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Downtown Palo Alto Mode Share Survey

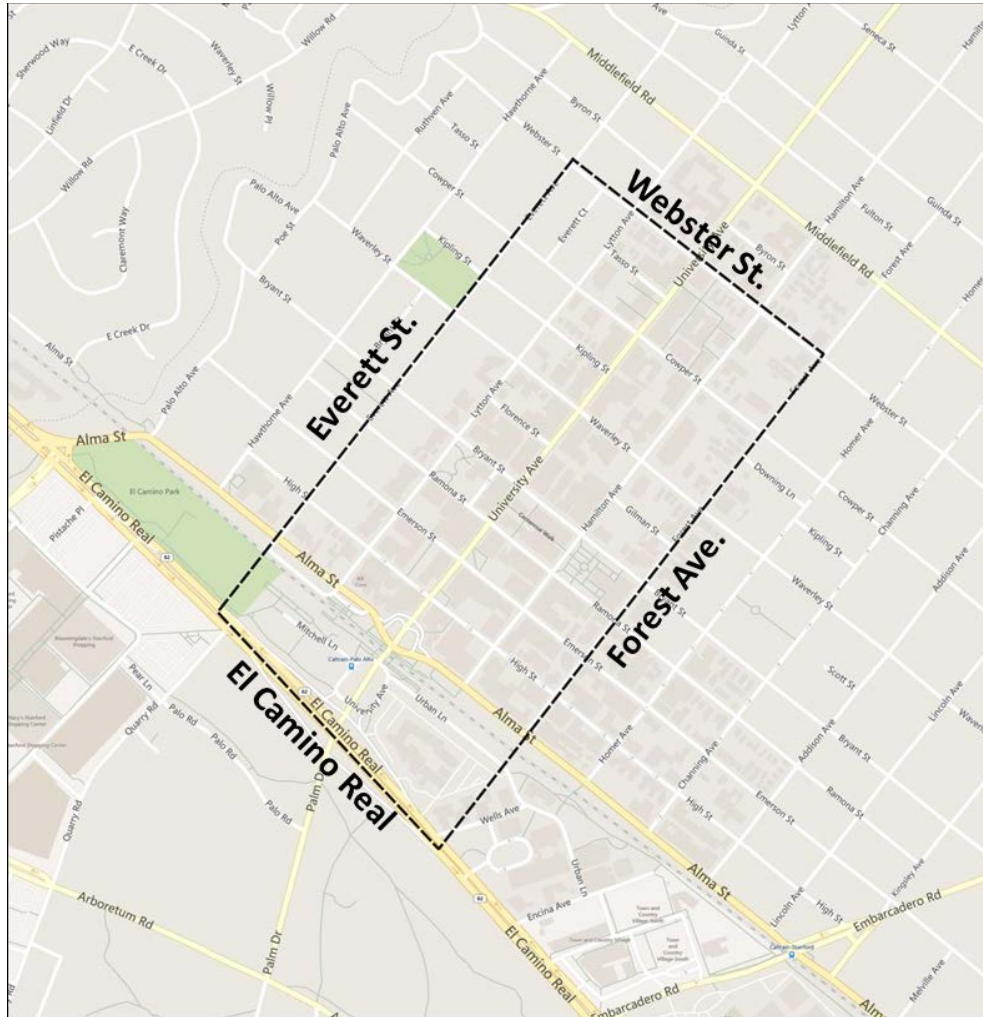
June 2017

Methodology

- The survey methodology of the 2017 mode share survey follows the same approach as the 2016 and 2015 mode share surveys.
- 892 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 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.
- Surveys were conducted online, by phone, and by paper formats. Upon request, paper surveys were offered in Spanish.
- Data collection began May 11th and ended the week of June 26th. 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 Downtown Palo Alto survey conducted in 2016 among 829 employees and in 2015 among 1,173 employees.

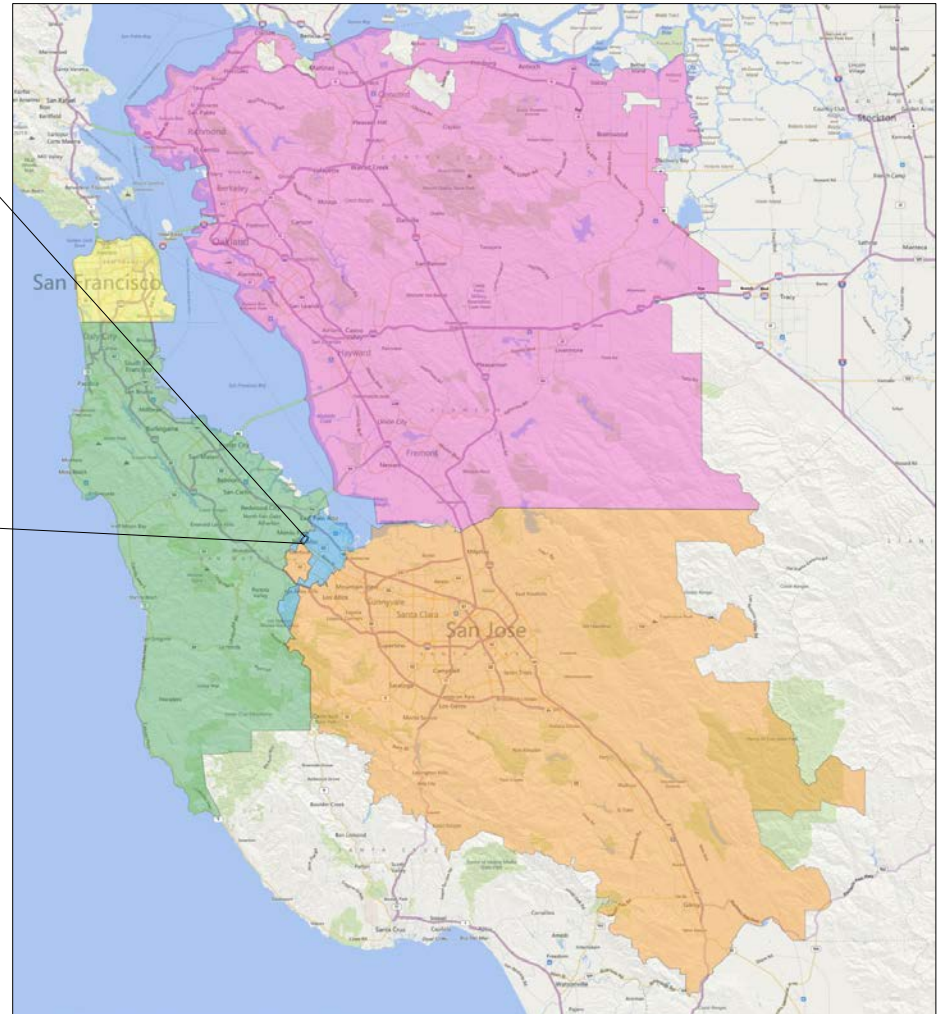
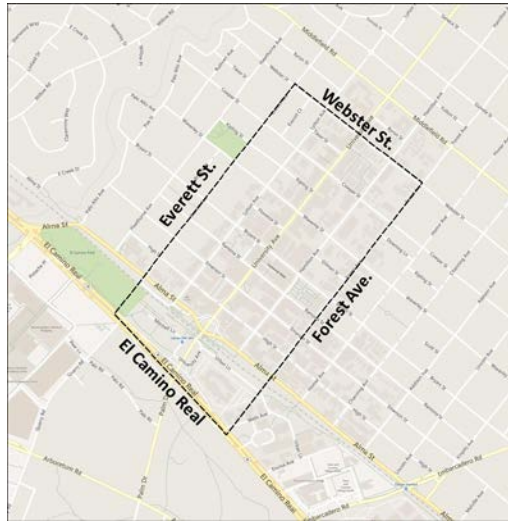
Downtown Palo Alto

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	2017
Region	%	%	%
San Francisco	10%	10%	8%
Peninsula	20%	26%	23%
South Bay	33%	26%	33%
Palo Alto	22%	19%	17%
East Bay	7%	10%	10%
Else	8%	9%	9%

Overall Key Findings

- The 2017 survey data shows that focusing on service and light office workers and providing transportation benefits is making an impact.
- Parking permits encourage SOV trips. If parking permits become less accessible, commuters may be motivated to look for commute alternatives.
- Ridesharing is emerging as a more popular commute mode. Additionally, more SOV commuters are willing to carpool or vanpool to work if it was convenient, safe, and easy to find someone to carpool with.

Mode Share

Mode Share Overview

To collect commute mode share data, respondents were asked – “Last week, what mode of transportation did you use each day to commute to downtown Palo Alto?”

Respondents chose one mode of transportation per day. If the respondent used multiple modes, they were asked to mark the mode that covered the longest distance of their trip.

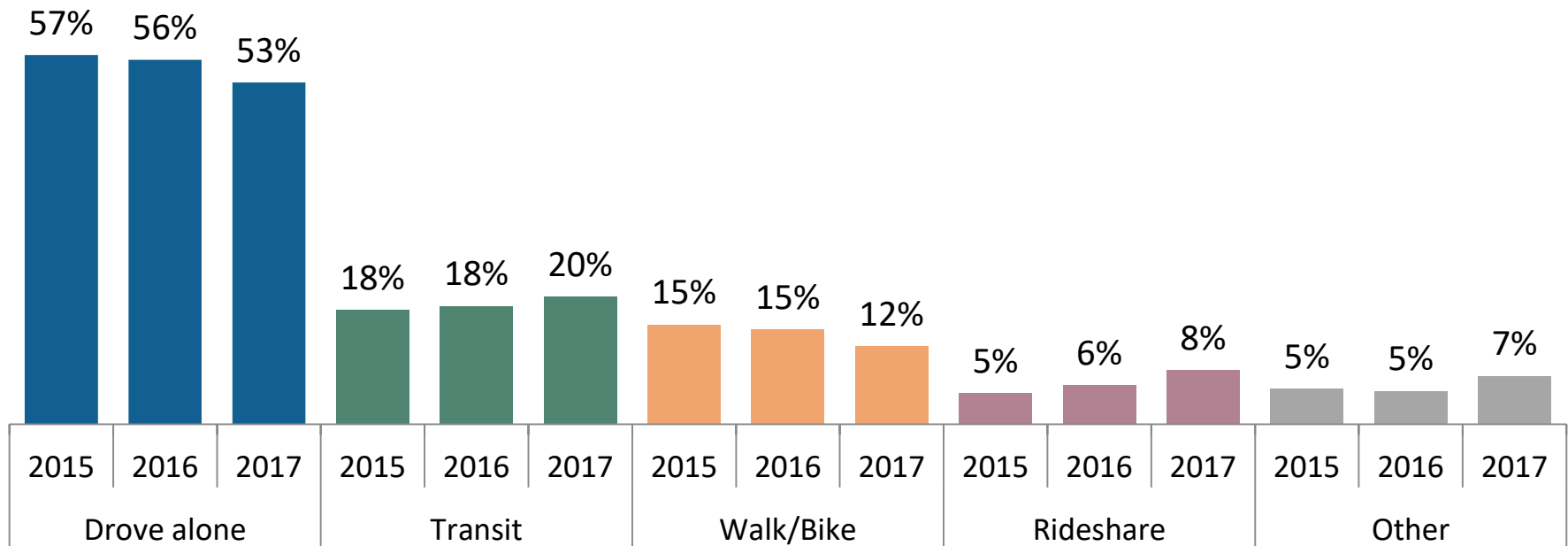
For this report, transportation modes were grouped into the following categories:

Category	Commute mode options provided
Drove alone	Drove alone, Motorcycle/Moped
Transit	Caltrain, VTA, SamTrans, Stanford Marguerite Shuttle, Palo Alto Shuttles, AC Transit, Company-sponsored shuttle
Walk/Bike	Walked, Rode a bicycle
Rideshare	Carpooled (1 or more family/friends), Carpooled (through service like Scoop or Karma or an employer match system), Lyft, Uber/rideshare service
Other	Worked remotely, Other

Mode Share Overall

In 2017, commuters driving alone has decreased, use of transit has increased slightly, and rideshare has increased.

In 2017, 53% of all trips taken in the previous week were workers driving alone.



To compare overall mode share over time for all three surveys, datasets are weighted so that worksite type and worksite size is held constant.

