

ATTITUDINAL & AWARENESS SURVEY
SUMMARY REPORT

PREPARED FOR
OCTA



AUGUST 31, 2018



1592 N COAST HIGHWAY 101
ENCINITAS CA 92024
760.632.9900 WWW.TN-RESEARCH.COM



TABLE OF CONTENTS

Table of Contents	i
List of Tables	iii
List of Figures	iv
Introduction	1
Goals of Study	1
Overview of Methodology.....	1
Statistical Significance	2
Organization of Report.....	3
Disclaimer	3
About True North.....	3
Just the Facts	4
Quality of Life & Local Issues	4
Awareness & Opinions of OCTA	4
Long Range Transportation Plan.....	4
Travel Behavior & Use of System.....	5
Communications	5
Conclusions	7
Quality of Life & Local Issues	12
Quality of Life.....	12
Question 2	12
Most Important Issues	14
Question 3	14
Awareness & Opinions of OCTA	16
Aided Awareness	16
Question 4	16
Opinion of OCTA	18
Question 5	18
Characterizing OCTA	20
Question 6	21
Long Range Transportation Plan	23
Long Range Transportation Plan Priorities	23
Question 7	24
Additional Priorities?	26
Question 8	26
Carpool Congestion Solutions	26
Question 9	27
Travel Behavior & Use of System	28
Primary Mode of Transportation	28
Question 10	28
Use of Transit & 91 Express Lanes	30
Question 11	31
Commute to Work or School?	33
Question 12	33
Communications	35
Overall Satisfaction.....	35
Question 13	35
Topics of Interest.....	37
Question 14	38
Question 15	40
Primary Information Source	41
Question 16	41
Measure M	42

Question 18 43

Question 19 44

OC Go 45

Question 17 45

Background & Demographics 47

Methodology 48

 Questionnaire Development 48

 Programming, Pre-Test & Translation 48

 Sample, Recruiting & Data Collection 48

 Statistical Margin of Error 49

 Data Processing 50

 Rounding 50

Questionnaire & Toplines 51



LIST OF TABLES

Table 1	Top Most Important Issues Facing Orange County by Study Year	15
Table 2	Agreement With Statement About OCTA by Study Year (Among Those Who Provided Opinion)	21
Table 3	Agreement With Statement About OCTA by District (Among Those Who Provided Opinion)	22
Table 4	Transportation Priorities by Overall & Primary Mode (Showing % High Priority) . . .	25
Table 5	Transportation Priorities by Commute 3+ Times Per Week & District	25
Table 6	Transportation Priorities by District (Showing % High Priority)	25
Table 7	Transportation Services Usage in Past 12 Months by Study Year	33
Table 8	Demographic of Sample by Study Year	47



LIST OF FIGURES

Figure 1	Map of Supervisorial Districts and ZIP Codes	2
Figure 2	Quality of Life by Study Year	12
Figure 3	Quality of Life by Years in Orange County & Age	13
Figure 4	Quality of Life by Employment Status & Ethnicity	13
Figure 5	Quality of Life by Hsld Income & District	13
Figure 6	Most Important Issue Facing Orange County	14
Figure 7	Heard of OCTA by Study Year	16
Figure 8	Heard of OCTA by Years in Orange County & Age	17
Figure 9	Heard of OCTA by Employment Status & Ethnicity	17
Figure 10	Heard of OCTA by Hsld Income & District	17
Figure 11	Opinion of OCTA by Study Year	18
Figure 12	Opinion of OCTA by Years in Orange County & Primary Mode	19
Figure 13	Opinion of OCTA by Regular Bus Usage, 91 Express Lanes Usage & Heard of OC Go	19
Figure 14	Opinion of OCTA by Age & Heard of Measure M	20
Figure 15	Opinion of OCTA by Commute 3+ Times Per Week & District	20
Figure 16	Agreement With Statements About OCTA	21
Figure 17	Transportation Priorities	24
Figure 18	Additional High Priority Projects, Strategies	26
Figure 19	Carpool Lane Strategies	27
Figure 20	Primary Transportation Mode	28
Figure 21	Primary Transportation Mode by Age	29
Figure 22	Primary Transportation Mode by Hsld Income	29
Figure 23	Primary Transportation Mode by District	30
Figure 24	Primary Transportation Mode by Ethnicity	30
Figure 25	Transportation Services Usage in Past 12 Months	31
Figure 26	Transportation Services Usage in Past 12 Months by Age	31
Figure 27	Transportation Services Usage in Past 12 Months by Hsld Income	32
Figure 28	Transportation Services Usage in Past 12 Months by District & Metrolink Service in Home ZIP Code	32
Figure 29	Transportation Services Usage in Past 12 Months by Ethnicity	32
Figure 30	Commuting Behavior by Study Year	33
Figure 31	Commuting Behavior by Age & District	34
Figure 32	Commuting Behavior by Hsld Income & Ethnicity	34
Figure 33	Satisfaction With Communication by Study Year	35
Figure 34	Satisfaction With Communication by Years in Orange County & Age	36
Figure 35	Satisfaction With Communication by Employment Status & Ethnicity	36
Figure 36	Satisfaction With Communication by Hsld Income & District	37
Figure 37	Satisfaction With Communication by Opinion of OCTA, Heard of Measure M & Heard of OC Go	37
Figure 38	Desire Additional Info From OCTA	38
Figure 39	Desire Additional Info From OCTA by Years in Orange County & Age	38
Figure 40	Desire Additional Info From OCTA by Employment Status & Opinion of OCTA	39
Figure 41	Desire Additional Info From OCTA by District & Satisfaction with Communication	39
Figure 42	Desire Additional Info From OCTA by Hsld Income & Ethnicity	40
Figure 43	Additional Information Topics Desired	40
Figure 44	Primary Source For Orange County News & Events by Study Year	41
Figure 45	Primary Source For Orange County News & Events by Age & District	42
Figure 46	Heard of Measure M by Study Year	43
Figure 47	Heard of Measure M by Years in Orange County & District	43
Figure 48	Heard of Measure M by Primary OC Info Source & Opinion of OCTA	44

Figure 49 Measure M Descriptors 44
 Figure 50 Heard of OC Go 45
 Figure 51 Heard of OC Go by Years in Orange County & District 46
 Figure 52 Heard of OC Go by Primary OC Info Source & Opinion of OCTA 46
 Figure 53 Maximum Margin of Error Due to Sampling 50



INTRODUCTION

The Orange County Transportation Authority (OCTA) is the county transportation agency responsible for planning, funding, and delivering transportation improvements in Orange County—including freeway, street, and transit systems. As part of OCTA’s commitment to enhancing customer satisfaction by understanding, connecting with, and serving its diverse communities and partners, the Authority periodically conducts an *Attitudinal & Awareness Survey* to gather data on Orange County residents’ awareness, perceptions, and priorities with respect to OCTA as well as the projects, programs, and services it provides.

From the outset, the *Attitudinal & Awareness Survey* has been designed to track opinions on key questions and performance metrics over time, as well as provide an opportunity for OCTA to gather information on topics of particular interest to OCTA at the time of the survey. The 2018 survey followed this same approach, with certain question series tracked from prior studies, and others new to the 2018 survey to help inform OCTA’s development of the 2018 Long Range Transportation Plan (LRTP).

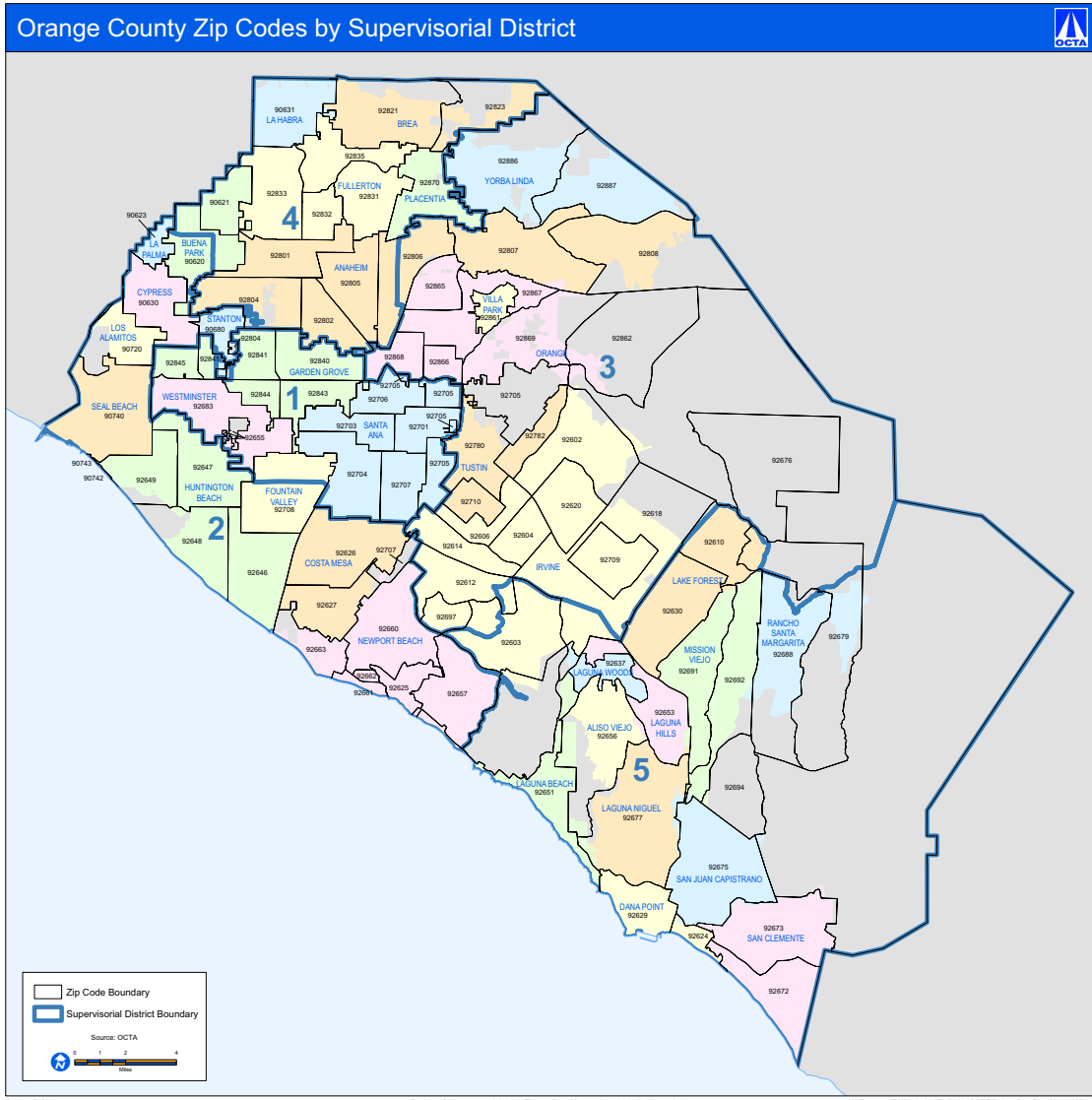
By collecting and analyzing current opinion data and comparing the results to prior related surveys where appropriate, this study provides OCTA with statistically reliable information that can be used to make sound, strategic decisions in a variety of areas—including establishing regional priorities, project and program development/evaluation, planning, and public communications.

