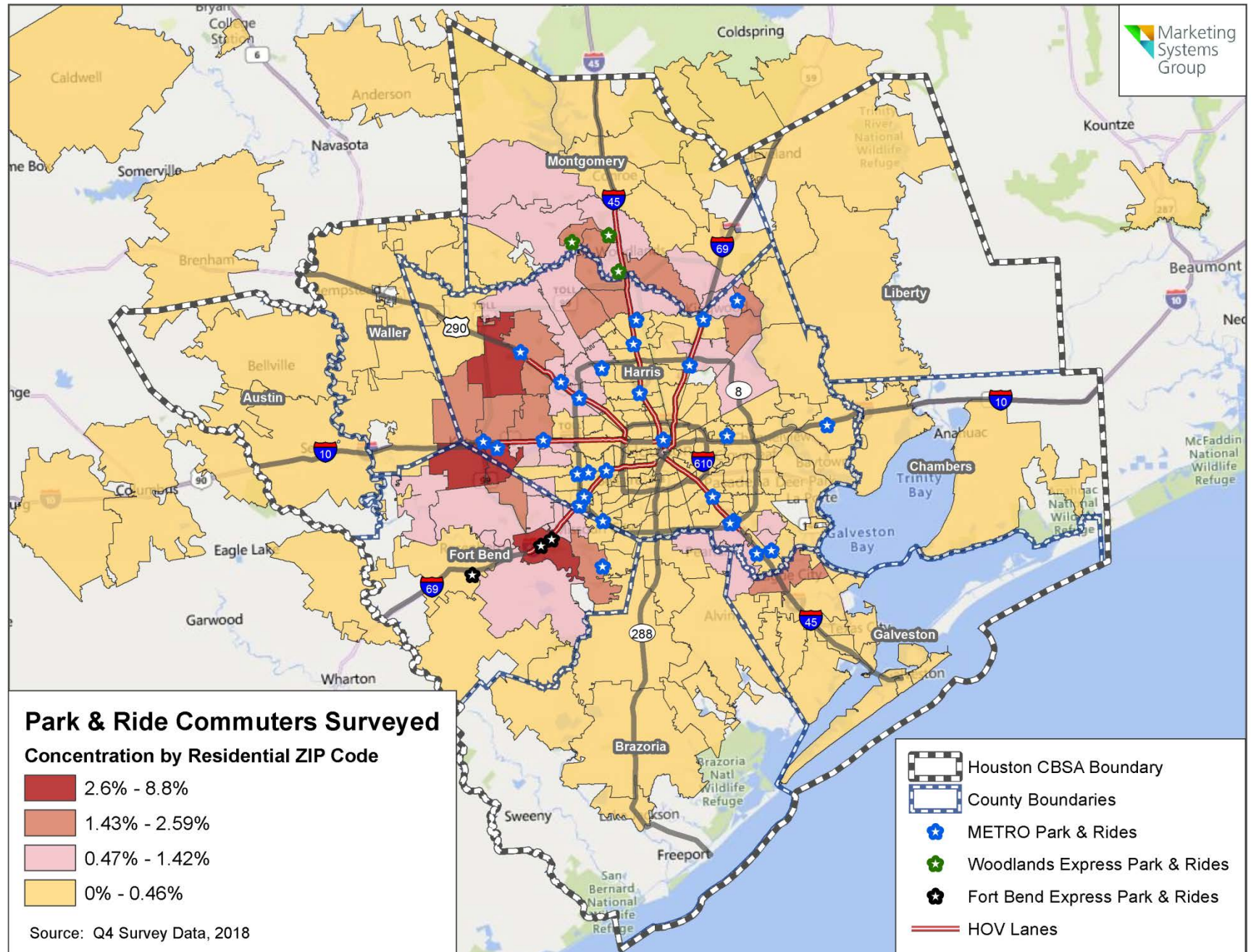
| | |
|---|---|
| **Map Title** | **Park & Ride Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via Park & Ride. |
| Source | Q4 ZIP code and Q6 from survey code = C |
| Report Reference | Map 9., page 67 |
| Associated Files | 2018_Map9.png<br>2018_Map9.jpg<br>2018_Map9.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 10**.



Local Bus / Rail Commuters Surveyed

**Concentration by Residential ZIP Code**

- 5.98% - 10.45%
- 3% - 5.97%
- 0.01% - 2.99%
- 0%

Source: Q4 Survey Data, 2018

County Boundaries
Frequent Bus Routes
METRO Rail Line

Marketing Systems Group

| Map Title | Local Bus / Rail Commuters Surveyed – Concentration by Residential ZIP Code |
|---|---|
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via local bus/rail. |
| Source | Q4 ZIP code and Q6 from survey code = B |
| Report Reference | Map 10., page 69 |
| Associated Files | 2018_Map10.png<br>2018_Map10.jpg<br>2018_Map10.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 11**.



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**Carpool Commuters Surveyed**

**Concentration by Residential ZIP Code**

- 3.27% - 8.7%
- 1.37% - 3.26%
- 0.28% - 1.36%
- 0% - 0.27%

Source: Q4 Survey Data, 2018

Houston CBSA Boundary
County Boundaries
METRO Park & Rides
Woodlands Express Park & Rides
Fort Bend Express Park & Rides
HOV Lanes

| | |
|---|---|
| **Map Title** | **Carpool Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via carpool. |
| Source | Q4 ZIP code and Q6 from survey code = E |
| Report Reference | Map 11., page 73 |
| Associated Files | 2018_Map11.png<br>2018_Map11.jpg<br>2018_Map11.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 12.**