Worksite Type

Worksite Type Key Findings

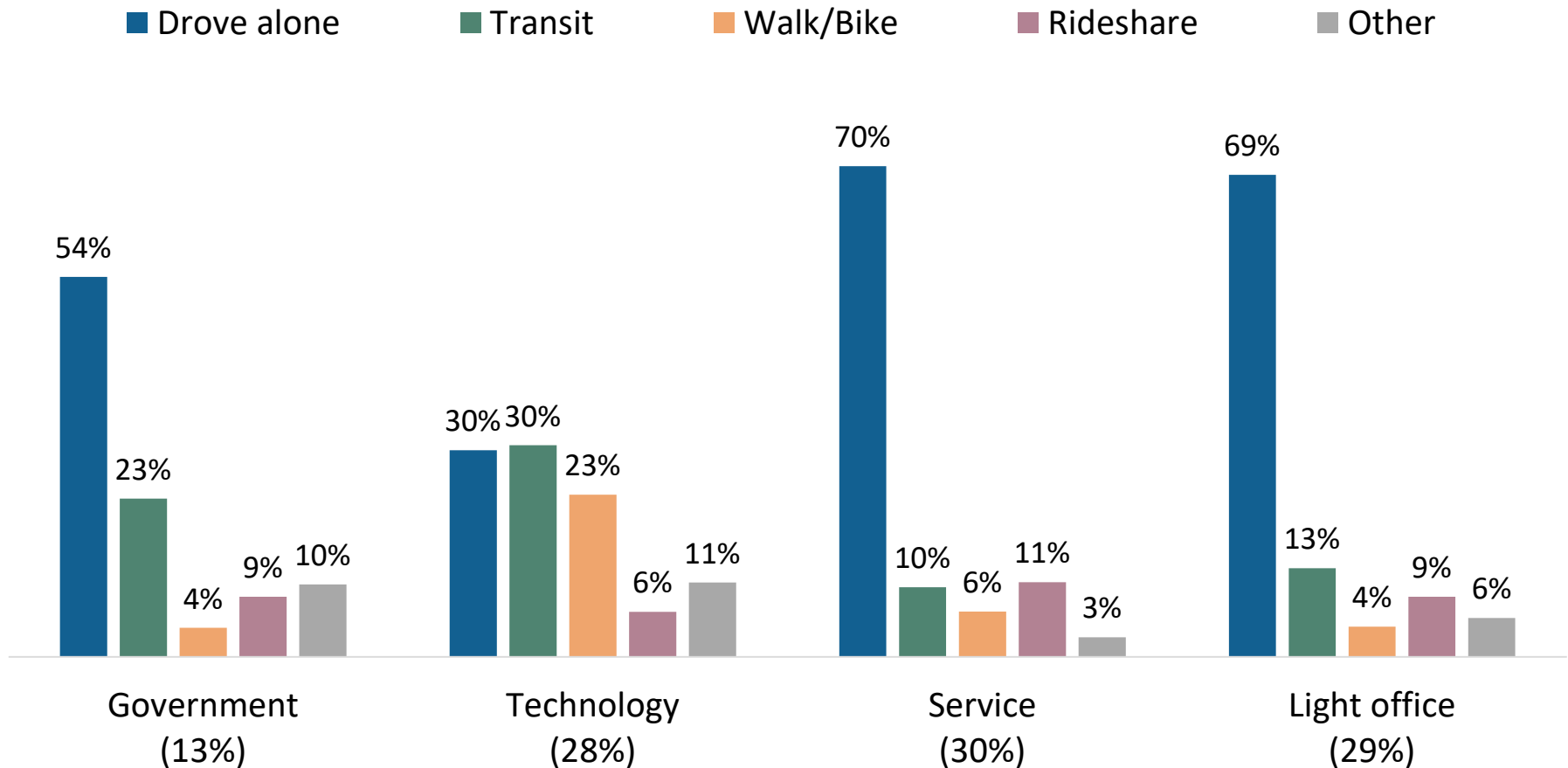
- Worksites in downtown Palo Alto can be grouped into 4 general categories:

Category	% of Sample	Description
Government	13%	Work for the City of Palo Alto
Technology	28%	Work in a tech related industry
Service	30%	Work in restaurants, retail, lodging, salons, etc.
Light Office	29%	Work for a law firm, insurance, realtor, eye care, dentist, etc.

- In 2015 and 2016, surveys found that those working in service and light office worksites have the highest SOV rates, followed by government workers.
- The 2017 data shows that service worksites had the largest reduction in SOV rates, decreasing from 80% to 70%. Increased use of transit and ridesharing are responsible for the decrease.

Mode Share by Worksite Type

Those working in service and light office worksites report the highest SOV rates, followed by government. Technology worksites continue to have the lowest SOV rates. Technology and government workers report the highest use of transit.



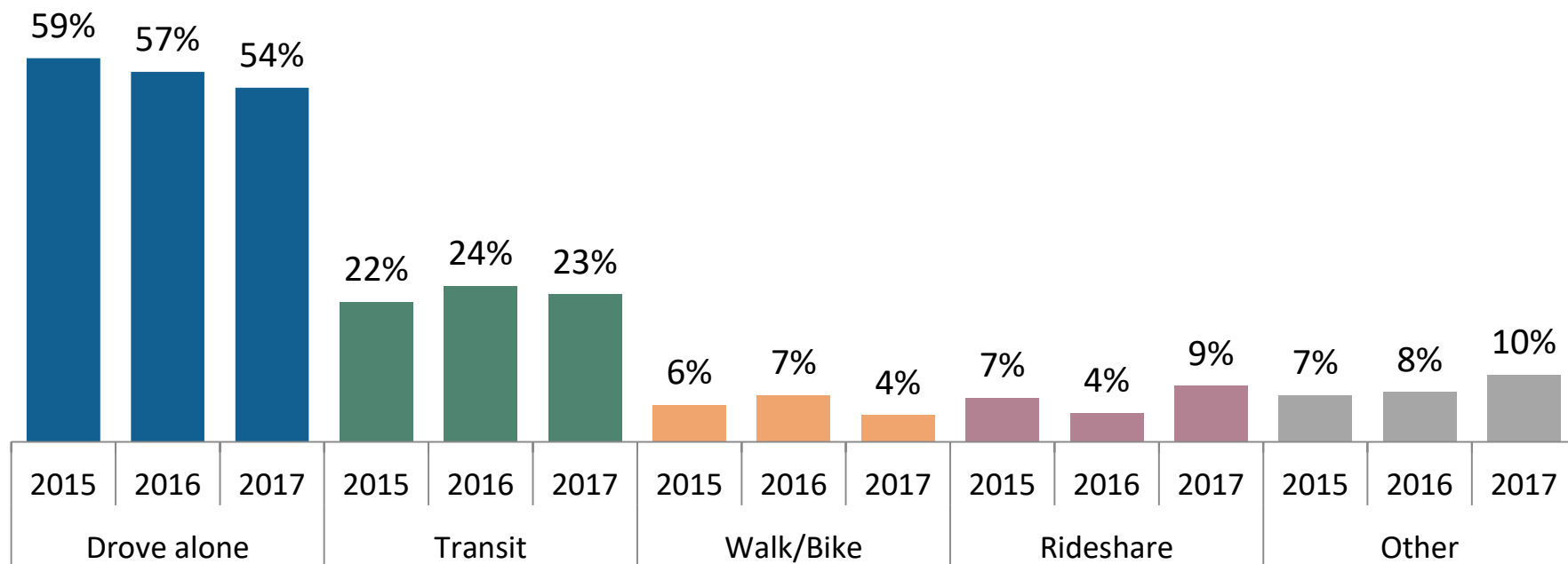
Numbers in parentheses represent the percentage of the sample for each respective subgroup.

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**

Mode Share Among Government Workers

Since 2015, SOV trips among government workers have steadily decreased and use of ridesharing has increased.

Among Government Workers



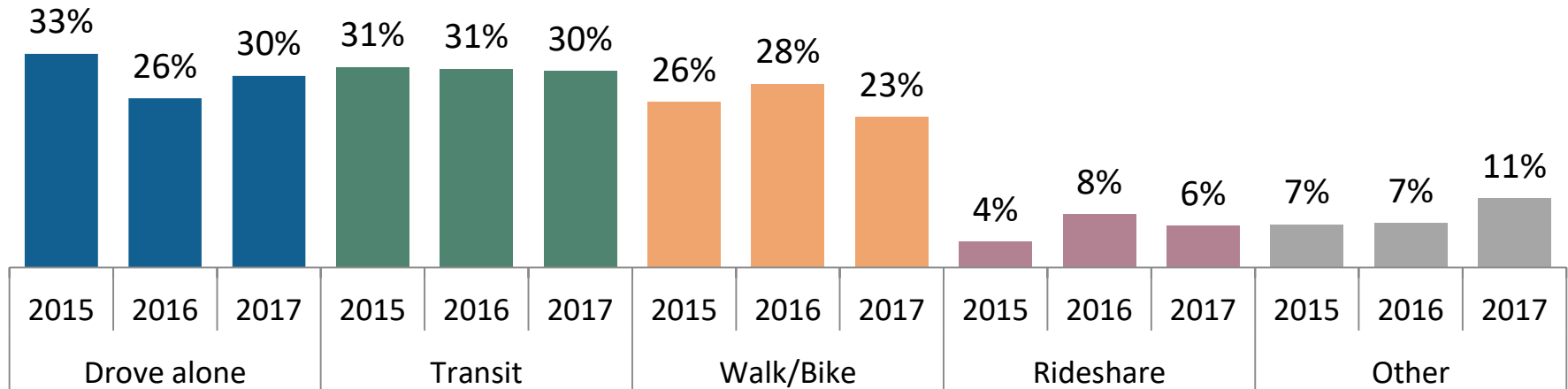
%s reflect the total amount of trips taken during the week

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**

Mode Share Among Technology Workers

SOV trips among technology workers have fluctuated since 2015 but remain low at 30% and use of transit has remained high at 30%.

Among Technology Workers

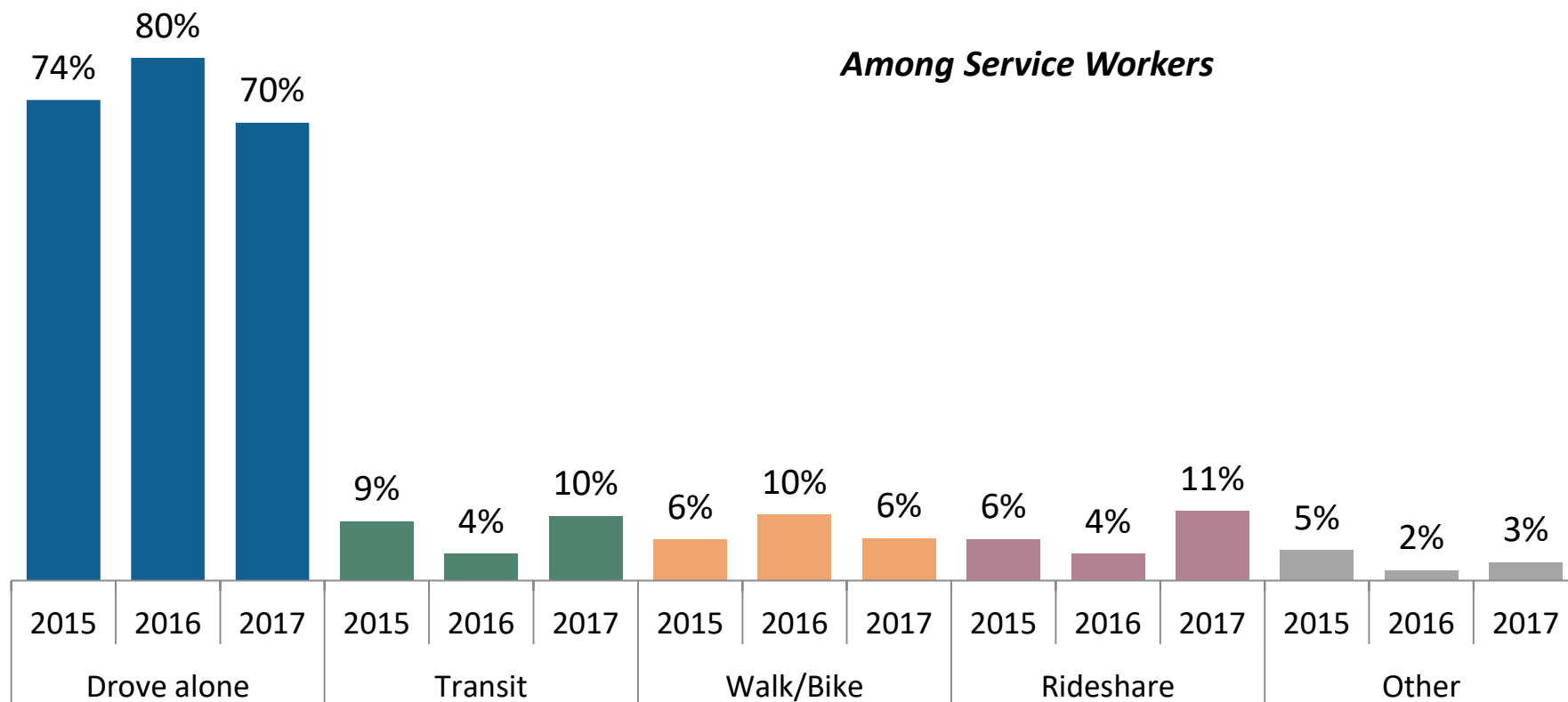


%s reflect the total amount of trips taken during the week

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**

Mode Share Among Service Workers

Compared to 2016, SOV trips among service workers are down 10 percentage points and transit trips have increased by 6 percentage points and rideshare trips by 7 points.



