



# City of Palo Alto

## City Council Staff Report

(ID # 7586)

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**Report Type: Study Session**

**Meeting Date: 3/6/2017**

**Summary Title: Stanford Research Park TDM & Palo Alto TMA**

**Title: Status Report Regarding the Stanford Research Park Transportation Demand Management (TDM) Program and the Palo Alto Transportation Management Authority (TMA)**

**From: City Manager**

**Lead Department: Planning and Community Environment**

### **Recommendation**

This is a study session and no Council action is requested.

### **Executive Summary**

There are two separate initiatives underway focused on reducing commute trips by single occupant vehicle (SOV): one in the Stanford Research Park, and one in downtown Palo Alto.

The Stanford Research Park initiative is being undertaken by a collection of businesses in the Park, with support and staffing provided by Stanford University's Research Park team. The downtown initiative is being undertaken by a new non-profit organization called the Palo Alto Transportation Management Association (TMA). The City funded and supported establishment of the TMA and a City representative sits on the TMA board of directors. Also, while the TMA is initially focused on downtown, its mission and bylaws would allow it to expand to other business districts once there is sufficient funding and organizational capacity.

This study session will allow both entities to provide the City Council with results of employee surveys conducted in the spring of 2016, showing the mode share of commuters to the Research Park and downtown Palo Alto, and to provide a status report on the programs underway to encourage a shift from SOV to other modes.

### **Background**

For background on the Palo Alto TMA and a preview of their 2016 employee survey, see the TMA website at: <http://www.paloaltotma.org/> and <http://www.paloaltotma.org/wp-content/uploads/2016/10/16-5932-Report-13.pdf>. (A copy of the 2016 survey is

included as Attachment B.)

For background on the Stanford Research Park TDM efforts, see their website at: <http://stanfordresearchpark.com/transportation>. (A letter from Stanford representatives is included as Attachment A.)

### **Policy Implications**

The Transportation Element of the City's Comprehensive Plan has reducing reliance on single occupant vehicles as its first goal (Goal T-1) and includes multiple policies in furtherance of this goal. Similar goals and policies are being discussed for inclusion in the Comprehensive Plan Update and the City Council has made a significant investment in projects and programs to address traffic congestion over the last several years. While the Palo Alto TMA and the Stanford Research Park efforts are just getting underway, they have the potential to mature into programs that will dramatically alter commuting to major employment centers in Palo Alto.

#### **Attachments:**

- Attachment A: SRP TMA TDM Letter February 2017
- Attachment B: TMA 2016 Downtown Palo Alto Employee Mode Split Survey



February 16, 2017

Hillary Gitelman  
Director  
Planning & Community Environment Department  
250 Hamilton Avenue  
Palo Alto, CA 94301

**RE: Stanford Research Park Transportation Management Association Overview for March 6, 2017 City Council Hearing**

Dear Ms. Gitelman:

Per your request, below is a summary of the information Stanford Research Park (SRP) will present to City Council on March 6, 2017.

Stanford Research Park Overview

Tiffany Griego, Managing Director, Stanford Research Park will provide a brief overview of SRP. SRP has been a university-affiliated business park since 1951 and is Palo Alto's home base for cutting-edge and influential companies. The Research Park consists of 700 acres and 10 million square feet of R&D and office space. SRP is home to 140+ companies and approximately 29,000 employees. Additional details at [www.StanfordResearchPark.com](http://www.StanfordResearchPark.com)

Worker commutes and transportation options are a top issue for SRP companies and their employees. Difficult commutes reduce a company's ability to recruit and retain valued employees and adversely impact employees' productivity and quality of life. Many large employers in SRP have robust in-house Transportation Demand Management (TDM) Programs. SRP TDM efforts support these employers and engage smaller employers who do not have the expertise or resources to offer significant TDM programs. Both large and small employers benefit from the scale and partnerships afforded to them by working with the SRP Transportation Management Association (TMA) on TDM programs for their employees.

Commute Survey Results and TDM Program Metrics

Jamie Jarvis, Transportation Demand Manager for Stanford Research Park will present a summary of the 2016 SRP Employee Commute Survey results. Responses were received from 4,560 employees. The survey results include current commute mode use, as well as respondents' interest in commute options and TDM programs. This valuable information is being used to guide and prioritize SRP TDM programs. In addition, SRP will share on-going program metrics, including shuttle ridership, bus ridership and carpool registrations.

SRP-wide TDM Programs offered by the TMA

When Stanford presented to City Council in March 2016, the SRP TDM program consisted of a TMA comprised of the 12 largest employers, a full time TDM Manager, a new Stanford Research Park web site featuring transportation information, VTA Eco Pass, free Caltrain shuttle service, an enhanced Guaranteed Ride Program, and a Bicycle Champions Advisory Group.

Since this time, the Stanford Research Park TMA has expanded to 18 employers, including the largest property manager in SRP, who represents 43 tenants. In addition, the SRP TDM program now also includes a trip planner and tracker at SRPgo.com, an outreach coordinator and contact database, Scoop carpool promotion and subsidies, vanpool formation assistance and a \$300 rider subsidy, on-site bicycling clinics and park-wide Bike to Work Day, monthly commuter prize drawings and Spare the Air day rewards, free Zipcar registration and \$25 use credit, and a San Francisco Commuter Bus.

New programs for 2017 include free EcoPasses to employers with fewer than 100 employees, direct communications to commuters, new Caltrain last mile connections, additional Zipcar carshare vehicles, and enhanced bicycling programs, including participation in the Palo Alto Bikeshare expansion planned for this summer.

Keys to Successful TDM in SRP

Tiffany Griego will share our views on the successful TDM in SRP. These include customized solutions focused on our unique population and geography, flexibility to experiment and evolve programs as needed, and collaboration among SRP employers, all under the leadership of Stanford Research Park's TMA. In addition, a partnership between the City and SRP to improve and increase commute options will be key to the long-term success of TDM efforts in Stanford Research Park.

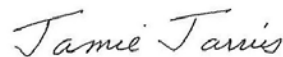
Stanford would like to work with the City to increase local and regional public transit options, support HOV projects, and improve bicycle and pedestrian access. In addition, Stanford would like to work with the City to develop land use strategies and zoning to support the use of commute alternatives.

We thank Council and Staff for this opportunity to provide an update on the Stanford Research Park TMA and TDM Programs.

Sincerely,



Tiffany Griego  
Managing Director  
Stanford Research Park



Jamie Jarvis  
TDM Manager  
Stanford Research Park



## PALO ALTO TMA



# Downtown Palo Alto Mode Share Survey

May 2016

## Overall Findings: Mode Share

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- ▶ The percentage of downtown employees who drive alone to work hasn't changed much in the last two years, but it varies widely within specific business sectors.
- ▶ The overall single occupancy vehicle (SOV) rate for downtown workers is 57%, but is lowest (26%) in the technology sector, where all employers surveyed offer transit passes and other commute benefits; and highest (80%) in the service sector, where most employers offer no benefits. Light office workers have the second highest SOV rate at 74%, followed by government workers at 57%.
- ▶ Tech companies have the highest use of both transit and active transportation modes, which include biking and walking. Some 31% of tech workers use public transit, and another 28% either bike or walk to work. This contrasts with service workers, who use transit just 3%, and active modes 11%.



## Overall Findings: Impact of Transportation Benefits

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- ▶ Higher use of public transit is directly affected by the provision of transportation benefits, including high value benefits such as the Caltrain Annual Go Pass.
- ▶ Many large employers (including the City and most tech companies) already provide transportation benefits. The 31% use of transit and 24% use rate for government workers is testimony to the effectiveness of providing no or low cost transit passes.
- ▶ Workers in the service and light office industries, who do not generally receive such benefits, only use transit 3% and 14%, respectively.



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## Overall Findings: Cost as a Barrier

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- ▶ The cost of using public transit to commute to work is a major barrier for many in the service sector.
- ▶ While a Go Pass is frequently a ‘free’ commute benefit for employees of larger firms, even if employees reimburse their employers for an annual pass, it costs less than \$20 per month.
- ▶ Without the advantage of ‘bulk pricing’ using Caltrain costs anywhere from \$84.80 to \$191.50 per month, which can make it the most expensive way to get to work.
- ▶ Some 40% of service workers surveyed cite the cost of using public transit as the reason they don’t use it.



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# Overall Findings: Data for TMA Pilot Programs

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- ▶ This data reinforces the TMA's pilot programs which provide low income workers with a free transit pass for up to six months.
- ▶ The pilot launched in mid-August 2016, and offers downtown employees who earn less than \$50,000 a year a free monthly transit pass on Caltrain, Dumbarton Express, SamTrans or VTA buses.
- ▶ Funded by a private donation for the six-month pilot, the program has enrolled 28 workers so far of the 30 slots available. It is reported that by far, Caltrain is the pass selected by participants. The program is poised to expand with additional City funding in the next few weeks.



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## Methodology

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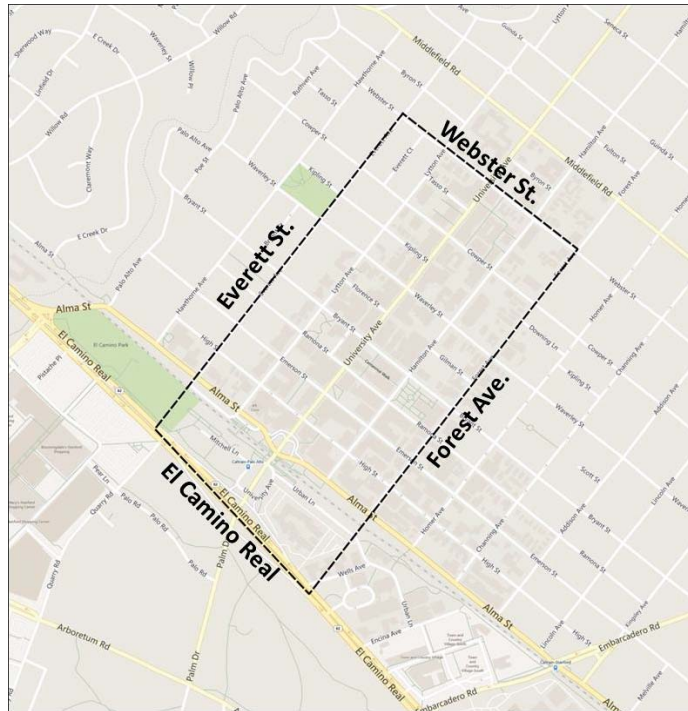
- ▶ The survey methodology of the 2016 mode share survey follows the same approach as the 2015 mode share survey.
- ▶ 829 surveys were conducted with employees at businesses located within an area of Downtown Palo Alto bound by El Camino Real, Webster Street, Everett Avenue, and Forest Avenue.
- ▶ A stratified random sample of worksites was pulled by worksite size, including small, medium and large businesses. Sampled worksites were contacted directly to identify and recruit an onsite survey coordinator who distributed the surveys to all employees at their respective worksites.
- ▶ The survey was offered in online and paper formats for employees of businesses with 5 or more employees, and was conducted by telephone with employees of businesses with 4 or fewer employees.
- ▶ Data collection began May 2<sup>nd</sup> and ended the week of May 23<sup>rd</sup>. Each respondent was asked commute mode questions for one calendar week previous to the date on which they took the survey.
- ▶ Where applicable, results are compared to the first Downtown Palo Alto Mode Share Survey conducted in May 2015 among 1,173 employees.



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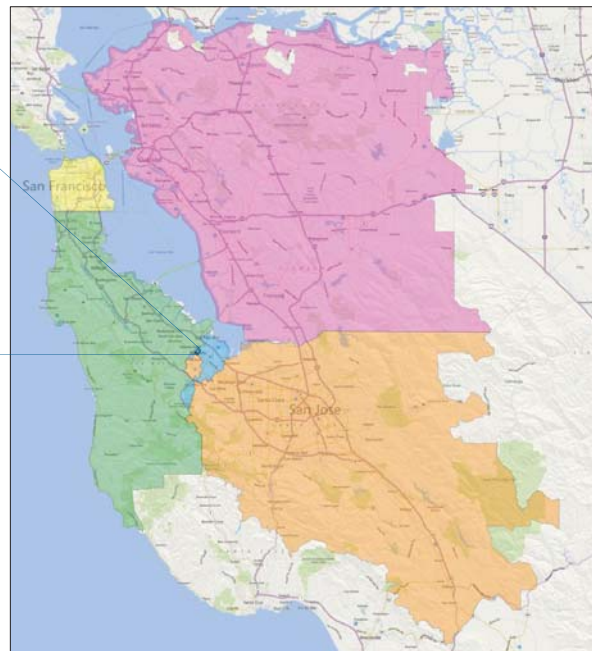
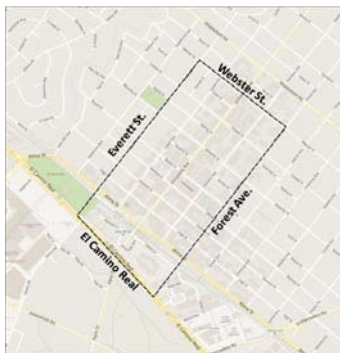
# Downtown Palo Alto

*For this study, Downtown Palo Alto was defined as the area bound by El Camino Real, Webster Street, Everett Avenue, and Forest Avenue.*