Vanpool Commuters Surveyed

Concentration by Residential ZIP Code

- 7.56% - 19.81%
- 3.78% - 7.55%
- 0.01% - 3.77%
- 0%

Source: Q4 Survey Data, 2018

Houston CBSA Boundary
County Boundaries
METRO Park & Rides
Woodlands Express Park & Rides
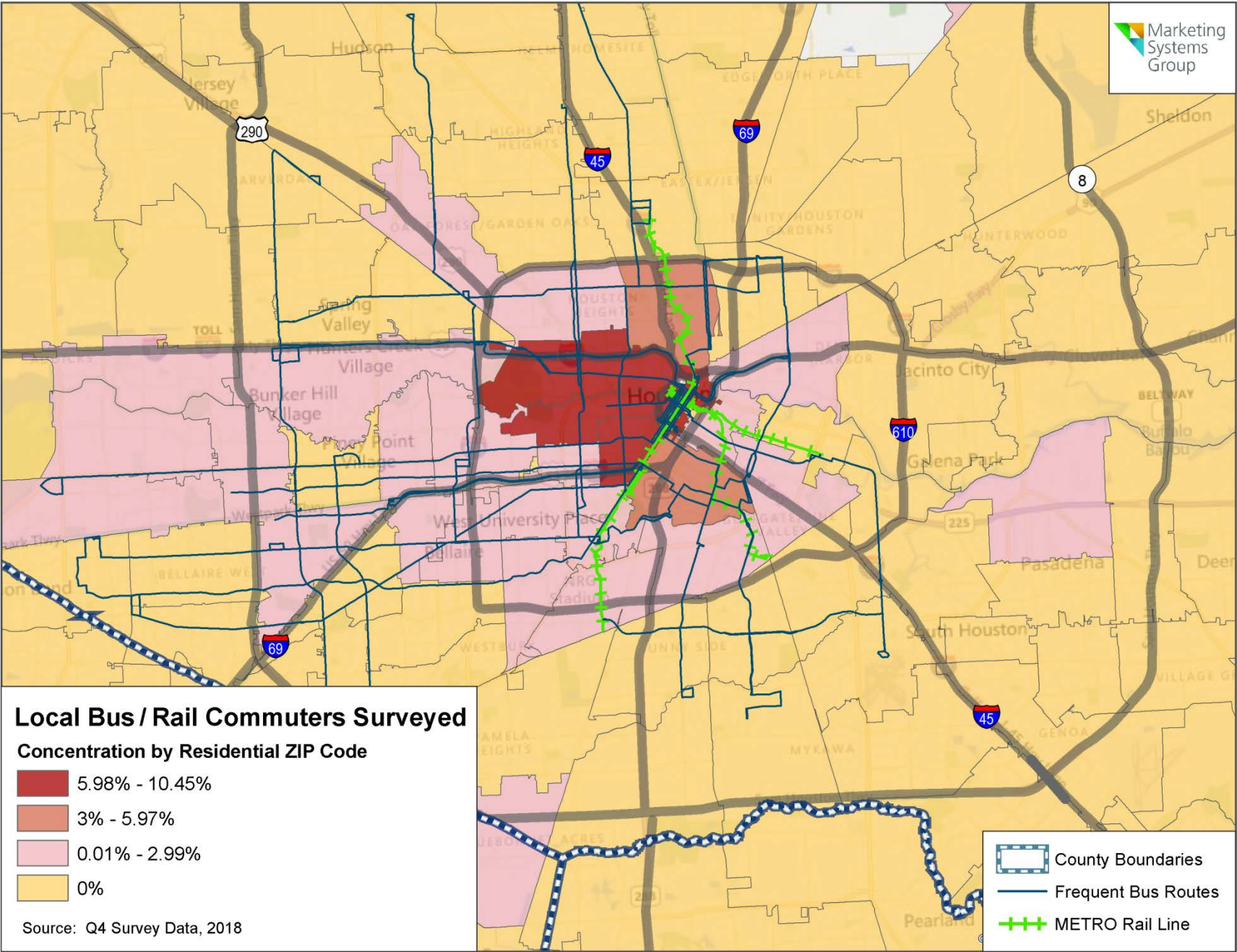Fort Bend Express Park & Rides
HOV Lanes

| | |
|---|---|
| **Map Title** | **Vanpool Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via vanpool. |
| Source | Q4 ZIP code and Q6 from survey code = D |
| Report Reference | Map 12., page 75 |
| Associated Files | 2018_Map12.png<br>2018_Map12.jpg<br>2018_Map12.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 13.**



Marketing Systems Group

## Kiss & Ride Commuters Surveyed

**Concentration by Residential ZIP Code**

- 5.99% - 9.4%
- 1.72% - 5.98%
- 0.01% - 1.71%
- 0%

Source: Q4 Survey Data, 2018

- ▦ Houston CBSA Boundary
- ▭ County Boundaries
- ✪ METRO Park & Rides
- ✪ Woodlands Express Park & Rides
- ✪ Fort Bend Express Park & Rides
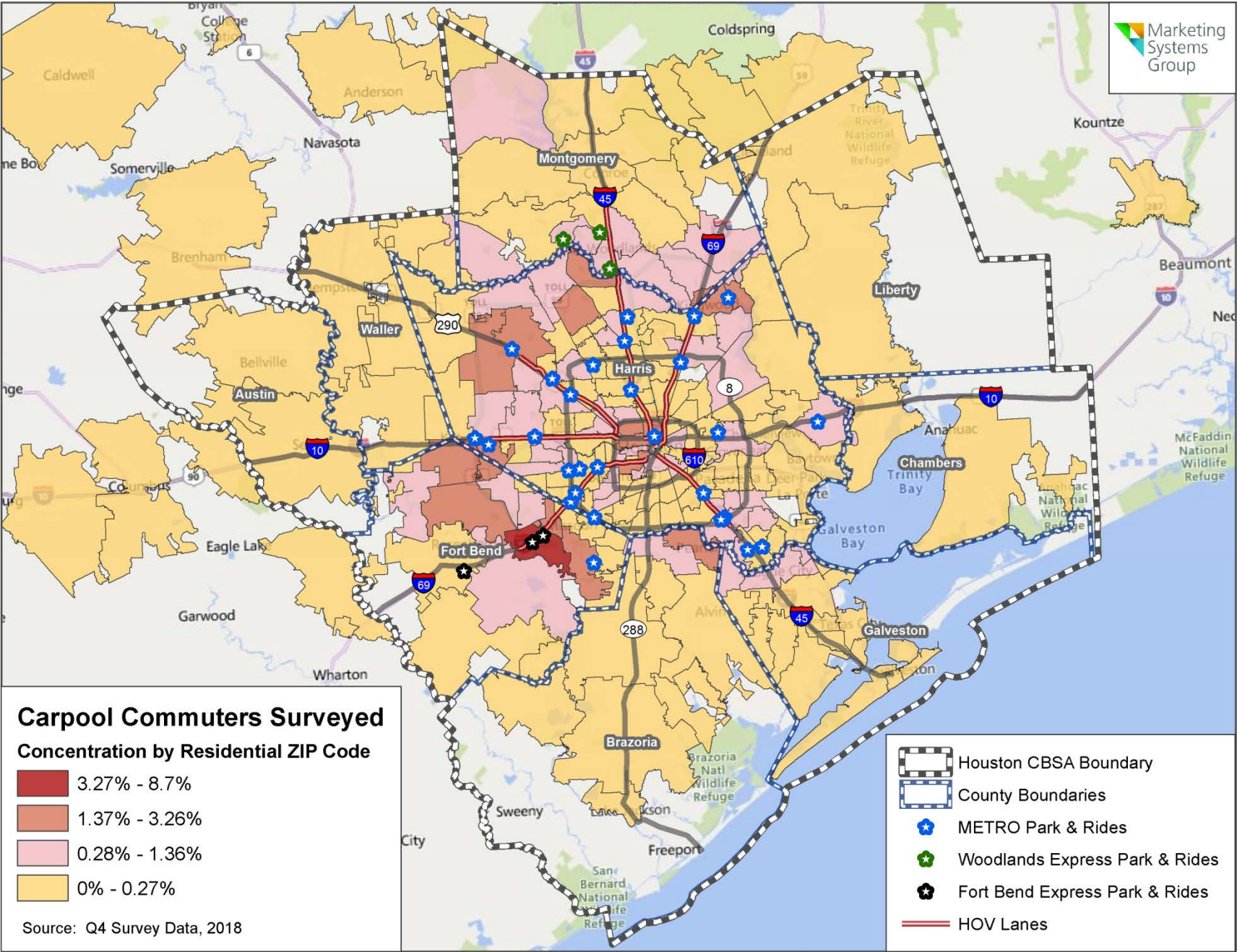- ▬ HOV Lanes