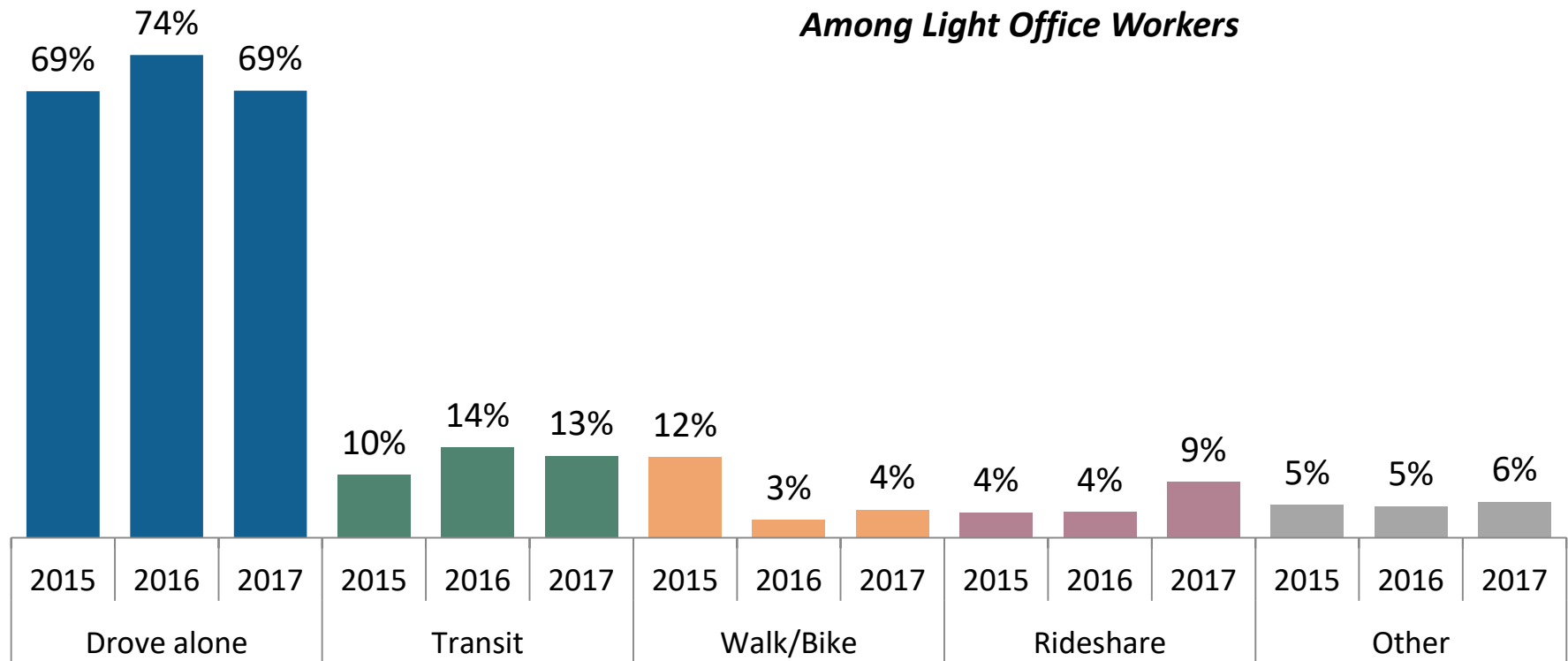
%s reflect the total amount of trips taken during the week

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**



Mode Share Among Light Office Workers

Most workers in a light office environment report driving alone to commute to work. However, compared to 2016, the total share of SOV trips has dropped 5 points and use of ridesharing has doubled.



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

Q1. Last week, what mode of transportation did you use each day to commute TO downtown Palo Alto?

Transit Benefits

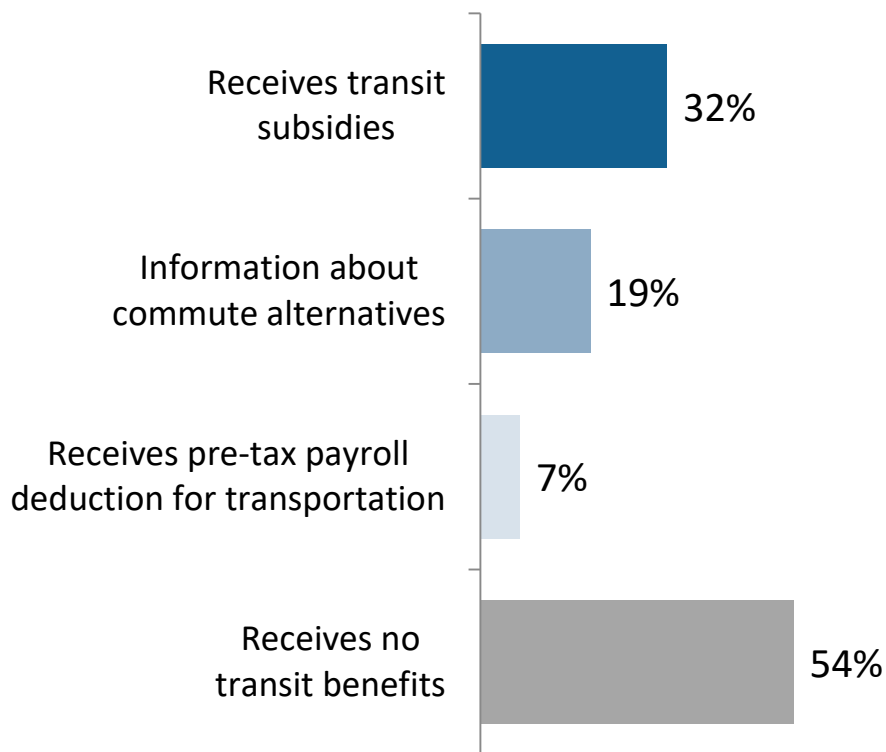
Transit Benefits Key Findings

- Providing workers with transit benefits like a discounted transit pass or a contribution towards transit significantly decreases SOV rates.
- Transit benefits are most common among government and technology worksites and are much lower among service and light office worksites.
- If transit benefits are able to reach those in the service and light office worksites, SOV trips may continue to decrease.

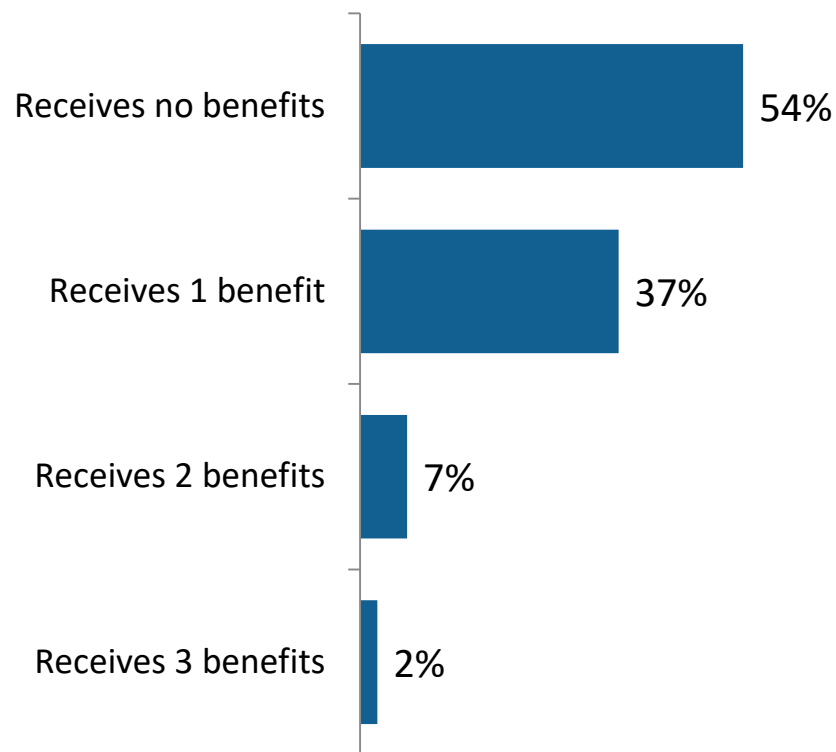
Transit Benefits Received

About a third of workers in downtown Palo Alto receive a transit subsidy like a discounted transit pass or a contribution towards transit use. Among those that do receive transit benefits, most receive a single benefit, as opposed to multiple benefits.

