



TMA SF Connects

2017 COMMUTER BEHAVIOR SURVEY

**IN ACCORDANCE WITH THE TERMS OF
THE CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT AND PLANNING COMMISSION**

**CASE #2010.0081U
PLANNING CODE RESOLUTION 17210**

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Introduction

The Transportation Management Association of San Francisco (TMASF) is a not-for-profit organization that is incorporated as a 501 (c) (4) mutual benefit entity. The association was incorporated in 1989 and began operation of the program in April 1990. The TMASF was established to help building managers and owners comply with mandated transportation demand management requirements per the terms of their development permits. Current membership consists of 77 buildings in San Francisco's Financial and South of Market districts. A coded list of member buildings is provided in Appendix A.

TMASF members largely share a requirement as a condition of their building permit to mitigate the impacts of development upon the transportation system. The City and County of San Francisco (CCSF) has an official *Transit First Policy* that has been in effect since the late 1980s. The TMASF is authorized through City Planning Resolution to offer a compliance program in accordance with accepted transportation demand management principles. The program is monitored and this survey is an important tool used by the City to evaluate the TMASF members' fulfillment of their transportation demand management responsibilities.

The TMASF Commuter Behavior Survey is typically conducted every two years during the first quarter, usually February. This year's survey was conducted over the ten-day period January 23-February 5, 2017 consistent with the agreed-upon schedule of the City of San Francisco's Planning Department. In exchange for completing surveys in 2013 and 2014, City Planning waived the TMASF survey requirement for 2015. This survey is submitted in accordance with the regularly established odd-year schedule.

The purpose of this transportation survey is to learn about the commuting behavior of employees who work in TMASF buildings and to guide program components to most effectively encourage commuters who drive alone to work to change their commute mode. This report, along with the survey process and analysis phase, was conducted independently by DNV GL Energy Services USA, Inc., as consultant to the TMASF, consistent with the City's requirements. Completion of this survey report fulfills the City and County of San Francisco's requirement for monitoring program effectiveness.

Methodology

Consistent with prior TMASF surveys, the City and County of San Francisco (CCSF) mandates that transportation surveys be completed by 1% of the TMASF member building population. The CCSF requires that the established random sample methodology and protocols be utilized to assure they would receive an accurate picture of commute behavior by TMASF building occupants.

Any TMASF Connects promotional programs were stopped six weeks prior to the start of the survey period. During the survey period, membership communication was strictly limited to providing information about major traffic or transit disruptions. These practices are observed to ensure that the survey reflects actual travel patterns used by commuters. TMASF Connects takes care to ensure that findings do not reflect temporary or incentivized transit or rideshare trips reported during the survey period.

The TMASF staff collected building occupant counts from each member building during November and December 2016. The 2017 Commuter Behavior Survey population consisted of 77 buildings, with a total of 96,705 employees and 1,497 tenant companies. Individual building occupant counts were used to determine each member's required sample size. As shown in Appendix A, the number of surveys required was assigned based on occupant count, with a 1% minimum response rate required for each building.

The 2017 TMASF Commuter Behavior Survey was conducted electronically using Survey Gizmo, an advanced online survey software tool. The *TMASF Connects 2017 Commuter Behavior Survey* instrument is provided at the end of this report as *Appendix C*.

TMASF staff conducted outreach with the member building managers on the new survey process and timetable prior to the kickoff of the survey period. On January 18, 2017, the building managers were convened for a meeting in San Francisco to review their responsibilities and to answer any final questions. On Monday, January 23, 2017, TMASF staff sent an email to each building manager with the instructions and link to the TMASF Connects 2017 Commuter Behavior Survey in Survey Gizmo. Through their existing email tenant/building notification system, each member building manager forwarded the survey link to their tenant contacts for distribution to employees working in the building.

A ten-day survey period was established to allow time for survey distribution and collection of the minimum required sample size per building. The survey period was closed at 5 PM on Friday, February 3, after which time no additional survey responses were collected. We are pleased to report that the TMASF collected the minimum required response rate from all 77 participating member buildings. In fact, more than 6.5% of all people working in TMASF Connects member buildings responded to this year's TMASF survey. However, to be consistent with the agreed-upon TMASF methodology, this report reflects the survey results for the 1% random sample, in aggregate and per building, as further explained below.

The final 2017 TMASF Commuter Behavior Survey results and the content of this report are based on the analysis of 983 completed surveys, representing 1% of the member building population. DNV GL utilized the MS Excel random sample generator function to select a 1% random sample of complete survey responses for each building. This was an important step to

(1) ensure consistency with the CCSF required methodology and (2) ensure representation of each building proportionate to their occupant population.

For statistical validation purposes, DNV GL calculated a confidence interval of “3” (i.e., 3%), based on a 95% confidence level for the sample size (983 out of 96,705 total occupants). The confidence interval is considered the “margin of error” and the confidence level tells you how sure you can be that the survey results reflect the total population. For the 2017 TMASF survey sample, this means that we can be 95% certain that the true percentage of the population who would pick an answer is accurate to within +/- 3 percentage points.

This year’s survey was the 13th Commuter Behavior Survey conducted by the TMASF to demonstrate ongoing program compliance. Previous TMASF surveys were conducted in 1990, 1992, 1994, 1996, 1999, 2002, 2005, 2007, 2009, 2011, 2013 and 2014. Over the years, the primary methodology and commute mode metrics have remained constant to evaluate historical commute patterns and demographic trends. Survey changes have been mainly organizational and stylistic to elicit clear response and in agreement with City Planning Department staff.

As detailed in this report, we believe the overall survey data and analytical results are highly reflective of commute behavior across the member building population. From a quality assurance standpoint, the results also strongly support the reported drive-alone rate and overall data integrity as follows:

- A comparison of the 2017 TMASF Survey data to prior survey results indicate highly consistent results across most survey responses and demographic characteristics. This consistency is also significant considering the 30% increase in total occupants working in TMASF member buildings, from 74,776 to 96,705 people.
- DNV GL has adhered to required protocols in identifying respondents to be counted as “drive alone”. We conservatively assume the primary commute mode as “drive alone” where unclear or inconsistent with other responses. Additionally, the CCSF require that any survey non-respondents are counted as drive-alone commuters.
- Many respondents provided comments in the open-ended questions that detailed their individual commute pattern and challenges. DNV GL also analyzed responses to Questions 7-8 to validate the respondent’s commute mode (longest trip) and any primary or secondary transit mode that ultimately brings them into the City of San Francisco.

Please see the Summary and Conclusions section at the end of this report for a summary of the key findings and DNV GL recommendations based on the 2017 TMASF Commuter Behavior Survey results.

2017 Commute Modes and Drive-Alone Rate

Question 7 asked respondents how they usually travel to work, considering the longest portion of their commute. The 2017 survey results and breakdown of reported commute modes are shown in Table One, along with prior TMASF survey data over the period 2002-2014. DNV GL is pleased to announce the key TMASF transportation results as follows:

- Drive-Alone Rate: Based on the survey results and analysis, the reported Drive-Alone rate is 8.5%. This means that 8.5% of survey respondents drive to work alone in their vehicle as their primary commute mode.
- Public Transportation Use: 75.9% of survey respondents selected public transportation as their primary commute mode. As shown in Table One, 38% of all survey respondents ride BART to work as their primary mode, followed by San Francisco Muni (20%).