GOALS OF STUDY To assist in this effort, OCTA selected True North Research to design the research plan and conduct the study. Broadly defined, the 2018 survey was designed to:

- Measure awareness and perceptions of OCTA.
- Gather input on priorities and strategies for the 2018 Long Range Transportation Plan (LRTP).
- Profile residents’ travel behavior and their use of the transportation system in Orange County.
- Identify the sources residents primarily use for information about news and events in Orange County and assess their satisfaction with OCTA’s communication efforts.
- Measure public awareness of Measure M and OC Go.
- Gather relevant demographic and background information.

OVERVIEW OF METHODOLOGY A full description of the methodology used for this study is included later in this report (see *Methodology* on page 48). In brief, a total of 2,525 randomly selected Orange County adult residents participated in the survey between June 17 and June 30, 2018. The survey followed a mixed-method design that employed multiple recruiting methods (telephone and email) and multiple data collection methods (telephone and online). The interviews averaged 18 minutes in length and were conducted in English, Spanish, and Vietnamese. The results presented in this report are representative at the countywide level, as well as within the five Supervisorial Districts identified in Figure 1 on the next page.

FIGURE 1 MAP OF SUPERVISORIAL DISTRICTS AND ZIP CODES



STATISTICAL SIGNIFICANCE Many of the figures and tables in this report present the results of questions asked in 2018 alongside the results found in prior OCTA surveys for identical questions. In such cases, True North conducted the appropriate tests of statistical significance to identify changes that likely reflect actual changes in public opinion between the study periods—as opposed to being due to chance associated with selecting two samples independently and at random. Differences between the 2015 and 2018 studies are identified as *statistically significant* if we can be 95% confident that the differences reflect an actual change in public opinion between the two studies. Statistically significant differences within response categories over time are denoted by the † symbol which appears in the figure next to the appropriate response value for 2018.

ORGANIZATION OF REPORT This report is designed to meet the needs of readers who prefer a summary of the findings as well as those who are interested in the details of the results. For those who seek an overview of the findings, the sections titled *Just the Facts* and *Conclusions* are for you. They provide a summary of the most important factual findings of the survey in bullet-point format and a discussion of their implications. For the interested reader, this section is followed by a more detailed question-by-question discussion of the results from the survey by topic area (see *Table of Contents*), as well as a description of the methodology employed for collecting and analyzing the data (see *Methodology* on page 48). And, for the truly ambitious reader, the questionnaire used for the interviews is contained at the back of this report (see *Questionnaire & Toplines* on page 51), and a complete set of crosstabulations for the survey results is contained in Appendix A, which is bound separately.

DISCLAIMER The statements and conclusions in this report are those of the authors (Dr. Timothy McLarney and Richard Sarles) at True North Research, Inc. and not necessarily those of OCTA. Any errors and omissions are the responsibility of the authors.

ABOUT TRUE NORTH True North is a full-service survey research firm that is dedicated to providing public agencies with a clear understanding of the values, perceptions, priorities, and concerns of their residents and customers. Through designing and implementing scientific surveys, focus groups, and one-on-one interviews, as well as expert interpretation of the findings, True North helps its clients to move with confidence when making strategic decisions in a variety of areas—such as planning, policy evaluation, performance management, organizational development, establishing fiscal priorities, and developing effective public information campaigns.

During their careers, Dr. McLarney (President) and Mr. Sarles (Principal Researcher) have designed and conducted over 1,000 survey research studies for public agencies, including more than 350 studies for California municipalities, special districts, and transportation planning agencies.



JUST THE FACTS

The following is an outline of the main factual findings from the survey. For the reader's convenience, we have organized the findings according to the section titles used in the body of this report. Thus, if you would like to learn more about a particular finding, simply turn to the appropriate report section.

QUALITY OF LIFE & LOCAL ISSUES

- Nearly 8-in-10 respondents shared favorable opinions of the quality of life in Orange County, with 26% reporting it is excellent and 53% stating it is good. Approximately 16% of respondents indicated the quality of life in the County is fair, whereas just 4% used poor or very poor to describe quality of life in Orange County.
- When asked to identify the most important issue facing Orange County, the most frequently mentioned issue was homelessness (20%), followed by real estate/housing issues (13%) and a response of not sure/cannot think of anything (12%). Other topics that were mentioned by at least 5% of respondents included traffic congestion (11%) and cost of living (6%).
- Given the purpose of this study, it is instructive that traffic congestion and transportation issues collectively accounted for approximately 14% of all responses when asked to identify the most important issue facing the County.

AWARENESS & OPINIONS OF OCTA

- The vast majority (88%) of respondents indicated that they had heard of OCTA prior to the interview.
- Approximately 32% of respondents indicated that they do not have an opinion of OCTA or preferred not to answer the question. Among the remaining respondents, however, opinions of OCTA were decidedly positive. Forty-nine percent (49%) stated that they have a favorable opinion, whereas 20% offered an unfavorable opinion of OCTA.
- Overall, a majority of respondents agreed that *OCTA helps our local and regional economies function by improving our transportation system (57%), is a public agency I trust (53%), and has made many improvements to Orange County's transportation system in the past five years (51%)*.
- Although still positive, the levels of agreement were somewhat lower (due in part to the higher percentage of those with no opinion) that *OCTA is actively seeking solutions to our transportation issues (48%), makes good use of public funds (37%), and listens to the general public (36%)*.

LONG RANGE TRANSPORTATION PLAN

- When asked to prioritize among 15 transportation projects and strategies that could be part of the Long Range Transportation Plan, at the top of the list were fixing potholes and repairing roadways (91% high or medium priority) and projects that had a direct connection to reducing traffic congestion, including fixing freeway bottlenecks at interchanges, merge areas, and on/off ramps (90%), synchronizing traffic signals on major roadways (87%), and widening freeways, where possible (80%).
- Transit and rideshare improvements were also prioritized by residents, including increasing and expanding commuter rail service including Metrolink and Amtrak (74%), increasing and expanding bus services (70%), increasing carpool, vanpool, and rideshare programs (65%),

adding faster express bus services (62%), adding streetcar services in areas with high potential ridership (60%), and creating on-demand shared ride community shuttles (57%).

- A clear majority of residents also prioritized projects that would support active transportation, including improving and repairing the network of sidewalks (65%) and improving the network of bike paths (52%).
- At the other end of the spectrum, residents were far less apt to prioritize improvements related to carpool lanes, toll roads, and autonomous vehicles. Specifically, less than 4-in-10 respondents rated as a high or medium priority adding carpool lanes to toll roads (36%), enhancing infrastructure to accommodate autonomous, driverless vehicles (35%), and adding toll lanes on existing highways (28%).
- Support for building additional carpool lanes on freeways (even if it is very expensive and may require purchasing private properties to widen freeways) to reduce peak-period congestion in existing carpool lanes was found among 44% of respondents.
- Support for requiring at least three people in a vehicle to use the carpool lane as a strategy to reduce peak-period congestion was somewhat less popular among survey participants (37%), although when combined with allowing single- or two-person vehicles the opportunity to use the carpool lanes for a fee (HOT lane), support ticked up to 40%.

TRAVEL BEHAVIOR & USE OF SYSTEM

- The majority (59%) of residents surveyed indicated that they primarily drive alone when traveling in Orange County, whereas over a quarter (28%) typically drive with one (20%) or two passengers (8%). Overall, 7% stated that they primarily travel by local bus and 7% primarily travel by alternative modes including biking, walking, on-demand rideshare service, Metrolink, express bus, vanpooling, or motorcycle.
- When asked about their use of several transit and toll road options, residents reported the highest frequency of use for the 91 Express Lanes Toll Road (40% use; 4% weekly), followed by Metrolink commuter rail (26% use; 1.5% weekly), regular bus service (23% use; 8% weekly), express bus service (11% use; 2.0% weekly), and ACCESS paratransit service (5% use; 1.7% weekly).
- Overall, 60% indicated that they commute to work at least three times per week, 9% do so for school, and 8% reported that they work or attend school at home. Approximately 20% stated that they do not commute to work or school at least three times per week, whereas 3% preferred to not answer the question.

COMMUNICATIONS

- Close to half (49%) of respondents indicated they were satisfied with OCTA's efforts to communicate with residents through E-newsletters, advertisements, the Internet, news media, and other means, with 19% indicating that they were *very* satisfied. The remaining respondents were either dissatisfied with OCTA's communication efforts (24%) or unsure of their opinion (28%).
- When asked whether there was a particular topic or issue that they would like to receive more information about from OCTA, 23% responded in the affirmative. Information about current projects/status updates was the most frequently mentioned topic, followed by more information about freeway improvements/expansion and efforts to reduce freeway traffic congestion.

- One-third (34%) of residents rely on the Internet for most of their information about Orange County news and events, followed by social media (20%) and television (19%). The remaining sources—newspapers and radio—were identified as primary information sources for news and events in Orange County by 14% and 8% of respondents, respectively.
- When asked if they had heard of Measure M prior to taking the survey, one-third (33%) indicated that they had heard of the measure, whereas 58% had not heard of Measure M and 9% were unsure.
- One-third (33%) of respondents who had ‘heard’ of Measure M confided that they know nothing about it beyond the name. Twenty-two percent (22%) accurately recalled that Measure M is a half-cent sales tax to fund transportation projects and improvements, 15% mistakenly identified it as a bond measure but were correct that it funds transportation projects, and 16% provided a *partially* correct description noting that it provides funding for or addresses transportation improvements and congestion relief.
- It is worth noting that 8% identified Measure M as the *Los Angeles County* traffic improvement plan or a gas tax, and 3% provided a general response that it is a voter approved measure with no mention of transportation.
- Approximately 17% of Orange County residents had heard of OC Go prior to taking the survey, whereas 78% had not heard of OC Go, and 5% were unsure.



CONCLUSIONS

As noted in the *Introduction*, this study was designed to gather data on Orange County residents' awareness, perceptions, and priorities with respect to OCTA as well as the projects, programs, and services it provides. By collecting and analyzing current opinion data and comparing the results to prior related surveys where appropriate, this study provides OCTA with statistically reliable information that can be used to enhance customer satisfaction, improve OCTA-resident engagement, inform the 2018 Long Range Transportation Plan, and ultimately improve the way OCTA serves its diverse communities and partners.