**Do you receive any of the following?
(Multiple answers accepted)**

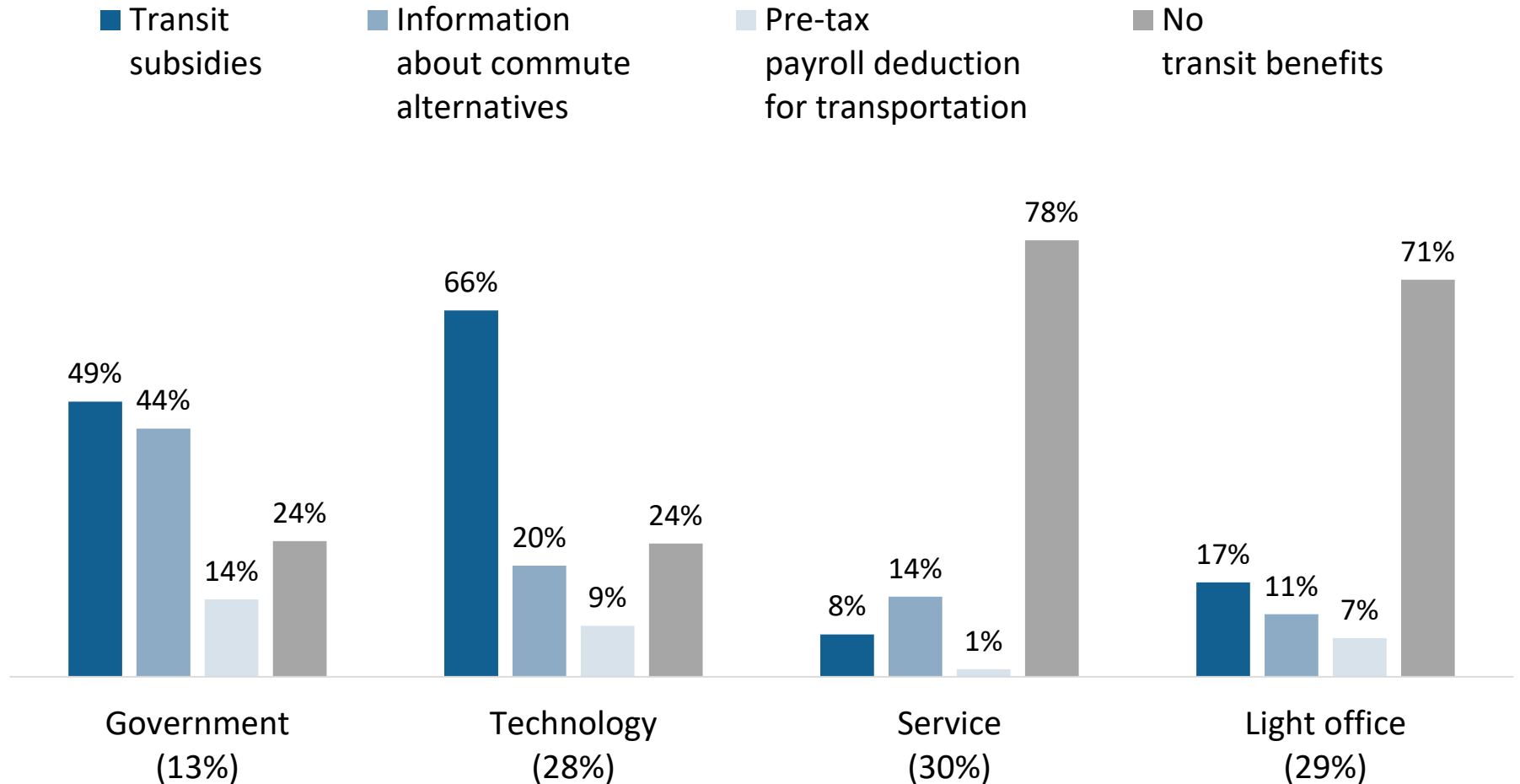


Number of benefits received



Transit Benefits by Worksite Type

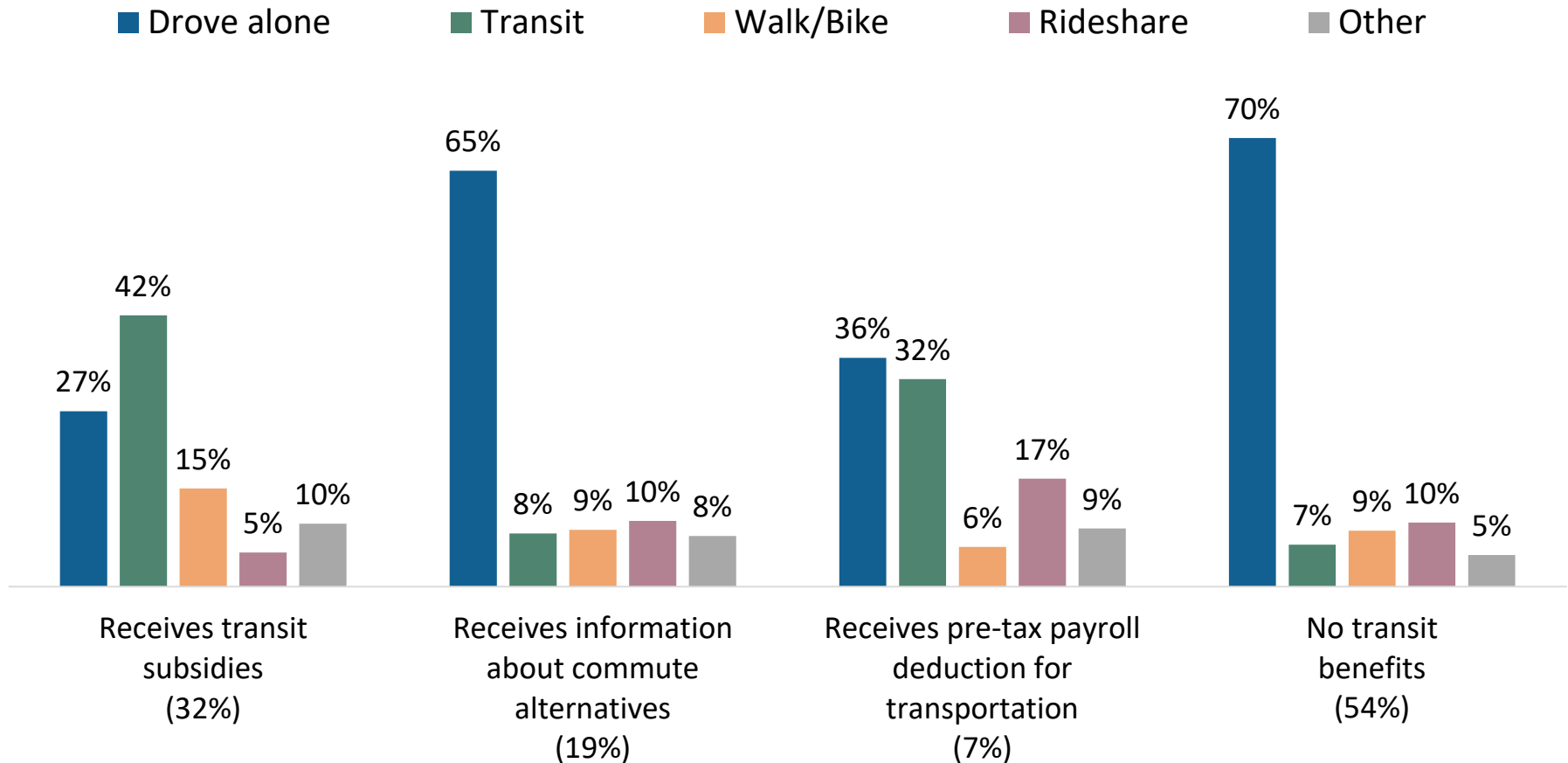
Government and technology workers receive the most transit benefits.



Q4. Do you receive...
(Multiple answers accepted)

Mode Share by Benefits Received

Receiving transit subsidies and/or pre-tax payroll deductions for transportation results in significantly lower SOV rates and higher transit rates. SOV rates are high among those that do not receive any transit benefits.



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

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**

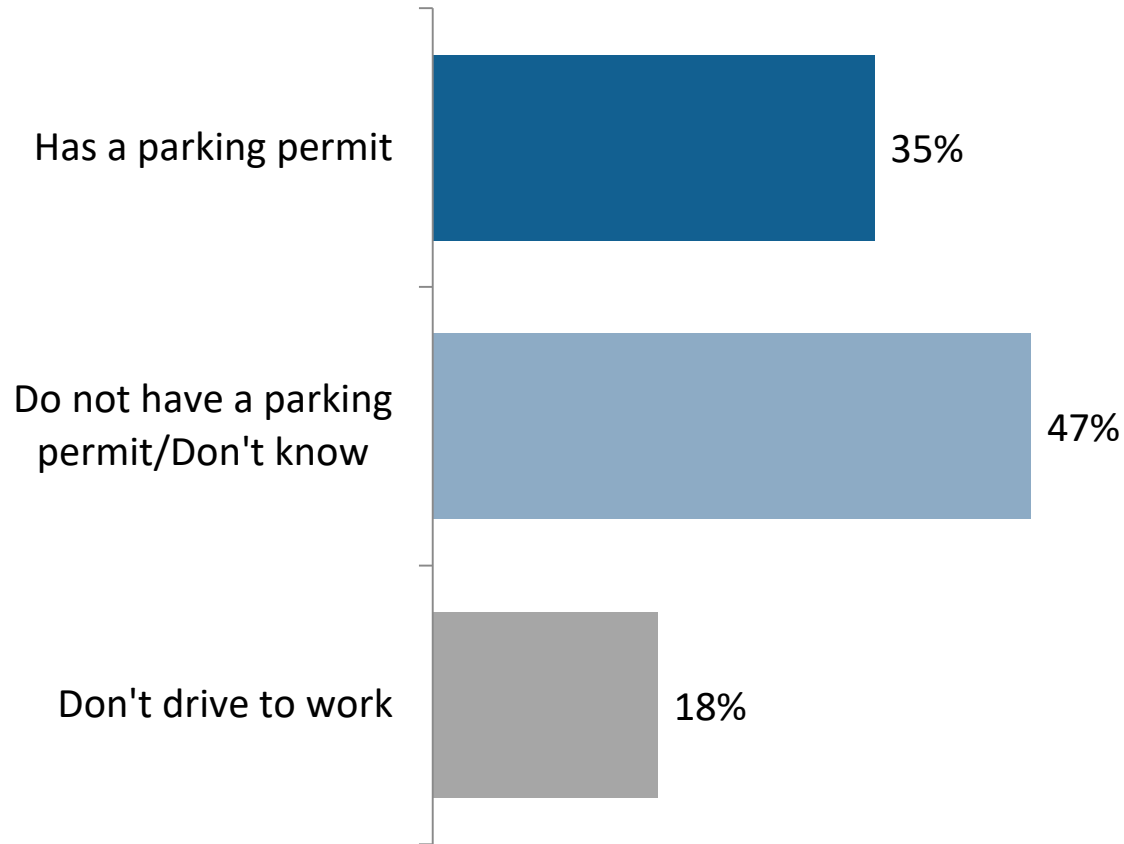
Parking Permits

Parking Permit Key Findings

- About a third of survey respondents (35%) have a residential parking permit for on street parking or a permit to park in a downtown garage.
- Government workers report the highest rates of having a parking permit – followed by light office and service workers.
- SOV rates among those that have a parking permit are much higher than the overall average.
- If parking permits become more expensive, less readily available, or otherwise harder to secure, commuters will likely explore other commute alternatives.

Parking Permits

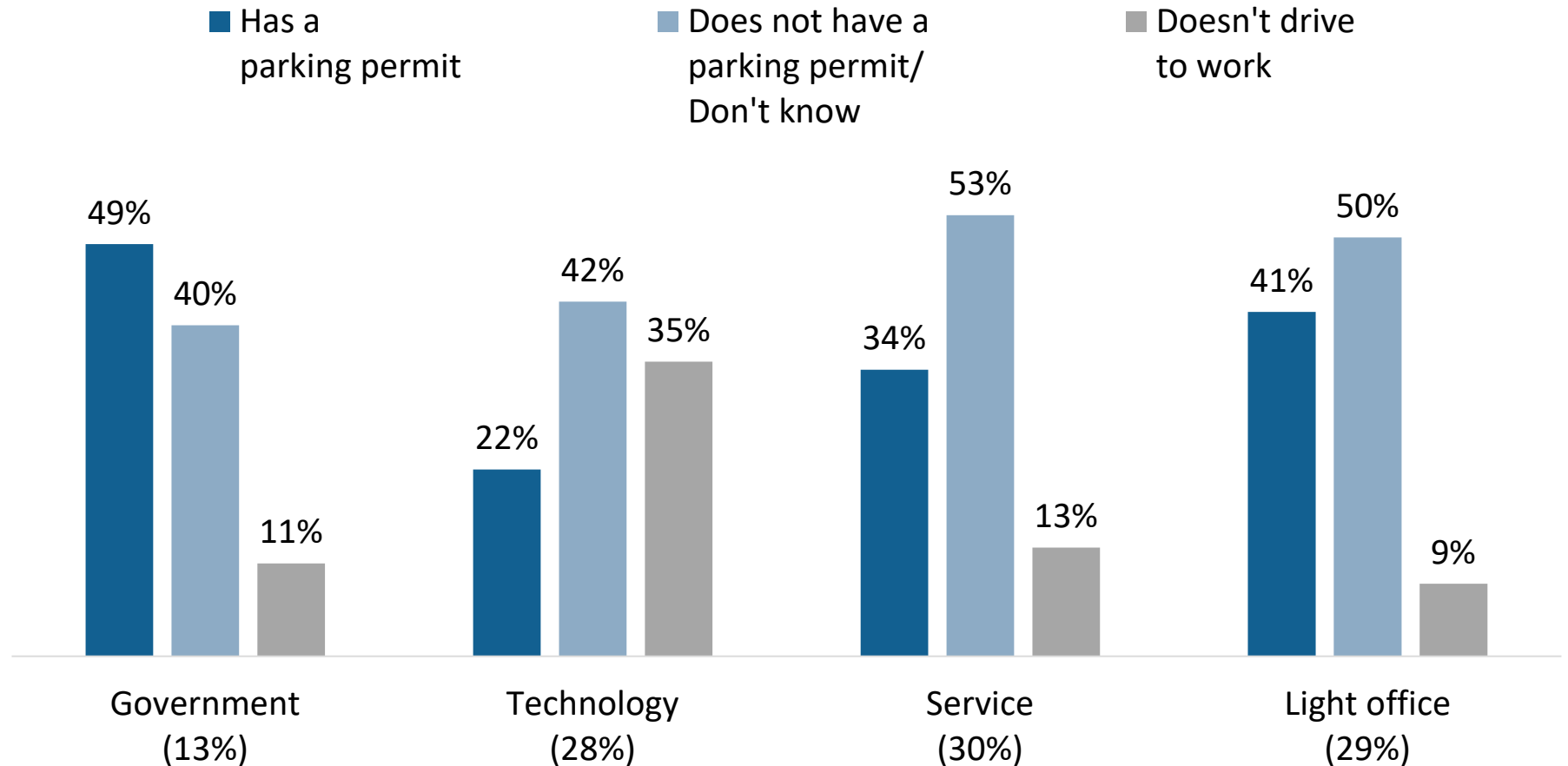
About a third of workers in downtown Palo Alto have a residential parking permit for on street parking or to park in a garage.



Q6. Do you have a Residential Parking Permit for on-street parking or a permit to park in a Downtown garage?