Table One: Breakdown of Primary Commute Modes

Primary Commute Mode	2017	2014	2013	2011	2009	2007	2005	2002
Public Transportation	75.9%	73.8%	77.6%	73.1%	71.8%	68.3%	62.3%	72.1%
BART	38.1%	37.7%	34.3%	37.7%	35.4%	31.8%	29.7%	36.8%
Muni	20.3%	22.4%	27.6%	21.3%	22.4%	24.5%	25.3%	20.7%
AC Transit	4.4%	2.9%	3.4%	2.1%	3.1%	0.8%	1.4%	3.0%
Caltrain	4.9%	4.4%	4.9%	3.5%	3.5%	4.8%	1.8%	2.7%
Samtrans	0.1%	0.4%	0.2%	0.6%	1.7%	0.8%	0.5%	0.8%
Golden Gate Transit Bus	3.3%	2.0%	2.8%	3.9%	1.0%	1.5%	1.8%	4.1%
Golden Gate Ferry	1.2%	1.7%	1.2%	1.2%	2.3%	1.3%	1.6%	2.7%
Alameda/Oakland/Vallejo Ferry	1.6%	1.3%	2.2%	1.7%	1.0%	1.3%		
Other	1.9%	0.9%	1.0%	1.1%	1.4%	1.5%	0.2%	
Drive alone	8.5%	9.7%	9.0%	11.6%	13.0%	13.5%	15.2%	13.5%
Auto, gas powered	7.1%	8.3%	8.0%	10.8%	12.2%	13.5%	15.2%	13.5%
Auto, hybrid	1.4%	1.5%	1.0%	0.8%	0.8%	0.8%		
<i>Auto, uses car for work</i>	3.4%	2.0%	2.3%	3.7%	3.5%	6.8%	7.3%	na
Motorcycle/scooter	0.7%	0.7%	0.2%	0.4%	0.4%	0.5%	2.1%	
Carpool/Rideshare	5.4%	7.5%	6.9%	7.9%	8.3%	9.1%	15.2%	11.3%
Carpool (same people)	1.6%	4.0%	3.4%	5.4%	5.4%	4.5%	7.1%	10.2%
Casual carpool	2.2%	2.9%	3.2%	2.3%	2.3%	2.8%	7.6%	
Vanpool	0.3%	0.1%	0.3%	0.2%	0.6%	1.8%	0.5%	1.1%
Rideshare/Car Sharing Service	1.2%	0.4%						
Employer Shuttle/Other	1.0%	0.5%	0.3%	0.2%	0.1%	1.8%	-	0.1%
Walk	5.3%	5.2%	4.5%	5.6%	3.5%	5.5%	3.9%	2.4%
Bicycle	3.1%	2.7%	1.5%	1.2%	2.5%	1.0%	1.4%	0.6%
Work at home/telecommute	0.1%	0.0%	0.0%	0.2%	0.4%	0.3%		
n=	983	755	597	483	483	400	435	

Table Two below provides a summary of the 2017 survey results by clustered commute modes, with historical TMASF survey data presented for 2002-2017:

Table Two
Clustered Commute Modes: **Usual Trip**

TMASF Primary Commute Mode	2017	2014	2013	2011	2009	2007	2005	2002
Public Transportation	75.9%	73.8%	77.6%	73.1%	71.8%	68.3%	62.3%	72.1%
Drive alone	8.5%	9.7%	9.0%	11.6%	13.0%	13.5%	15.2%	13.5%
<i>Drive alone by choice</i>	5.2%	7.7%	6.7%	7.9%	9.5%	6.8%	7.3%	
Carpool/Rideshare	5.4%	7.5%	6.9%	7.9%	8.3%	9.1%	15.2%	11.3%
Walk/Bike/Other	10.2%	9.1%	6.5%	7.4%	6.9%	9.1%	7.3%	3.1%

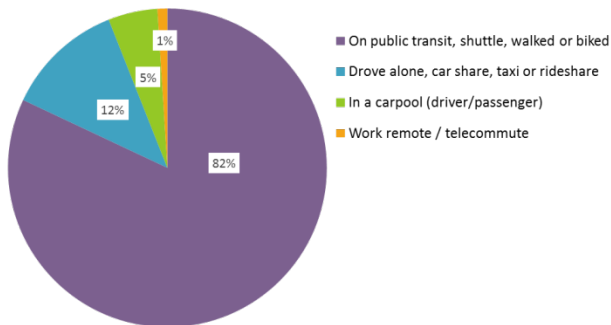
At the request of the City of San Francisco Planning Department, a new question was added in 2014 that asks commuters how they traveled for their most recent trip to work. The response options and 2014-2017 TMASF Survey results are as follows:

Table Three
Clustered Commute Modes: **Last Trip**

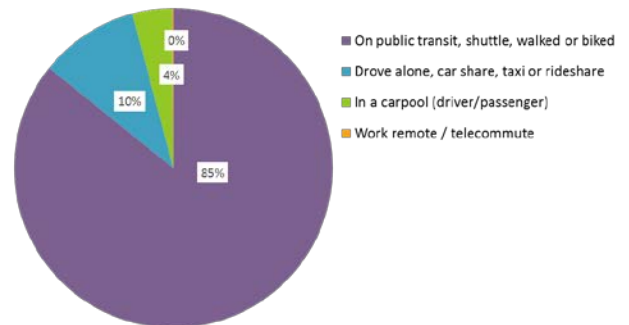
Describe Last Trip to Work	2017 (%)	2014 (%)
On public transit, shuttle, walked and/or biked	82.3%	80.6%
In a carpool as the driver	1.2%	1.9%
In a carpool as a passenger	3.9%	4.4%
Drove alone, car share, taxi or rideshare (e.g. Uber)	11.8%	12.9%
Worked remote/telecommute	0.8%	1.9%

DNV GL conducted a comparison of responses to Question 6 (Last Trip) and Question 7 (Usual Trip or Primary Commute Mode) with the results shown below.

Graph One: Last Trip



Graph Two: Usual Trip



As you can see, the survey results for “Last Trip” vs. “Usual Trip” are well aligned, with less than a 2% variance in the drive-alone rate. Most of this difference appears because a number of respondents who selected public transit use to bring them into the City (i.e., BART, Muni), also selected “Drove alone, car share or rideshare” for their last trip (Question 6). Based on review of the raw survey data, most are long commutes (i.e., Sonoma, Santa Clara) where the drive to transit may be the longest portion of the trip.

2017 Drive-Along Rate and Historical Trends

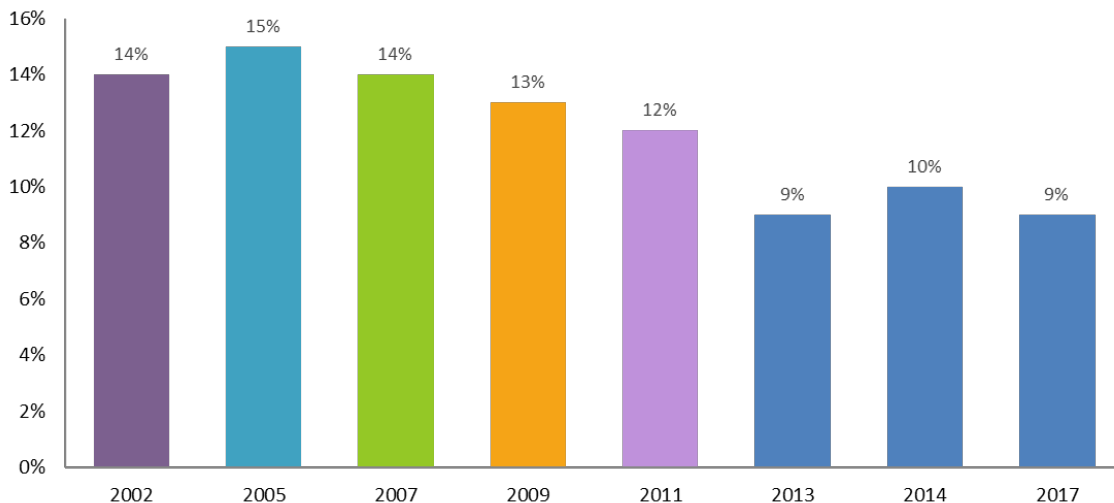
As shown above, the TMASF Connects Drive-Along Rate for 2017 is 8.5%. The drive-alone rate was calculated as the percentage of respondents who selected “drive alone” as the primary commute mode that brings them into the City and their work location. All vehicles occupied by the driver only are counted as a drive-alone, whether it be a conventional gas-powered or alternative/fuel efficient vehicle.

Question 14 asks respondents who regularly drive alone if their job requires them to have access to a vehicle. Approximately 39% of the drive-alone respondents said that their job requires them to have access to a vehicle. This is nearly twice the rate reported in 2014, where 20% of drive-alone respondents said they need their vehicle for work purposes.

Based on DNV GL’s analysis of the survey data, we believe this to be an accurate assessment of the drive-alone rate for the TMASF member buildings. As discussed in the survey methodology section, DNV GL followed specific TMASF protocols in the data evaluation and calculation of the drive-alone rate and other commute mode metrics.