| | |
|---|---|
| **Map Title** | **Kiss & Ride Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via Kiss & Ride. |
| Source | Q4 ZIP code and Q6 from survey code = J |
| Report Reference | Map 13., page 77 |
| Associated Files | 2018_Map13.png<br>2018_Map13.jpg<br>2018_Map13.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 14.**



**Uber / Lyft Commuters Surveyed**

**Concentration by Residential ZIP Code**

- 5.98% - 10.45%
- 3% - 5.97%
- 0.01% - 2.99%
- 0%

Source: Q4 Survey Data, 2018

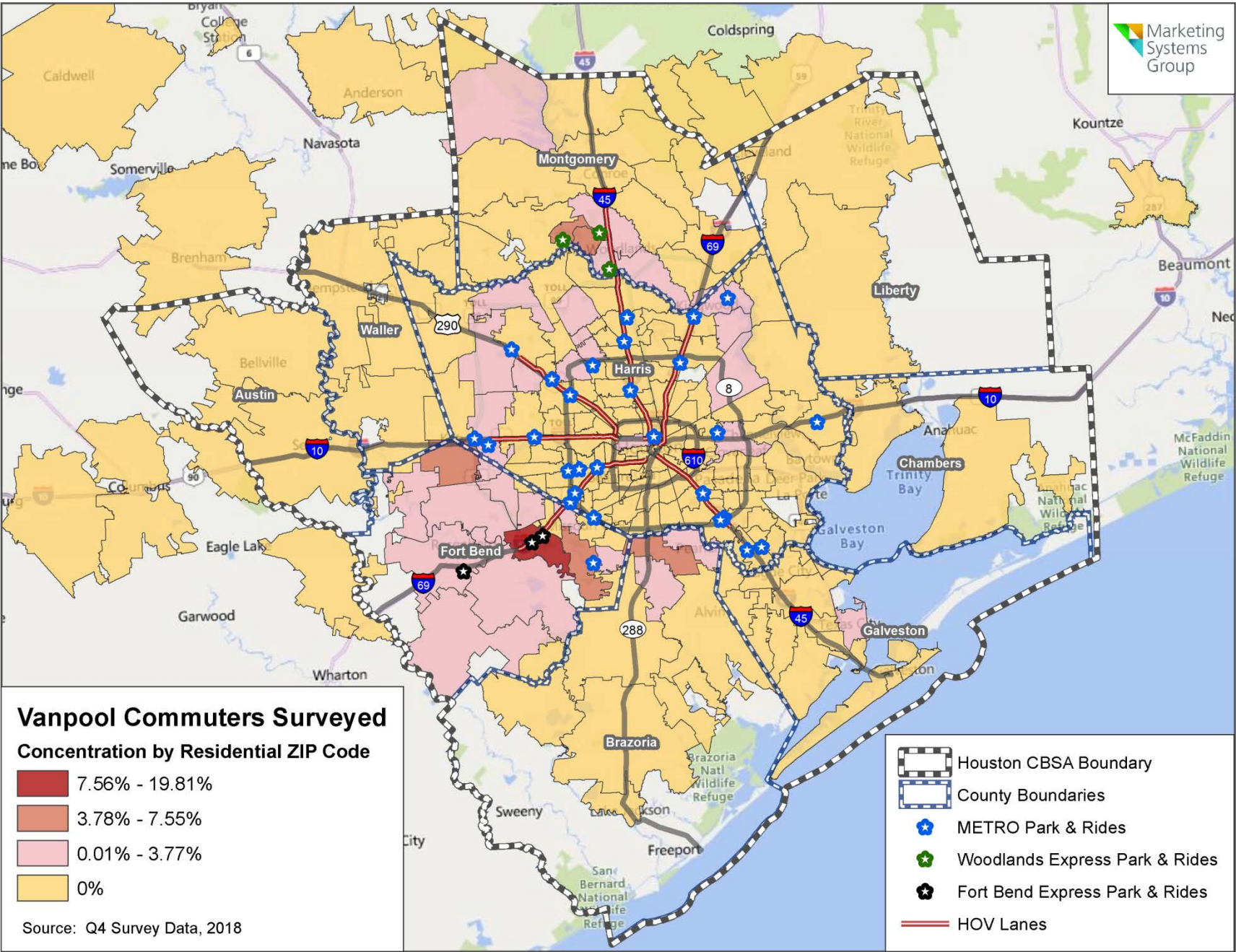| | |
|---|---|
| Houston CBSA Boundary | |
| County Boundaries | |
| METRO Park & Rides | |
| Woodlands Express Park & Rides | |
| Fort Bend Express Park & Rides | |
| HOV Lanes | |