Parking Permits by Worksite Type

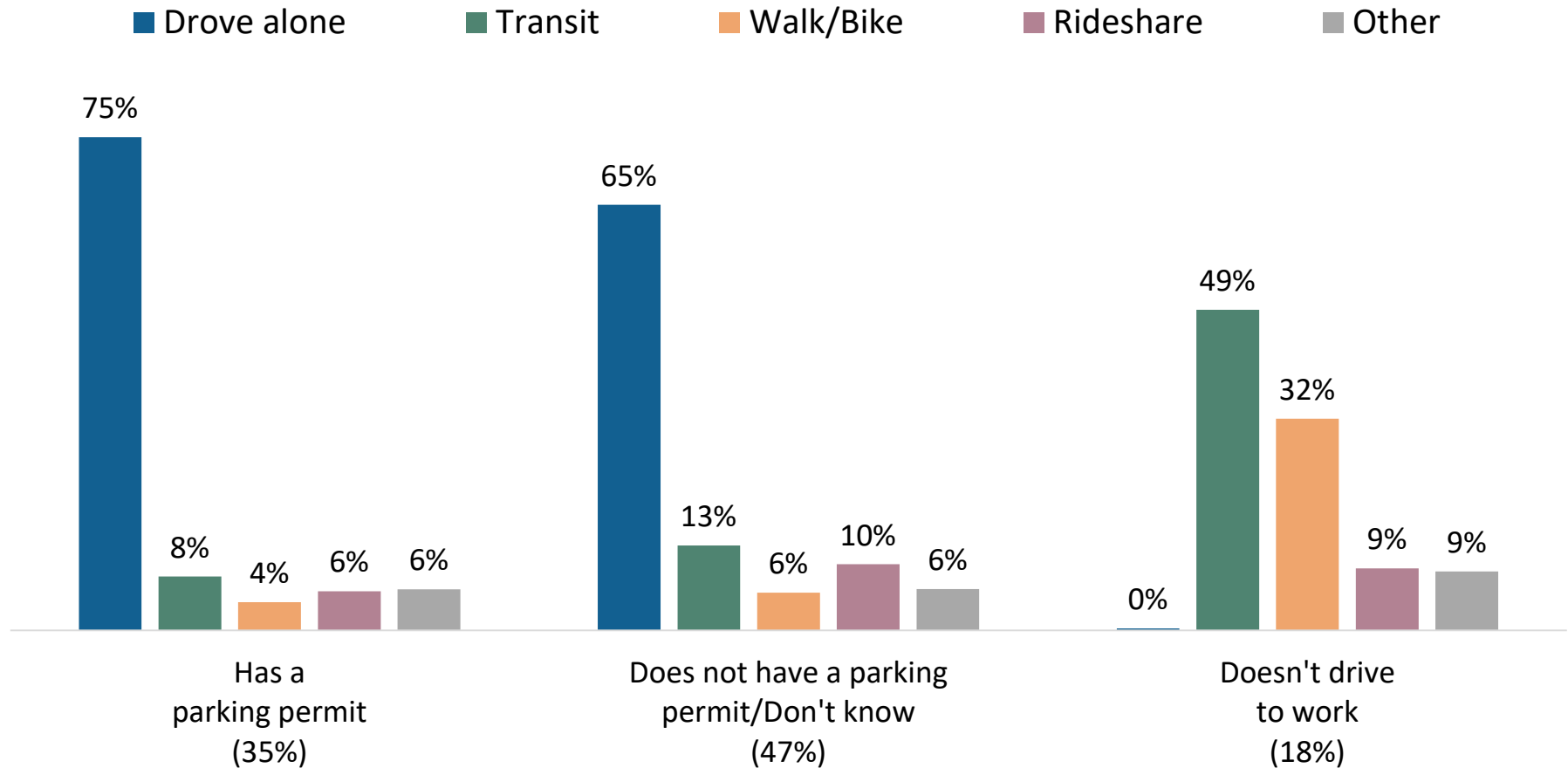
Government and light office workers are most likely to have parking permits; technology workers are the least likely to have parking permits.



Q6. Do you have a Residential Parking Permit for on-street parking or a permit to park in a Downtown garage?

Mode Share by Parking Permit Ownership

Parking permit holders have the highest SOV rates.



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

Q1. Last week, what mode of transportation did you use each day to commute **TO downtown Palo Alto?**

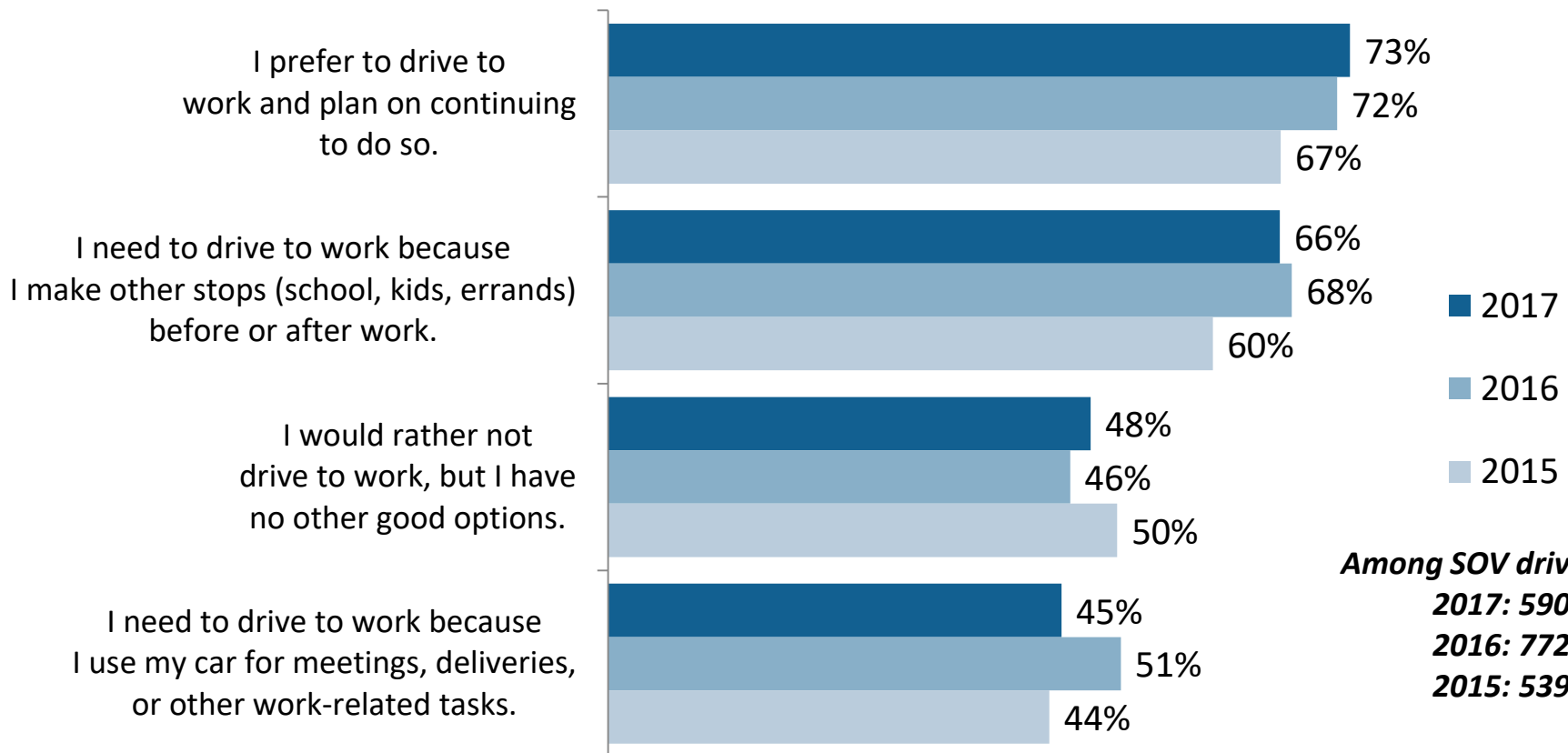


Transportation Attitudes

Driving Attitudes

Driving attitudes among SOV drivers are similar to attitudes seen in 2016 – with many agreeing that they prefer to drive to work and/or that they need to drive to work because they need to make other stops for school, kids, or errands.

**Do you agree or disagree with the following?
(% Agree)**

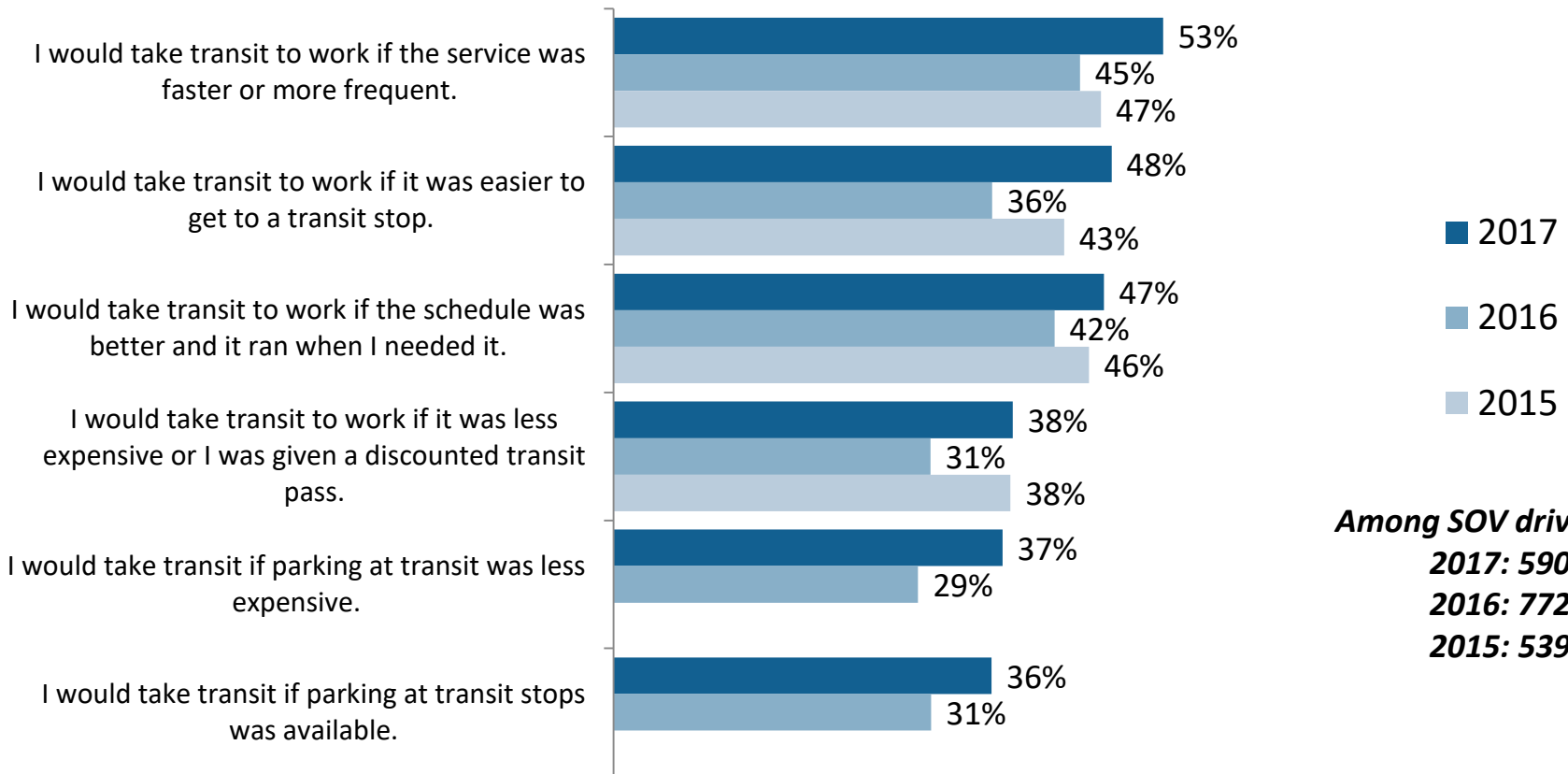


Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

Transit Attitudes

SOV drivers may be more open to taking transit to work compared to previous years. More agree that they would take transit if certain conditions were better, like faster service, or if it was easier to get to a transit stop.

**Do you agree or disagree with the following?
(% Agree)**



Among SOV drivers only
2017: 590n
2016: 772n
2015: 539n

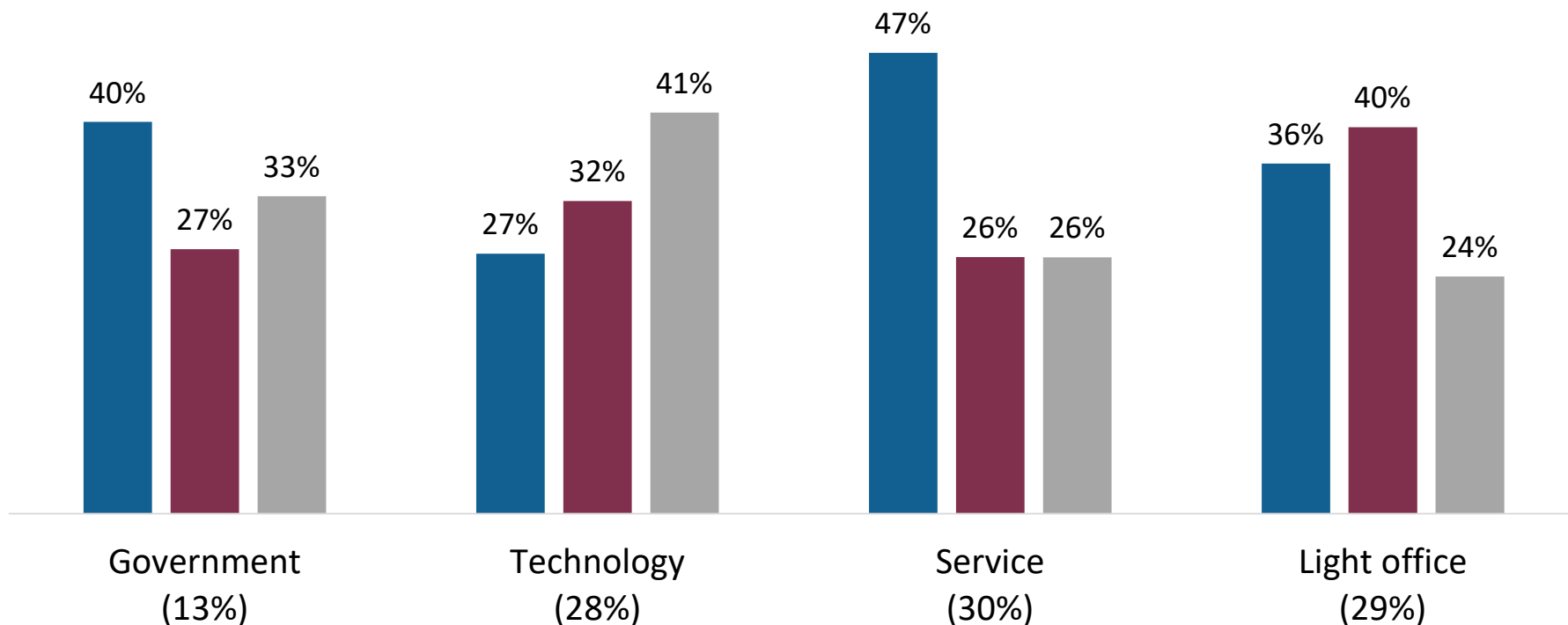
Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

Transit Attitudes by Worksite Type

Nearly half of service workers who drive alone indicate they would take transit to work if it was less expensive or were given a discounted pass.