Graph Three below illustrates the TMASF historical drive-alone rates over the past 15 years:

Graph Three
Reported TMASF Drive-Along Rates



2017 Public Transportation Use and Historical Trends

Table Five provides a breakdown of primary transit used by those who selected Public Transportation as their primary commute mode in Question 7. As shown below, public transit use increased by approximately 2% from 73.8% in 2014 to 75.9% in 2017. Part of this difference may be due to seasonality as the 2014 survey was conducted in July at the height of the summer vacation season. *TMASF Survey results which highlight demographic trends in commuter behavior are also discussed throughout this report.*

Table Four
Public Transportation Used

Answer	2017	2014	2013	2011	2009	2007	2005	2002
Public Transportation	75.9%	73.8%	77.6%	73.1%	71.8%	68.3%	62.3%	72.1%
BART	38.1%	37.7%	34.3%	37.7%	35.4%	31.8%	29.7%	36.8%
Muni	20.3%	22.4%	27.6%	21.3%	22.4%	24.5%	25.3%	20.7%
AC Transit	4.4%	2.9%	3.4%	2.1%	3.1%	0.8%	1.4%	3.0%
Caltrain	4.9%	4.4%	4.9%	3.5%	3.5%	4.8%	1.8%	2.7%
Samtrans	0.1%	0.4%	0.2%	0.6%	1.7%	0.8%	0.5%	0.8%
Golden Gate Transit Bus	3.3%	2.0%	2.8%	3.9%	1.0%	1.5%	1.8%	4.1%
Golden Gate Ferry	1.2%	1.7%	1.2%	1.2%	2.3%	1.3%	1.6%	2.7%
Alameda/Oakland/Vallejo Ferry	1.6%	1.3%	2.2%	1.7%	1.0%	1.3%		
Other	1.9%	0.9%	1.0%	1.1%	1.4%	1.5%	0.2%	

**Reported is percentage of total survey respondents that selected each public transit type.*

Question 8 asks respondents if they use a secondary transit mode, other than their primary or “longest” commute mode, that ultimately brings them into the City. as follows:

“In addition to the primary mode selected for the above question, do you then transfer to another type of public transportation that ultimately brings you into the City?”

The survey results shown in Table Five below indicate that approximately 13% of respondents transferred to another type of public transit during their commute. This is consistent with the 2014 TMASF survey results, with a multitude of combinations representing diverse commute patterns used across the Bay Area.

Table Five

Percent of Public Transit Users that Transfer to Secondary Transit

Transfer to (Secondary Transit)	Transfer from (Primary Mode)	2014 (%)
BART Train	Caltrain, Muni, AC Transit, Ferry, Amtrak, Drive-Alone, Uber, Carpool, Shuttle	5%
MUNI (SF) Bus or Light Rail	Caltrain, BART, AC Transit, Ferry, Drive-Alone, Walk, Bicycle, Shuttle	5%
Other	Golden Gate Transit, Samtrans, Amtrak Bus, Uber, County Connection, misc. comments	3%
No, I do not transfer		87%

The most common commute patterns, based on responses to both Questions 7 and 8 are:

- BART to Muni
- Caltrain to Muni
- Drive-Alone to BART
- Muni to BART

DNV GL excluded any duplicate responses to avoid double counting (i.e., BART selected for both Questions 7 and 8). We believe this year’s results accurately reflect riders using more than one form of public transit during their daily commute.

Question 9 asked all respondents how they ultimately traveled to their building once they have arrived in the City via any transit mode (transit, drive, etc.) As shown in the table below, approximately 72% of commuters arrive within three (3) blocks of their work location. The remaining 28% of respondents reportedly travel at least 4 blocks from their last transit stop or parking location. This summary excludes respondents who selected Walk or Bicycle as their primary commute mode.

Table Six

Mode to Office Building from last Transit Stop or Parking Location

Answer	Less than 1 block	1- 3 blocks	4- 6 blocks	6+ blocks	Total
Walk (enter blocks)	26%	43%	17%	8%	94%
Bicycle/scooter (enter blocks)	2%	2%	1%	1%	6%

Home Counties

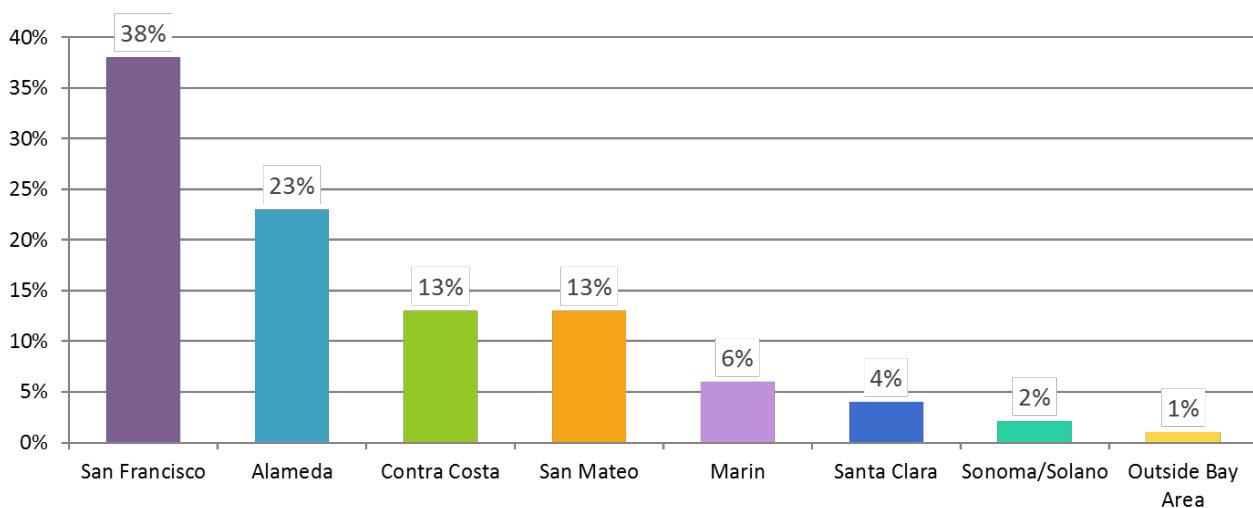
As in past years, the survey clearly indicates that the largest percentage of workers live in San Francisco. However, the most notable change is the 4.5% decrease in respondents living in the City, with slight increases for Alameda, Contra Costa, Marin and Santa Clara counties.

The breakdown of survey respondents by home county is shown below. A detailed list of survey respondents by Home City is also provided in Appendix B.

Table Seven
Respondents by Home County

County	2017	2014	2013	2011	2009	2007	2005	2002
San Francisco	38.4%	42.9%	43.9%	42.6%	45.0%	48.4%	46.7%	35.1%
Alameda	22.5%	20.3%	20.8%	17.7%	19.4%	19.4%	18.4%	19.4%
Contra Costa	13.4%	12.5%	12.2%	12.9%	12.6%	9.1%	11.7%	18.9%
San Mateo	12.8%	13.2%	10.8%	14.3%	13.2%	10.3%	10.3%	12.5%
Marin	6.3%	4.7%	4.7%	6.2%	4.8%	4.9%	5.1%	5.5%
Solano	1.6%	1.9%	1.9%	1.7%	1.4%	2.9%	3.0%	1.8%
Santa Clara	3.7%	2.9%	3.7%	2.7%	1.4%	2.0%	0.9%	0.9%
Sonoma	0.5%	0.8%	1.2%	1.2%	0.6%	1.0%	0.9%	2.1%
Napa	0.0%	0.1%	0.3%	0.4%		0.2%		
Inside Bay Area	99.2%	99.3%	99.5%	99.8%	98.6%	98.3%	97.0%	96.3%
Outside the Bay Area	0.8%	0.7%	0.5%	0.2%	1.4%	1.7%	3.0%	3.7%

Graph Four
Survey Responses by Home County



Commute Characteristics

Changed Commute Pattern

The survey asked respondents if they had changed their regular pattern of commuting in the past two years, including changing their home or office location. As shown below, 50% of all respondents indicated that they had made a change in their commute pattern. This represents an increase of 12% from 62% in 2014, which is significant, and likely represent demographic trends with a younger, high-tech workforce. To confirm this assumption, DNV GL analyzed changes in commute patterns by age group as summarized below. *As shown below, the majority of commuters in the 18-24 and 25-34 age groups have changed their home or office location in the past two years, compared to less than 40% for the 45-54 and Over 55 age groups.*

Table Eight

Changed Daily Commute Pattern by Age Group

Answer	ALL	18-24	25-34	35-44	45-54	Over 55
Yes	50%	67%	59%	52%	38%	37%
No	50%	33%	41%	48%	62%	63%

Ridesharing Characteristics

Approximately 5.4% of total respondents selected rideshare (carpool, casual carpool, vanpool, rideshare or car share) as their primary commute mode. This represents a 3% decrease overall in carpool use. Survey results also indicate an increase in on-demand services such as Uber.

Table Nine

Percent using Carpool/Rideshare

Answer	2017 (%)	2014 (%)
Carpool (same people)	1.6%	4.0%
Casual carpool	2.2%	2.9%
Vanpool	0.3%	0.1%
Car Share (Zipcar) or Rideshare (Uber, Lyft)	1.2%	0.4%
Total	5.4%	7.5%

Question 11 asks respondents selecting Carpool as their primary commute mode for the number of people in the vehicle. As shown below, the 3-person carpool remains prevalent, reflecting the minimum 3-person HOV lane requirement across much of the Bay Area.