# Home Regions

*Survey respondents were categorized into home regions based on zip code data.*

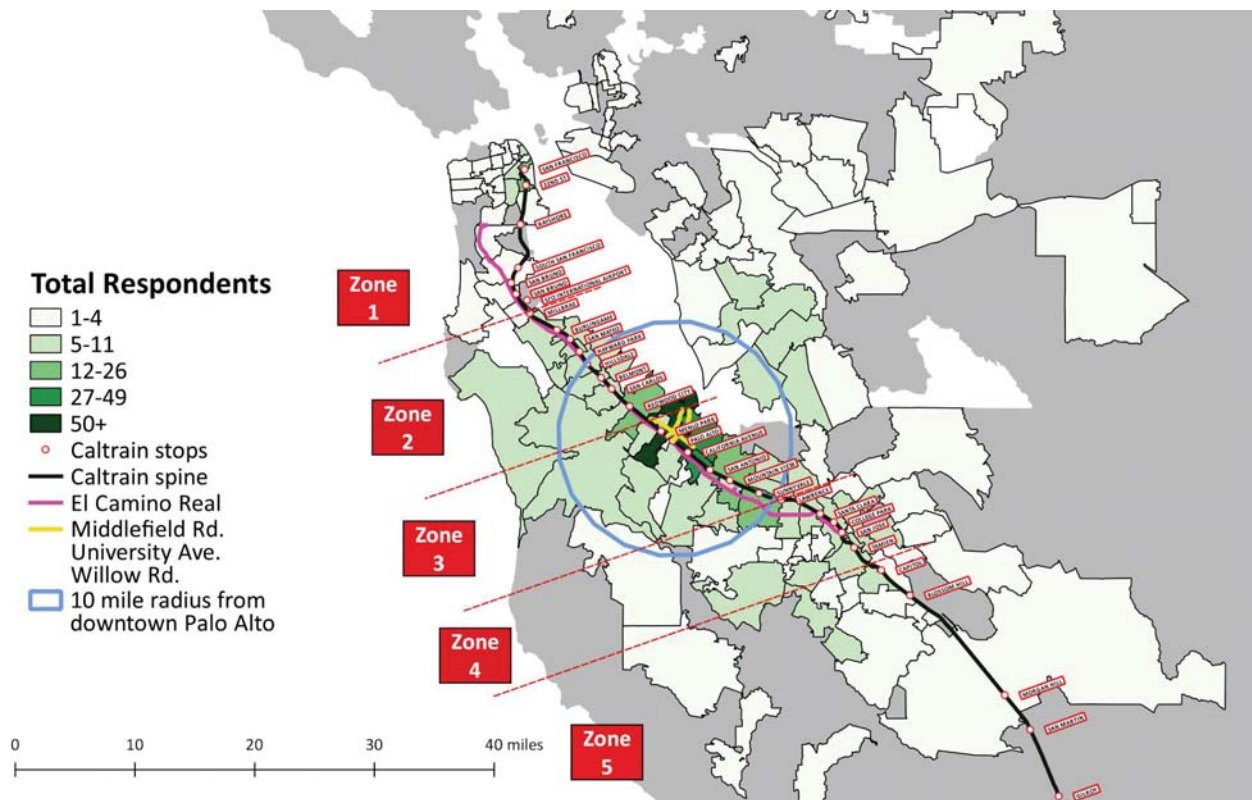


	2015	2016
<b>Region</b>	<b>%</b>	<b>%</b>
San Francisco	10%	10%
Peninsula	20%	26%
South Bay	33%	26%
Palo Alto	22%	19%
East Bay	7%	10%
Else	8%	9%





# Total Amount of Survey Respondents



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# Worksite Size

*The survey sample was stratified and the data weighted to reflect the distribution of businesses by worksite size.*

Business Size (Survey Sample)	% of survey sample (weighted)	
	2015	2016
1 to 25 employees	24%	24%
26 to 100 employees	32%	32%
101+ employees	44%	44%

***Business size categories are based on counts from the Palo Alto Business Registry.***



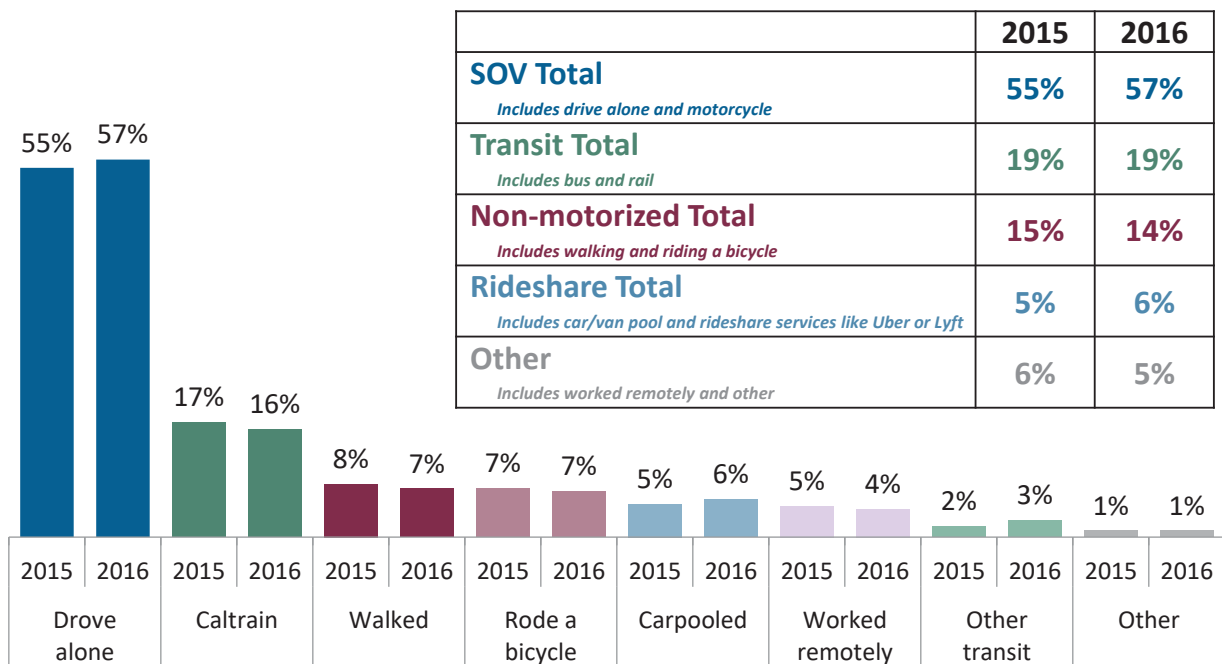
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# Modes of Transportation

## Mode Share - Overall

Mode share has not changed significantly since 2015.

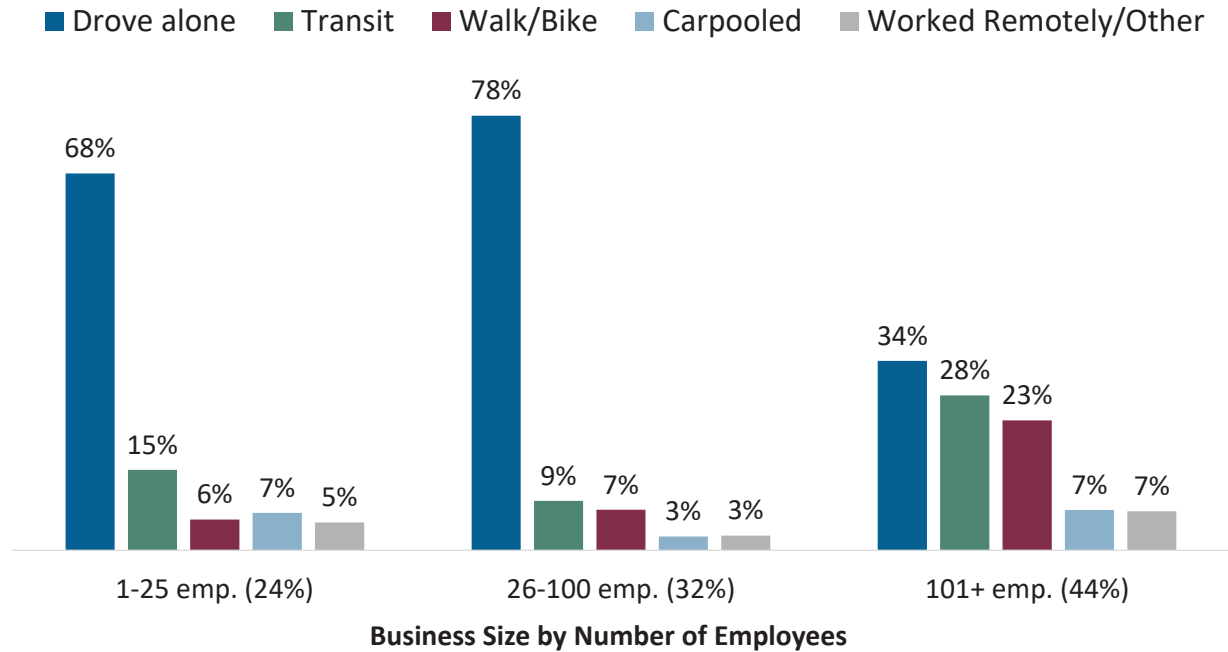
%s reflect the total amount of trips taken during the week



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?

# Mode Share by Worksite Size

Employees working at larger companies drive the least and utilize transit the most.



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

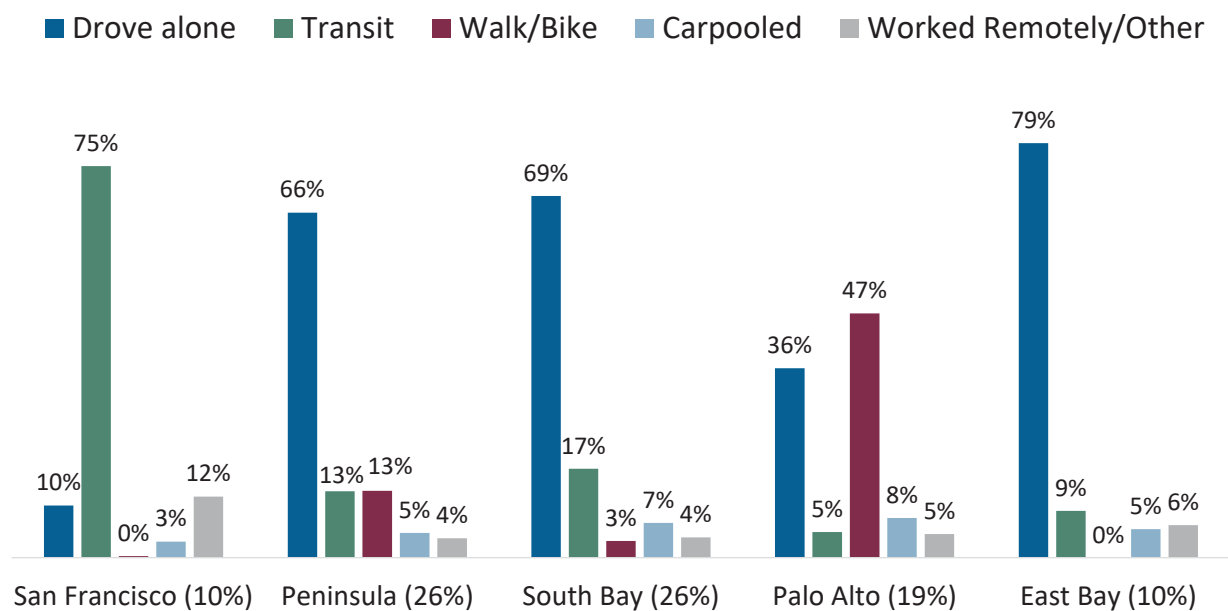
Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



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# Mode Share by Home Geography

San Francisco commuters are the least likely to drive. Those in the East Bay are the most likely to drive.



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

Refused to report=8%

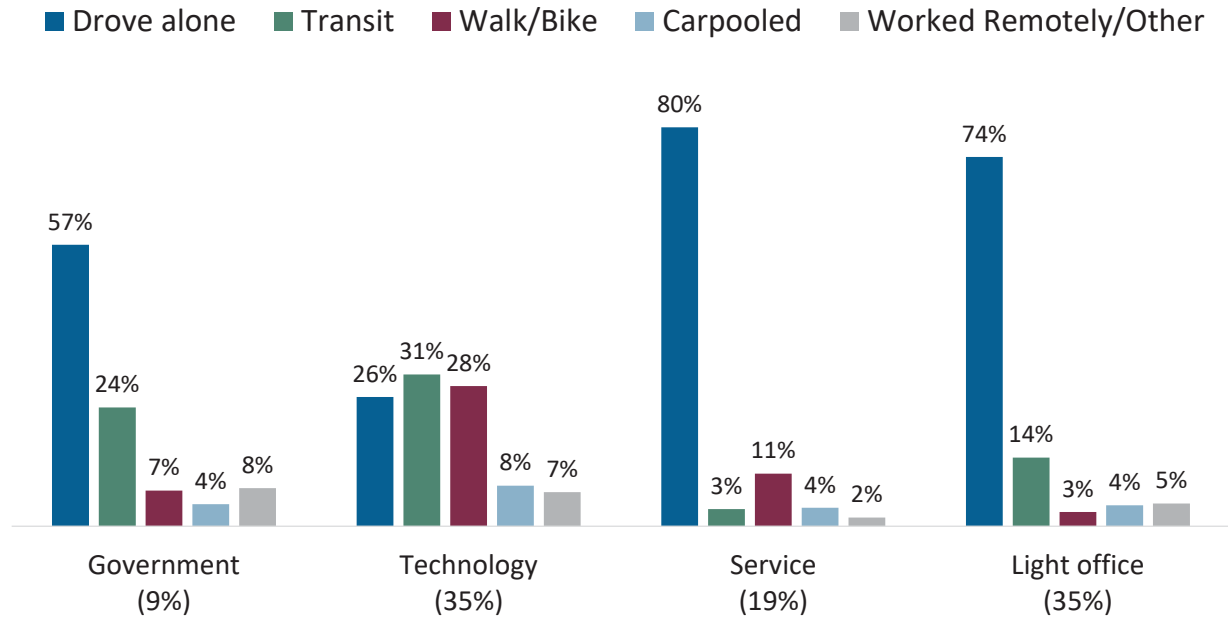


Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?