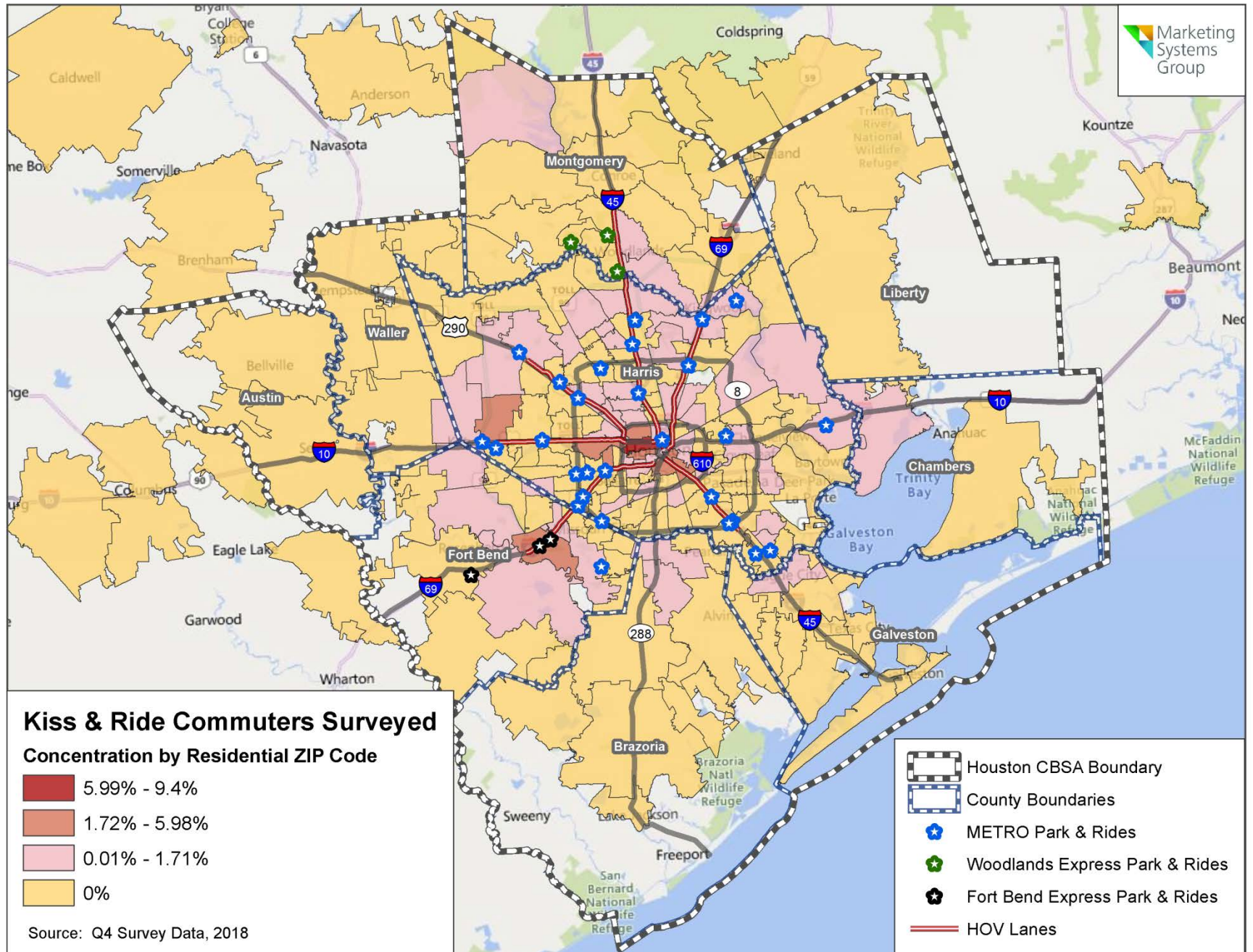| | |
|---|---|
| **Map Title** | **Uber / Lyft Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via Uber / Lyft. |
| Source | Q4 ZIP code and Q6 from survey code = F |
| Report Reference | Map 14., page 79 |
| Associated Files | 2018_Map14.png<br>2018_Map14.jpg<br>2018_Map14.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 15.**



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**Pedestrian Commuters Surveyed**

**Concentration by Residential ZIP Code**

- 12.23% - 67.78%
- 6.68% - 12.22%
- 1.12% - 6.67%
- 0% - 1.11%

Source: Q4 Survey Data, 2018

County Boundaries

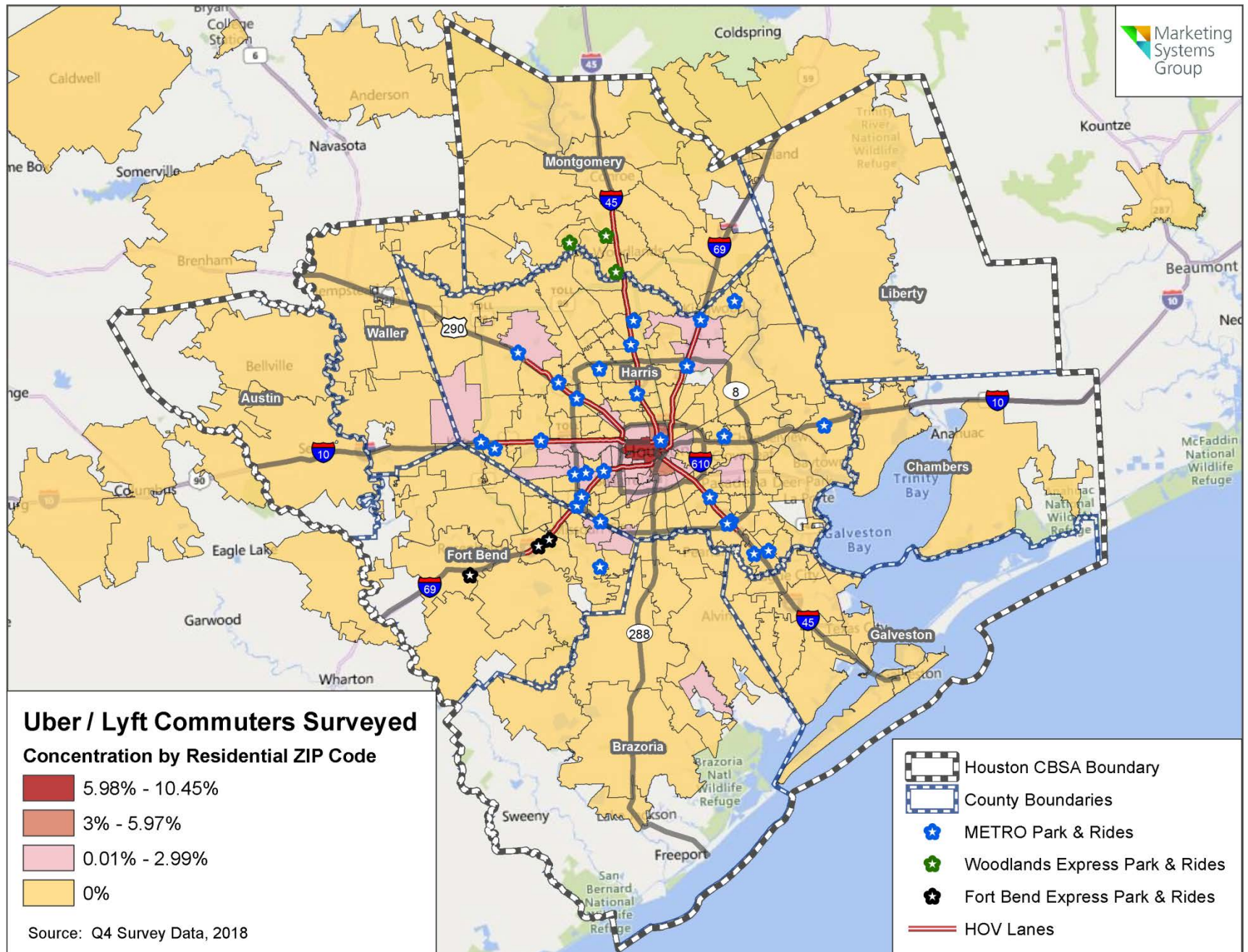| Map Title | Pedestrian Commuters Surveyed – Concentration by Residential ZIP Code |
| --- | --- |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston on foot. |
| Source | Q4 ZIP code and Q6 from survey code = I |
| Report Reference | Map 15., page 81 |
| Associated Files | 2018_Map15.png<br>2018_Map15.jpg<br>2018_Map15.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 16.**