Whereas subsequent sections of this report are devoted to conveying the detailed results of the survey, in this section we attempt to 'see the forest through the trees' and note how the collective results of the survey answer some of the key questions that motivated the research.

What types of projects and strategies do residents prioritize for the 2018 Long Range Transportation Plan?

Over the next 20 years, Orange County's population is expected to increase by 10% and the number of people employed in the County is expected to increase by 17%. These changes will naturally lead to greater traffic congestion unless improvements are made to the County's transportation system. To help ensure that Orange County's transportation system is prepared for these changes and to relieve traffic congestion, OCTA is in the process of updating the Long Range Transportation Plan (LRTP).

The general goals of the 2018 LRTP are to assess the performance of the transportation system over a 20+ year horizon and identify the projects that best address the needs of the system based on expected population, housing, and employment growth while taking forecast financial assumptions into account at the same time. In other words, the LRTP will identify priority projects, improvements, and mobility strategies to improve the transportation system, keep people moving, and relieve traffic congestion, while keeping a realistic view of financial constraints.

The survey results indicate that Orange County residents have clear preferences with respect to the projects they think should be prioritized in the Long Range Transportation Plan. At the top of the list were fixing potholes and repairing roadways (91% high or medium priority) and projects that had a direct connection to reducing traffic congestion, including fixing freeway bottlenecks at interchanges, merge areas, and on/off ramps (90%), synchronizing traffic signals on major roadways (87%), and widening freeways, where possible (80%).

Transit and rideshare improvements were also prioritized by residents, including increasing and expanding commuter rail service including Metrolink and Amtrak (74%),¹ increasing and expanding bus services (70%), increasing carpool, vanpool, and rideshare programs (65%), add-

1. Its worth noting that support for expanding commuter rail service has grown considerably over the past three years, moving from a 'bottom five' project in 2015 to a 'top five' project in 2018.

ing faster express bus services (62%), adding streetcar services in areas with high potential ridership (60%), and creating on-demand shared ride community shuttles (57%).

A majority of residents also prioritized projects that would support active transportation, including improving and repairing the network of sidewalks (65%) and improving the network of bike paths (52%).

When compared to the other projects tested, residents were less apt to prioritize improvements related to carpool lanes, toll roads, and autonomous vehicles. Specifically, less than 4-in-10 respondents rated as a high or medium priority adding carpool lanes to toll roads (36%), enhancing infrastructure to accommodate autonomous, driverless vehicles (35%), and adding toll lanes on existing highways (28%).

Are residents aware of OCTA and what are their impressions of the agency?

Transportation commissions often operate in relative obscurity from the public's perspective. Although virtually all residents can identify their city and—to a lesser extent—their local school district, special districts are often not on the average resident's radar. Considering the above, the level of public awareness of the Orange County Transportation Authority continues to be quite high. Nearly 9-in-10 respondents (88%) had heard of OCTA prior to participating in the 2018 survey, which is statistically higher than the awareness levels recorded in 2015 (84%) and 2011 (83%) and in line with the awareness level recorded in 2006 (88%) leading up to the highly publicized renewal of OCTA's Measure M.

As in the past, however, awareness of OCTA does not necessarily translate into having an opinion of the Authority. Close to one-third (32%) of residents surveyed in 2018 indicated that they did not have an opinion of OCTA or preferred not to answer the question. Among those with an opinion of OCTA, however, their views were generally positive. Those with favorable opinions of OCTA (49%) outnumbered those with unfavorable opinions (20%) by approximately 2.5 to 1. It should be noted that although these figures remain positive, they are somewhat softer than in 2015, when positive opinions of OCTA outnumbered negative opinions by more than three-to-one.

Consistent with the above findings, a sizeable minority of residents (ranging from 22% to 41%) did not hold more nuanced opinions about OCTA on more specific performance dimensions such as making good use of public funds, being trustworthy, or delivering improvements to the transportation system. Once again, however, among those with an opinion, favorable assessments outnumbered negative assessments. For example, the percentage who agreed with the statements *OCTA is a public agency I trust, helps our local and regional economies function by improving our transportation system, is actively seeking solutions to our transportation issues, and has made many improvements to Orange*

County's transportation system in the past five years was at least two times larger than the percentage who disagreed with the statements. Here again, however, we find that the balance of positive-to-negative perceptions has eroded somewhat over the past three years.

How satisfied are residents with OCTA's efforts to communicate with them?

Based on surveys True North has conducted for various public agencies in Orange County as well as around the State, the public's preferences for communication are growing increasingly diverse. Whereas older residents continue to rely on television, newsletters, and printed forms of communication, younger residents generally show great interest in digital forms of communication including social media, texts, and smart phone apps. This pattern makes the challenge of communicating with residents more difficult than in the past, when the sources residents relied on for information were fewer and more consistent across sub-groups.

Developing effective communications strategies also requires hitting a moving target, as media consumption habits are continually changing. Over the past three years, for example, the percentage of Orange County residents who rely on television and newspapers as their primary information source declined significantly (-9% and -4%, respectively), whereas the percentage who primarily turn to social media and the Internet for their news increased significantly (+8% and 5%, respectively).

The trends noted above likely underlie some of the changes in resident satisfaction with OCTA's communication efforts over the past seven years. In 2011, 61% indicated that they were generally satisfied with OCTA's efforts to communicate with them through E-newsletters, advertisements, the Internet, news media, and other means. The corresponding figures were 54% in 2015, and 49% in 2018. OCTA is not alone in this area, as most other public agencies True North has conducted tracking surveys for have displayed similar trends in satisfaction with communication in recent years. Based on these trends, OCTA—like other public agencies—may want to conduct yearly reviews of its current communications strategies and budgets to ensure that both are evolving to meet this growing challenge.

Does Measure M have solid brand equity?

In 1990, Orange County voters approved establishing a local half-cent sales tax (Measure M) dedicated to transportation improvements and traffic relief projects, including expanding and improving freeways, upgrading intersections, adding capacity and improved maintenance of city streets, and enhancing rail transit services. Renewed by voters for an additional 30 year term in 2011 (M2), it is estimated that the combined Measure M plans will deliver approximately \$17 billion in transportation improvements to Orange County by the year 2041.

Despite the importance of Measure M to Orange County’s transportation system, the strength of the local economy, and the quality of life in the region, just one-in-three Orange County residents indicated they had heard of Measure M prior to taking the survey. Moreover, a sizeable percentage of those who had heard of Measure M either had an incorrect understanding of what it is, or had no idea. In terms of brand recognition and equity, Measure M falls well short of its potential.

Complicating this matter is the fact that Measure M is not a brand that is unique to OCTA. In every major election year, Orange County voters are presented with alternative measures carrying the Measure M label, and messaging related to these measures that has nothing to do with OCTA’s transportation funding measure. In November 2016, for example, Measure M was assigned to the Capistrano Unified School District’s proposed bond measure which met with stiff local resistance and ultimately failed with 46% support. That same election, Los Angeles County voters were asked to support a transportation sales tax measure with the Measure M label, and the survey results reveal that some Orange County residents think of *that* measure when they see the Measure M brand.

Recognizing that Measure M is a brand that OCTA can’t control on its own or effectively prevent others from shaping, in recent years OCTA has rebranded the Measure M program as OC Go. The 2018 survey is the first statistically-reliable effort to gauge public awareness of the new moniker, and although awareness of OC Go (17%) is predictably lower than that of Measure M (32%) at this point, its a brand that OCTA can develop and promote in the future with less noise, confusion, and the potential for brand hijacking every election cycle.

How are residents traveling in Orange County?

An individual’s awareness and opinions of OCTA, as well as their opinions about transportation priorities and policies, can naturally be shaped by their typical mode of travel, whether they commute to work or school, and other aspects of their travel behavior. Accordingly, the survey included a series of questions designed to profile residents’ travel behavior.

The most common way Orange County residents travel is by driving alone, which was mentioned as their primary mode choice by 59% of those surveyed in 2018. An additional 28% typically carpool with one or more passengers, whereas 7% reported that they primarily use a local bus. All other options tested—including biking, walking, on-demand rideshare service, Metrolink, express bus, vanpooling, and motorcycle—collectively were mentioned as the primary means of travel by 7% of Orange County residents. The 2018 findings with respect to primary mode choice are similar to those found in 2015.

Of course, travel patterns can (and do) vary by demographic characteristics. In general, the percentage of residents who primarily drive alone increases with household income, and is highest among residents 25 to 64 years of age and those who describe their ethnicity as other or mixed. By comparison, use of public transit as a primary mode is highest among residents 18 to 24 years of age, low-income residents (less than \$25K per year), and African Americans.

Although the percentage of respondents who relied on transit as their *primary* method of travel was low, many Orange County residents do occasionally use transit when traveling in the region. In the 12 months preceding the interview, more than one-quarter (26%) had ridden Metrolink, 23% had used a regular bus, 11% had boarded an express bus, and 5% had used ACCESS paratransit service. The percentage that had ridden Metrolink or an express bus increased significantly from 2015 to 2018.

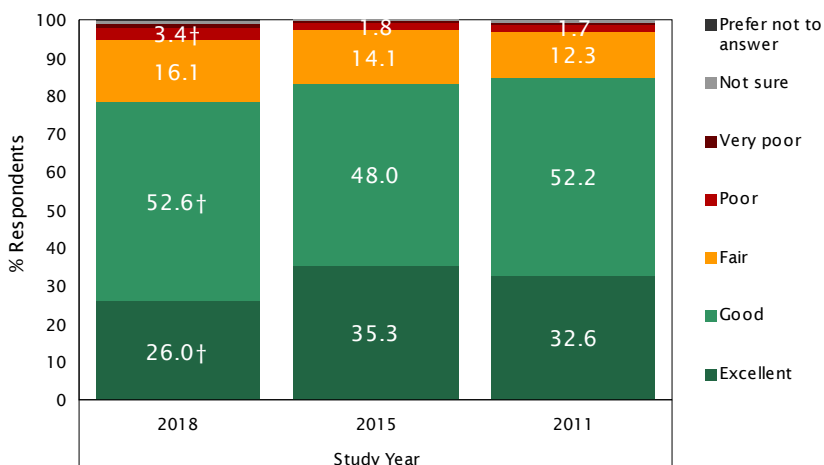
QUALITY OF LIFE & LOCAL ISSUES

The opening series of questions in the 2018 survey was designed to assess residents' top of mind perceptions about the quality of life in Orange County, as well as the most important issues facing Orange County today.

QUALITY OF LIFE At the outset of the interview, respondents were asked to rate the quality of life in the County using a five-point scale of excellent, good, fair, poor, or very poor. As shown in Figure 2 below, nearly 8-in-10 respondents in 2018 shared favorable opinions of the quality of life in Orange County, with 26% reporting it is excellent and 53% stating it is good. Approximately 16% of respondents indicated the quality of life in the County is fair, whereas just 4% used poor or very poor to describe quality of life in Orange County. When compared to 2015, the combined percentage of respondents who rated the quality of life in Orange County as excellent or good was 4% lower in 2018 (79% vs. 83%).