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# Mode Share by Business Type

*Service workers are the least likely business category to use transit.*



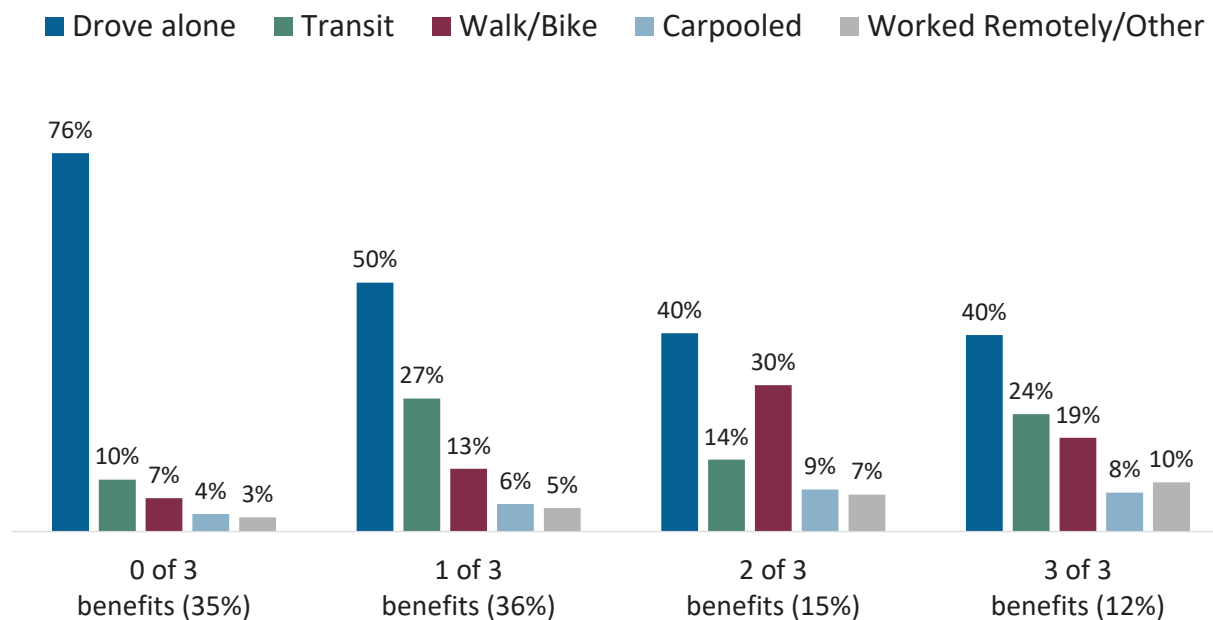
Numbers in parentheses represent the percentage of the sample for each respective subgroup.



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?

# Mode Share by Amount of Transit Benefits

*The more transit benefits that a worker receives, the less likely they are to drive alone.*



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

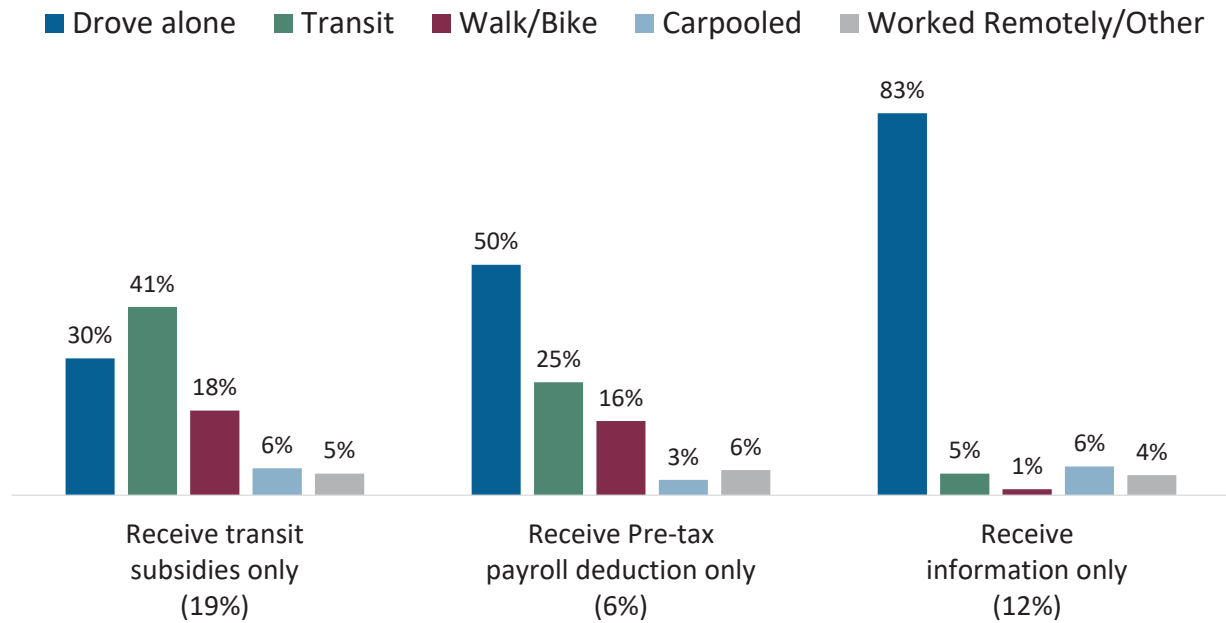
Transit benefits include, transit subsidies, pre-tax payroll deduction for transportation, and information about commute alternatives



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?

# Mode Share by Transit Benefits

Among workers who receive transit benefits, those who receive transit subsidies alone are the most likely to use transit.



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

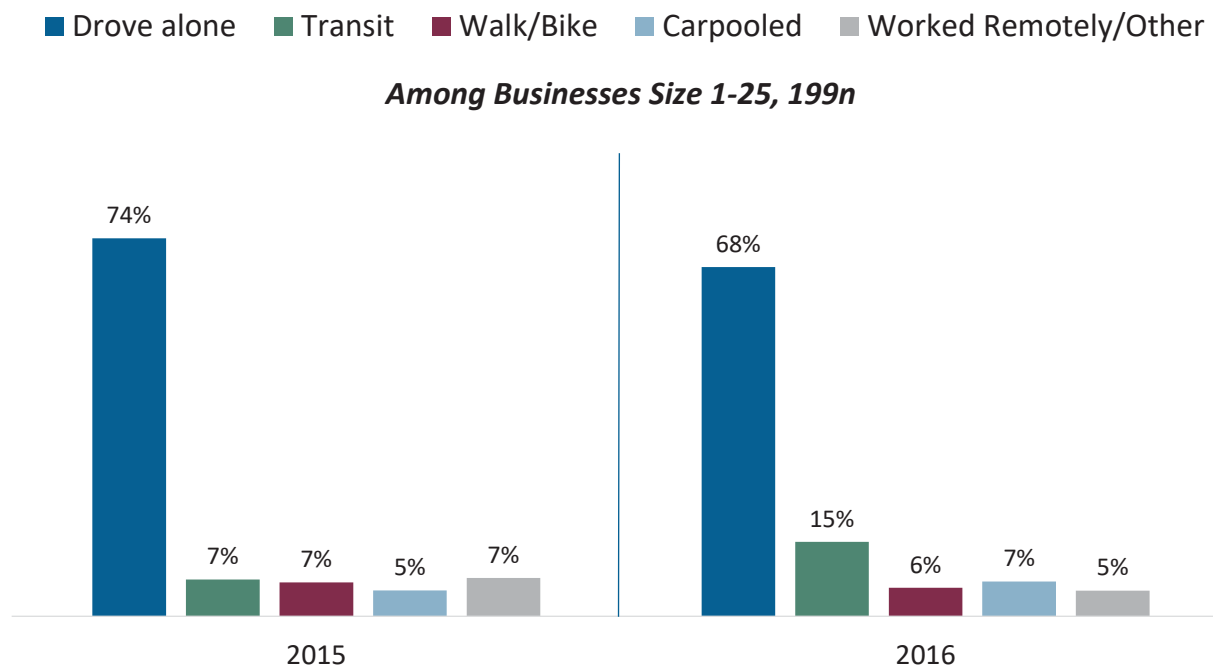


Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?

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# Mode Share Over Time – Business Size 1-25

Among businesses with 1-25 employees, SOV trips decreased and transit trips increased compared to 2015.



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



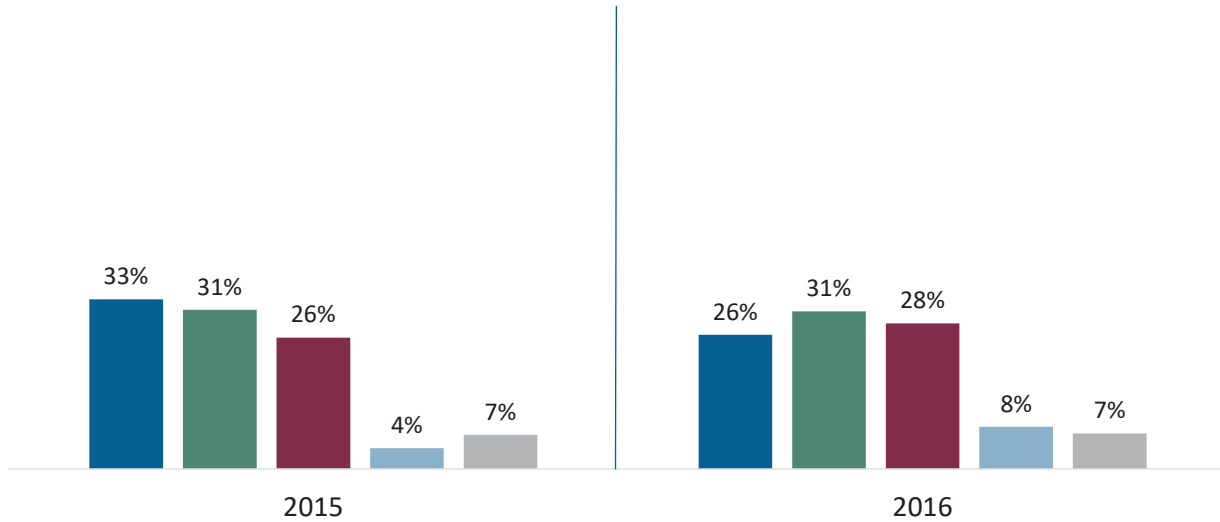
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# Mode Share Over Time – Technology

Among technology businesses, SOV trips dropped compared to 2015.

■ Drove alone ■ Transit ■ Walk/Bike ■ Carpoled ■ Worked Remotely/Other

Among Technology Businesses, 290n



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



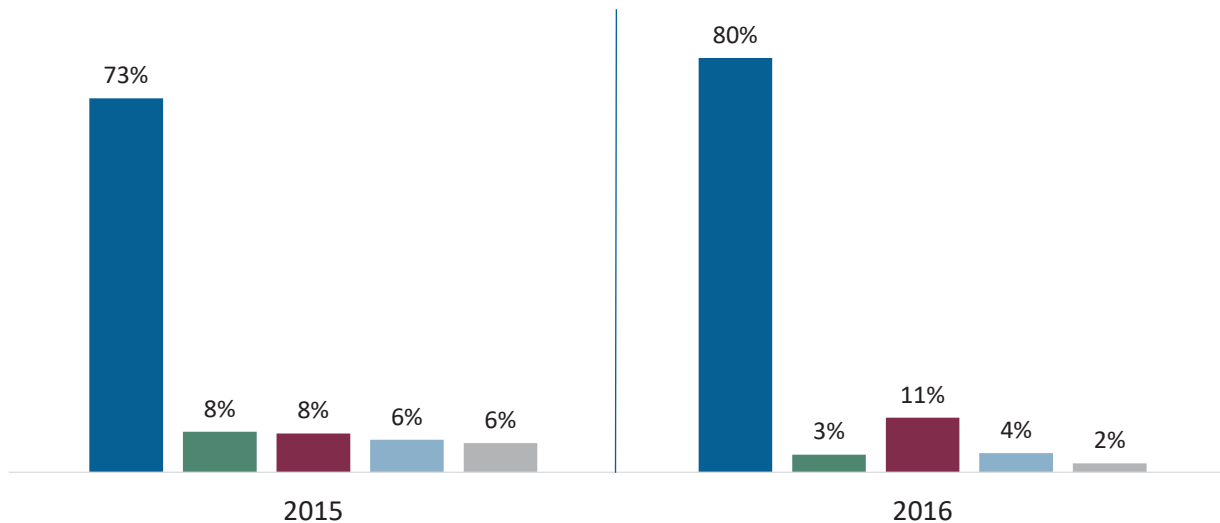
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# Mode Share Over Time – Service

Among service businesses, SOV trips increased and transit trips have decreased since 2015.

■ Drove alone ■ Transit ■ Walk/Bike ■ Carpoled ■ Worked Remotely/Other

Among Service Businesses, 158n



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



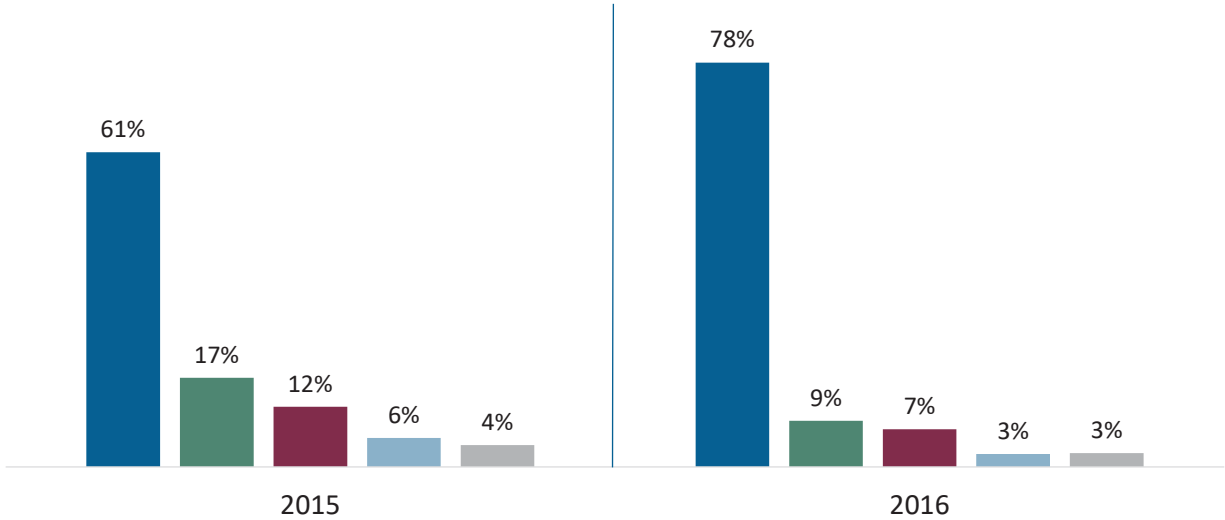
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# Mode Share Over Time – Business Size 26-100

Among businesses with 26-100 employees, SOV trips increased and transit trips have decreased compared to 2015.