**Bicycle Commuters Surveyed**

**Concentration by Residential ZIP Code**

- 13.05% - 17.39%
- 2.91% - 13.04%
- 0.01% - 2.9%
- 0%

Source: Q4 Survey Data, 2018

County Boundaries
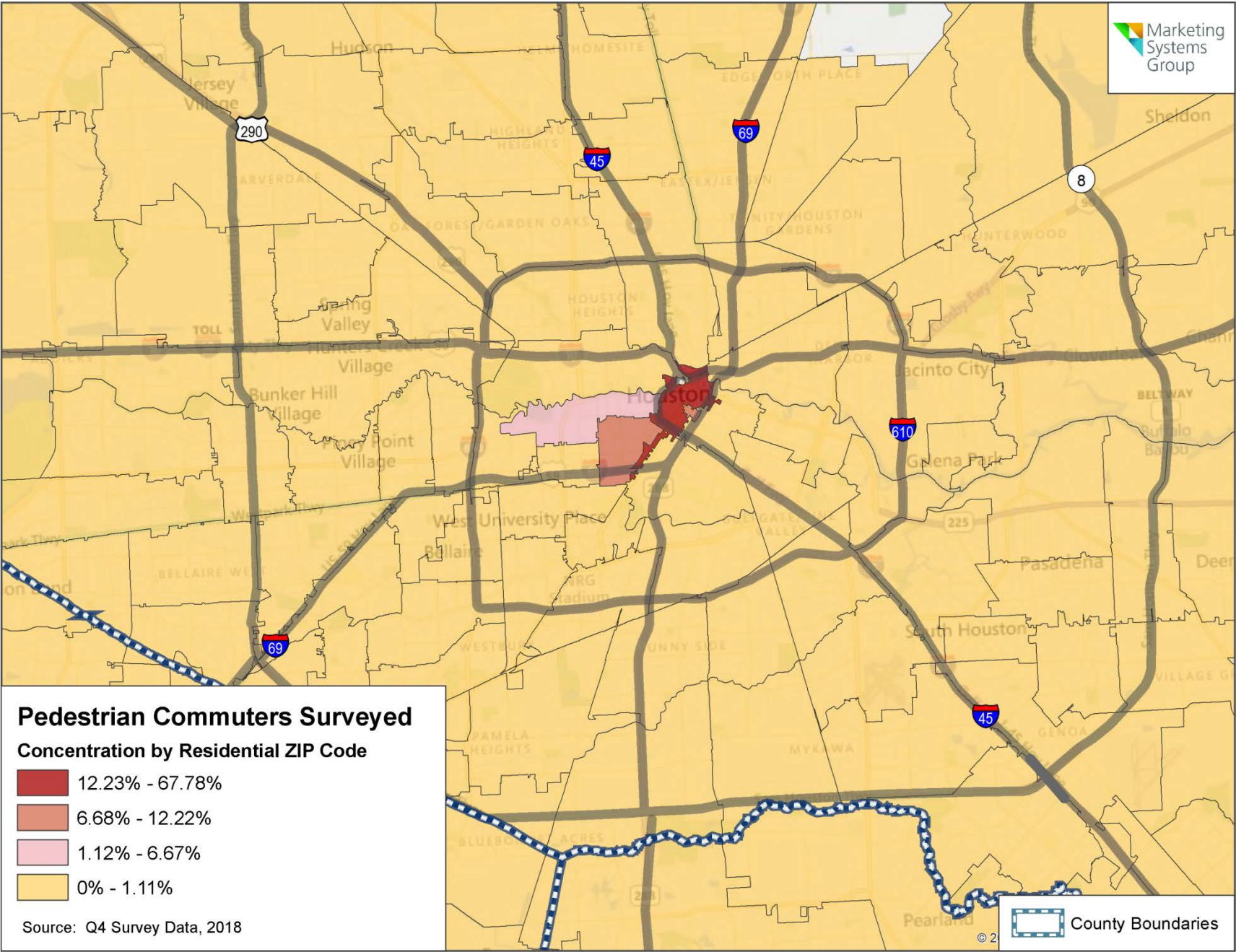
Existing Bikeways

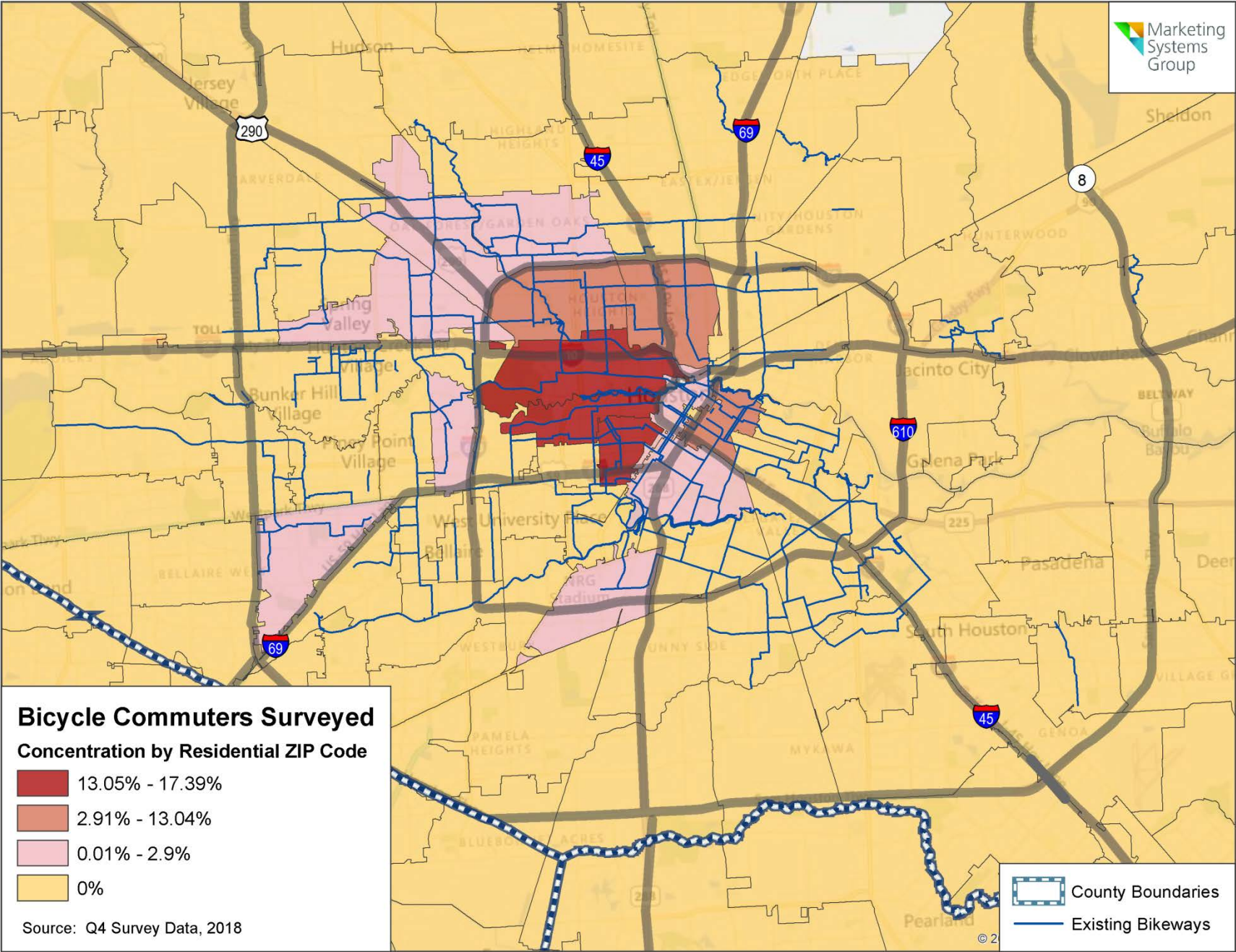| | |
|---|---|
| **Map Title** | **Bicycle Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via bicycle zoomed to the Metro Frequent Network to display the existing bikeways layer. |
| Source | Q4 ZIP code and Q6 from survey code = H |
| Report Reference | Map 16., page 84 |
| Associated Files | 2018_Map16.png<br>2018_Map16.jpg<br>2018_Map16.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 17.**



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## Office Outside Downtown Surveyed