Question 2 *How would you rate the overall quality of life in Orange County? Would you say it is excellent, good, fair, poor or very poor?*

FIGURE 2 QUALITY OF LIFE BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

On the next page, Figures 3-5 show how residents' perceptions of the quality of life in Orange County varied by key characteristics, including length of residence, age, employment status, ethnicity, household income, and Supervisorial District. Although the general pattern is one of a consistently positive assessment of the quality of life in Orange County across resident sub-groups, it is worth noting that household income continues to be a significant factor in shaping perceptions of the quality of life in Orange County.² In general, the higher an individual's household income, the more likely they were to rate the quality of life in the County as excellent.

2. A similar pattern was found in the 2011 and 2015 surveys.

FIGURE 3 QUALITY OF LIFE BY YEARS IN ORANGE COUNTY & AGE

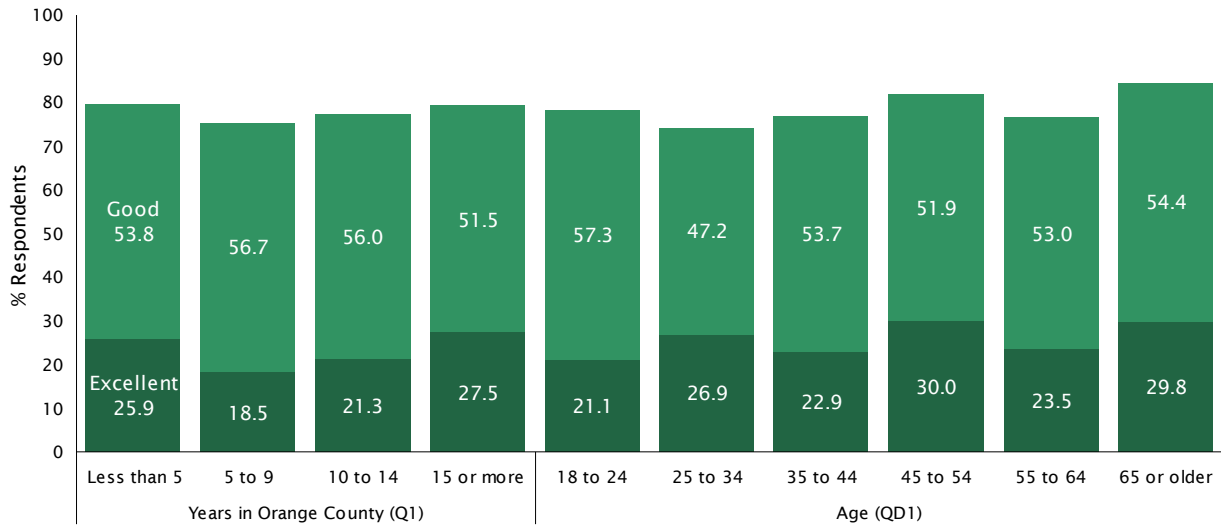


FIGURE 4 QUALITY OF LIFE BY EMPLOYMENT STATUS & ETHNICITY

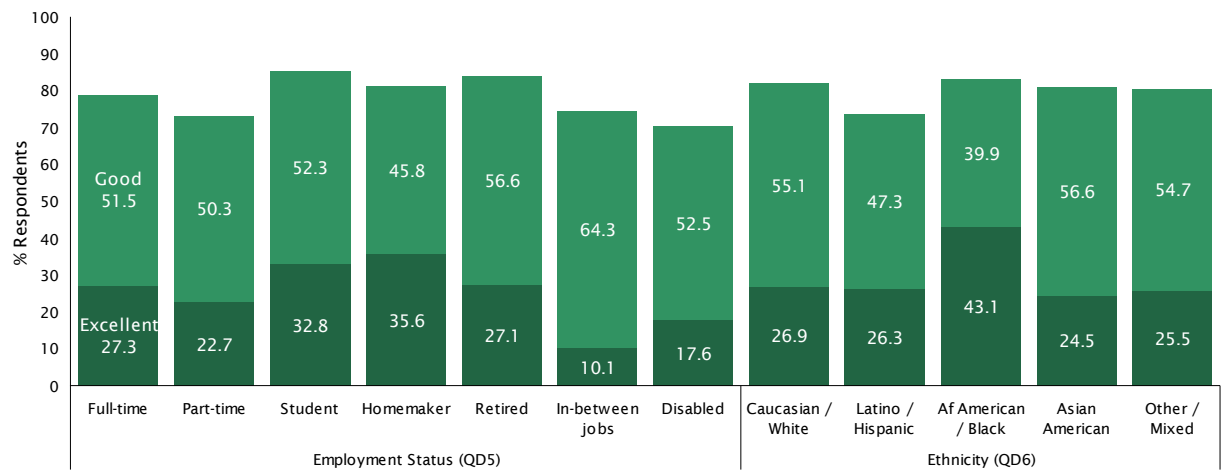
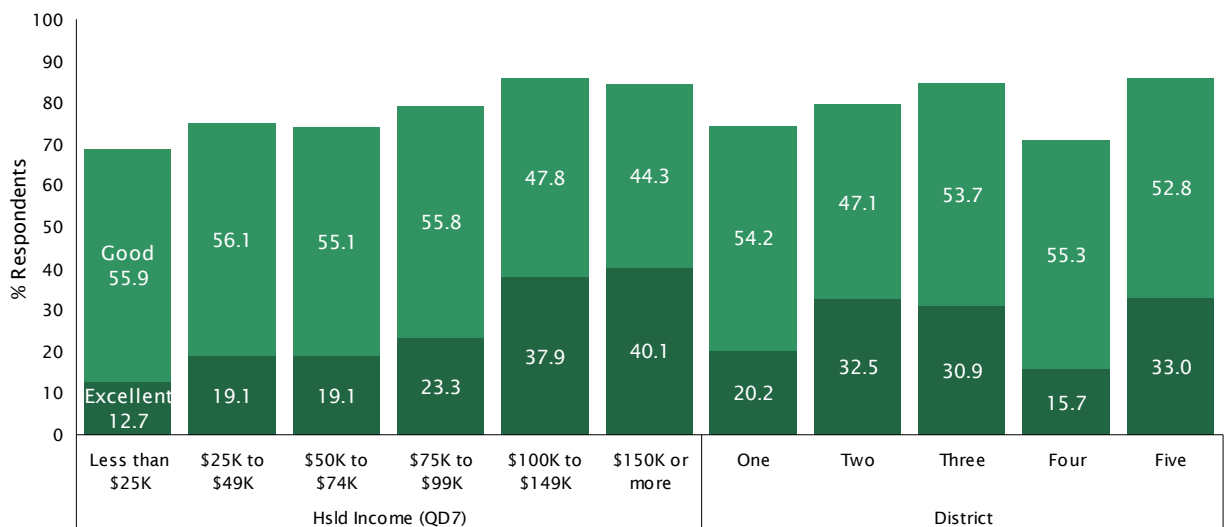


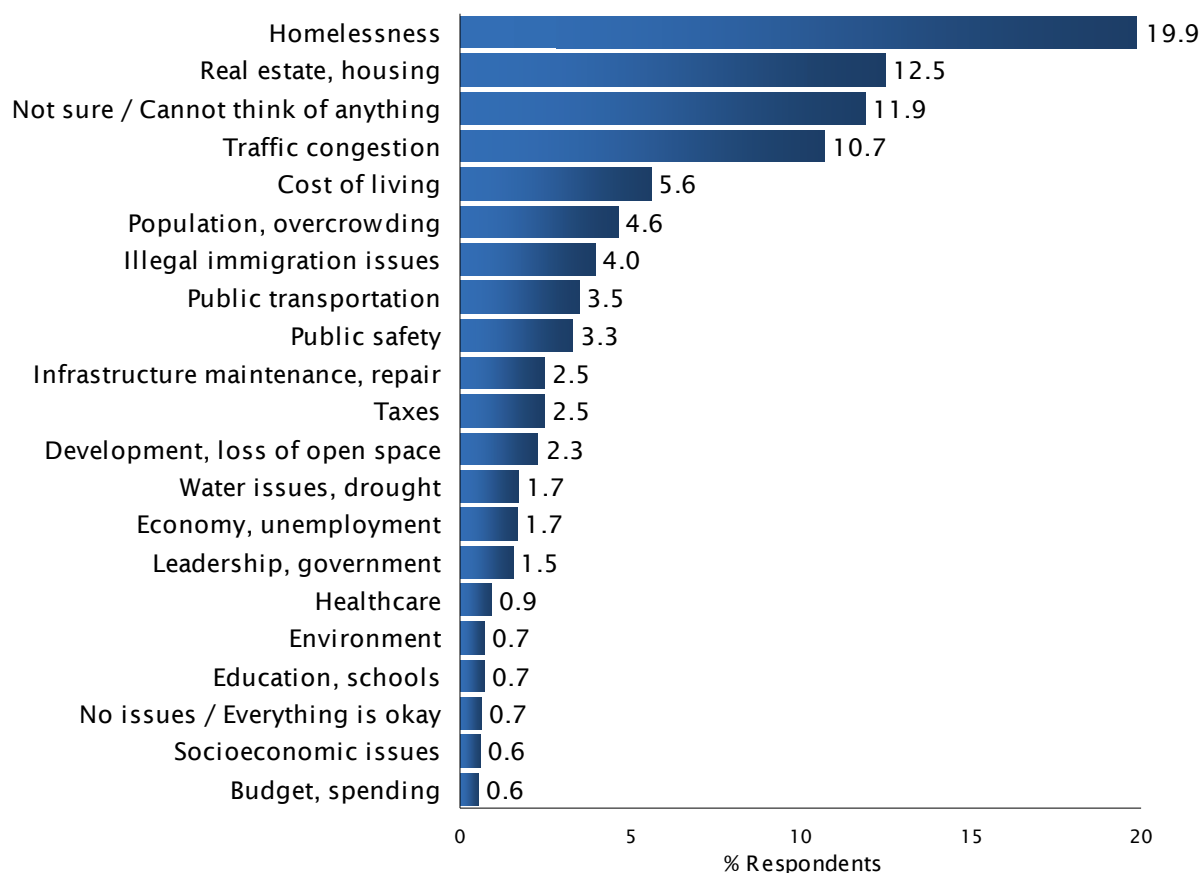
FIGURE 5 QUALITY OF LIFE BY HSLD INCOME & DISTRICT



MOST IMPORTANT ISSUES Respondents were next asked to identify the most important issue facing Orange County today. Question 3 was posed in an open-ended manner, which allowed respondents to mention any issue that came to mind without being prompted by—or restricted to—a particular list of options. True North later reviewed the verbatim responses and grouped them into the categories shown in Figure 6. Categories that received less than 0.6% of responses are not shown.