Table Ten

Number of People in Carpools

Answer	2017 (%)	2014 (%)	2013 (%)	2011 (%)	2009 (%)
2	35%	41%	27%	39%	64%
3	44%	43%	56%	45%	28%
4	14%	14%	12%	13%	4%
5+ (Vanpool)	7%	2%	5%	3%	4%

Arrival and Departure Times

The tables and graphs below display the arrival and departure times of respondents working in TMASF member buildings. Approximately 68% of those surveyed arrive at work between 7:00 AM to 9:00 AM during the peak morning commute. An additional 17% of commuters reportedly arrive between 9:00-9:30 AM, suggesting an extension of the peak commute period.

Departure trends are similar with 65% of respondents leaving work between 4:00 PM and 6:00 PM, during the typical evening commute. An additional 22% of commuters indicated they leave work between 6:00 PM-7:00 PM. *These trends suggest commuters are adjusting their work times and commute schedules given traffic/transit congestion or other demographic considerations.*

Table Eleven
Work Arrival Times

Graph Five
Work Arrival Times

Answer	2017 (%)
Before 6:00 AM	1%
6:00- 6:30 AM	3%
6:30- 7:00 AM	5%
7:00- 7:30 AM	8%
7:30- 8:00 AM	12%
8:00- 8:30 AM	23%
8:30- 9:00 AM	24%
9:00- 9:30 AM	17%
After 9:30 AM	7%

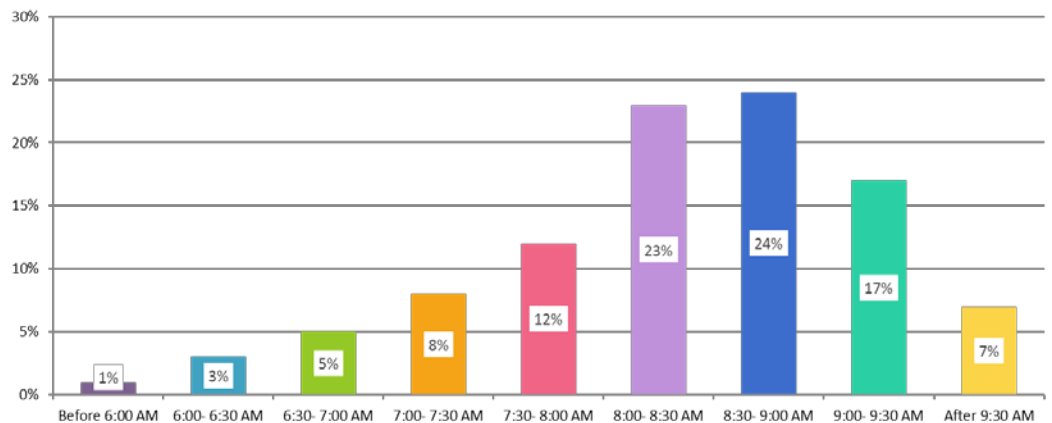
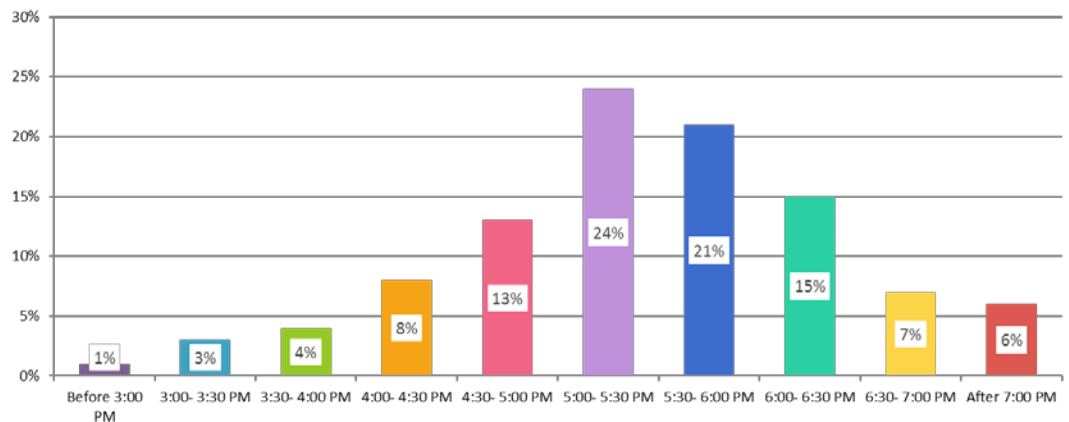


Table Twelve
Work Departure Times

Answer	2017 (%)
Before 3:00 PM	1%
3:00- 3:30 PM	3%
3:30- 4:00 PM	4%
4:00- 4:30 PM	8%
4:30- 5:00 PM	13%
5:00- 5:30 PM	24%
5:30- 6:00 PM	21%
6:00- 6:30 PM	15%
6:30- 7:00 PM	7%
After 7:00 PM	6%

Graph Six
Work Departure Times



Carpool Parking

Questions 12 and 13 asks carpool drivers where they park their vehicle. Approximately 40% of respondents said that they park in the building where they work. About 45% of carpool drivers marked that they park in an offsite parking facility. Overall, results indicate that an estimated 84% of carpool drivers park within a three (3) block radius of their work location.

Table Thirteen
Carpool Parking Location

Answer	0 - 1 block	1- 3 blocks	4- 6 blocks	6+ blocks	Total
Building parking	40%	--	--	--	40%
On-street parking	5%	2%	0%	2%	10%
Special vanpool or carpool parking area	5%	0%	0%	0%	5%
Other parking lot or garage	19%	12%	7%	7%	45%

Question 15 asks all survey respondents about the availability and use of parking subsidies through their workplace. Results are presented in Table 14, along with an analysis of respondents who selected drive-alone as their primary commute mode.

As shown below, 41% of those who drive-alone to work said that they receive free or subsidized parking. This data appears to support the conclusion that parking subsidies support one's decision to drive their vehicle to work. However, we also want to point out the survey finding that a higher percentage of executives reportedly drive-alone to work. As shown on Table Twenty-Three, the Executive/Manager job type represents 45% of drive-alone respondents. Additionally, 67% of these drive-alone respondents in the Executive/Manager job

type indicated that they do receive free or subsidized parking through work. Therefore, we also believe that this group is more likely to receive free or subsidized parking given their position.

Table Fourteen
Free or Subsidized Parking through Work

Answer -- ALL RESPONSES	2017 (%)	Answer -- DRIVE-ALONE RESPONSES ONLY	2017 (%)
Yes, and I use it when I drive	9%	Yes, and I use it when I drive	41%
Yes, it is available to me but I don't use	4%	Yes, it is available to me but I don't use	2%
No. When I drive, I pay to park	30%	No. When I drive, I pay to park	56%
No, but I never drive anyway	42%	No, but I never drive anyway	0%
I'm not sure	15%	I'm not sure	1%

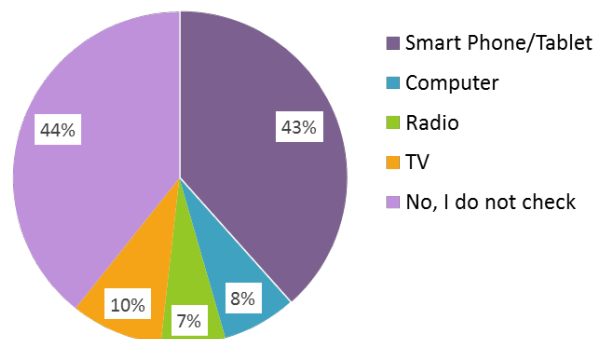
Traffic/Transit Information Resources

Question 16 asked employees if they checked transit or traffic conditions prior to their morning or evening commute, and where they obtain their transit information. A summary of the 2017 and prior TMASF survey responses are shown below:

Table Fifteen
Sources for Transit Information

Answer	2017 (%)	2014 (%)	2013 (%)	2011 (%)
Smart Phone/Tablet	43%	26%	22%	8%
Computer	8%	9%	9%	15%
TV	10%	6%	12%	10%
Radio	7%	12%	8%	8%
Do not check conditions	44%	45%	48%	59%

Graph Seven
Sources for Transit Information



The most significant finding is the dramatic increase in smart phone use for obtaining real time transit and traffic information, from 26% in 2014 to 43% in 2017. Approximately 44% of respondents replied that they do not check transit or traffic conditions before they begin their commute.

Question 17 asks respondents who said they do check traffic or transit conditions if this information influenced a change in their commute. About 60% of these respondents said "Yes, it does influence their commute", which is consistent with the 59% who selected "Yes" in 2014.