**Concentration by Residential ZIP Code**

| | |
|---|---|
| ■ | 11.12% - 22.22% |
| ■ | 3.71% - 11.11% |
| ■ | 0.01% - 3.7% |
| ■ | 0% |

Source: Q4 Survey Data, 2018

▭ Houston CBSA Boundary
▭ County Boundaries
★ METRO Park & Rides
★ Woodlands Express Park & Rides
★ Fort Bend Express Park & Rides

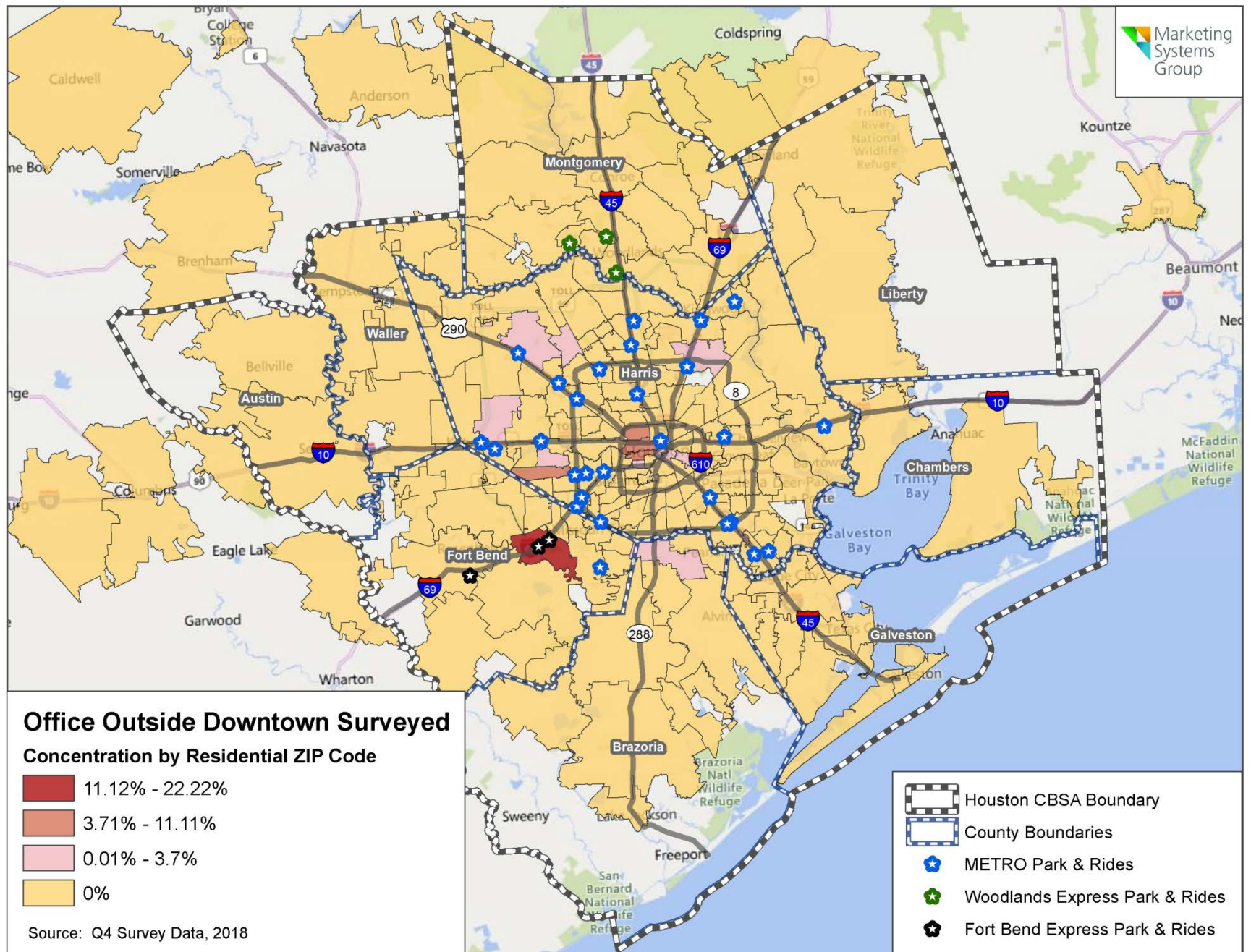| | |
|---|---|
| **Map Title(s)** | **Office Outside Downtown Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that work outside Downtown Houston. |
| Source | Q4 ZIP code and Q6 from survey code = K |
| Report Reference | Map 17., page 87 |
| Associated Files | 2018_Map17.png<br>2018_Map17.jpg<br>2018_Map17.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 18.**