Question 3 *Thinking about Orange County as a whole, what would you say is the most important issue facing Orange County today?*

FIGURE 6 MOST IMPORTANT ISSUE FACING ORANGE COUNTY



The most frequently mentioned issue in 2018 was homelessness (20%), followed by real estate/housing issues (13%), and a response of not sure/cannot think of anything (12%). Other topics that were mentioned by at least 5% of respondents included traffic congestion (11%) and cost of living (6%). Given the purpose of this study, it is instructive that traffic congestion and transportation issues collectively accounted for approximately 14% of all responses, which is similar to the proportions found in the 2011 and 2015 studies.

Table 1 on the next page compares the top 10 responses to Question 3 over time. There has been a lot of change in the issues that are top-of-mind for Orange County residents during the past three years, which is reflected in the movement of issues in Table 1. Homelessness has shot

up the ranking, from the tenth most important issue facing Orange County in 2015 to the top slot in 2018. Real estate/housing issues are similarly more salient today than in 2015, moving from fifth to second place. Illegal immigration, public transportation, and infrastructure maintenance/repair also increased in perceived importance to make the top 10 in 2018, whereas drought/water issues, the economy/unemployment, and education/schools fell in the ranking and no longer appear in the top 10 list of issues.

TABLE 1 TOP MOST IMPORTANT ISSUES FACING ORANGE COUNTY BY STUDY YEAR

Study Year		
2018	2015	2011
Homelessness	Water issues, drought	Economy, unemployment
Real estate, housing	Not sure / Can't think of anything	Not sure / Can't think of anything
Not sure / Can't think of anything	Traffic	Education, schools
Traffic congestion	Economy, unemployment	Traffic
Cost of living	Real estate, housing	Public safety / Crime
Population, overcrowding	Cost of living	Budget, spending
Illegal immigration issues	Public safety	Real estate, housing
Public transportation	Population, overcrowding	Transportation infrastructure
Public safety	Education, schools	Population, overcrowding
Infrastructure maintenance, repair	Homelessness	Cost of living

AWARENESS & OPINIONS OF OCTA

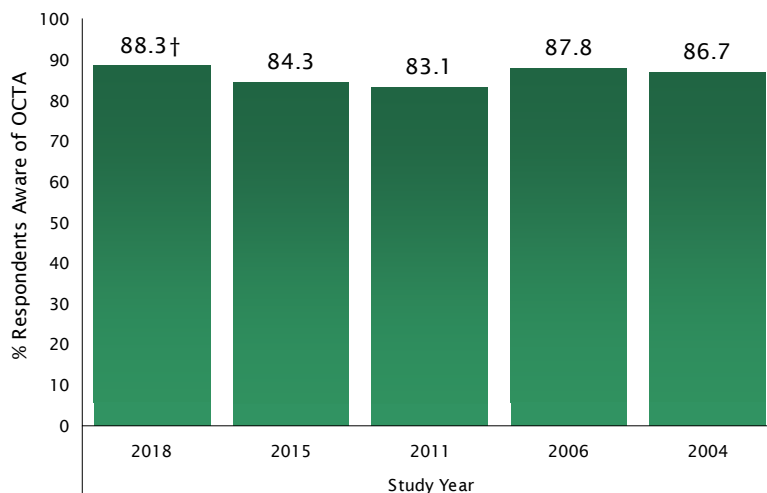
One of the goals of this study was to gauge public awareness and perceptions of the Orange County Transportation Authority. Put simply, are residents aware of OCTA? Do they have a favorable or unfavorable opinion of the Authority? And how do they view OCTA on issues of fiscal responsibility, trust, and performance in delivering transportation improvements to the region?

Accurately measuring awareness and attitudes about OCTA is a sensitive exercise, so these questions were strategically placed at the beginning of the survey so as to preclude potential measurement error associated with a position-order bias. In other words, because many of the questions in the survey addressed topics that could shape a respondents' attitudes about OCTA as an agency, these questions were purposely located early in the survey to avoid this potential source of bias.

AIDED AWARENESS The first question in this series simply asked respondents whether—prior to taking the survey—they had heard of the Orange County Transportation Authority, also known as OCTA. As shown in Figure 7 below, the vast majority (88%) of respondents in 2018 affirmed that they had heard of OCTA prior to the interview. Over the past three years, there has been a statistically significant increase (+4%) in awareness of OCTA.

Question 4 *Prior to taking this survey, had you heard of the Orange County Transportation Authority, also known as O.C.T.A.?*

FIGURE 7 HEARD OF OCTA BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

Figures 8-10 display how awareness of OCTA varied substantially across resident subgroups. When compared to their respective counterparts, those who have resided in the County 5 to 9 years or 15 years or longer, residents 25 years and older, disabled individuals, Caucasians, individuals in households earning at least \$25,000 a year, and residents in Supervisorial District Two, Four, and Five were the most likely to report being aware of OCTA prior to taking the survey.

FIGURE 8 HEARD OF OCTA BY YEARS IN ORANGE COUNTY & AGE

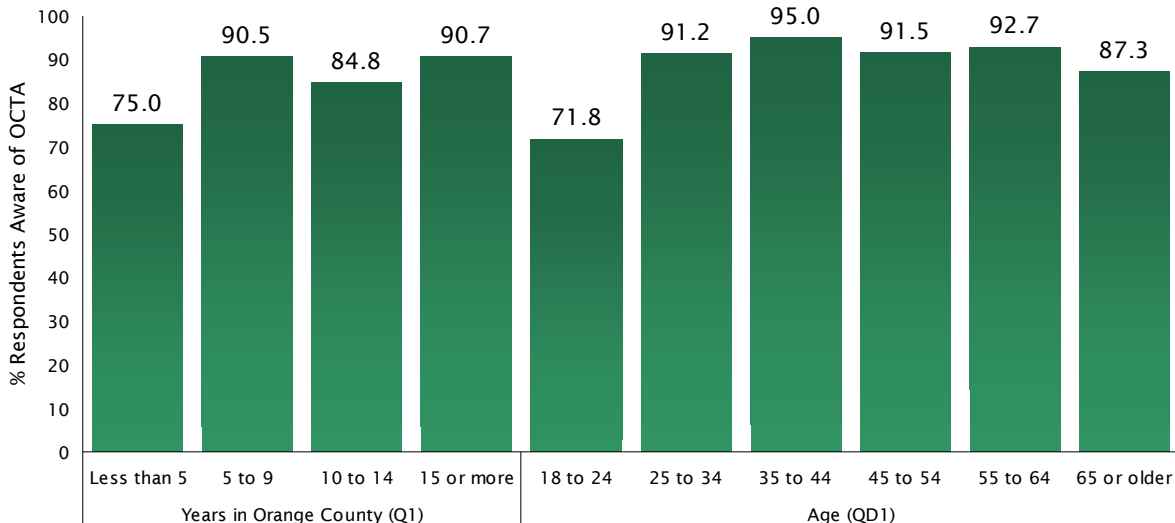


FIGURE 9 HEARD OF OCTA BY EMPLOYMENT STATUS & ETHNICITY

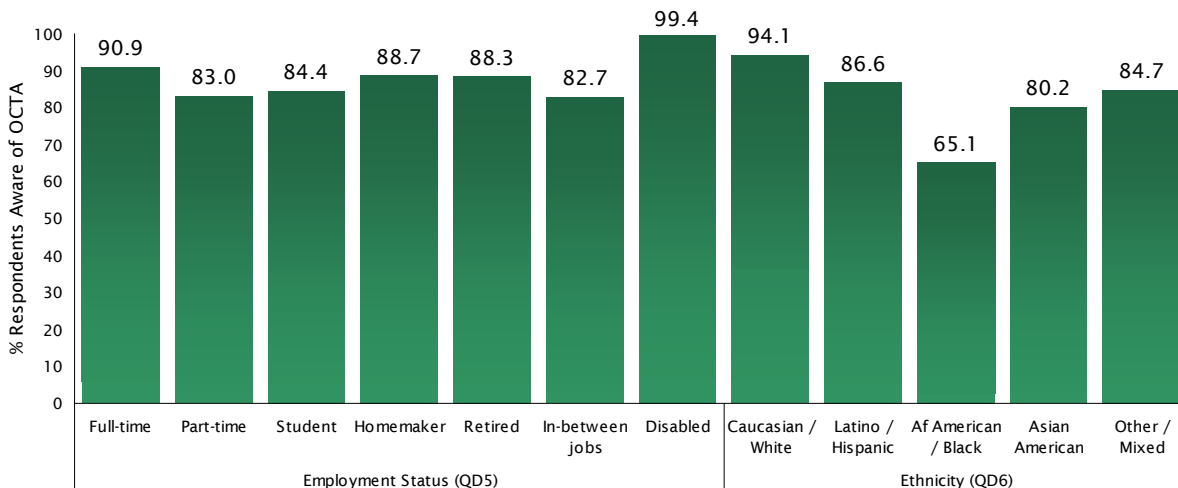
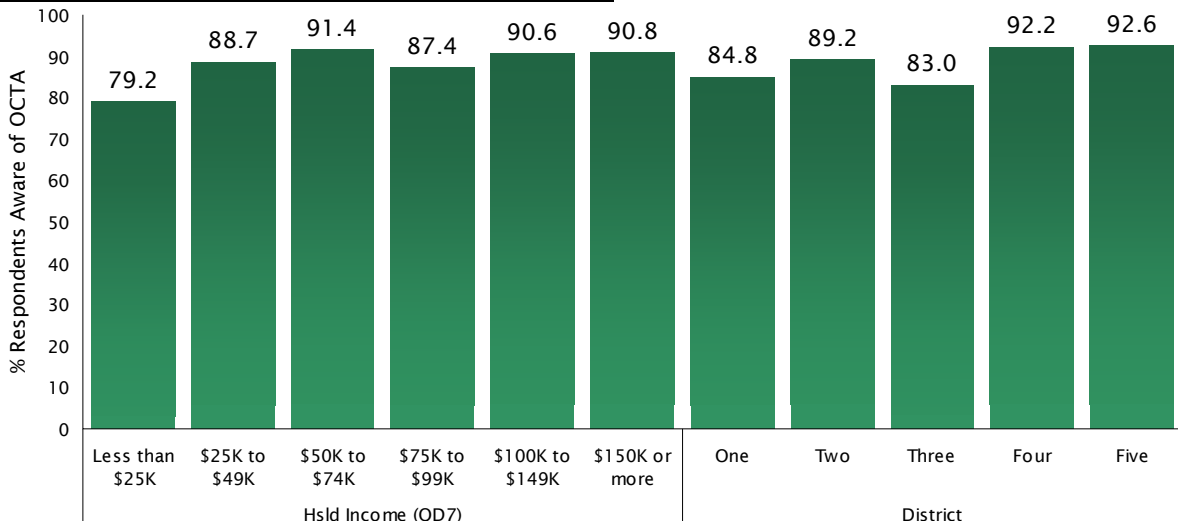