■ Drove alone ■ Transit ■ Walk/Bike ■ Carpoled ■ Worked Remotely/Other

Among Businesses Size 26-100, 265n



Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



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# Multiple Modes of Transportation

About a quarter of workers in downtown Palo Alto use multiple modes of transportation to commute to work.

Do you use more than one mode of transportation to commute to work?



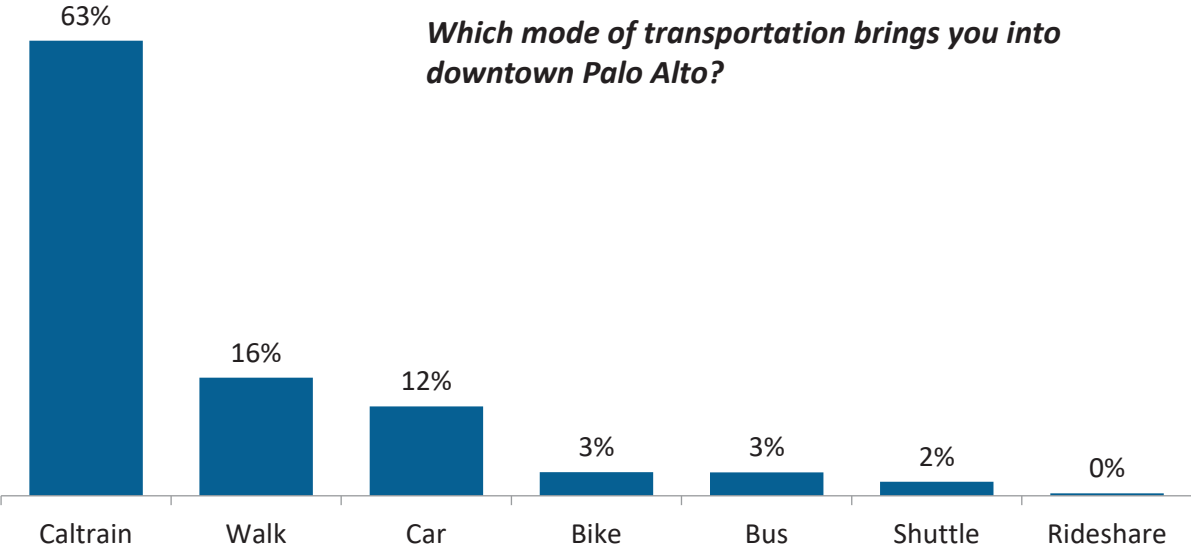
Q2. Do you use more than one mode of transportation to commute to work?



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# Multiple Modes of Transportation

*Among those who use multiple modes of transportation to commute downtown, Caltrain is largely the mode that brings them into downtown.*



3. Which mode of transportation brings you INTO Downtown Palo Alto?  
Among respondents who take more than one mode of transportation to work. 197n

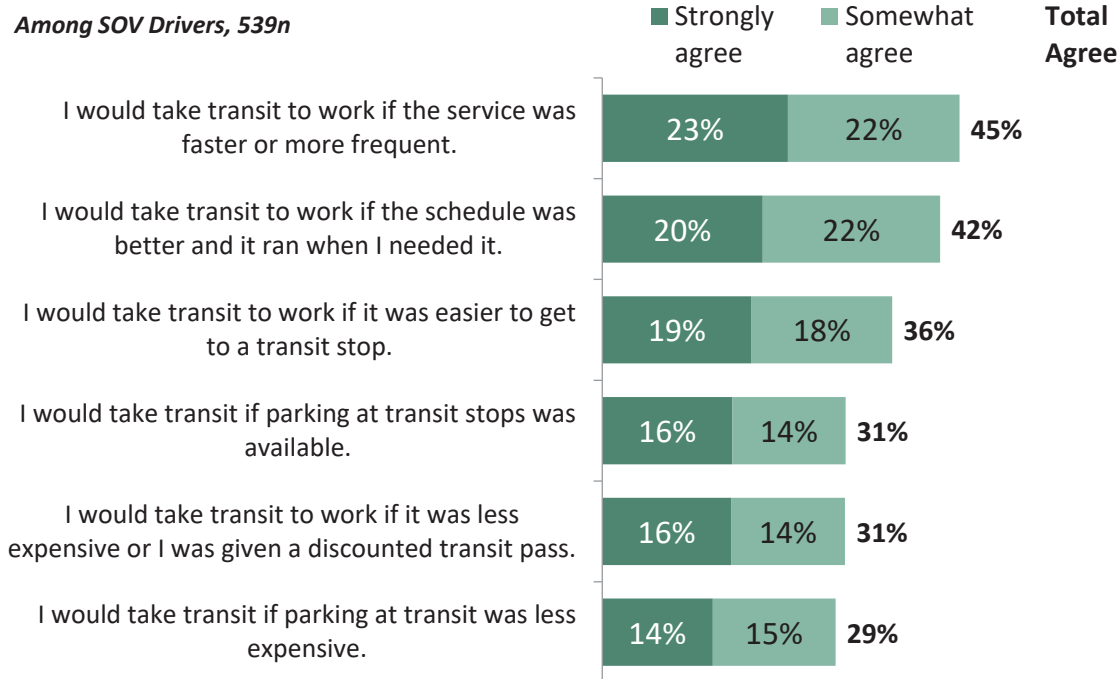


## Transportation Attitudes



# Transit Attitudes

Many SOV drivers are open to taking transit if service were faster, more frequent, or it ran when needed.



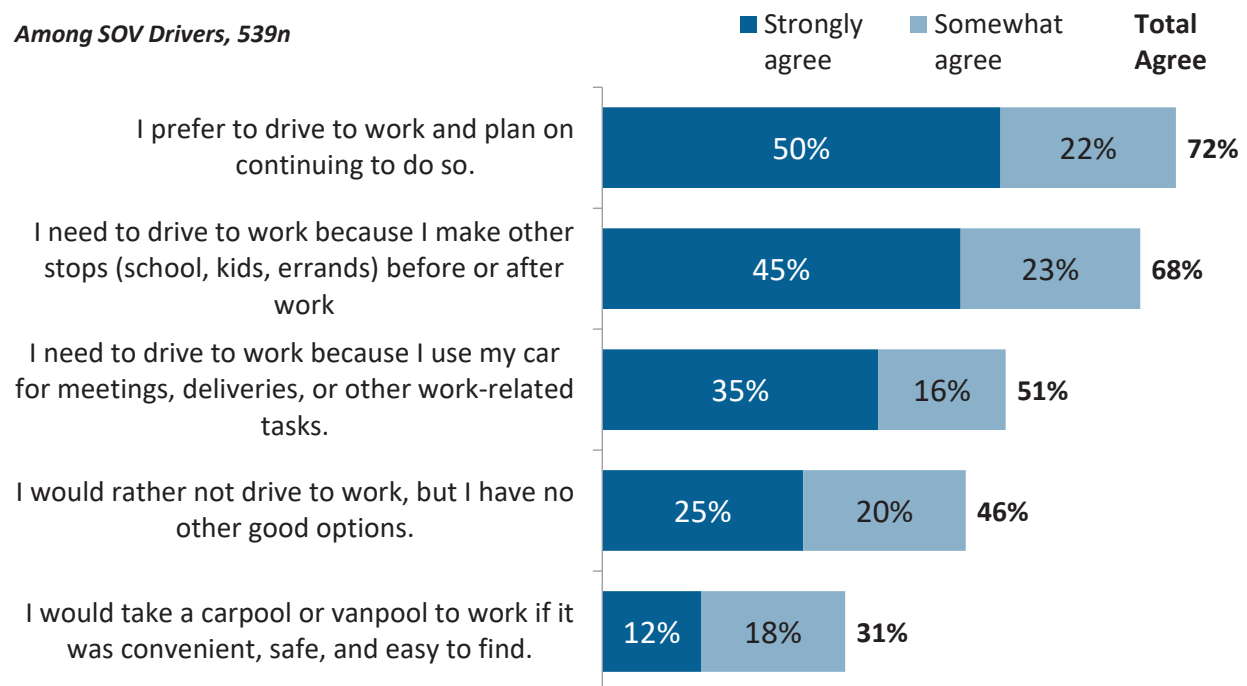
Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.



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# Driving Attitudes

Nearly 3 out of 4 SOV drivers prefer to drive to work and plan on continuing to do so.



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

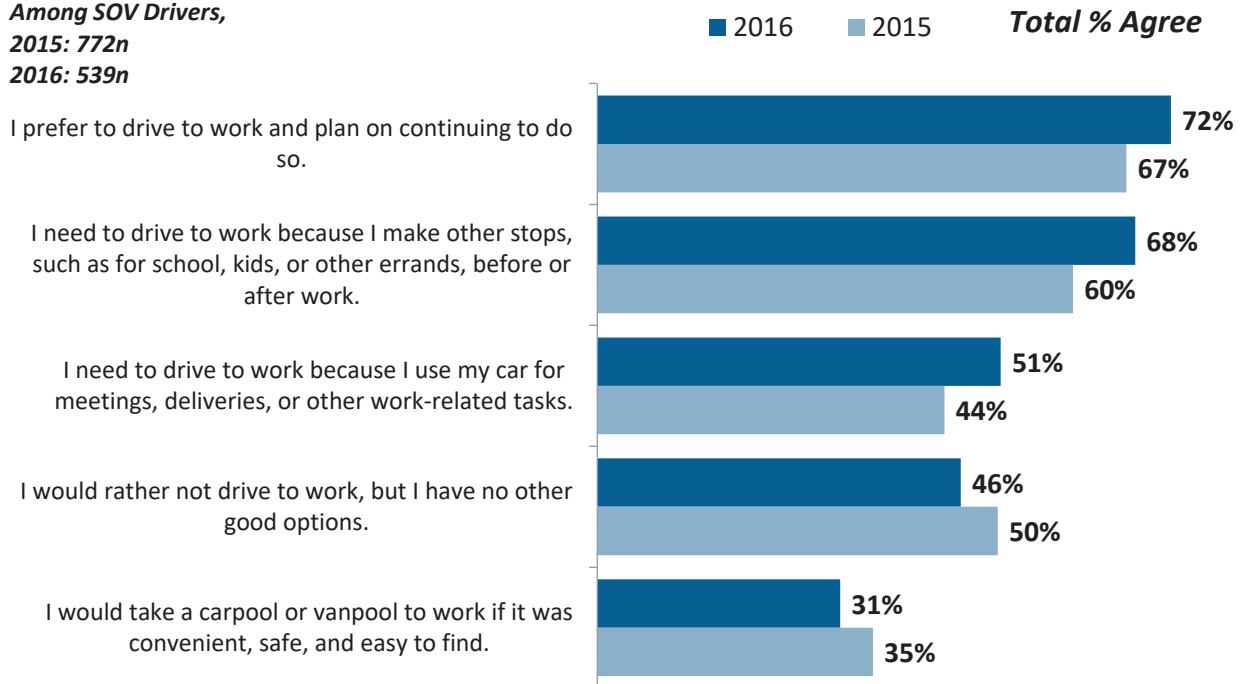


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# Driving Attitudes Over Time

Compared to 2015, a larger percent of SOV drivers agree that they prefer to drive, plan to continue to do so, and need to drive.

Among SOV Drivers,  
2015: 772n  
2016: 539n



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

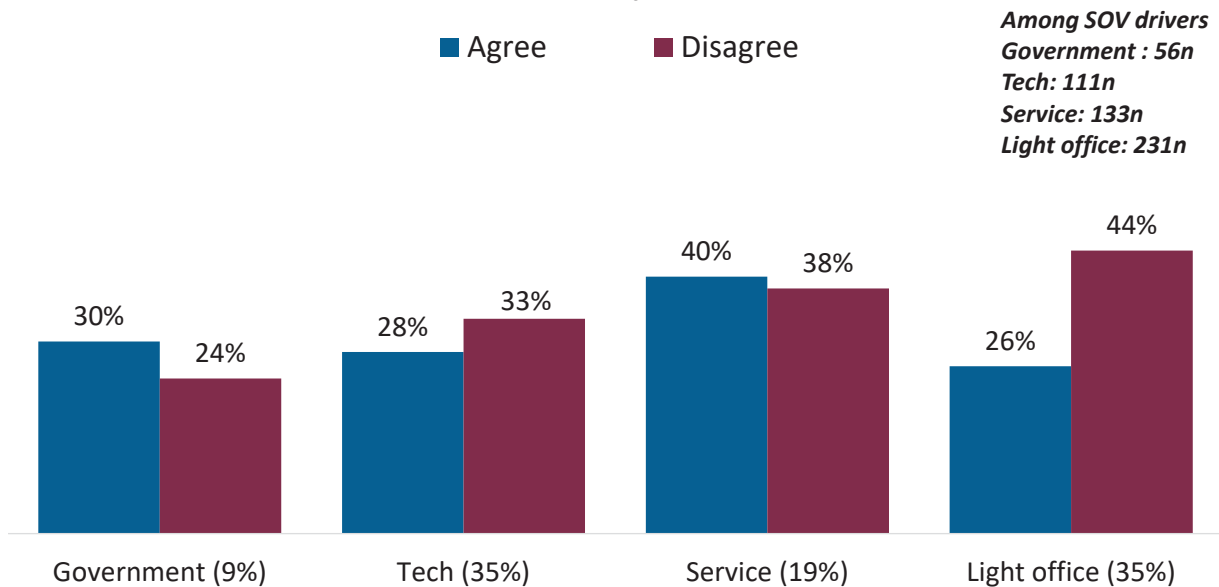


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# Transit Attitudes by Business Type

Service workers agree the most of any business type that they would take transit if it was less expensive.