Marketing Systems Group

**Motorcycle Commuters Surveyed**

**Concentration by Residential ZIP Code**

| | |
|---|---|
| ■ | 4.56% - 9.09% |
| ■ | 0.01% - 4.55% |
| ■ | 0% |

Source: Q4 Survey Data, 2018

Houston CBSA Boundary
County Boundaries
★ METRO Park & Rides
★ Woodlands Express Park & Rides
★ Fort Bend Express Park & Rides
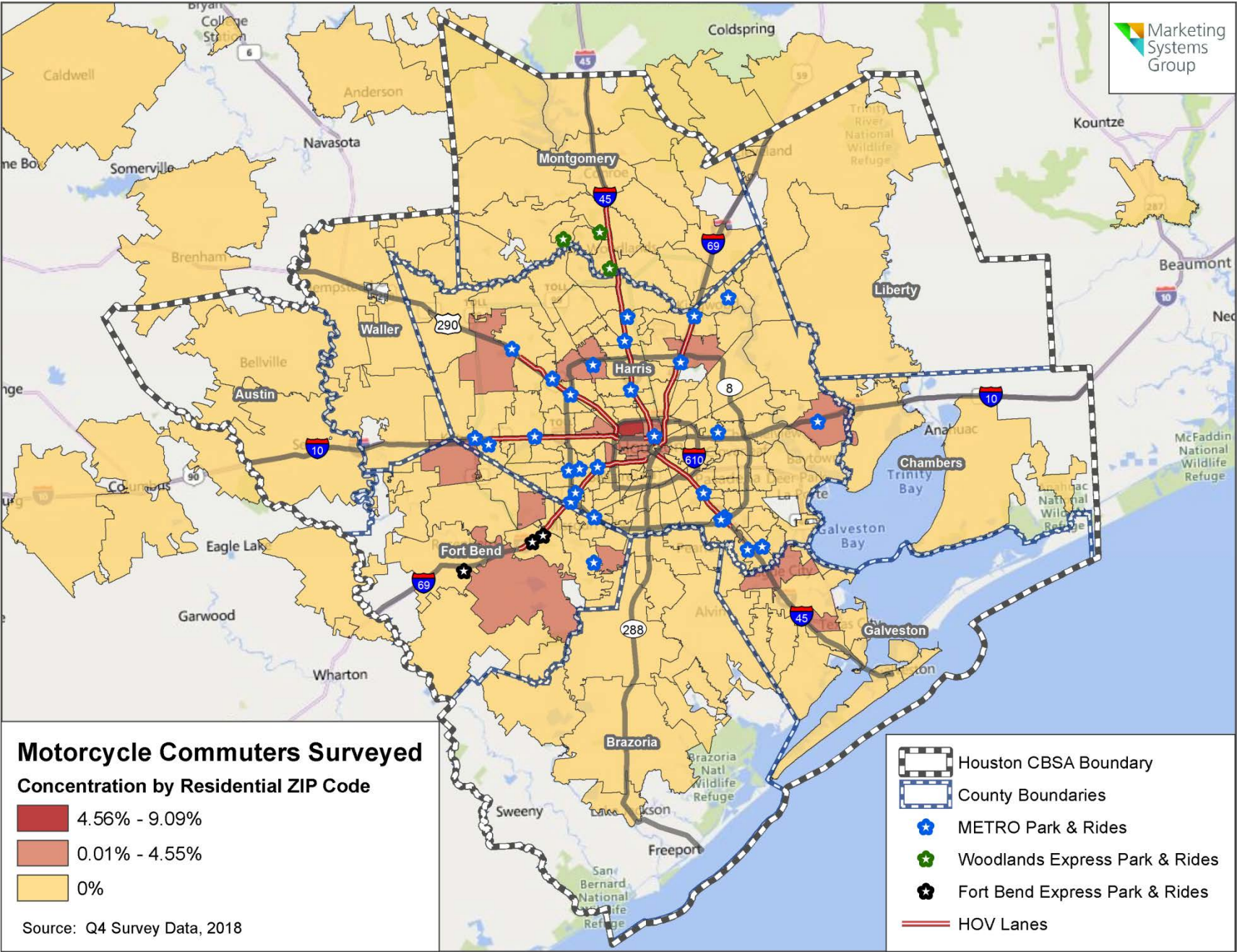— HOV Lanes