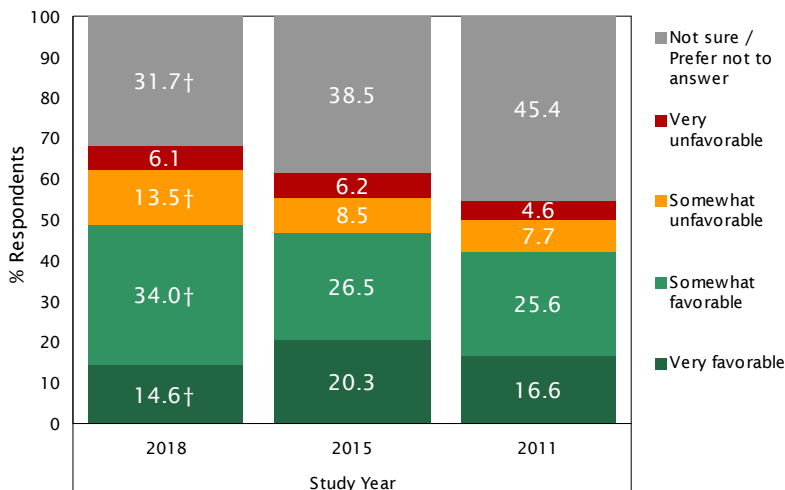
FIGURE 10 HEARD OF OCTA BY HSLD INCOME & DISTRICT



OPINION OF OCTA After clarifying for respondents that OCTA is the public agency responsible for planning, funding, managing, and developing Orange County’s transportation system, Question 5 asked respondents whether they generally have a favorable or unfavorable opinion of OCTA—or if they have no opinion either way. Approximately 32% of respondents in 2018 indicated that they do not have an opinion of OCTA or preferred not to answer the question (Figure 11). Among the remaining respondents, however, opinions of OCTA were decidedly positive. Forty-nine percent (49%) stated that they have a favorable opinion of the agency, whereas 20% offered an unfavorable opinion of OCTA.

Question 5 *To clarify, the Orange County Transportation Authority or O.C.T.A. is a public agency responsible for planning, funding, managing and developing Orange County's transportation system, including freeways, streets and roads, bus and transit services, and the 91 Express Lanes. OCTA does NOT manage the 73, 133, 241 or 261 toll roads. In general, would you say you have a favorable or unfavorable opinion of the Orange County Transportation Authority - or do you have no opinion either way?*

FIGURE 11 OPINION OF OCTA BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

When compared to the 2015 study findings, the percentage who did not have an opinion of OCTA or preferred not to answer the question decreased significantly, whereas the percentage who had a somewhat favorable opinion increased significantly as did the percentage who had a somewhat unfavorable opinion. Overall, the balance of favorable to unfavorable opinions of OCTA decreased somewhat over the past three years, with positive opinions outnumbering negative opinions by two-and-a-half-to-one in 2018 compared with more than three-to-one in 2015.

The following figures recalculate the results of Question 5 to be among just those who held an opinion of OCTA (favorable or unfavorable) and display how favorable opinions of OCTA in 2018 differed among resident subgroups, ranging from a low of 61% to a high of 89%. Very favorable ratings were highest among residents who primarily travel by public transit, those who use a regular bus at least once per week or month, and those who use the 91 Express Lanes toll road at least once per week.

FIGURE 12 OPINION OF OCTA BY YEARS IN ORANGE COUNTY & PRIMARY MODE

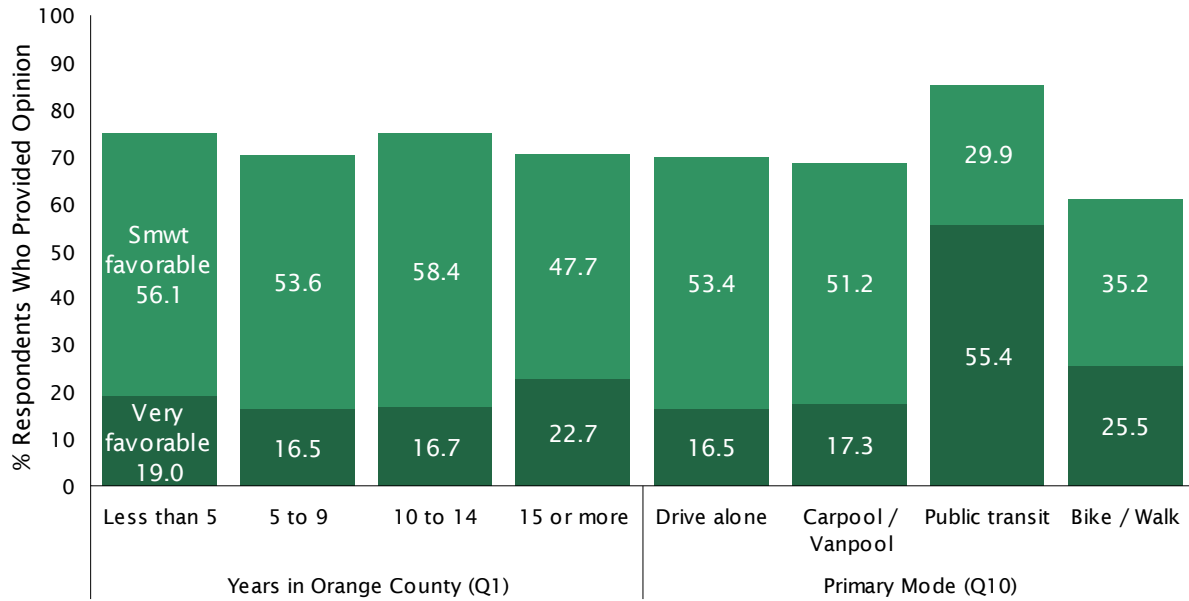


FIGURE 13 OPINION OF OCTA BY REGULAR BUS USAGE, 91 EXPRESS LANES USAGE & HEARD OF OC GO

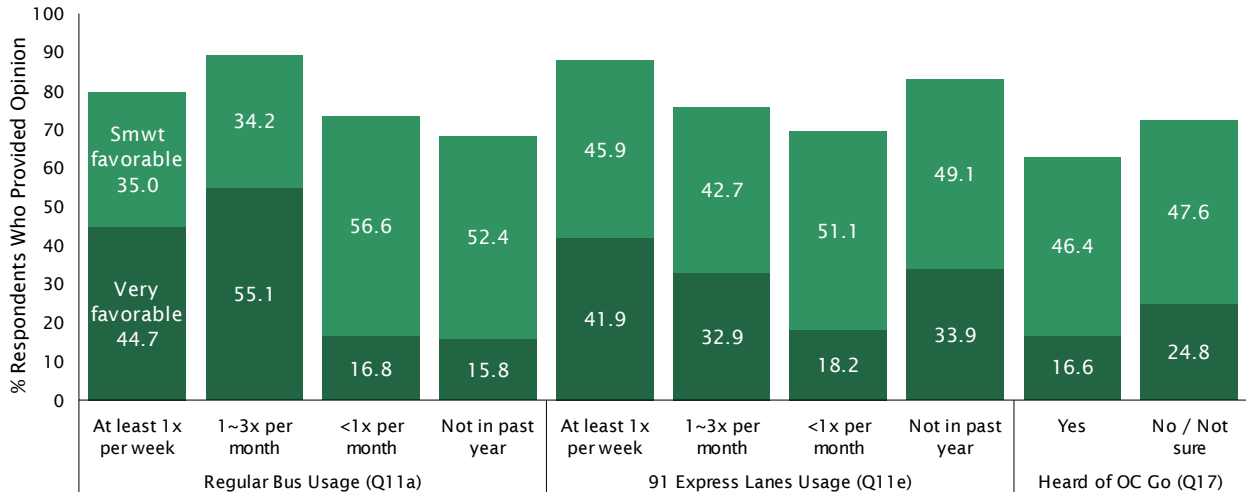


FIGURE 14 OPINION OF OCTA BY AGE & HEARD OF MEASURE M

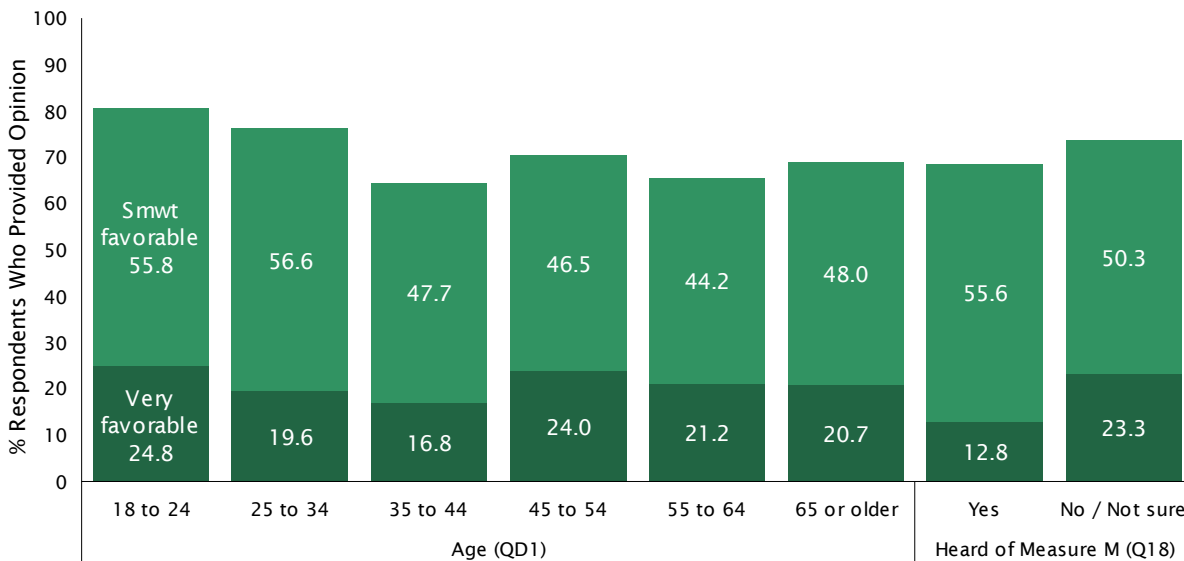
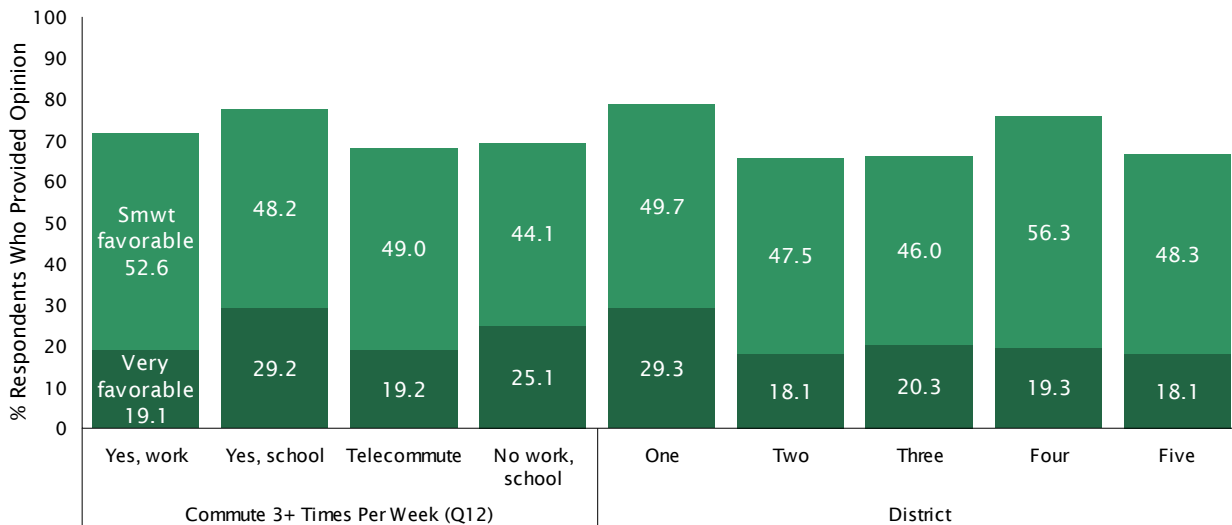