**I would take transit to work if it was less expensive or I was given a discounted transit pass.**



Among SOV drivers  
Government : 56n  
Tech: 111n  
Service: 133n  
Light office: 231n

Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

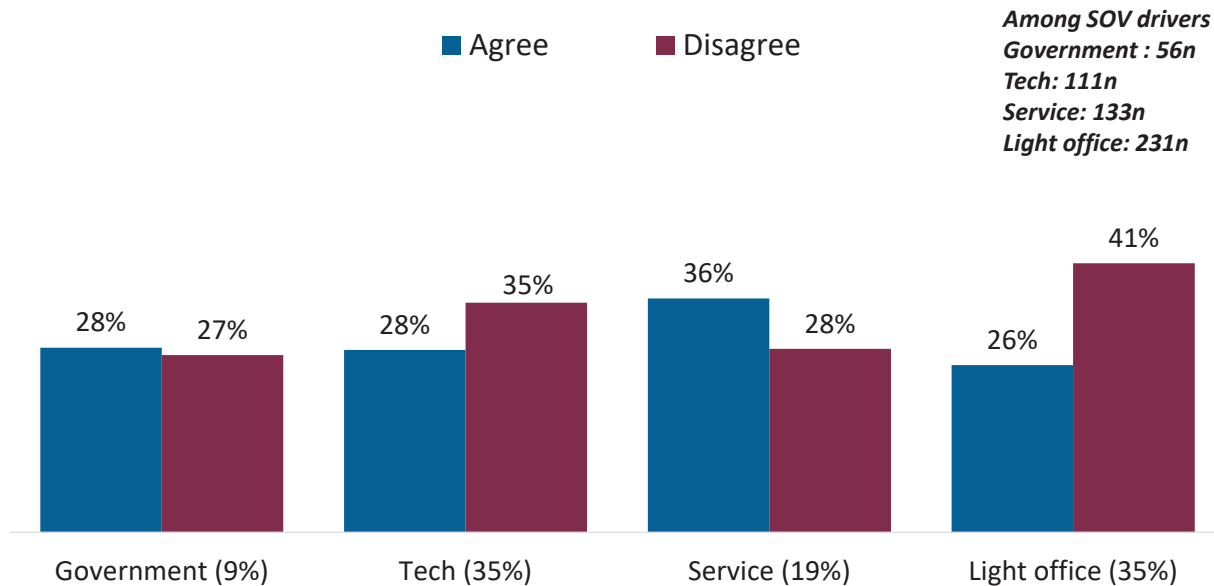


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# Transit Attitudes by Business Type

*Service workers agree the most out of any business type that they would take transit if parking was less expensive.*

***I would take transit if parking at transit was less expensive.***



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

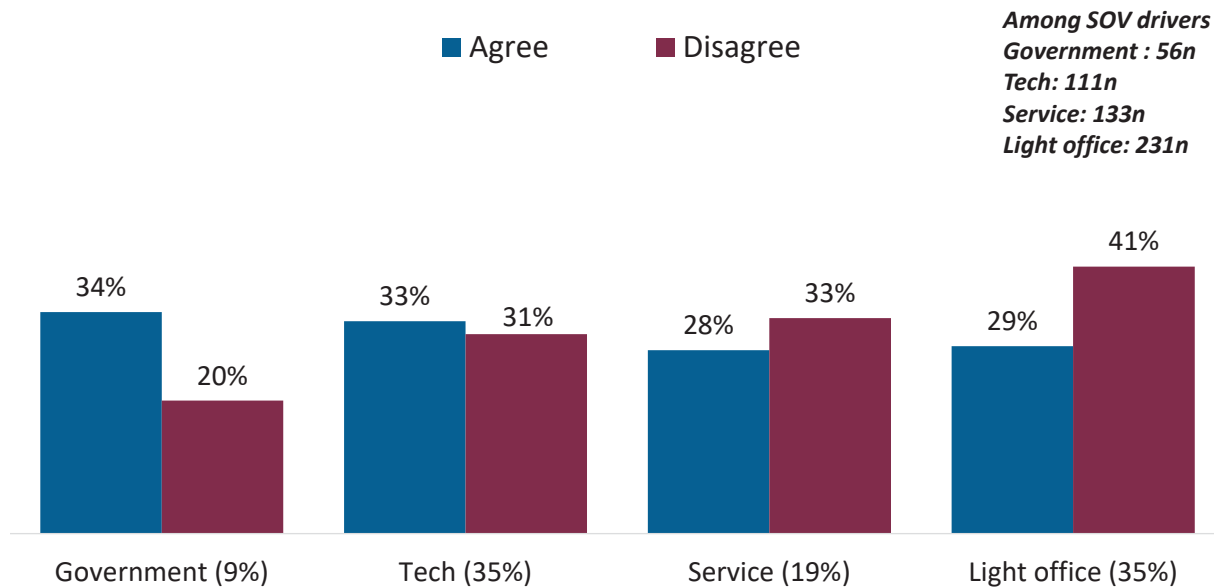


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# Transit Attitudes by Business Type

*Agreeing with the statement "I would take transit if parking at transit stops was available" is similar across business types.*

***I would take transit if parking at transit stops was available.***



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

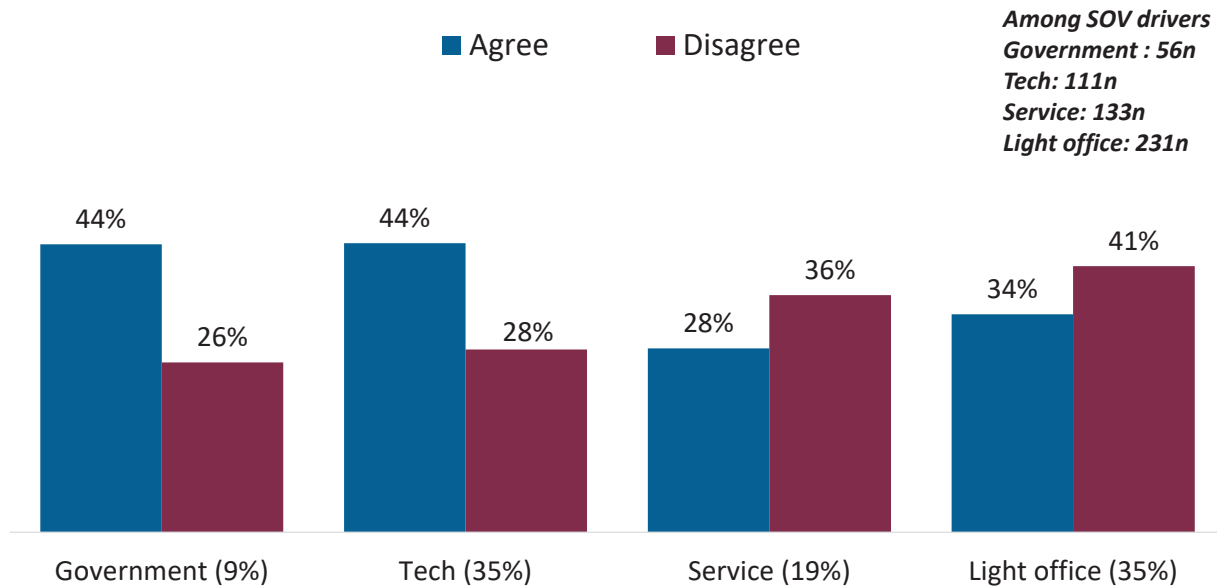


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# Transit Attitudes by Business Type

The ability to get to a transit stop is less important to service and light office workers compared to other transit attitudes.

*I would take transit to work if it was easier to get to a transit stop.*



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

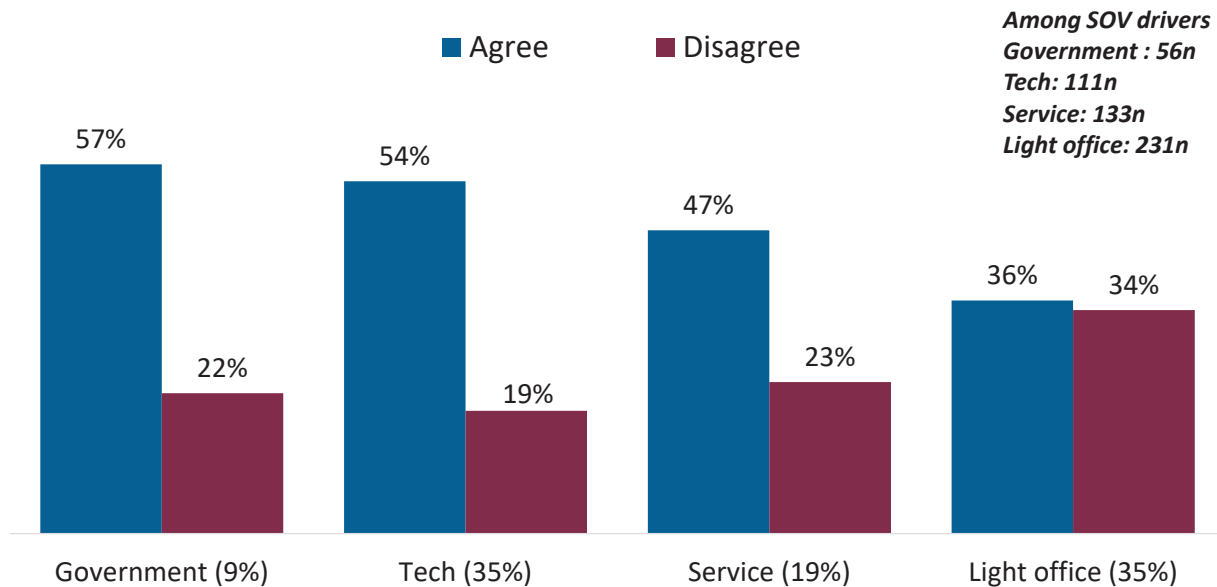


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# Transit Attitudes by Business Type

Nearly half of service workers who drive alone agree that they would take transit if the service was faster or more frequent.

*I would take transit to work if the service was faster or more frequent.*



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

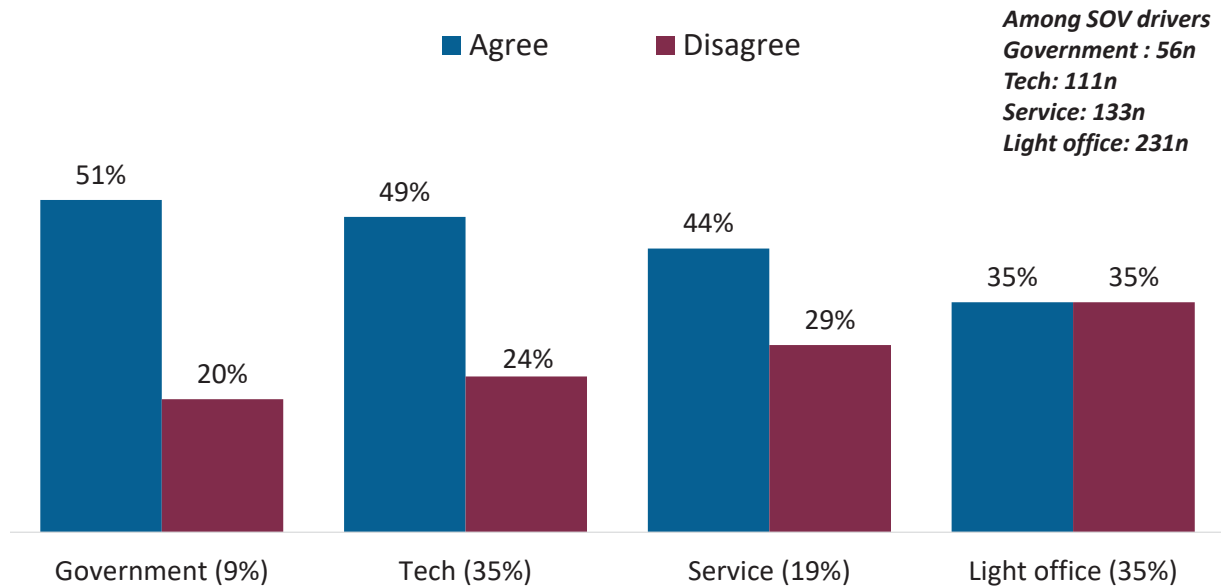


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# Transit Attitudes by Business Type

About half of government and tech workers who drive alone agree that they would take transit to work if the schedule was better and it ran when they needed it.