Table Sixteen

Influence of Transit Information on Commute

Answer	2017 (%)	2014 (%)
Yes, influences commute	60%	59%
No influence	40%	41%

Building/Employer/TMASF Connects Services

Question 18 asked all respondents about their awareness and use of TMASF Connects services provided to the individual member buildings. This question is new in 2017, but is similar to a question asked in the 2014 TMASF Survey. The results shown below represent the percentage of total survey respondents who selected each option:

Table Seventeen

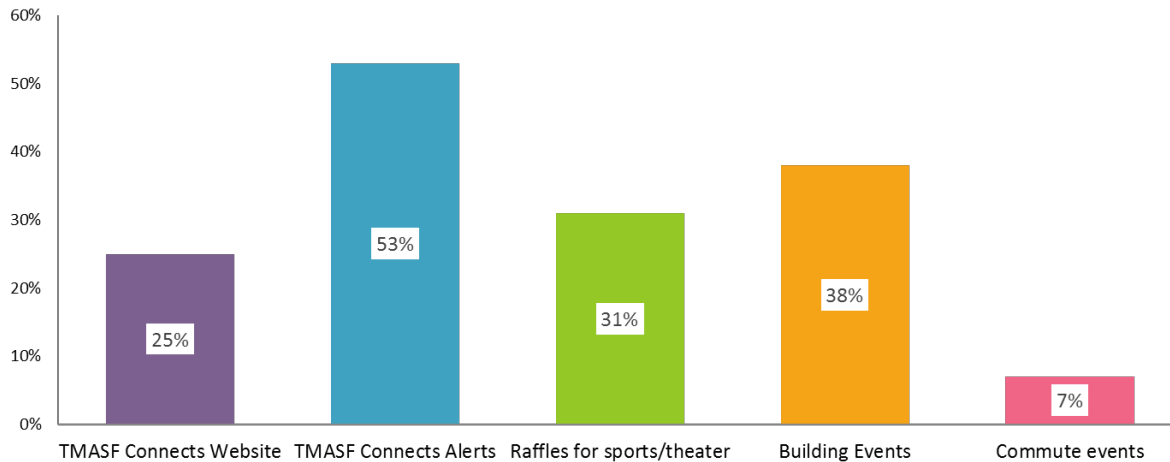
Building/Employer/TMASF Connects Services

Which of these Services have you used?	2017 (%)	2014 (%)
TMASF Connects Website (includes full public transit, ridesharing, bicycling and other commute information)	6%	7%
TMASF Connects Alerts & Advisories (includes large-scale weekend events, traffic & transit notifications, Spare the Air, and other regional programs)	13%	15%
Raffles for Warriors, Giants, theater tickets through tmasfconnects.org	8%	6%
Building Events	9%	5%
Commute events in public places	2%	5%
None / Other	76%	72%
<i>Total Survey Respondents (n) =</i>	983	755

The 2017 results are comparable, with nearly 25% of survey respondents indicating they have used at least one of TMASF Connects services. It is also important to note that the TMASF member building population has increased by 30% since 2014, from 74,776 to 96,705 occupants. Based on these results, DNV GL estimates that about 23,600 of the total building occupants are familiar with TMASF Connects and have used their services. DNV GL also noted several survey comments where commuters may be using services or receiving email alerts through the Building, but do not recognize TMASF Connects as the source.

DNV GL analyzed responses for the 240 respondents who said they have used TMASF services or have participated in commuter events. Most respondents selected at least two services used, with over 53% selecting TMASF Connects Alerts & Advisories, as shown in the graph below.

Graph Eight Breakdown of TMASF Building Services Used



DNV GL further analyzed the TMASF Connects services reportedly used by Age Group and Job Type, with results shown in the table below. These demographics have been selected for evaluation as they exhibit the strongest trends and commute patterns as highlighted in this report.

Table Eighteen
TMASF Building Services used by Job Type and Age Group

Which of these Services have you used?	ALL (Graph 8 above)	Professional/ Technical	Executive/ Managerial	Ages 25-34	Ages 45-54
TMASF Connects Website	25%	21%	35%	19%	24%
TMASF Connects Alerts & Advisories	53%	47%	66%	38%	55%
Participated in raffles/ promotions	31%	25%	37%	40%	22%
Participated in Building commute events	38%	42%	26%	47%	39%
Commute events in other public places	7%	10%	5%	7%	4%

Following are a few highlights and key insights from our analysis:

- Commuters in the 45-54 Executive/Managerial group are more likely to use the TMASF Connects website and Alerts & Advisories services.
- Commuters in the 25-34 Professional/ Technical group are more likely to participate in commute events at the Building or in other public places.
- The 2017 survey results also indicate that 50% of respondents have changed their work or home location in the past two years. Per Table 8 above, the percentage who has changed location is 59% for the 25-34 age group.

TMASF Connects accepts the survey findings in terms of usage of their services. It is important to note that Google Analytics and other tools provide a different perspective on the use of our website than the survey findings. It is also important to consider that the new website was introduced (by necessity) just prior to the administration of this survey and without meaningful promotion.

Through their website, TMASF has had requests for information and entries to win from more than 7,000 users and 39,000 total registrations since Google Analytics data collection began in 2015. It is their plan to evolve the program by integrating additional outreach to better capture the membership. To do this, they are considering initiating a two-pronged communication approach. In addition to distributing their information to members, they will distribute information directly to the 7,000 plus users who have registered at their website. Their goal is to increase awareness and use of the available TMASF Connects services through the site visits and registration metric.

With a 50% increase in the number of new commuters working from 55,000 in 2014 to 99,000 in 2017, the TMASF looks forward to continued introduction, promotion and increased ease of use of TMASF Connects member services.

Car Sharing Services

Questions 19-20 ask respondents about their experience and interest in car-sharing services (i.e., Zip Car, Enterprise, and Carma). The 2017 and prior 2014 survey results are shown below:

Table Nineteen
Car Sharing

Answer	Have you used a car sharing service?		Are you interested in learning more about car sharing?	
	2017 (%)	2014 (%)	2017 (%)	2014 (%)
Yes	19%	18%	12%	10%
No	81%	82%	88%	90%

Overall, there appears to be minimal change in the use and interest in car sharing within the TMASF member building population.

Commuter Challenges and Needs

Two open-ended questions were asked at the end of the survey to better understand the needs and challenges faced by the San Francisco commuter:

- *Describe any other commute assistance services that influence your decision about how to travel to work.*
- *What is your single largest commute problem (if any)?*

Individual, anonymous comments for each of these questions have been provided to TMASF Connects as a separate Appendix. Following is a brief summary of the overall trends and insights gleaned from the survey comments.

Describe any other commute assistance services that influence your decisions about how to travel to work? There were approximately 226 response comments to this question, widely ranging from specific websites and apps used to general comments about transportation options. The following summary is an approximation, based on a keyword search:

Table Twenty

Other services influencing commute

Answer	% of comments relate to:
Muni/Bus: NextBus, NextMuni, Muni/bus misc. Apps	20%
BART: website, app, misc. comments	19%
Convenience: length of commute, crowded trains/buses, and/or frequency/delays	10%
Transit cost, subsidy, pre-tax benefit	10%
Parking cost and availability	7%
Commuter checks/incentives	6%
Bike accessibility	5%
Carpool/Casual Carpool	5%
Ridesharing (Lyft/Uber)	5%
511.org	1%

What services would be helpful in addressing your single largest commute issue? There were approximately 338 response comments to this question, widely ranging from increased frequency of service to improved apps used to general comments and feedback. Approximately 30% of comments mentioned BART specifically, including train frequency, delays, and overcrowding. The following summary is an approximation, based on a keyword search:

Table Twenty-One
Commuter Services Needed

Answer	% of comments relate to:
More Bart/Caltrain Trains/Buses	24%
More transit frequency/schedule/length of commute	19%
Reduce transit delays/being late	11%
More vehicle and bike parking	8%
Traffic	7%
Crowded buses and trains	7%
Shuttle services	6%
Updates/Apps/Alerts	5%
Transit discount/lower cost	4%
Better bike accessibility	4%

Demographics: Job Type and Age Group

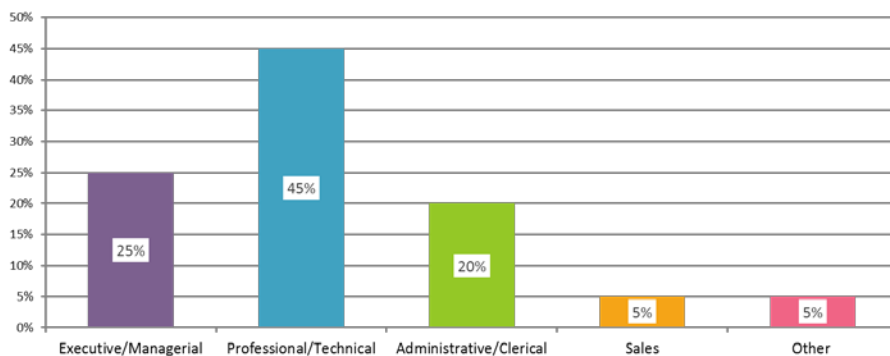
Job Type

Respondents were asked to provide their job classification, with results for the 2014 and 2017 TMASF surveys shown in the table below.