FIGURE 15 OPINION OF OCTA BY COMMUTE 3+ TIMES PER WEEK & DISTRICT

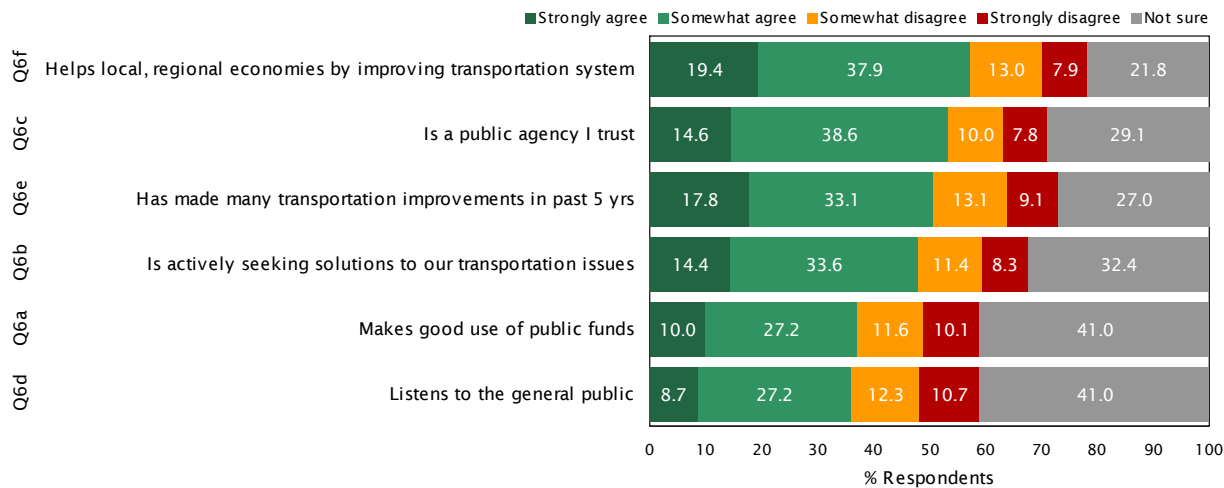


CHARACTERIZING OCTA The final question in this series was designed to profile how residents perceive OCTA on a variety of dimensions. Specifically, Question 6 provided a list of six statements about OCTA and asked respondents whether they agree or disagree with the statement—or have no opinion. Figure 16 presents the statements tested in truncated form,³ as well as respondents’ characterizations of OCTA.

3. For the exact wording of each statement, see Question 6 in *Questionnaire & Toplines* on page 51.

Question 6 Next, I'm going to read a series of statements. For each that I read, please tell me whether you agree or disagree with the statement. If you don't have an opinion, just say so.

FIGURE 16 AGREEMENT WITH STATEMENTS ABOUT OCTA



Overall, respondents generally characterized OCTA in a positive manner, although the percentage who had no opinion ranged from 22% to 41%, depending on the dimension. Overall, a majority of respondents agreed that *OCTA helps our local and regional economies function by improving our transportation system* (57%), *is a public agency I trust* (53%), and *has made many improvements to Orange County's transportation system in the past five years* (51%). Although still positive, the levels of agreement were somewhat lower (due to the higher percentage of those with no opinion) that *OCTA is actively seeking solutions to our transportation issues* (48%), *makes good use of public funds* (37%), and *listens to the general public* (36%).

When compared to the 2015 findings for those who provided an opinion, perceptions of OCTA declined on all dimensions tested, with statistically significant decreases in five of the six statements (see Table 2).

TABLE 2 AGREEMENT WITH STATEMENT ABOUT OCTA BY STUDY YEAR (AMONG THOSE WHO PROVIDED OPINION)

	Study Year			Change in Agreement '15 to '18
	2018	2015	2011	
Makes good use of public funds	63.1	66.1	65.8	-3.0
Has made many transportation improvements in past 5 yrs	69.6	76.1	75.1	-6.5†
Is a public agency I trust	75.0	81.6	79.3	-6.7†
Listens to the general public	60.9	68.3	65.0	-7.4†
Is actively seeking solutions to our transportation issues	70.9	78.4	74.7	-7.5†
Helps our local, regional economies by improving transportation system	73.3	80.9	79.0	-7.6†

† Statistically significant change (p < 0.05) between the 2015 and 2018 studies.

For the interested reader, Table 3 shows how the level of agreement with each statement about OCTA varied by Supervisorial District among those with an opinion.

TABLE 3 AGREEMENT WITH STATEMENT ABOUT OCTA BY DISTRICT (AMONG THOSE WHO PROVIDED OPINION)

	Overall	District				
		One	Two	Three	Four	Five
Is a public agency I trust	75.0	84.0	65.2	75.7	74.8	71.5
Helps local, regional economies function by improving transportation system	73.3	81.7	64.5	71.2	77.2	69.2
Is actively seeking solutions to our transportation issues	70.9	79.8	64.7	69.0	70.9	67.2
Has made many transportation improvements in past 5 yrs	69.6	86.1	59.0	64.2	67.9	65.7
Makes good use of public funds	63.1	69.7	58.5	62.3	65.7	55.0
Listens to the general public	60.9	72.4	49.6	62.9	61.4	53.2



LONG RANGE TRANSPORTATION PLAN

Over the next 20 years, Orange County's population is expected to increase by 10% and the number of people employed in the County is expected to increase by 17%. These changes will naturally lead to greater traffic congestion unless improvements are made to the County's transportation system. To help ensure that Orange County's transportation system is prepared for these changes and to relieve traffic congestion, OCTA is in the process of updating the Long Range Transportation Plan (LRTP).

The general goals of the 2018 LRTP are to assess the performance of the transportation system over a 20+ year horizon and identify the projects that best address the needs of the system based on expected population, housing, and employment growth while taking forecast financial assumptions into account at the same time. In other words, the LRTP will identify priority projects, improvements, and mobility strategies to improve the transportation system, keep people moving, and relieve traffic congestion, while keeping a realistic view of financial constraints.

LONG RANGE TRANSPORTATION PLAN PRIORITIES To help inform the LRTP update, the 2018 survey asked residents to prioritize among a list of 15 transportation projects and strategies shown in Figure 17 on the next page. The format of Question 7 was straightforward: after informing respondents that there are a variety of projects and strategies that *could* be part of the Long Range Transportation Plan, respondents were asked whether each project shown in Figure 17 should be a high, medium, or low priority—or if the project should not be included in the Plan? To encourage respondents to prioritize, they were reminded that not all of the projects can be high priorities.

As shown in Figure 17 on the next page, Orange County residents have clear preferences with respect to the projects they think should be prioritized in the Long Range Transportation Plan. At the top of the list were fixing potholes and repairing roadways (91% high or medium priority) and projects that had a direct connection to reducing traffic congestion, including fixing freeway bottlenecks at interchanges, merge areas, and on/off ramps (90%), synchronizing traffic signals on major roadways (87%), and widening freeways, where possible (80%).

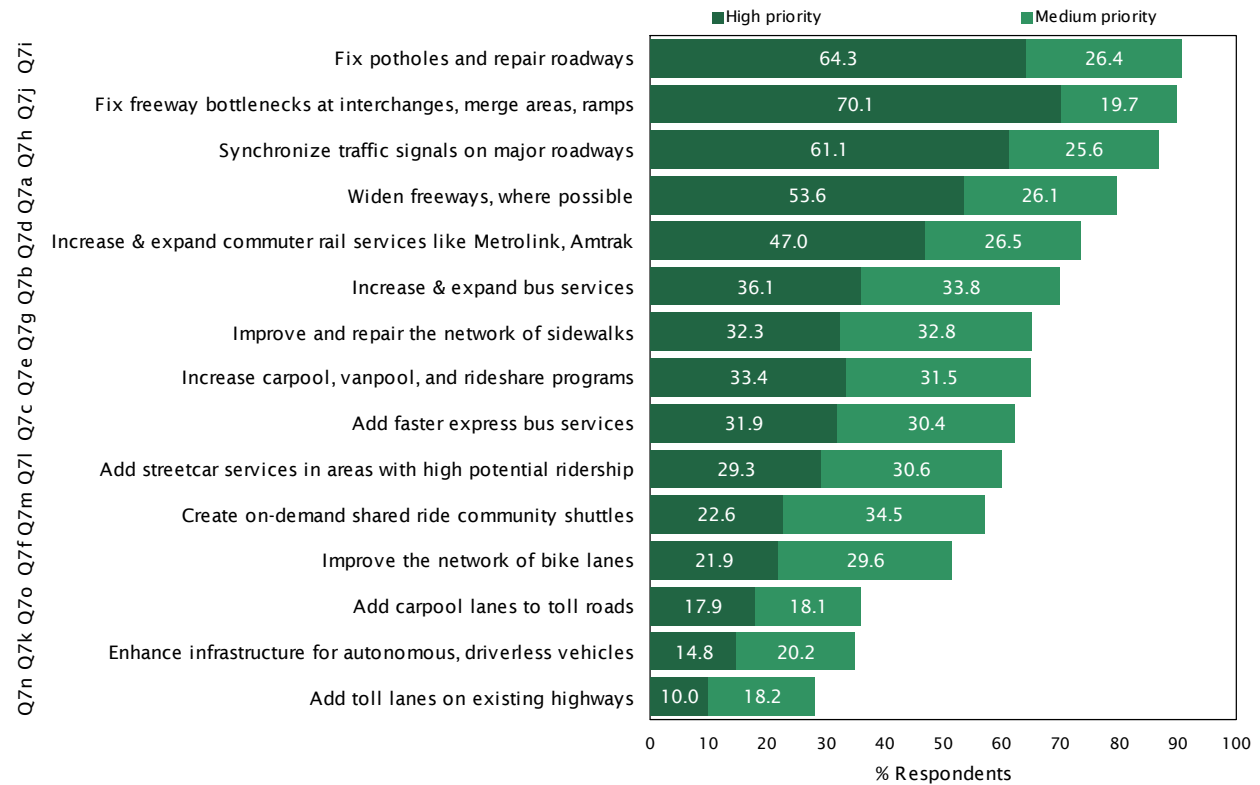
Transit and rideshare improvements were also prioritized by residents, including increasing and expanding commuter rail service including Metrolink and Amtrak (74%), increasing and expanding bus services (70%), increasing carpool, vanpool, and rideshare programs (65%), adding faster express bus services (62%), adding streetcar services in areas with high potential ridership (60%), and creating on-demand shared ride community shuttles (57%).