*I would take transit to work if the schedule was better and it ran when I needed it.*



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

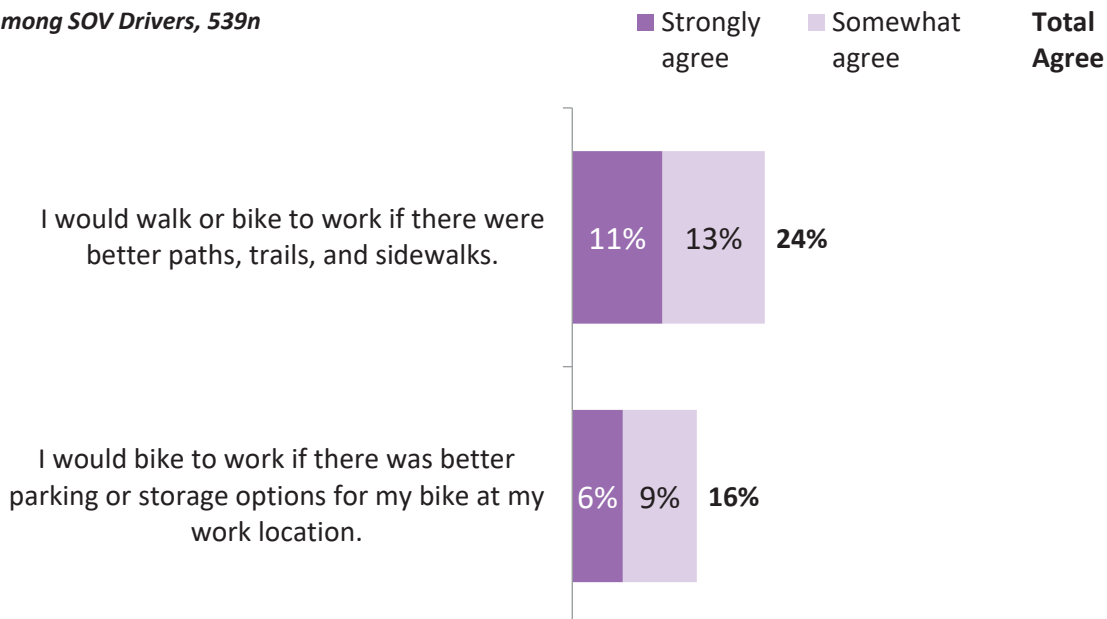


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# Non-Motorized Attitudes

A small portion of SOV drivers are interested in active transportation options.

Among SOV Drivers, 539n



Q13-Q26. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

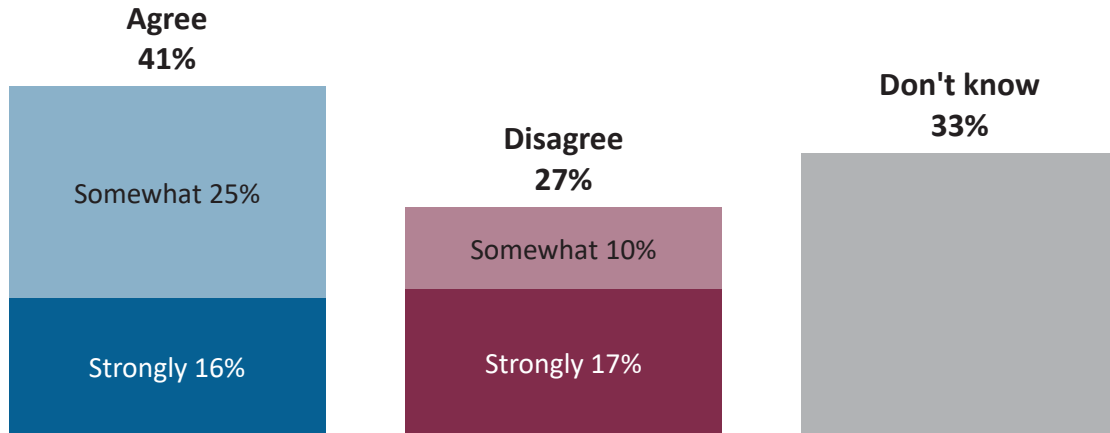


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# Interest in Learning Commuter Options

41% of respondents are interested in learning more about commuting options and incentives.

*I am interested in learning more about commuting options and incentives that may be available to me.*



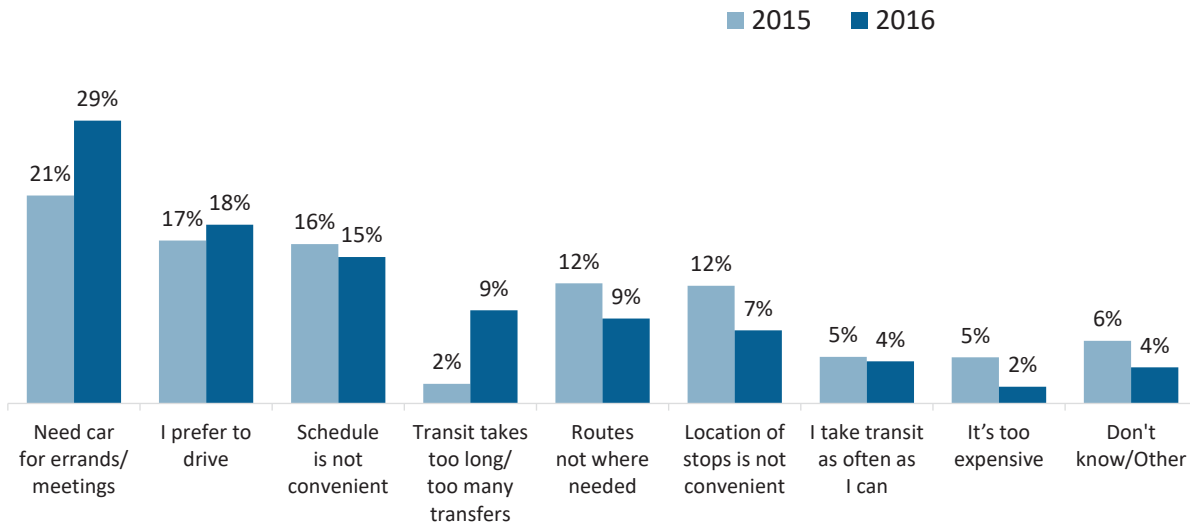
26. I am interested in learning more about commuting options and incentives that may be available to me.



# Reasons for NOT Taking Transit

Those who don't take transit mostly need their cars for errands or they prefer to drive.

*Why do you not take transit more often?  
Among SOV drivers, 539n*



27. What is the main reason you do not take transit more often?



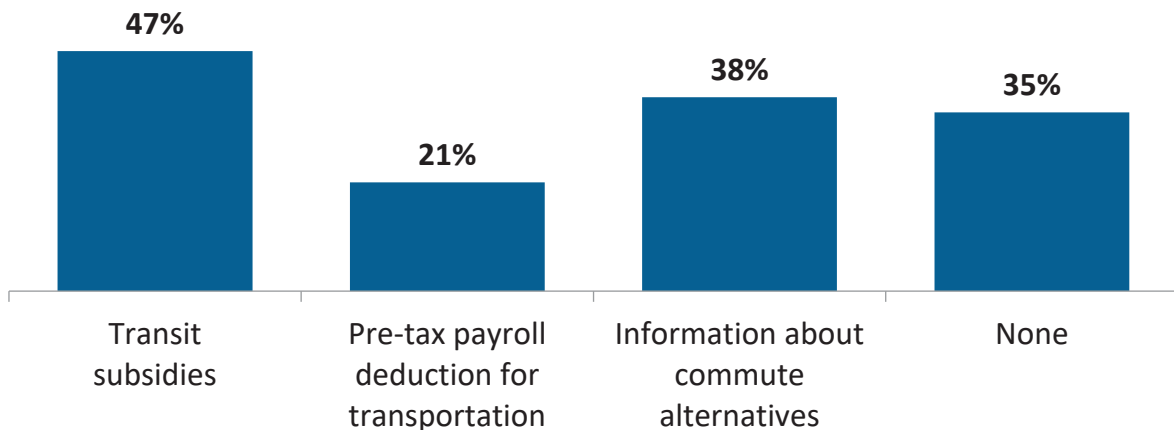


# Employer Transit Benefits

## Employer Transit Benefits

*About one third of workers in downtown Palo Alto report receiving no transit benefits from their employer.*

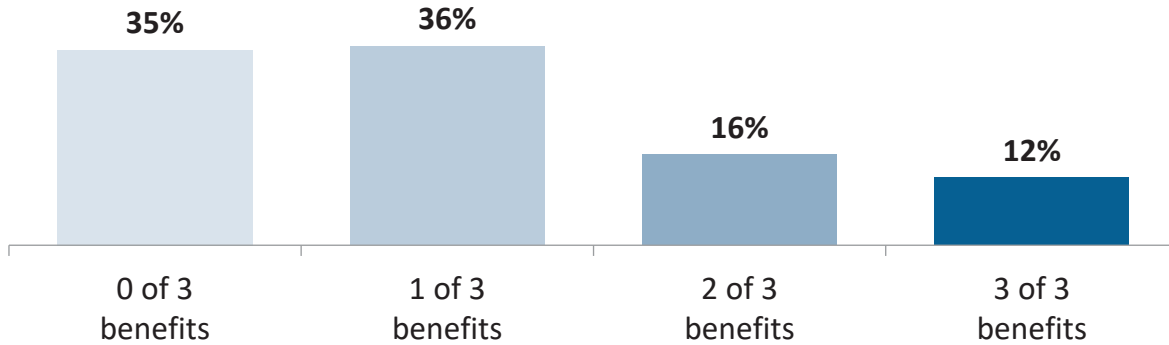
***Does your employer offer any of the following?***  
*Multiple answers accepted, percentages do not add to 100%*



# Amount of Transit Benefits

About two thirds of workers report receiving 1 or more transit benefits from their employer.

Amount of transit benefits a worker receives



Transit benefits include, transit subsidies, pre-tax payroll deduction for transportation, and information about commute alternatives

4. Does your employer offer any of the following?

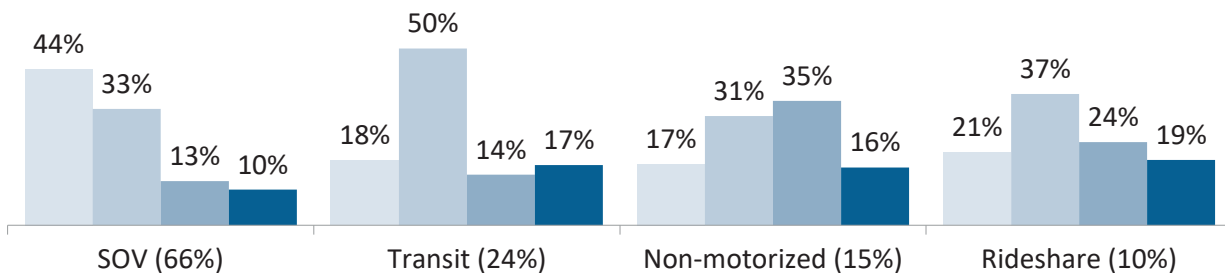


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# Amount of Transit Benefits By Commute Modes

44% of SOV drivers report not receiving any transit benefits from their employer.

0 of 3 benefits      1 of 3 benefits      2 of 3 benefits      3 of 3 benefits



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

Transit benefits include, transit subsidies, pre-tax payroll deduction for transportation, and information about commute alternatives

4. Does your employer offer any of the following?

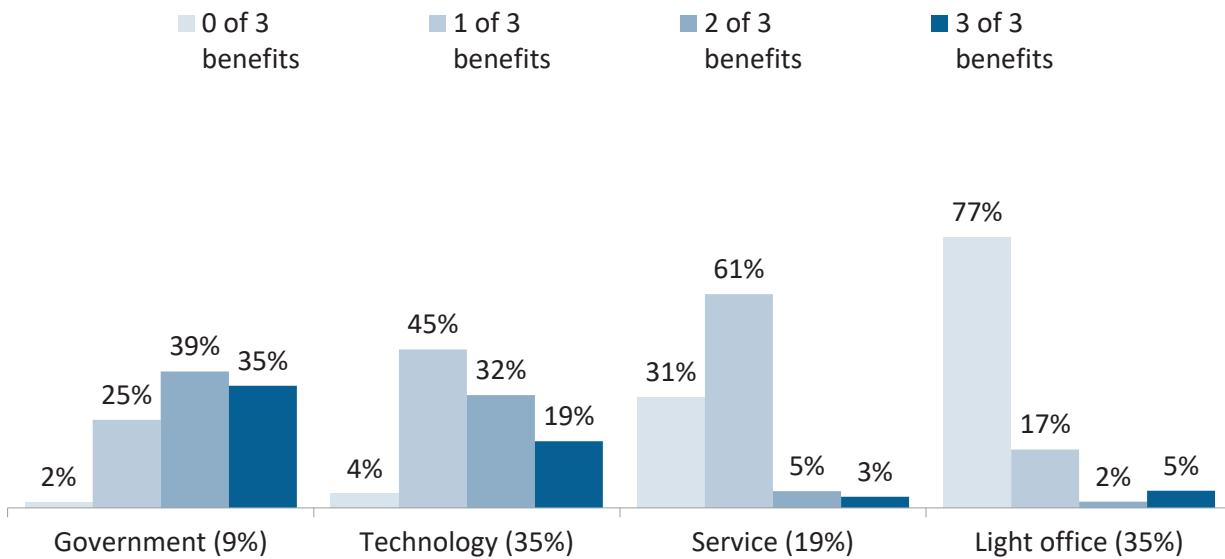


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# Amount of Transit Benefits By Business Type

*Light office workers report receiving very few transit benefits.*



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

Transit benefits include, transit subsidies, pre-tax payroll deduction for transportation, and information about commute alternatives

4. Does your employer offer any of the following?



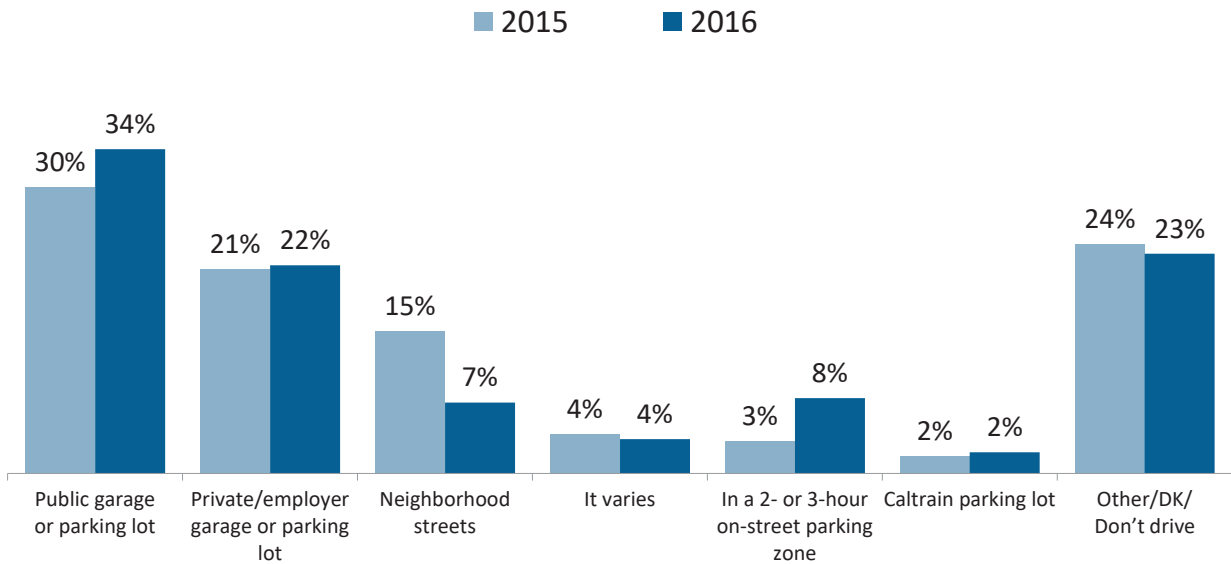
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## Parking

# Parking

Fewer respondents report parking on neighborhood streets in 2016 but employees are parking in timed zones and public garages and lots.