Table Twenty-Two
Survey Respondents by Job Type

Answer	2017 (%)	2014 (%)
Professional/Technical	45%	43%
Administrative/Clerical	20%	26%
Executive/Managerial	25%	21%
Sales / Other	10%	10%

Graph Nine
Survey Respondents by Job Type



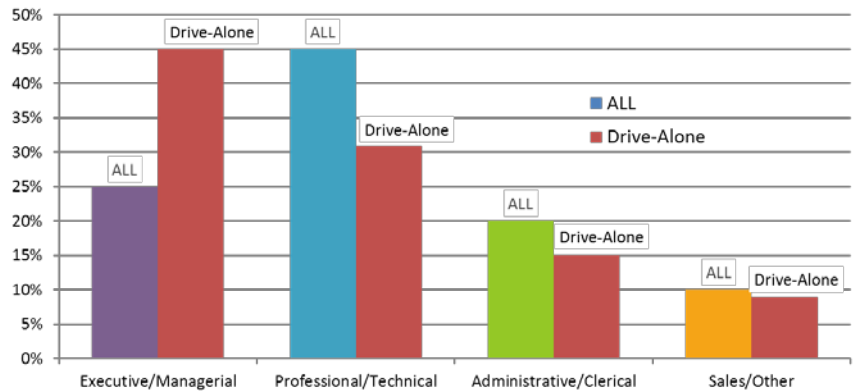
DNV GL also analyzed the Job Type breakdown for all respondents to those who selected “drive alone” as their primary commute mode. There appears to be an inverse relationship between transit modes for two of the job types. As illustrated below, executive/managerial workers appear nearly twice as likely to drive their vehicle to work. This group represents only 25% of all survey respondents, yet they account for 45% of respondents who regularly drive-

alone to work. Conversely, the data suggests that those in the professional/technical position are more likely to use alternative transportation. While this group accounts for 45% of all survey respondents, the professional/technical worker represents only 31% of the drive-alone respondents.

Table Twenty-Three
All Respondents vs. Drive Alone
by Job Type

Answer	2017 ALL	2017 Drive-Along
Professional/Technical	45%	31%
Administrative/Clerical	20%	15%
Executive/Managerial	25%	45%
Sales / Other	10%	9%

Graph Ten
All Respondents vs. Drive Alone
by Job Type



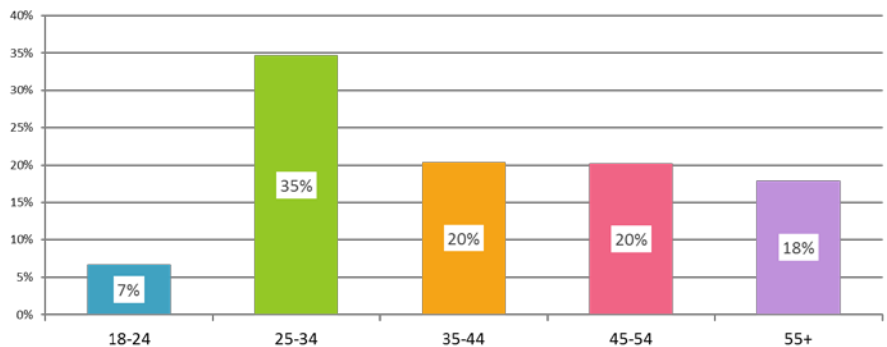
Age Group

The following table displays the age groups of respondents, with survey results presented for the 2017 and prior 2014 TMASF survey.

Table Twenty-Four
Survey Respondents by Age Group

Answer	2017 (%)	2014 (%)
18-24	7%	11%
25-34	35%	32%
35-44	20%	23%
45-54	20%	20%
55+	18%	14%

Graph Twelve
Survey Respondents by Age Group

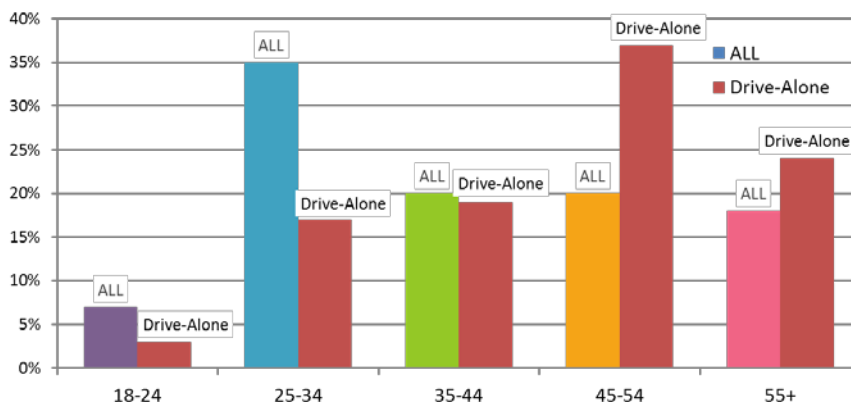


DNV GL also conducted an evaluation of drive-alone respondents by age group. Like job type, there is a clear distinction in commute behavior for certain groups. As further illustrated below, the 25-34 age group appears twice as likely to use alternative transportation. The 25-34 age group represents 35% of all survey respondents, but accounts for only 17% of respondents who reportedly drive-alone. Conversely, the data suggests that commuters in the 45-54 age group are more likely to drive-alone. While this group accounts for only 20% of all survey respondents, the 45-54 age group represents 37% of those who regularly drive-alone to work.

Table Twenty-Five
ALL vs. Drive-Alone by Age Group

Answer	2017 ALL	2017 Drive-Alone
18-24	7%	3%
25-34	35%	17%
35-44	20%	19%
45-54	20%	37%
55+	18%	24%

Graph Thirteen
ALL vs. Drive-Alone by Age Group



LEED-EB:O&M Alternative Commuting Transportation

In 2009, the U.S. Green Building Council (USGBC) approved the TMASF Commuter Survey results and methodology for use by member buildings pursuing credit for alternative transportation use under the LEED for Existing Buildings: Operations & Maintenance Rating System, [LEED 2009 Version 3](#) (LEED-EB:O&M). All member buildings in good standing who participated in the survey have the ability to achieve points for LEED-EB:O&M Sustainable Sites Credit 4 (SSc4 Alternative Commuting Transportation) by providing the submittal documentation prepared by the TMASF and approved by the USGBC. The USGBC’s approval of the TMASF aggregate survey results to demonstrate compliance with SSc4 Option 2 (*Formal commute reduction tracking and participation in a government-sponsored commute reduction program other than SCAQMD*) was granted under the following conditions:

- 1) The program requires that all participating buildings use Option 2 when applying for LEED-EB:O&M (in order to capture any potential outliers).
- 2) The program shall encompass a small and cohesive enough area to assume reasonable similarity of alternative transportation access.
- 3) The survey methodology for the aggregate survey is of equivalent or greater stringency than SCAQMD (South Coast Air Quality Management District, Rule 2202).

The 2017 TMASF Connects Commuter Survey was conducted in conformance with the USGBC’s conditions of approval with aggregate survey results to be provided to qualifying member buildings seeking LEED-EB:O&M certification or renewal. The LEED-EB:O&M Rating System specifically defines “alternative transportation” under SSc4 as the following:

Telecommuting, compressed workweeks, mass transit, walking, bicycles or other human-powered conveyances, carpools, vanpools, and low emitting or fuel-efficient or alternative-fuel vehicles.

In accordance with the LEED-EB:O&M Rating System and mode calculation guidance by SCAQMD Rule 2202, the reduction in conventional commuting trips has been calculated as follows:

- Public transportation = 0
- Single-occupant vehicle (drive alone) – gas powered = 1
- Single-occupant vehicle (drive alone) – hybrid/alternative-fuel = 0
- Carpool = 1 divided by number of people in carpool
- Vanpool = 1 divided by number of people in vanpool
- Motorcycle, moped, motorized scooter, motor bike = 1
- Walking, biking and other non-motorized transportation modes = 0
- Telecommuting = 0

The following table provides the calculated reduction in commuting trips along with the AVR (Average Vehicle Ridership) as defined by the SCAQMD Rule 2202. The AVR is a SCAQMD metric used to describe the average number of persons in each conventional single-occupancy vehicle (total trips/total conventional trips). The LEED Reduction in Conventional Commuting Trips and AVR calculations are not directly related to the TMA SF drive-alone metric. The difference is primarily due to LEED’s allocation of conventional trips for carpools based on the number of passengers in the vehicle. Also, LEED includes motorcycles but does not include hybrid/alternative fuel vehicles in its definition of conventional commuting trips.