Agree/Disagree: I would take transit to work if it was less expensive or I was given a discounted transit pass.

■ Agree ■ Disagree ■ Don't know/Does not apply

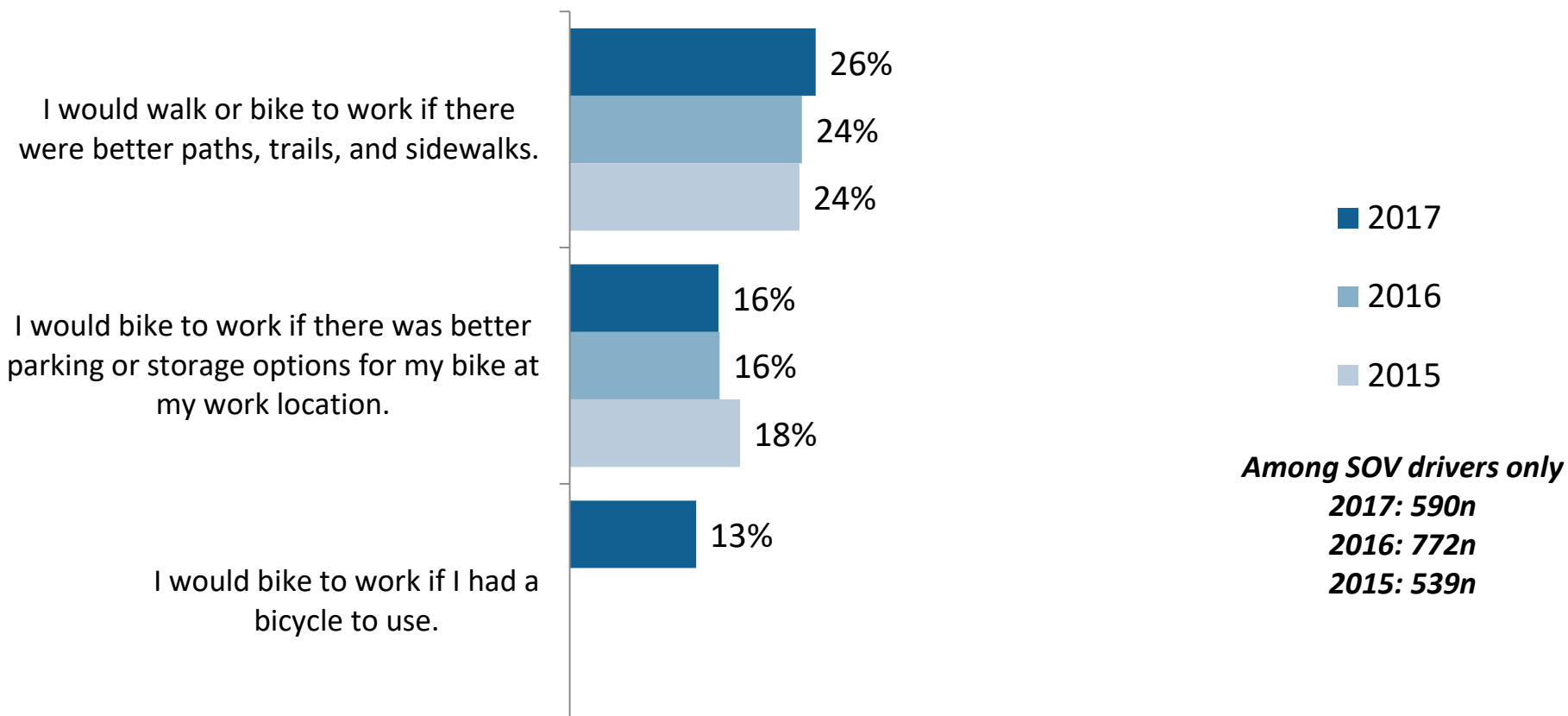


Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements. **Among SOV drivers only, 2017: 590n**

Non-Motorized Attitudes

Among SOV drivers, attitudes towards non-motorized commute options have remained consistent since 2015. About a quarter of SOV drivers would be motivated to walk or bike if there were better paths, trails, and sidewalks.

**Do you agree or disagree with the following?
(% Agree)**

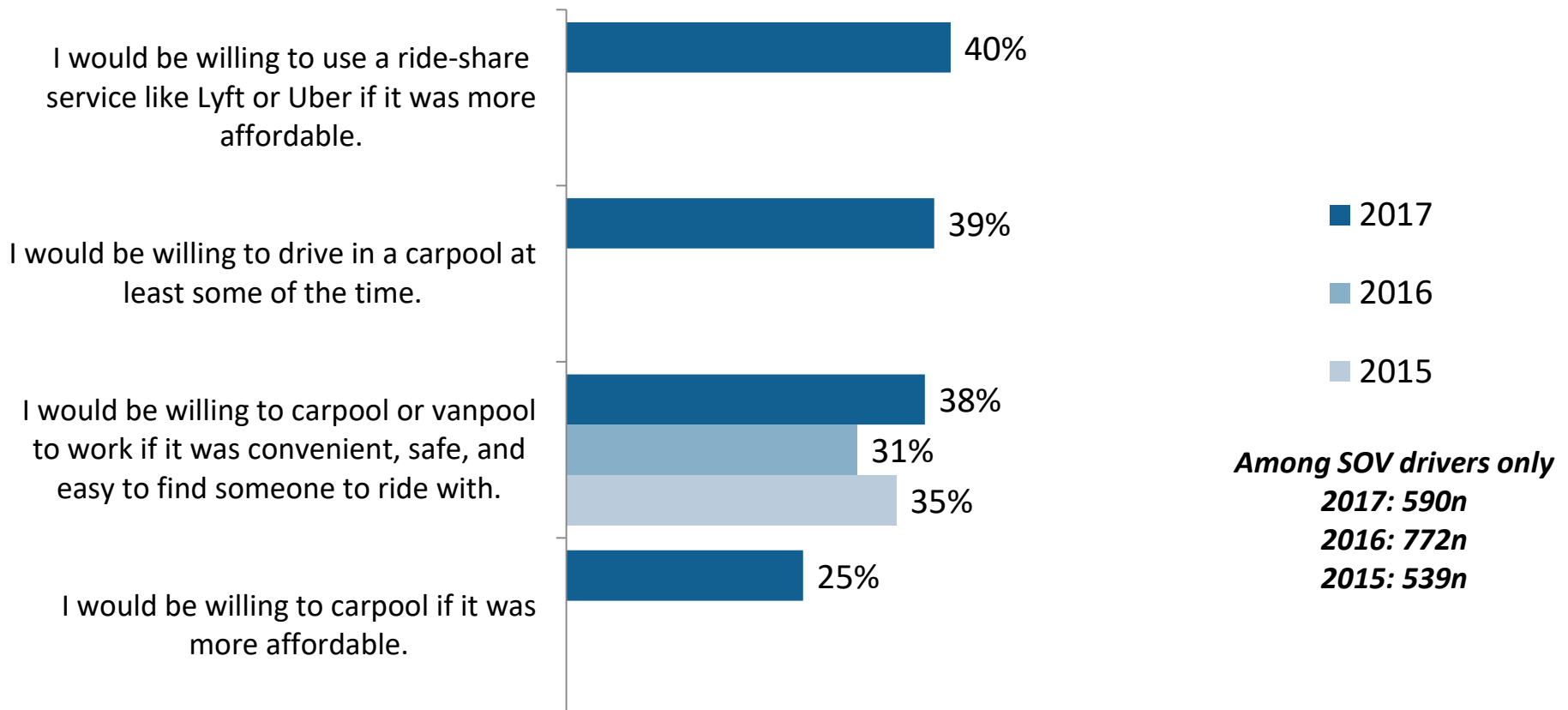


Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

Ridesharing Attitudes

In 2017, 3 new attitudinal questions about ridesharing were added to the survey. A little less than half of SOV drivers agree that they would use a rideshare service if it was more affordable and/or are willing to carpool at least some of the time.

**Do you agree or disagree with the following?
(% Agree)**

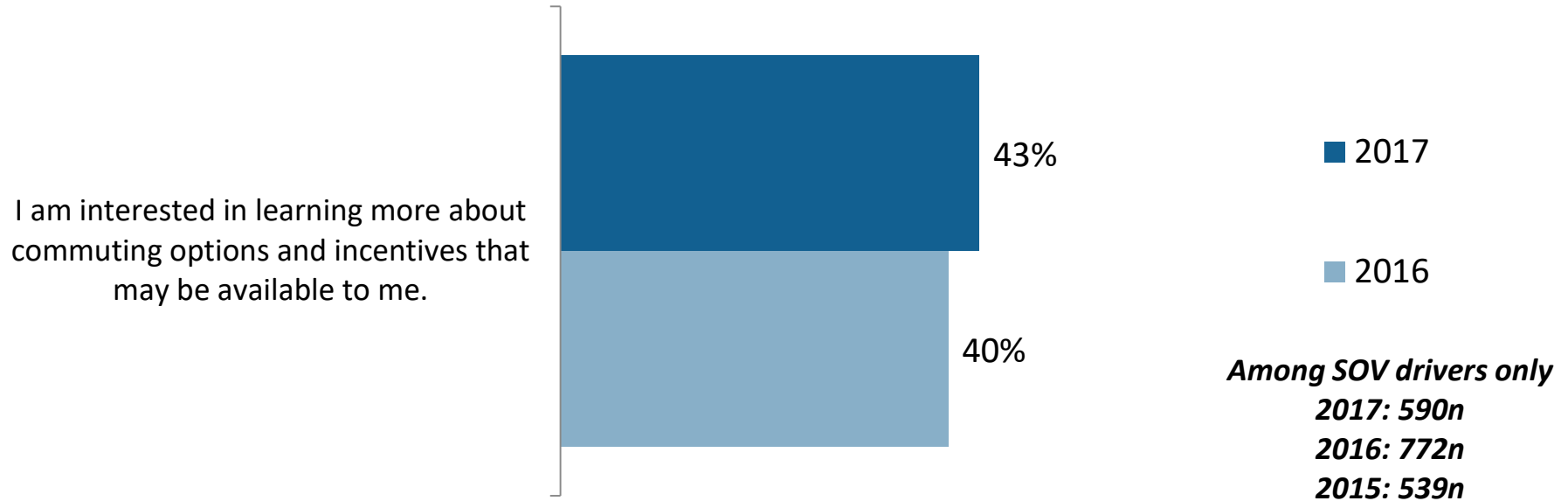


Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

Interest in Learning Commuter Options

Many SOV drivers are interested in learning more about commuting options and incentives.