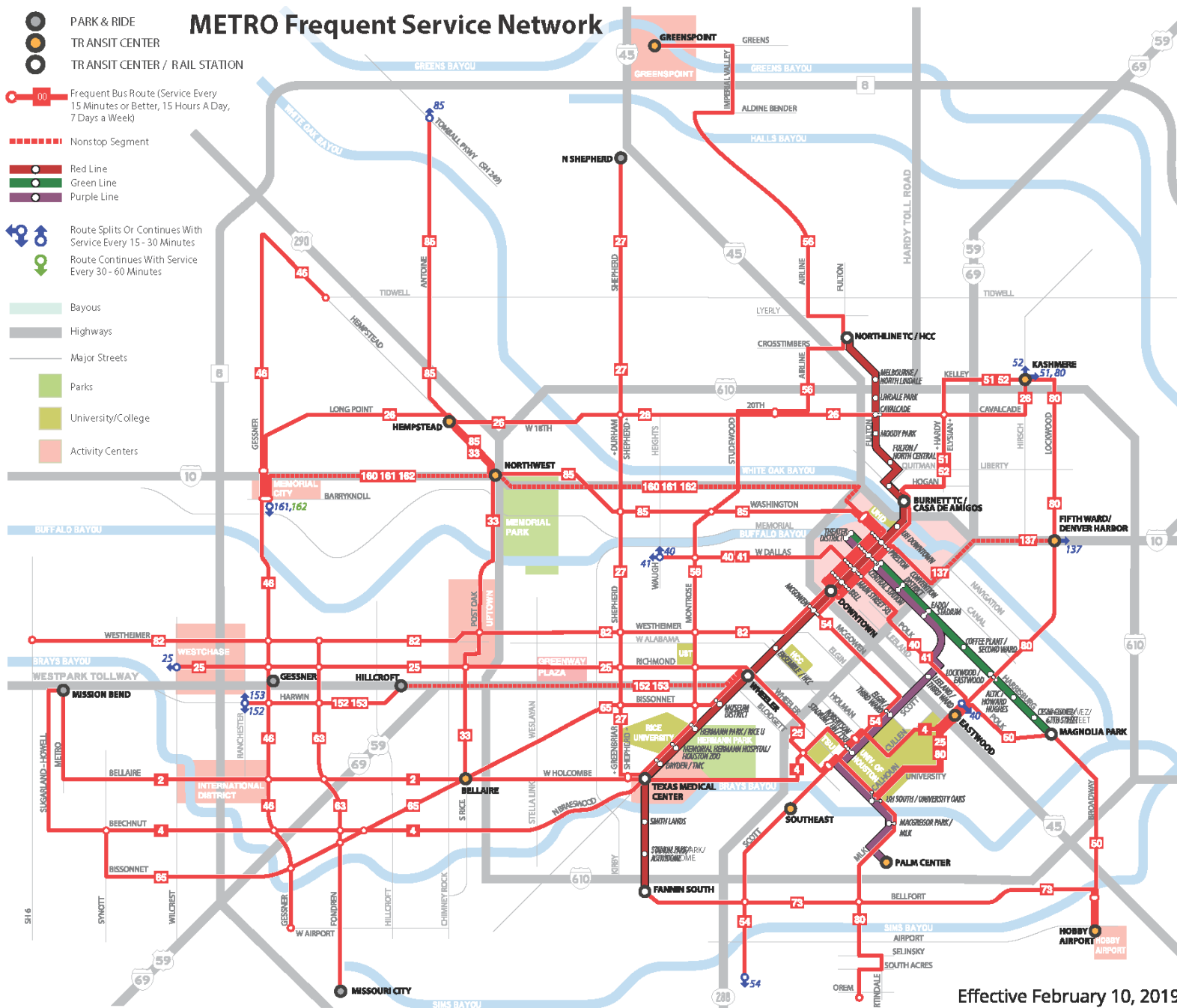| | |
|---|---|
| **Map Title** | **Motorcycle Commuters Surveyed – Concentration by Residential ZIP Code** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via motorbike. |
| Source | Q4 ZIP code and Q6 from survey code = G |
| Report Reference | Map 18., page 89 |
| Associated Files | 2018_Map18.png<br>2018_Map18.jpg<br>2018_Map18.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 19.**



METRO Frequent Service Network

Legend:
- PARK & RIDE
- TRANSIT CENTER
- TRANSIT CENTER / RAIL STATION
- 00 Frequent Bus Route (Service Every 15 Minutes or Better, 15 Hours A Day, 7 Days a Week)
- Nonstop Segment
- Red Line
- Green Line
- Purple Line
- Route Splits Or Continues With Service Every 15 - 30 Minutes
- Route Continues With Service Every 30 - 60 Minutes
- Bayous
- Highways
- Major Streets
- Parks
- University/College
- Activity Centers

Effective February 10, 2019

| Map Title | **METRO Frequent Service Network** |
|---|---|
| Description | Schematic transit route map showing the METRO Frequent Service Network. Route's in METRO's Frequent Service Network come every 15 minutes or better, 15 hours a day, 7 days a week. |
| Source | www.ridemetro.org/MetroPDFs/Schedules/SystemMaps/METRO-System-Map.pdf |
| Report Reference | Map 19., page 91 |
| Associated Files | 2018_Map19.png<br>2018_Map19.jpg<br>2018_Map19.pdf |

**Map 20.**



METRO Frequent Service Network +
Drive Alone Commuters Surveyed
Concentration by Residential ZIP Code

2.9% - 7.18%

1.1% - 2.89%

0.33% - 1.09%

0% - 0.32%

Source: Q4 Survey Data, 2018

County Boundaries

Frequent Bus Routes

METRO Rail Line

| | |
|---|---|
| **Map Title** | **METRO Frequent Service Network + Drive Alone Commuters Surveyed** |
| Description | Choropleth map displaying the concentration of employees by ZIP code that usually commute to/from Downtown Houston by driving alone zoomed to and displaying the Metro Frequent Service Network.<br><br>This is Map 4 enlarged to the boundaries of the Metro Frequent Service Network displaying the Frequent Bus Routes and METRORail. |
| Source | Q4 ZIP code and Q6 from survey code = A<br>METRO Frequent Network + Drive Alone Commuters Surveyed - Residential ZIP Code |
| Report Reference | Map 20., page 92 |
| Associated Files | 2018_Map20.png<br>2018_Map20.jpg<br>2018_Map20.pdf<br>Q4_Q6_Matrix Shapefile |

**Map 21.**



METRO Frequent Service Network +
Local Transit Commuters Surveyed
Concentration by Residential ZIP Code

- 5.98% - 10.45%
- 3% - 5.97%
- 0.01% - 2.99%
- 0%

Source: Q4 Survey Data, 2018

County Boundaries
Frequent Bus Routes
METRO Rail Line

| | |
|---|---|
| **Map Title** | **METRO Frequent Service Network + Local Transit Commuters Surveyed** |
| Description | Choropleth map displaying the concentration of surveyed employees by ZIP code that usually commute to/from Downtown Houston via local bus/rail zoomed to and displaying the Metro Frequent Service Network.<br><br>This is Map 5 enlarged to the boundaries of the Metro Frequent Service Network displaying the Frequent Bus Routes and METRORail. |
| Source | Q4 ZIP code and Q6 from survey code = B<br>METRO Frequent Network + Local Bus / Rail Commuters Surveyed - Residential ZIP Code |
| Report Reference | Map 21., page 93 |
| Associated Files | 2018_Map21.png<br>2018_Map21.jpg<br>2018_Map21.pdf<br>Q4_Q6_Matrix Shapefile |

Central Houston, Inc. (CHI) is a private, nonprofit corporation supported by memberships of businesses and institutions with an interest in the urban core. CHI advances the redevelopment and revitalization of Downtown and the central city, catalyzing collaboration and coordinated development through facilitation and leadership.

Downtown and the central core are the heartbeat of the city and the region; their continued health and growth is critical to the success of Houston. This is the guiding principal behind Central Houston, founded by Downtown business leaders to ensure that the center city remains vital and progressive. For more than 35 years, supported by its membership, the organization has collaborated, conceived, and implemented remarkable solutions for the complex challenges of our city. Central Houston's focus is long term and big picture.



**For more information and to join Central Houston, contact:**

Central Houston, Inc.
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info@centralhouston.org | 713.650.1470

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