Table Twenty-Six: LEED-EB:O&M SSc4 Alternative Commuting Transportation Calculation of Reduction in Conventional Commuting Trips

Travel Mode	Mode Reported	Total Weekly Trips	Weekly Conventional Trips
Public Transit	747	3735	0
Single occupancy vehicle – gas powered	70	350	350
Single occupancy vehicle – hybrid/alternative fuel	15	75	0
Carpool – 2 passengers	26	130	65
Carpool – 3 passengers	18	90	30
Carpool – 4 passengers	9	45	12
Vanpool/Shuttle – 5+ passengers	8	40	8
Motorcycle/scooter	7	35	35
Bicycle	30	150	0
Walk	52	260	0
Work at home/telecommute	1	5	0
TOTALS	983	4915	500

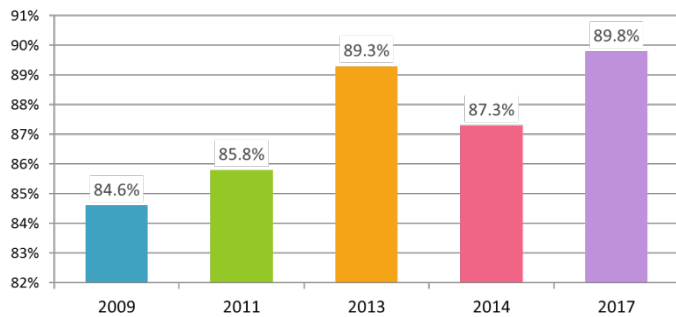
Reduction in Conventional Commuting Trips: **89.83%**
4421 trip reduction (4915-500) / 4915 total trips

Average Vehicle Ridership (AVR): **9.83**
4915 total trips / 500 conventional trips

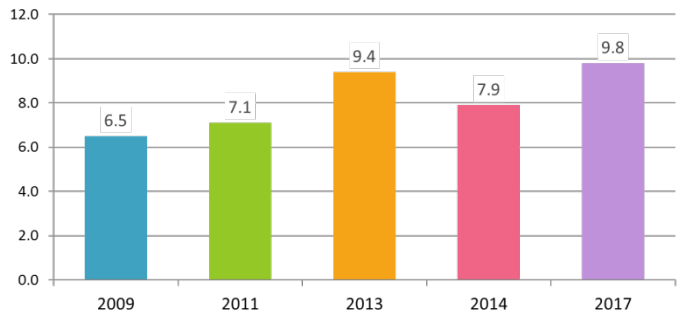
In accordance with the LEED-EB:O&M SSc4 credit requirements (Option 2) the results of the 2017 Commuter Survey demonstrate a 90% reduction in conventional commuting trips.

The graphs below provide a summary of the LEED-EB:O&M alternative transportation metrics for 2017 along with the prior three survey performance periods.

Graph Fourteen
2009-2014 TMASF LEED Trip Reduction



Graph Fifteen
2009-2014 TMASF LEED Average Ridership



Summary and Recommendations

The TMASF 2017 Commuter Behavior Survey was conducted in compliance with the CCSF required protocols and random sampling methodology. A total of 983 building occupants were surveyed within the 77 TMASF member buildings participating in the survey. DNV GL conducted an extensive analysis of primary commute data and survey responses relating to commuter behavior and demographic trends. We believe that the results of this analysis support the data integrity and overall survey methodology as required by the City and County of San Francisco. Additionally, we believe that this analysis supports the 8.5% drive-alone rate and provides some valuable insights for the TMASF and other Bay Area transportation management professionals.

Following is a summary of 2017 TMASF Commuter Behavior Survey results and key findings:

1. The reported 2017 Drive-Along rate is 8.5%, which is a decrease of 1.2% compared to the 2014 TMASF Survey Results.
2. Public transportation remains the dominant commute mode, with 75.9% of building occupants surveyed reporting public transit as their primary commute mode, an increase of almost 2% from 2014.
3. The 2017 LEED EB:O&M Alternative Commuting Transportation Rate is 89.8%, an increase of 2.7% from 2014. TMASF Member Buildings pursuing new certification or recertification under LEED 2009 (v3) will be eligible to achieve a total of 16 points for their submittal of the 2017 TMASF Commute Behavior Survey packet.
4. Through any commute mode (public, transit, drive, etc.), 72% of respondents arrive within three (3) blocks of their work location. Additionally, an estimated 84% of carpool drivers park within a three (3) block radius of their work location.
5. Commuters increasingly rely upon real-time transit websites/apps and breaking news alerts to help them navigate their daily commute. Smartphone usage for traffic and transit information has increased dramatically, from 26% in 2014 to 43% in 2017.
6. The 2017 TMASF survey results illustrate consistent trends in commute behavior across various demographic categories including home county, age group, job type, change in commute patterns and other factors.

We believe that TMASF Connects and its member buildings play a valuable role in providing commute assistance services to the nearly 100,000 people that occupy its member buildings. It is recommended that the TMASF continue work with its existing and new member buildings to increase awareness and to keep its services relevant, visible and easily accessible to the building occupants. The shifting demographics also underscore the importance of tailoring outreach programs to appeal to the lifestyle and interests of the TMASF membership.

On behalf of DNV GL, thank you for the opportunity to provide consulting services to TMASF Connects and it has been a pleasure working with you on this important project.

Appendices

Appendix A –TMASF Connects Member Buildings

<i>Office Building Code</i>	<i>Tenant Count</i>	<i>Employee Count</i>	<i>Surveys Requested (1%)</i>	<i>Surveys Received (1%)</i>
1	37	1,200	12	12
2	9	475	5	5
3	1	750	8	8
4	1	550	6	6
6	8	1,500	15	15
7	22	2,500	25	25
8	24	1,200	12	12
9	22	2,000	20	20
10	63	3,500	35	35
11	24	350	4	4
12	28	600	6	6
13	25	1,550	15	15
14	1	1,200	12	12
15	27	1,000	10	10
16	19	1,500	15	15
17	70	2,000	20	20
18	5	67	7	7
19	18	1,360	14	14
20	8	750	8	8
21	14	3,000	30	30
22	10	1,600	16	16
23	24	2,500	25	25
26	8	777	8	8
27	5	1,200	12	12
28	1	1,400	14	14
29	12	2,250	23	23
30	10	1,060	11	11
31	5	800	8	8
32	6	728	8	8
33	25	1,000	10	10
34	22	500	5	5
35	30	1,500	15	15
36	8	2,200	22	22
37	1	2,350	24	24
38	27	1,600	16	16
39	48	1,500	15	15
40	9	925	10	10

<i>Office Building Code</i>	Tenant Count	Employee Count	Surveys Requested (1%)	Surveys Received (1%)
41	8	250	3	3
42	7	70	1	1
43	8	598	6	6
44	2	450	5	5
45	45	500	5	5
46	11	1,100	11	11
47	52	2,500	25	25
48	12	1,900	19	19
49	21	2,000	20	20
50	18	2,300	23	23
51	20	3,200	32	32
52	14	250	3	3
53	1	725	8	8
54	33	600	6	6
55	18	600	6	6
56	24	700	7	7
57	28	950	10	10
58	35	850	9	9
59	40	300	3	3
60	18	272	3	3
61	40	2,400	24	24
62	4	809	8	8
63	26	800	8	8
64	32	1,700	17	17
65	55	2,200	22	22
66	16	865	9	9
67	24	1,208	12	12
68	17	2,100	21	21
69	25	1,100	11	11
*70	1	800	8	8
71	27	3,200	32	32
72	13	500	5	5
73	25	800	8	8
74	21	1,500	15	15
75	15	2,634	26	26
76	17	460	5	5
77	15	1,432	14	14
78	1	800	8	8
79	28	200	2	2
80	3	140	2	2
TOTALS	1,497	96,705	983	983