**Do you agree or disagree with the following?
(% Agree)**

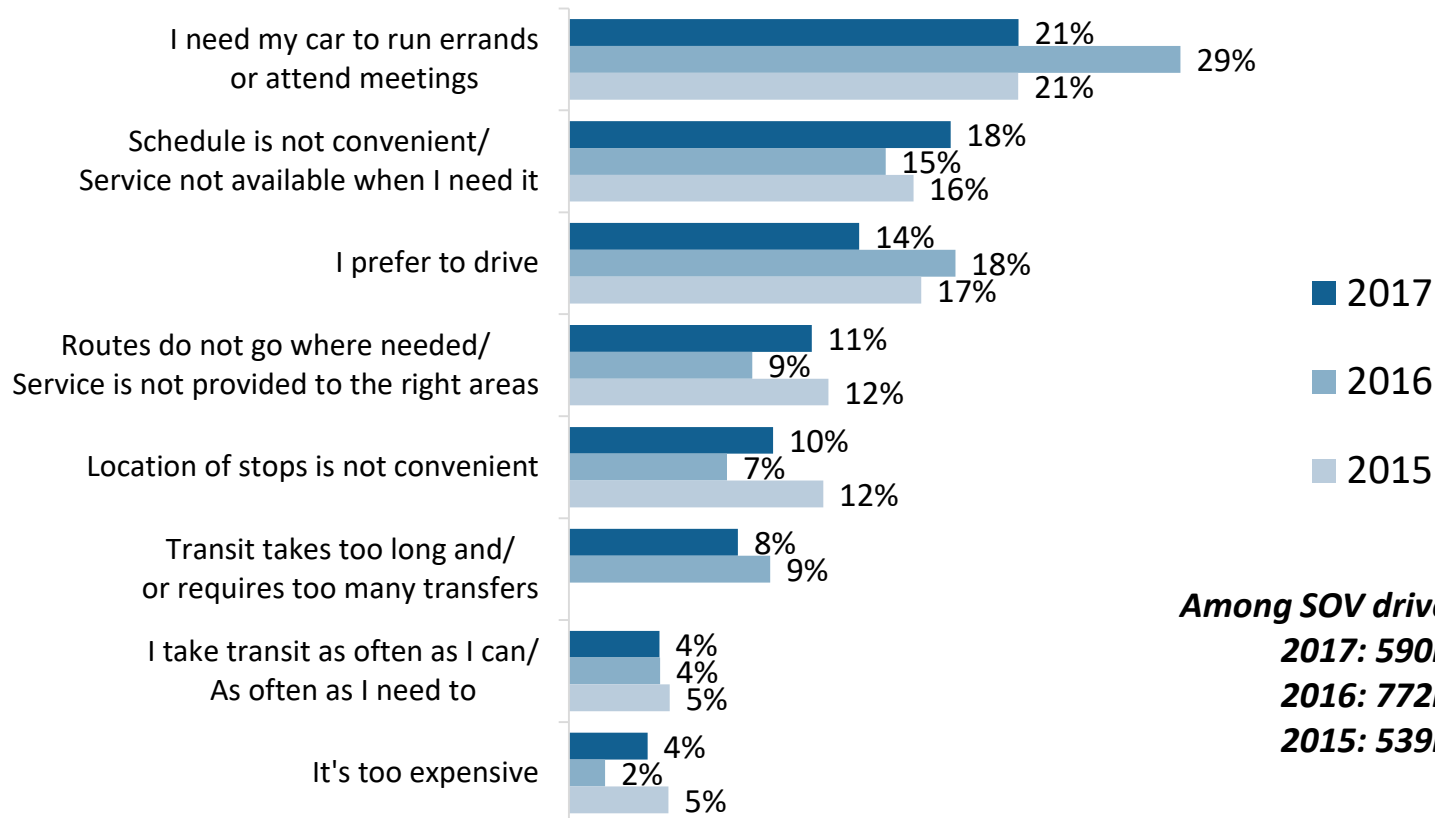


Q11-28. Please indicate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements.

Reasons for NOT Taking Transit – Top Mentions

Among SOV drivers, reasons for not taking transit have fluctuated since 2015. However, the top reason for not taking transit has consistently been that the person needs their car to run errands or attend meetings.

Why do you not take transit more often? (One answer accepted, Top mentions listed)



Among SOV drivers only

2017: 590n

2016: 772n

2015: 539n



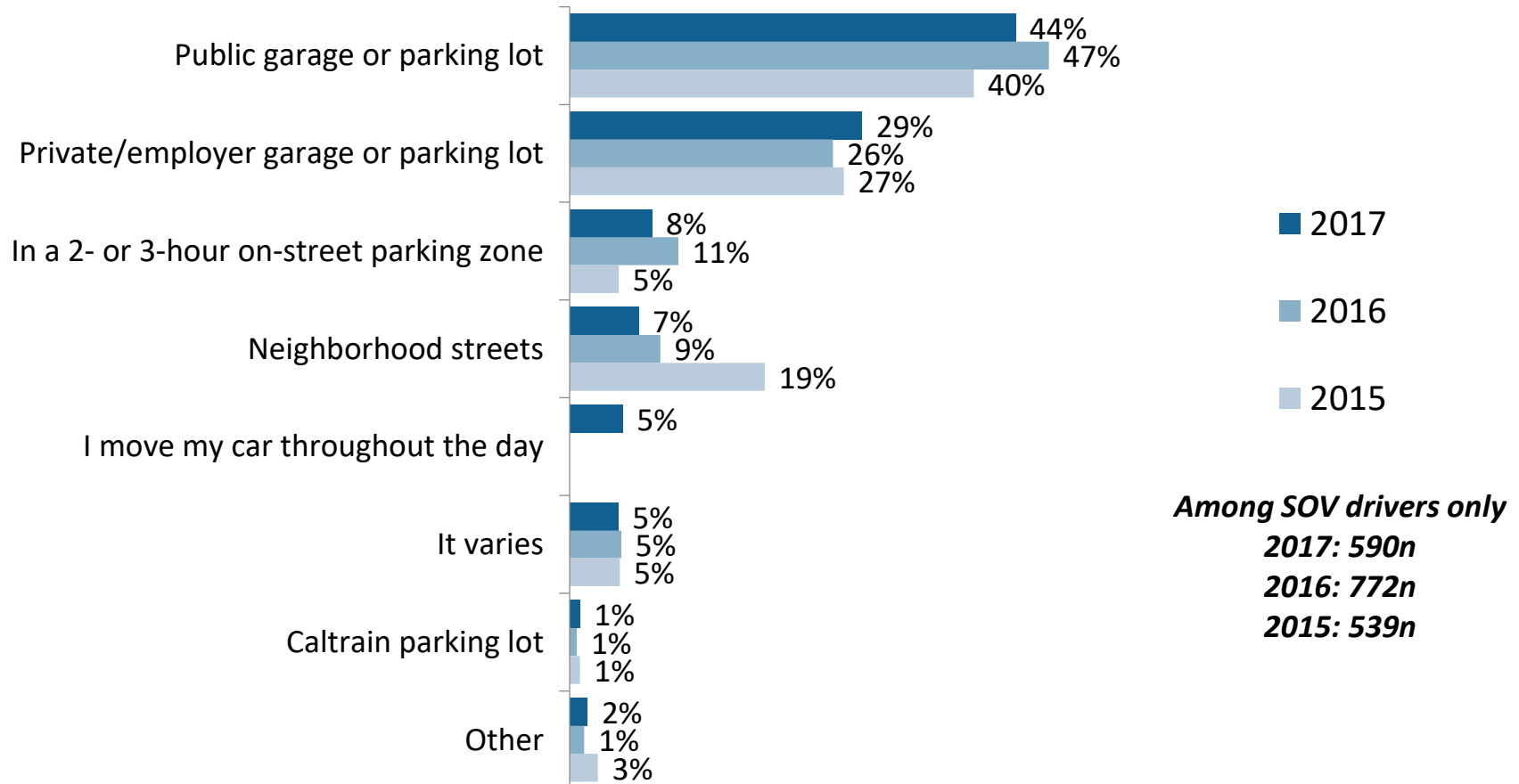
Parking



Parking

Since 2015, fewer drivers are parking on neighborhood streets.

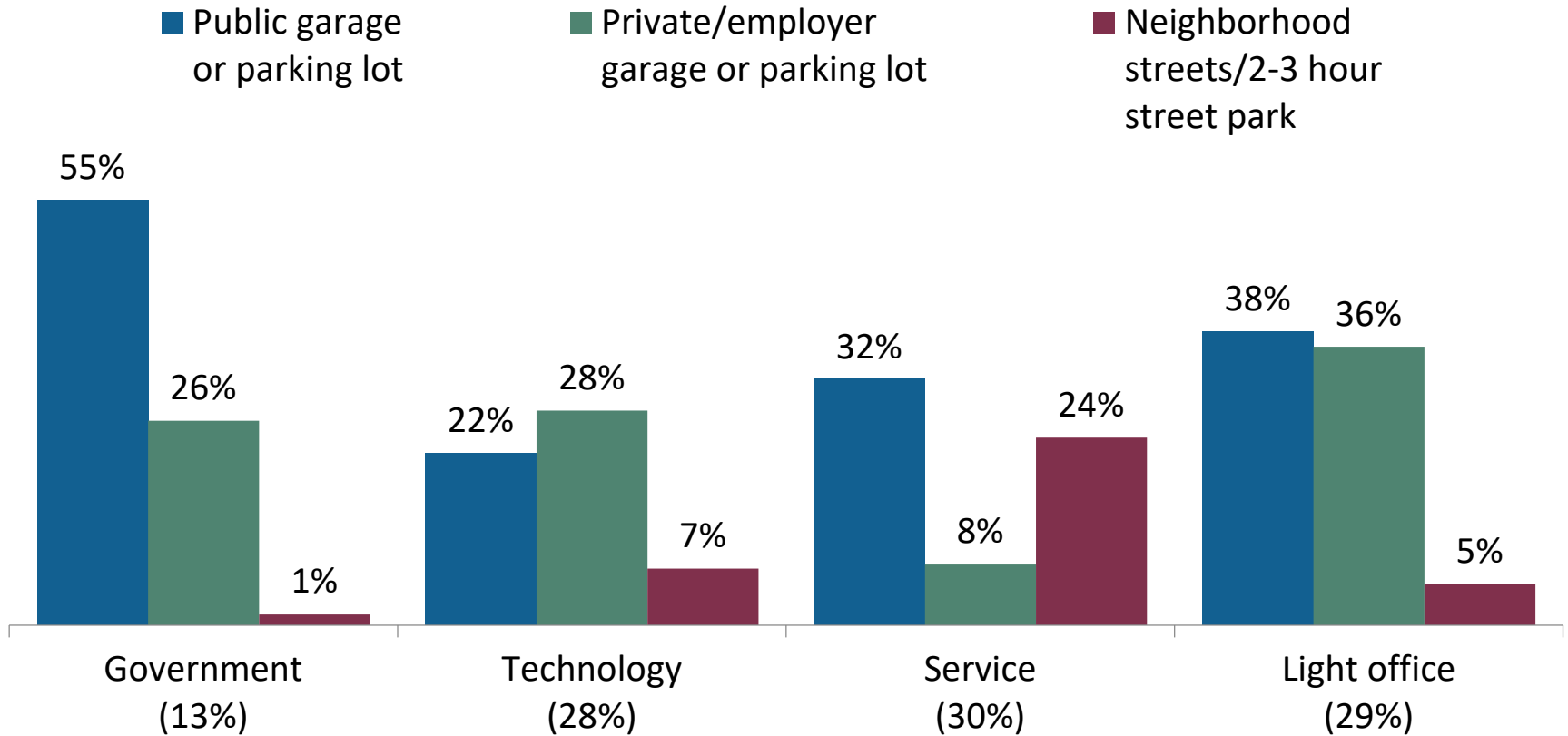
Where do you typically park when you drive to work?



Parking by Worksite Type

Among government workers, most park in a public garage or a private employer garage.

Where do you typically park when you drive to work?



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

Q5. Where do you typically park when you drive to work?

Among SOV drivers: 590n

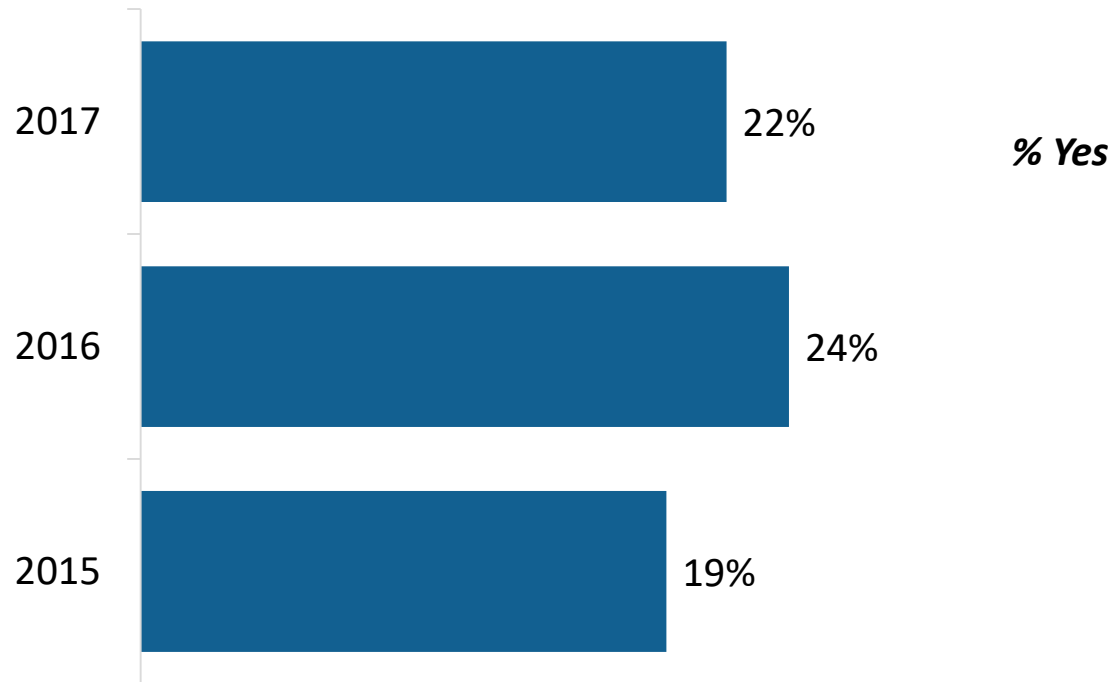
Multiple Modes of Transportation



Multiple Modes of Transportation

The percentage of commuters using multiple modes of transportation has fluctuated since 2015.