Where do you typically park when you drive to work?

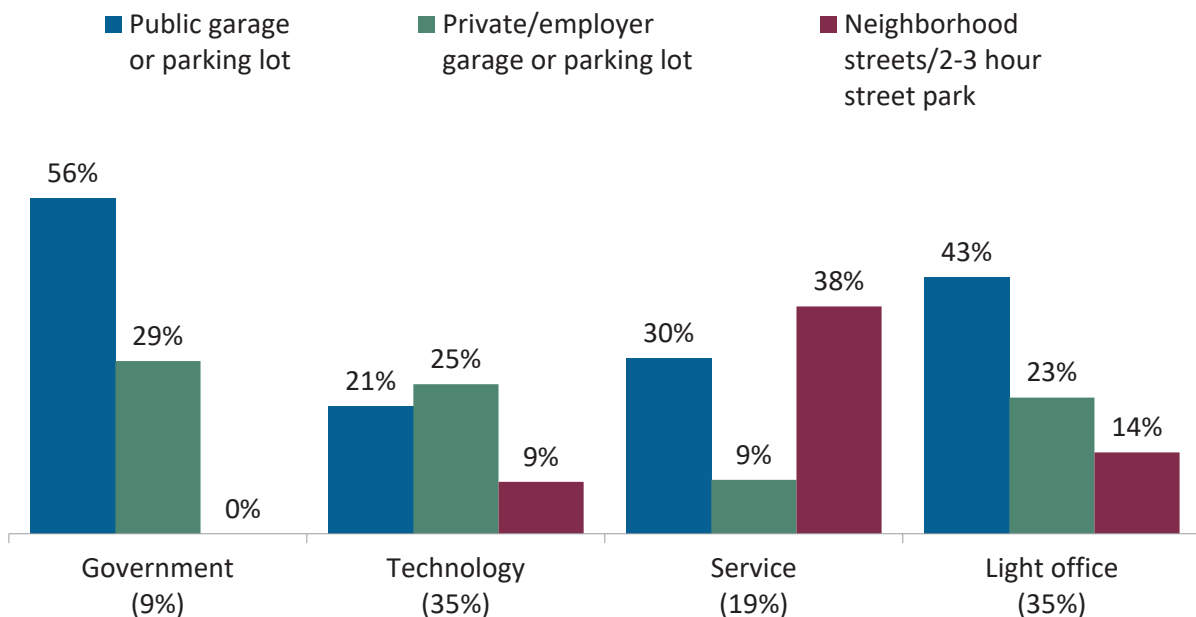


5. Where do you typically park when you drive to work?

16-5932 Palo Alto TMA | 43

# Parking by Business Type

Service workers largely park on the street.



Numbers in parentheses represent the percentage of the sample for each respective subgroup.

5. Where do you typically park when you drive to work?

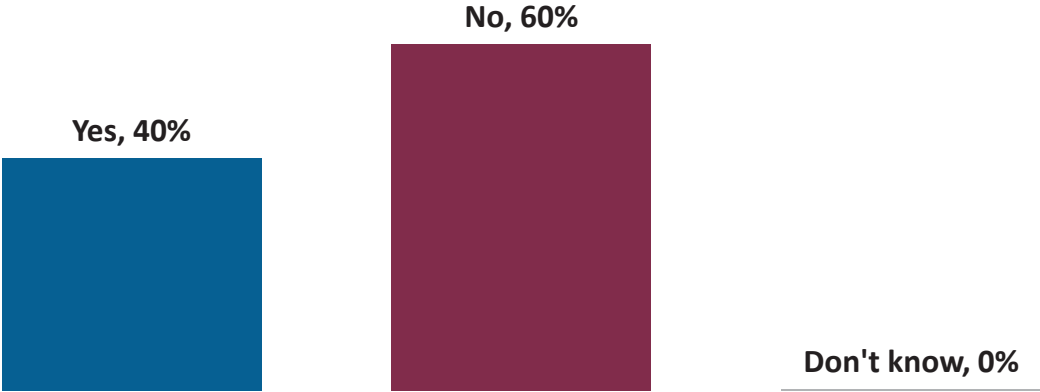


16-5932 Palo Alto TMA | 44

# Parking Permits

A little less than half of workers surveyed have a permit for on street parking or a garage.

**Do you have a Residential Parking Permit for on-street parking or a permit to park in a Downtown garage?**



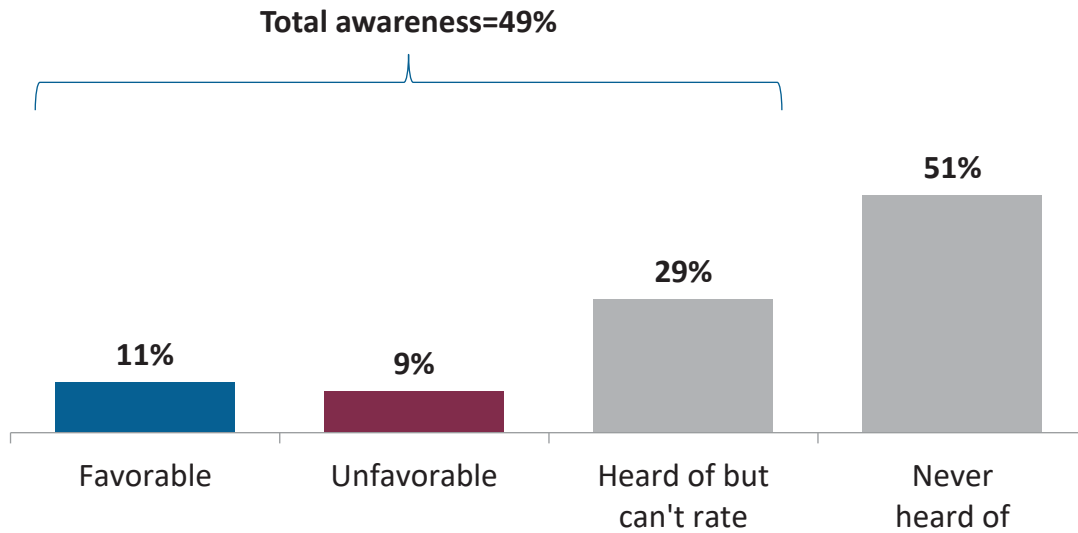
6. Do you have a Residential Parking Permit for on-street parking or a permit to park in a Downtown garage?



16-5932 Palo Alto TMA | 45

# Awareness of Palo Alto TMA

About half of respondents have heard of the Palo Alto TMA.



12. Do you have a strongly favorable, somewhat favorable, somewhat unfavorable, or strongly unfavorable opinion of the Palo Alto Transportation Management Association (TMA)? If you have never heard of the Palo Alto TMA or heard of but can't rate, please select that option.



16-5932 Palo Alto TMA | 47

## Focus on Service Workers

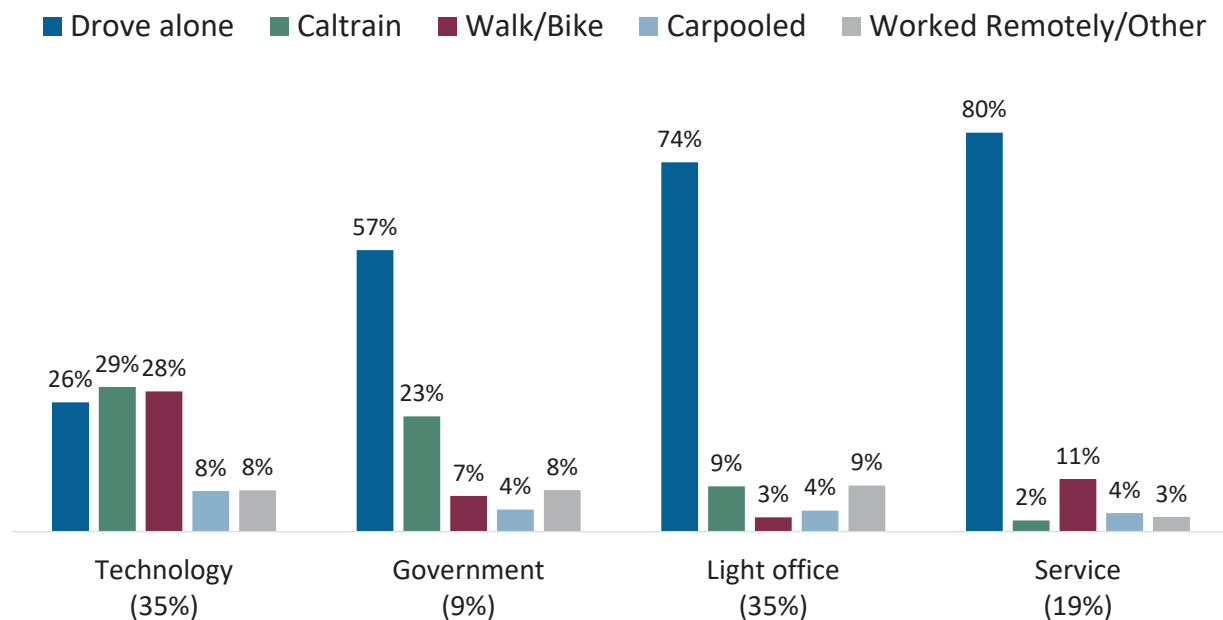
# Service Workers

- ▶ Service workers report working in the restaurant or food industry, in hospitality, or in personal services (beauty salon). They make up 19% or 158n of the total sample for the 2016 Palo Alto Commuter Mode Survey.
- ▶ Service workers have the highest SOV rate of any worksite category.
- ▶ Service workers receive fewer transit benefits from their employers than other workers. They also express less flexibility with their work schedule.
- ▶ Service workers mostly park on the street.
- ▶ Service workers have differing attitudes towards driving and transit compared to workers as a whole.



## Mode Share by Business Type

*Service workers report the highest level of SOV trips among all business types. They also use transit less than any other business type.*



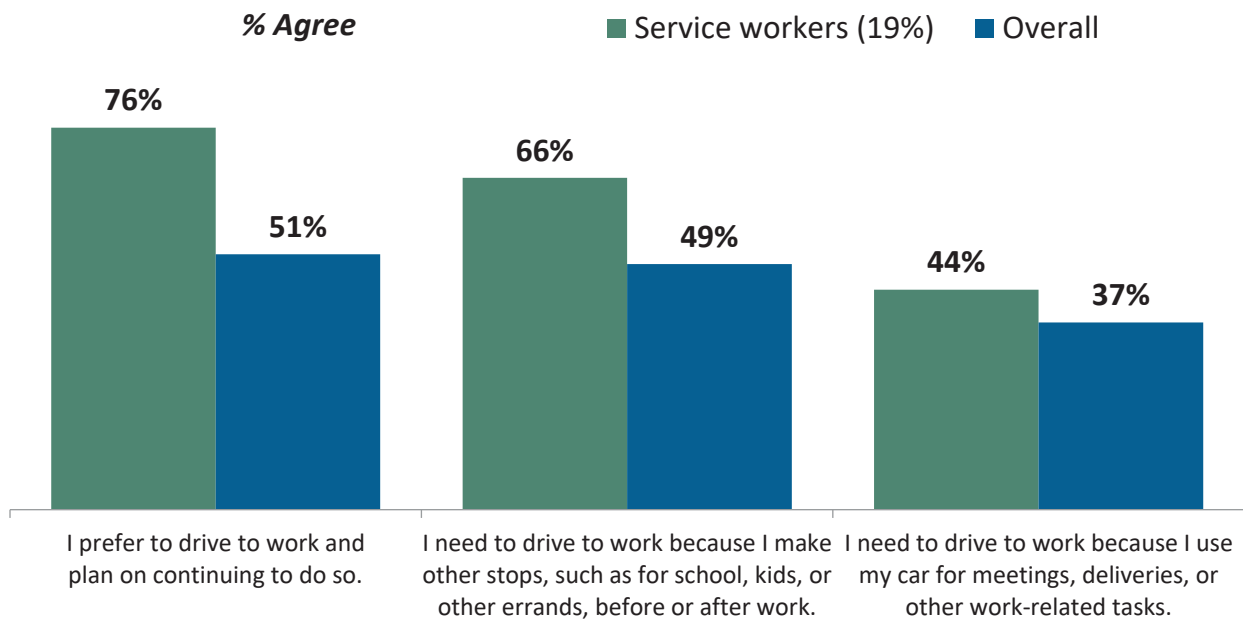
Numbers in parentheses represent the percentage of the sample for each respective subgroup.