Appendix B – Home City of Survey Respondents

CITY	COUNTY	COUNT
San Francisco	San Francisco	376
Oakland	Alameda	66
Berkeley	Alameda	28
Daly City	San Mateo	27
Walnut Creek	Contra Costa	25
Alameda	Alameda	21
Hayward	Alameda	18
Concord	Contra Costa	18
Fremont	Alameda	17
South San Francisco	San Mateo	15
San Leandro	Alameda	14
San Rafael	Marin	14
San Jose	Santa Clara	14
Castro Valley	Alameda	13
Pacifica	San Mateo	13
Novato	Marin	12
Mill Valley	Marin	11
San Bruno	San Mateo	10
San Mateo	San Mateo	10
El Cerrito	Contra Costa	9
Richmond	Contra Costa	9
Emeryville	Alameda	8
Piedmont	Alameda	8
Orinda	Contra Costa	8
Burlingame	San Mateo	8
Redwood City	San Mateo	8
Vallejo	Solano	8
Pleasanton	Alameda	7
Hercules	Contra Costa	7
Lafayette	Contra Costa	7
Pleasant Hill	Contra Costa	7
Sausalito	Marin	7
Mountain View	Santa Clara	7
Martinez	Contra Costa	6
San Ramon	Contra Costa	6
San Carlos	San Mateo	6

CITY	COUNTY	COUNT
Dublin	Alameda	5
Union City	Alameda	5
Corte Madera	Marin	5
El Sobrante	Contra Costa	4
Pittsburg	Contra Costa	4
Tiburon	Marin	4
Belmont	San Mateo	4
Foster City	San Mateo	4
Millbrae	San Mateo	4
Sunnyvale	Santa Clara	4
Fairfield	Solano	4
Livermore	Alameda	3
Brentwood	Contra Costa	3
Danville	Contra Costa	3
Moraga	Contra Costa	3
San Pablo	Contra Costa	3
Larkspur	Marin	3
Sacramento	Sacramento	3
Brisbane	San Mateo	3
Montara	San Mateo	3
Milpitas	Santa Clara	3
Palo Alto	Santa Clara	3
Petaluma	Sonoma	3
Albany	Alameda	2
Newark	Alameda	2
Tracy	Alameda	2
Bay Point	Contra Costa	2
Clayton	Contra Costa	2
Pinole	Contra Costa	2
Kentfield	Marin	2
San Anselmo	Marin	2
Daly City	San Francisco	2
Half Moon Bay	San Mateo	2
Menlo Park	San Mateo	2
Cupertino	Santa Clara	2
Santa Clara	Santa Clara	2
Benicia	Solano	2
Suisun City	Solano	2

CITY	COUNTY	COUNT
Sonoma	Sonoma	2
Lodi	San Joaquin	1
Folsom	Sacramento	1
Alamo	Contra Costa	1
Kensington	Contra Costa	1
Belvedere	Marin	1
Greenbrae	Marin	1
Bayview	San Francisco	1
Palmdale	San Francisco	1
Piedmont	San Francisco	1
San Bruno	San Francisco	1
Atherton	San Mateo	1
La Honda	San Mateo	1
Redwood Shores	San Mateo	1
Morgan Hill	Santa Clara	1
Davis	Yolo County	1
Orangevale	Sacramento	1

TMA SF Connects 2017 Commuter Behavior Survey

1) What building do you work in? (dropdown list) *

2) What is the county of your home residence? (dropdown list)*

Please select one of the following:

What is the city of your home residence?: _____

3) What time do you typically arrive at work? *

- Before 6:00 AM
- 6:00- 6:30 AM
- 6:30- 7:00 AM
- 7:00- 7:30 AM
- 7:30- 8:00 AM
- 8:00- 8:30 AM
- 8:30- 9:00 AM
- 9:00- 9:30 AM
- After 9:30 AM

4) What time do you usually leave work for the day?*

- Before 3:00 PM
- 3:00- 3:30 PM
- 3:30- 4:00 PM
- 4:00- 4:30 PM
- 4:30- 5:00 PM
- 5:00- 5:30 PM
- 5:30- 6:00 PM
- 6:00- 6:30 PM
- 6:30- 7:00 PM
- After 7:00 PM

5) Have you changed your regular pattern of commuting to work in the past 2 years (including if you moved your home or work location)?*

- Yes
- No

6) For your last trip to work, how did you travel?*

- On public transit, shuttle, walked, and/or biked
- In a carpool as the driver
- In a carpool as a passenger
- Drove alone, car share, taxi, or rideshare (e.g. Uber)
- Work at home / telecommute / remote

7) How do you usually travel to work for the longest portion of your commute? Please select only one option.*

- BART Train
- MUNI (SF) Bus or Light Rail
- AC Transit (Local/Transbay Bus)
- Caltrain
- SamTrans Bus
- Golden Gate Transit (Bus)
- Golden Gate Transit (Ferry)
- SF Bay Ferry -- Alameda/Oakland/Vallejo/Harbor Bay/South SF
- Other public transit (describe): _____
- Drive Alone, gas-powered vehicle
- Drive Alone, hybrid/electrical/alternative fuel vehicle
- Carpool (same people everyday)
- Casual Carpool (whoever picks me up/I pick up)
- Vanpool
- On-demand Ride Service (Uber, Lyft, etc.)
- Carsharing Service (Zipcar, Enterprise, Carma, etc.)
- Taxi
- Walk
- Bicycle
- Motorcycle/ Scooter
- Work at home/ telecommute/ remote

- Employer or other shuttle service
- Other (describe): _____

8) In addition to the primary mode selected for the above question, do you then transfer to another type of public transportation that ultimately brings you into the City? *

- BART
- MUNI Bus or Light Rail
- Employer Shuttle
- Other (please specify): _____
- No, I do not transfer to another public transportation system

9) After arriving in the City per the above questions, do you walk, bike or scooter to ultimately arrive at your office building? If so, how many blocks does it take to get there? Please check all that apply. If n/a, please skip to Question #10.

	Less than 1 block	1- 3 blocks	4- 6 blocks	6 or more blocks
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scooter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10) If you don't walk, bike, or scooter to ultimately arrive at your office, how do you get there? If n/a, please skip to Question #11.

- Carpool/ Vanpool
- Employer/ Other Shuttle
- Taxi/ Uber or Lyft
- Carshare
- Drive Alone
- Other: _____

11) If you selected carpool or vanpool for Question #7, how many people (including yourself) are usually in the vehicle? If you do not regularly carpool or vanpool, please skip to Question #14.

- 2 people

- 3 people
- 4 people
- 5 people or more

12) If you are the driver of a carpool or vanpool, do you usually park at a spot at your office building? If n/a, skip to Question #14

- Yes
- No

13) If you are the driver of a carpool or vanpool and do not park at your building, where do you park? Please indicate how many blocks away you park from your office. If n/a, please skip to Question #14.

	Less than 1 block	1- 3 blocks	4- 6 blocks	6 or more blocks
On-street parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special vanpool or carpool parking area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other parking lot or garage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14) If you regularly drive alone to work, is it because your job requires you to have access to a vehicle?*

- Yes
- No
- N/A -- I do not regularly drive alone to work

15) Do you have free or subsidized parking available through work, whether within your building or nearby?*

- Yes, and I use it when I drive
- Yes, it is available to me but I don't use it
- No. When I drive, I pay to park in a parking facility open to the public, or I park on-street
- No, but I never drive anyway
- I'm not sure

16) Before you begin your morning or evening commute, do you check transit or traffic conditions? (Check all that apply)*

- Yes, on the computer
- Yes, on the radio
- Yes, on TV
- Yes, by smart phone/tablet
- Yes, I check someplace else (please describe):

No, I do not check

17) If you selected "Yes" for Question #16, does that information influence a change in the way you commute? If n/a, please skip to Question #18.

- Yes (please describe): _____
- No

18) TMA SF Connects offers a large number of commute services available to commuters in member buildings. The building you work in is a TMA SF Connects member building. Which of these services have you used? (Check all that apply)*

- TMA SF Connects Website (includes full public transit, ridesharing, bicycling and other commute information)
- TMA SF Connects Alerts & Advisories (includes large-scale weekend events, traffic & transit notifications, Spare the Air, and other regional programs)
- Raffles for Warriors, Giants, theater tickets through tmasfconnects.org
- Building Events
- Commute events in public places
- Other (Please describe): _____
- None

19) Have you used a carsharing service such as Zipcar, Enterprise, or Carma?*

- Yes
- No

20) Are you interested in learning more about carsharing programs in SF?*

- Yes
- No

21) Describe any other commute assistance services that influence your decisions about how to travel to work:

22) What services would be helpful in addressing your single largest commute issue?

23) What is your job classification?*

Executive/Managerial

Professional/Technical

Administrative/Clerical

Sales

Other (describe): _____

24) What is your age range?*

Under 18

18-24

25-34

35-44

45-54

55+

Thank you for your participation!