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

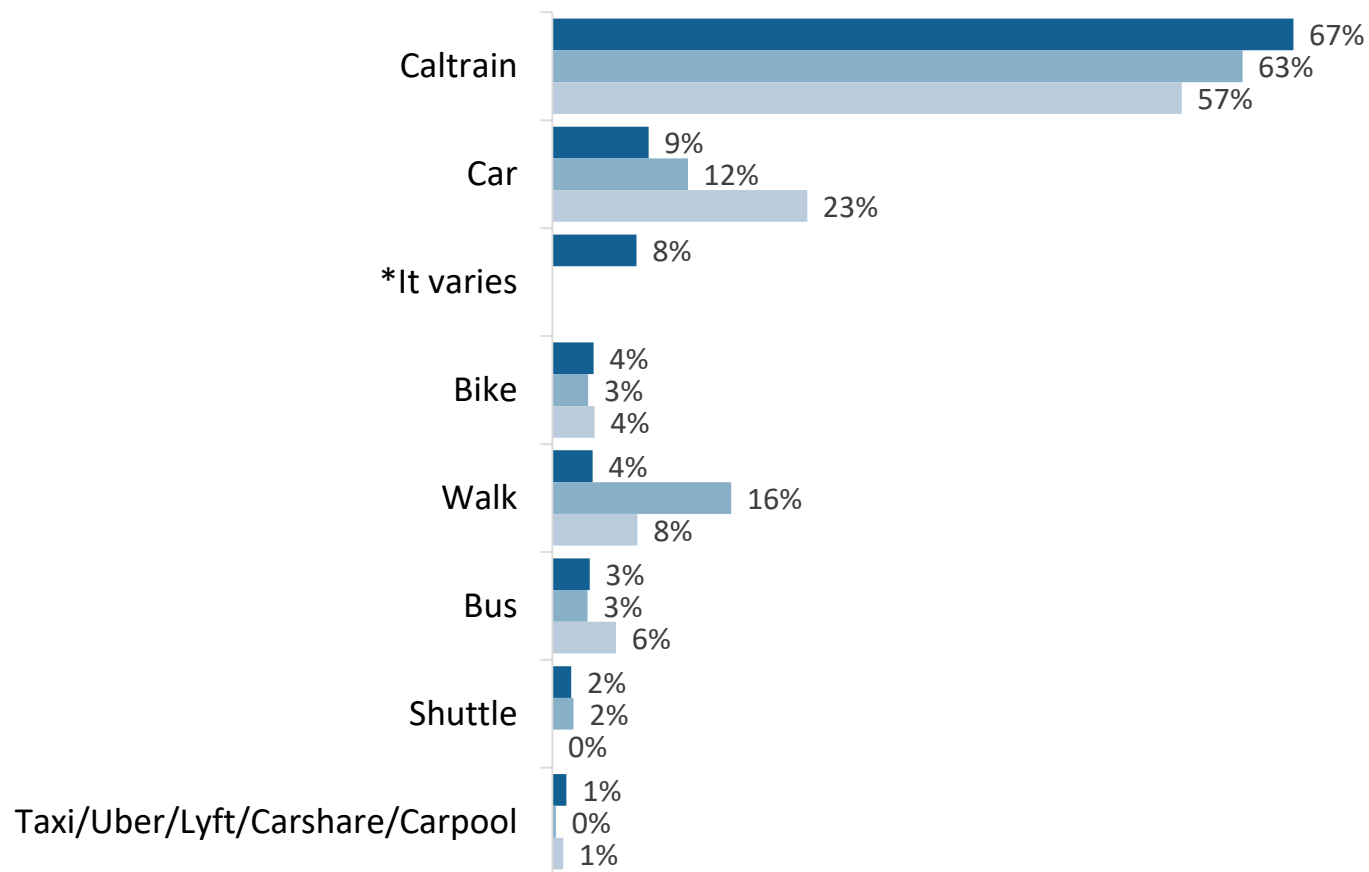


Q2. On your typical daily commute to work, do you use more than one mode of transportation?

Multiple Modes of Transportation

Among those who use more than one mode of transportation to commute to work, the use of a car to arrive downtown has decreased and use of Caltrain has increased.

Which mode of transportation brings you into downtown Palo Alto?



Q3. Which mode of transportation brings you INTO Downtown Palo Alto?

*"It varies" added as an option in 2017.

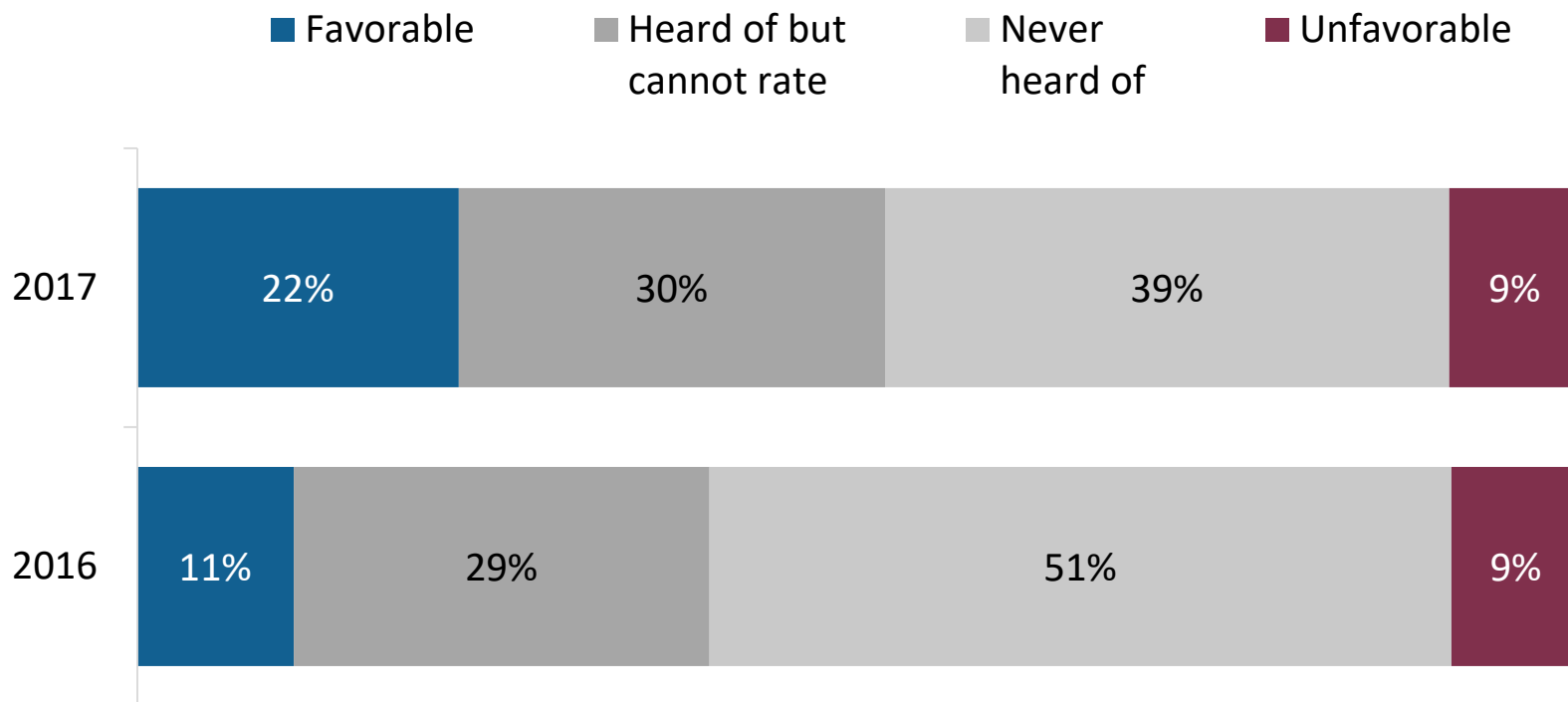


Awareness of Palo Alto TMA

Awareness of Palo Alto TMA

Awareness of the Palo Alto TMA has increased since 2016. The increase occurs among workers who have a favorable opinion of the TMA.

What is your opinion of the Palo Alto TMA?



Q31. 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.



Mode Share Trend Data

Mode Share Over Time

	Employee size								
	1-25			26-100			101+		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	74%	68%	66%	61%	78%	73%	41%	34%	38%
Transit	7%	14%	14%	14%	3%	9%	25%	27%	28%
Walk/Bike	7%	6%	7%	12%	7%	4%	22%	23%	17%
Rideshare	5%	7%	7%	6%	3%	11%	4%	7%	8%
Other	8%	5%	7%	8%	8%	2%	7%	8%	10%

	Miles driven to work								
	<1 to 10			10 to 30			30+		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	52%	55%	52%	69%	66%	69%	40%	45%	42%
Transit	6%	5%	8%	19%	20%	19%	39%	42%	38%
Walk/Bike	30%	28%	23%	1%	0%	1%	1%	0%	0%
Rideshare	4%	6%	10%	5%	5%	7%	5%	4%	6%
Other	7%	7%	6%	6%	8%	5%	15%	9%	14%

Mode Share Over Time

	Home Geography								
	San Francisco			Peninsula			South Bay		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	18%	10%	21%	63%	66%	61%	65%	69%	67%
Transit	70%	74%	63%	16%	11%	12%	20%	16%	18%
Walk/Bike	1%	0%	1%	12%	13%	12%	3%	3%	2%
Rideshare	1%	3%	3%	3%	5%	8%	6%	7%	10%
Other	10%	12%	13%	7%	5%	6%	6%	5%	4%

	Home Geography								
	Palo Alto			East Bay					
	2015	2016	2017	2015	2016	2017			
Drove alone	41%	36%	44%	76%	79%	66%			
Transit	0%	1%	5%	3%	5%	12%			
Walk/Bike	48%	47%	35%	0%	0%	2%			
Rideshare	5%	8%	10%	9%	5%	8%			
Other	5%	8%	6%	12%	10%	13%			

Mode Share Over Time

	Age								
	14-29			30-39			40-49		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	43%	36%	47%	51%	47%	50%	67%	69%	59%
Transit	21%	21%	22%	23%	22%	23%	11%	11%	15%
Walk/Bike	26%	29%	18%	13%	15%	10%	7%	7%	4%
Rideshare	4%	7%	10%	5%	8%	8%	6%	3%	13%
Other	5%	6%	4%	8%	8%	10%	9%	10%	8%

	Age								
	50-64			65+					
	2015	2016	2017	2015	2016	2017			
Drove alone	68%	76%	72%	81%	69%	72%			
Transit	7%	12%	8%	5%	8%	7%			
Walk/Bike	10%	4%	6%	5%	6%	11%			
Rideshare	4%	3%	8%	6%	5%	5%			
Other	10%	5%	6%	3%	11%	5%			

Mode Share Over Time

	Parents								
	Parent			Not a parent					
	2015	2016	2017	2015	2016	2017			
Drove alone	66%	70%	64%	50%	50%	52%			
Transit	11%	9%	12%	20%	19%	22%			
Walk/Bike	8%	8%	7%	19%	18%	12%			
Rideshare	7%	4%	11%	4%	7%	7%			
Other	8%	10%	6%	7%	7%	7%			

	Work Schedule								
	Required to start at a specific time			My work schedule is flexible			My schedule varies		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	64%	69%	69%	49%	43%	44%	63%	66%	54%
Transit	14%	15%	15%	20%	19%	21%	11%	11%	19%
Walk/Bike	8%	7%	3%	19%	22%	16%	15%	8%	15%
Rideshare	5%	3%	10%	5%	8%	8%	2%	6%	6%
Other	9%	6%	4%	7%	8%	11%	8%	9%	6%

Mode Share Over Time

	Job Type								
	Full time			Part time			More than one job		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Drove alone	53%	52%	54%	75%	69%	70%	66%	77%	65%
Transit	19%	19%	20%	3%	3%	4%	4%	4%	11%
Walk/Bike	16%	15%	11%	8%	15%	9%	11%	10%	5%
Rideshare	5%	6%	8%	7%	7%	9%	5%	3%	13%
Other	7%	7%	7%	6%	6%	8%	14%	7%	6%

	Peak Hour Commuters								
	Yes (6-10am)			No					
	2015	2016	2017	2015	2016	2017			
Drove alone	54%	52%	55%	57%	64%	67%			
Transit	23%	21%	20%	7%	6%	7%			
Walk/Bike	11%	13%	11%	22%	17%	10%			
Rideshare	6%	6%	8%	3%	4%	8%			
Other	6%	8%	6%	12%	9%	8%			

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