Q1. Thinking back to last week, what mode of transportation did you use to commute TO downtown Palo Alto?



# Driving Attitudes Among Service Workers

Compared to respondents overall, service workers are more likely to prefer to drive to work and plan on continuing to do so. They also express that they need to drive for other stops or work related tasks more so than respondents overall.



Q13-26. Do you agree or disagree with the following?

EMC  
16-5932 Palo Alto TMA | 51

## Driving and Transit Attitudes Among Service Workers

Service workers have similar attitudes towards transit and transit alternatives as the population overall, but are more likely to say they “need” to drive. Expense also appears to be a concern.

	Service Workers (19%)	Overall (100%)
<b>I prefer to drive to work and plan on continuing to do so.</b>	<b>76%</b>	<b>51%</b>
<b>I need to drive to work because I make other stops, such as for school, kids, or other errands, before or after work.</b>	<b>66%</b>	<b>49%</b>
I need to drive to work because I use my car for meetings, deliveries, or other work-related tasks.	44%	37%
I would take transit to work if the service was faster or more frequent.	42%	41%
I would take transit to work if the schedule was better and it ran when I needed it.	40%	39%
<b>I would take transit to work if it was less expensive or I was given a discounted transit pass.</b>	<b>38%</b>	<b>29%</b>
I would rather not drive to work, but I have no other good options.	37%	33%
I am interested in learning more about commuting options and incentives that may be available to me.	37%	41%
<b>I would take transit if parking at transit was less expensive.</b>	<b>32%</b>	<b>25%</b>
I would take a carpool or vanpool to work if it was convenient, safe, and easy to find.	32%	29%
I would take transit to work if it was easier to get to a transit stop.	27%	32%
I would take transit if parking at transit stops was available.	25%	26%
I would walk or bike to work if there were better paths, trails, and sidewalks.	22%	25%
I would bike to work if there was better parking or storage options for my bike at my work location.	18%	15%

% Agree  
**Bolded numbers and color bars are of particular interest.**

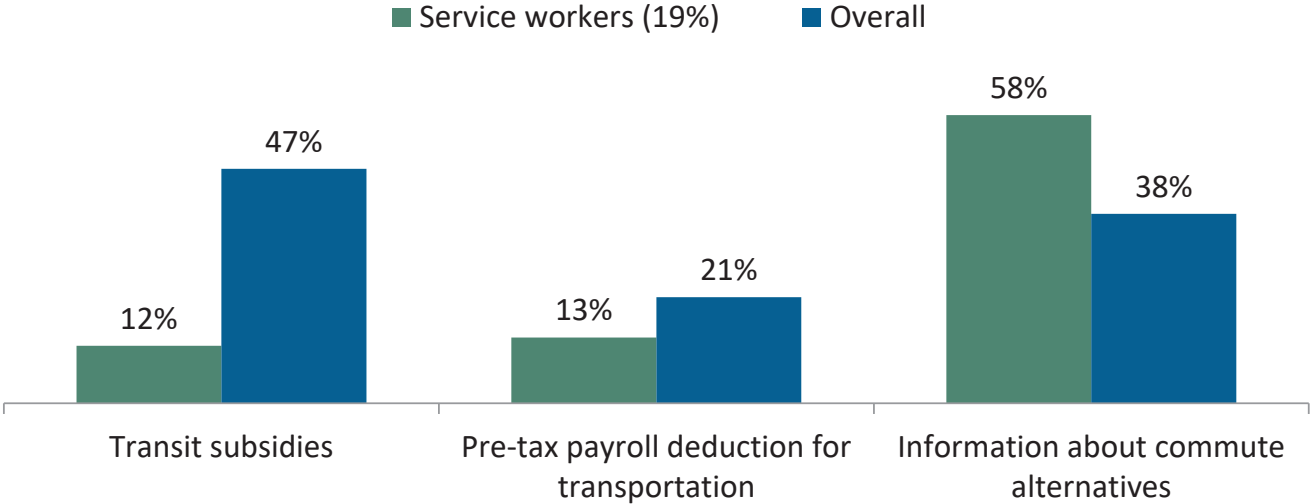
Q13-26. Do you agree or disagree with the following?

EMC  
16-5932 Palo Alto TMA | 52

# Employer Transit Benefits

*Service workers receive fewer transit subsidies and payroll deductions for transportation from their employers than workers overall. 58% report receiving information about commute alternatives from their employer.*

**Does your employer offer any of the following?**

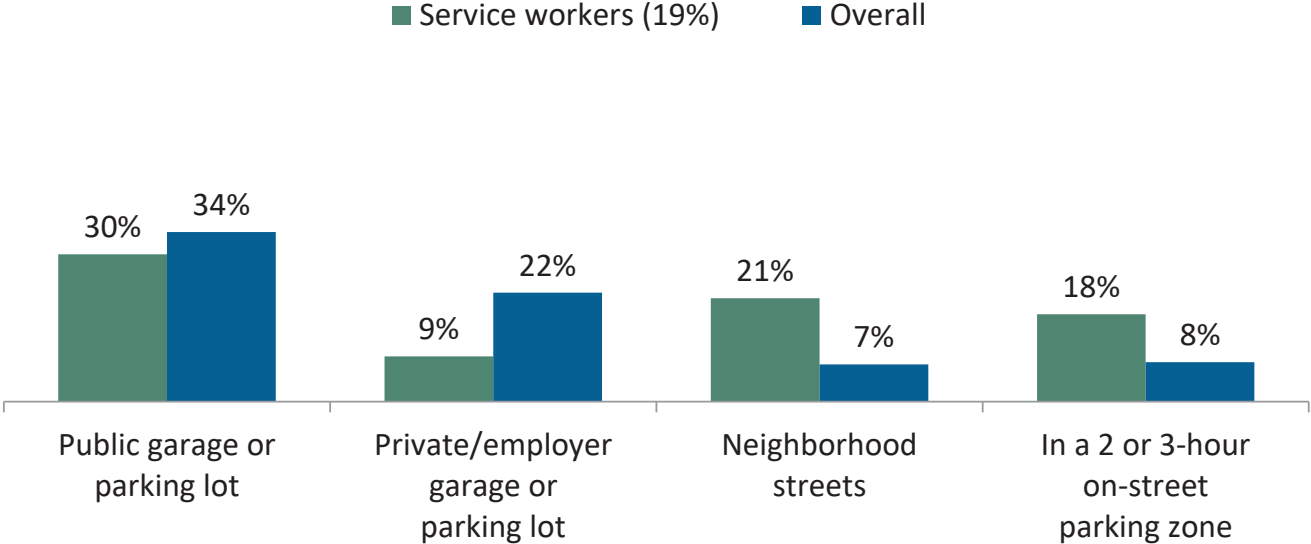


4. Does your employer offer any of the following? (Multiple answers accepted)

# Parking Among Service Workers

*Service workers park on neighborhood streets and in 2-3 hour parking zones more than other workers.*

**Where do you typically park when you drive to work?**



5. Where do you typically park when you drive to work?

# Conclusions



## Conclusions

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- ▶ Mode share has not changed significantly since 2015 and has stayed steady with an SOV rate of 57% and a transit rate of 19%.
- ▶ Employer transit benefits like transit subsidies and pre-tax payroll deductions for transportation appear to have an impact in making SOV trips lower and transit use higher.
- ▶ Service workers are a potential target for decreasing SOV trips.
- ▶ About half of respondents have heard of the TMA.





# Mode Share Trend Data

## Mode Share Over Time

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	Business Type								
	Government			Technology			Service		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
<b>Drove alone</b>	59%	57%	-2%	33%	26%	-7%	73%	80%	+8%
<b>Caltrain</b>	20%	23%	+3%	31%	29%	-1%	4%	2%	-1%
<b>Walk/Bike</b>	6%	7%	+1%	26%	28%	+3%	8%	11%	+3%
<b>Carpooled</b>	6%	4%	-1%	4%	8%	+4%	6%	4%	-3%
<b>Worked Remotely/Other</b>	10%	8%	-1%	7%	8%	+1%	10%	3%	-7%

	Business Type								
	Light office								
	2015	2016	Diff.						
<b>Drove alone</b>	71%	74%	+3%						
<b>Caltrain</b>	11%	9%	-1%						
<b>Walk/Bike</b>	9%	3%	-6%						
<b>Carpooled</b>	5%	4%	-0%						
<b>Worked Remotely/Other</b>	4%	9%	+5%						



# Mode Share Over Time

	Employee size								
	1-25			26-100			101+		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
Drove alone	74%	68%	-6%	61%	78%	+17%	41%	34%	-7%
Caltrain	7%	14%	+7%	14%	3%	-11%	25%	27%	+1%
Walk/Bike	7%	6%	-1%	12%	7%	-4%	22%	23%	+1%
Carpooled	5%	7%	+2%	6%	3%	-3%	4%	7%	+3%
Worked Remotely/Other	8%	5%	-2%	8%	8%	+1%	7%	8%	+2%

	Miles driven to work								
	<1 to 10			10 to 30			30+		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
Drove alone	52%	55%	+3%	69%	66%	-3%	40%	45%	+5%
Caltrain	6%	5%	-1%	19%	20%	+1%	39%	42%	+2%
Walk/Bike	30%	28%	-3%	1%	0%	-0%	1%	0%	-1%
Carpooled	4%	6%	+1%	5%	5%	-0%	5%	4%	-1%
Worked Remotely/Other	7%	7%	-0%	6%	8%	+2%	15%	9%	-6%



# Mode Share Over Time

	Home Geography								
	San Francisco			Peninsula			South Bay		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
Drove alone	18%	10%	-8%	63%	66%	+3%	65%	69%	+4%
Caltrain	70%	74%	+4%	16%	11%	-4%	20%	16%	-4%
Walk/Bike	1%	0%	-1%	12%	13%	+1%	3%	3%	+1%
Carpooled	1%	3%	+3%	3%	5%	+2%	6%	7%	+1%
Worked Remotely/Other	10%	12%	+2%	7%	5%	-2%	6%	5%	-1%

	Home Geography								
	Palo Alto			East Bay					
	2015	2016	Diff.	2015	2016	Diff.			
Drove alone	41%	36%	-5%	76%	79%	+3%			
Caltrain	0%	1%	+1%	3%	5%	+2%			
Walk/Bike	48%	47%	-2%	0%	0%	-0%			
Carpooled	5%	8%	+3%	9%	5%	-4%			
Worked Remotely/Other	5%	8%	+3%	12%	10%	-2%			



# Mode Share Over Time

	Age								
	18-29			30-39			40-49		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
Drove alone	43%	36%	-7%	51%	47%	-4%	67%	69%	+2%
Caltrain	21%	21%	-0%	23%	22%	-1%	11%	11%	-1%
Walk/Bike	26%	29%	+3%	13%	15%	+2%	7%	7%	+1%
Carpooled	4%	7%	+3%	5%	8%	+4%	6%	3%	-3%
Worked Remotely/Other	5%	6%	+1%	8%	8%	-0%	9%	10%	+1%

	Age								
	50-64			65+					
	2015	2016	Diff.	2015	2016	Diff.			
Drove alone	68%	76%	+8%	81%	69%	-12%			
Caltrain	7%	12%	+4%	5%	8%	+4%			
Walk/Bike	10%	4%	-6%	5%	6%	+1%			
Carpooled	4%	3%	-1%	6%	5%	-1%			
Worked Remotely/Other	10%	5%	-5%	3%	11%	+9%			



# Mode Share Over Time

	Parents								
	Parent			Not a parent					
	2015	2016	Diff.	2015	2016	Diff.			
Drove alone	66%	70%	+3%	50%	50%	-0%			
Caltrain	11%	9%	-2%	20%	19%	-1%			
Walk/Bike	8%	8%	-0%	19%	18%	-1%			
Carpooled	7%	4%	-3%	4%	7%	+2%			
Worked Remotely/Other	8%	10%	+2%	7%	7%	-0%			

	Work Schedule								
	Required to start at a specific time			My work schedule is flexible			My schedule varies		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
Drove alone	64%	69%	+5%	49%	43%	-6%	63%	66%	+2%
Caltrain	14%	15%	+1%	20%	19%	-1%	11%	11%	-0%
Walk/Bike	8%	7%	-2%	19%	22%	+3%	15%	8%	-7%
Carpooled	5%	3%	-2%	5%	8%	+2%	2%	6%	+4%
Worked Remotely/Other	9%	6%	-2%	7%	8%	+2%	8%	9%	+1%



# Mode Share Over Time

	Job Type								
	Full time			Part time			More than one job		
	2015	2016	Diff.	2015	2016	Diff.	2015	2016	Diff.
<b>Drove alone</b>	53%	52%	-0%	75%	69%	-6%	66%	77%	+11%
<b>Caltrain</b>	19%	19%	-0%	3%	3%	-0%	4%	4%	-0%
<b>Walk/Bike</b>	16%	15%	-1%	8%	15%	+6%	11%	10%	-2%
<b>Carpooled</b>	5%	6%	+1%	7%	7%	+0%	5%	3%	-2%
<b>Worked Remotely/Other</b>	7%	7%	+0%	6%	6%	+0%	14%	7%	-7%

	Peak Hour Commuters								
	Yes (6-9am)			No					
	2015	2016	Diff.	2015	2016	Diff.			
<b>Drove alone</b>	54%	52%	-2%	57%	64%	+7%			
<b>Caltrain</b>	23%	21%	-2%	7%	6%	-1%			
<b>Walk/Bike</b>	11%	13%	+3%	22%	17%	-5%			
<b>Carpooled</b>	6%	6%	+0%	3%	4%	+1%			
<b>Worked Remotely/Other</b>	6%	8%	+2%	12%	9%	-2%			



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