A majority of residents also prioritized projects that would support active transportation, including improving and repairing the network of sidewalks (65%) and improving the network of bike paths (52%).

At the other end of the spectrum, residents were less apt to prioritize improvements related to carpool lanes, toll roads, and autonomous vehicles. Specifically, less than 4-in-10 respondents rated as a high or medium priority adding carpool lanes to toll roads (36%), enhancing infrastructure to accommodate autonomous, driverless vehicles (35%), and adding toll lanes on existing highways (28%).

Question 7 As I read the following list of projects and strategies that could be part of the Long Range Transportation Plan, please indicate whether you think it should be a high priority, a medium priority, or a low priority. If you think that a project or strategy should not be part of the Plan, please say so. Please keep in mind that due to limited funds, not all of the items can be high priorities.

FIGURE 17 TRANSPORTATION PRIORITIES



Tables 4-6 on the next page show how the percentage of respondents who rated each potential project or strategy as a *high* priority varied by primary transportation mode when traveling in Orange County, commuting to work or school at least times per week, and Supervisorial District. The top three priorities within each subgroup are highlighted in green.

The three top-rated projects for each subgroup generally followed the *overall* results within commute status subgroups, Supervisorial Districts, and among those whose primary mode was driving alone or carpool/vanpool. However, those who primarily used public transit or active transportation (bike/walk) to travel in Orange County expressed different priorities, with public transit users assigning a higher than average rating to increasing and expanding bus services and commuter rail services, and those who primarily walk or bike assigning the top three slots to increasing and expanding commuter rail services, adding faster express bus services, and improving and repairing the network of sidewalks. In addition, residents who commuted to school at least three times per week assigned a much higher than average high-priority rating to adding faster express bus services.

TABLE 4 TRANSPORTATION PRIORITIES BY OVERALL & PRIMARY MODE (SHOWING % HIGH PRIORITY)

	Overall	Primary Mode (Q10)			
		Drive alone	Carpool / Vanpool	Public transit	Bike / Walk
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	70.1	70.3	71.1	67.6	48.3
Fix potholes and repair roadways	64.3	63.8	67.6	60.4	52.3
Synchronize traffic signals on major roadways	61.1	63.8	60.4	52.1	43.6
Widen freeways, where possible	53.6	53.8	58.0	45.5	17.9
Increase & expand commuter rail services including Metrolink and Amtrak	47.0	45.9	43.2	60.8	71.3
Increase & expand bus services	36.1	32.9	30.7	75.7	36.7
Increase carpool, vanpool, and rideshare programs	33.4	30.4	37.2	32.0	39.9
Improve and repair the network of sidewalks	32.3	25.2	37.2	50.6	60.9
Add faster express bus services	31.9	29.6	26.4	51.7	65.8
Add streetcar services in areas with high potential ridership	29.3	29.7	26.6	32.0	25.8
Create on-demand shared ride community shuttles	22.6	21.2	23.8	28.7	31.1
Improve the network of bike lanes	21.9	19.4	21.1	24.6	54.9
Add carpool lanes to toll roads	17.9	13.8	21.3	26.7	10.7
Enhance infrastructure to accommodate autonomous, driverless vehicles	14.8	16.4	12.5	13.3	10.9
Add toll lanes on existing highways	10.0	8.8	12.0	14.6	10.0

TABLE 5 TRANSPORTATION PRIORITIES BY COMMUTE 3+ TIMES PER WEEK & DISTRICT

	Commute 3+ Times Per Week (Q12)			
	Yes, work	Yes, school	Tele-commute	No work, school
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	73.0	65.5	69.2	67.7
Fix potholes and repair roadways	61.8	57.8	67.7	74.5
Synchronize traffic signals on major roadways	61.6	52.9	66.8	63.9
Widen freeways, where possible	55.5	43.9	54.6	55.1
Increase & expand commuter rail services including Metrolink and Amtrak	49.7	48.5	41.4	41.1
Increase & expand bus services	34.4	50.2	23.8	38.7
Increase carpool, vanpool, and rideshare programs	32.3	40.1	25.7	37.4
Improve and repair the network of sidewalks	29.9	42.3	28.9	35.7
Add faster express bus services	30.6	53.2	22.8	29.2
Add streetcar services in areas with high potential ridership	29.6	30.4	26.9	28.7
Create on-demand shared ride community shuttles	22.1	21.4	21.0	25.8
Improve the network of bike lanes	19.2	31.8	22.2	25.5
Add carpool lanes to toll roads	17.9	12.9	14.4	22.0
Enhance infrastructure to accommodate autonomous, driverless vehicles	15.7	9.9	13.7	15.3
Add toll lanes on existing highways	8.9	15.8	8.8	11.2

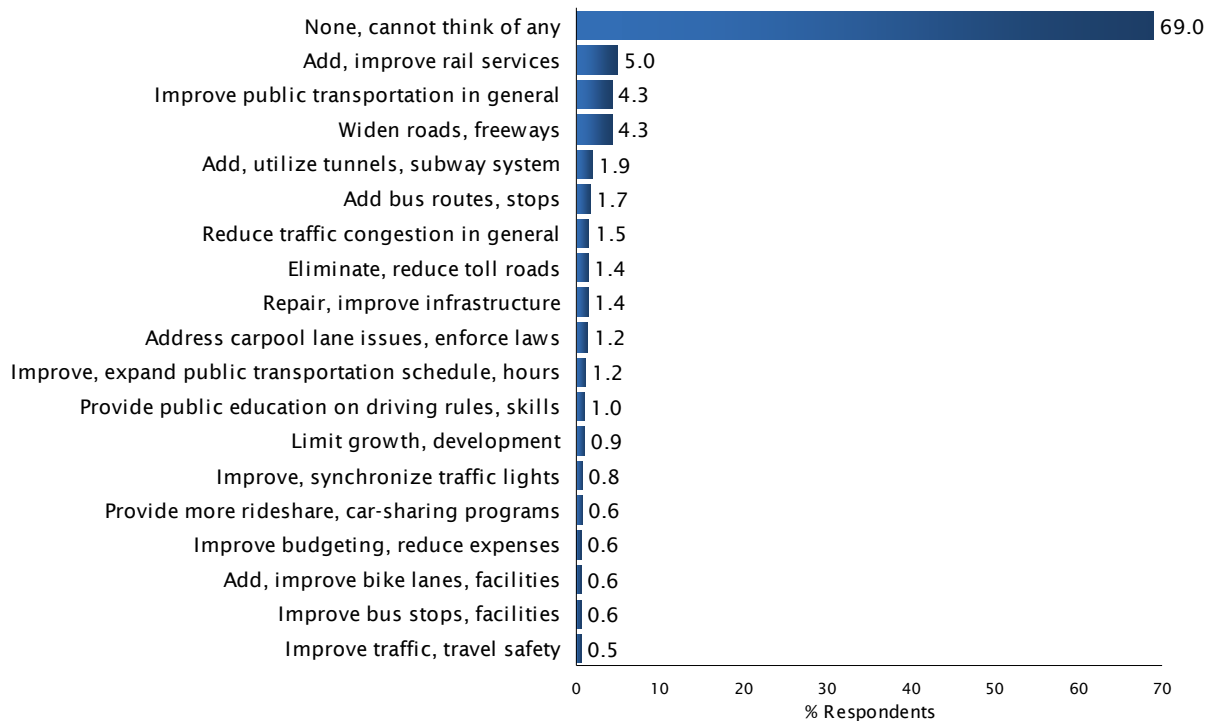
TABLE 6 TRANSPORTATION PRIORITIES BY DISTRICT (SHOWING % HIGH PRIORITY)

	District				
	One	Two	Three	Four	Five
Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	64.1	73.2	76.3	67.2	70.9
Fix potholes and repair roadways	65.2	64.8	62.4	67.1	61.1
Synchronize traffic signals on major roadways	52.5	65.8	61.3	61.0	66.7
Widen freeways, where possible	56.8	48.9	51.5	55.3	55.6
Increase & expand commuter rail services including Metrolink and Amtrak	46.1	47.5	45.6	43.8	53.0
Increase & expand bus services	37.1	37.8	34.9	40.2	28.9
Increase carpool, vanpool, and rideshare programs	38.2	30.4	29.1	39.7	27.9
Improve and repair the network of sidewalks	41.4	36.1	25.9	30.8	24.6
Add faster express bus services	39.3	29.9	28.8	34.3	25.2
Add streetcar services in areas with high potential ridership	29.5	28.5	26.6	30.4	31.7
Create on-demand shared ride community shuttles	24.9	21.8	18.8	24.6	22.2
Improve the network of bike lanes	23.7	22.6	22.2	20.5	20.2
Add carpool lanes to toll roads	19.6	20.4	15.7	19.6	13.0
Enhance infrastructure to accommodate autonomous, driverless vehicles	12.9	13.5	15.2	16.0	17.1
Add toll lanes on existing highways	10.0	12.3	9.8	8.0	9.7

ADDITIONAL PRIORITIES? Recognizing that the list of projects and strategies tested in Question 7 was not exhaustive, Question 8 asked respondents to identify any projects or strategies *not* previously mentioned that they think should be a high priority for inclusion in the Long Range Transportation Plan. Question 8 was posed in an open-ended manner, which allowed respondents to mention any potential project or strategy that came to mind without being prompted by—or restricted to—a particular list of options. True North later reviewed the verbatim responses and grouped them into the categories shown in Figure 18. Categories that received less than 0.5% of responses are not shown.

Question 8 *Is there a project or strategy I didn't mention that you think should be a high priority for inclusion in the Long Range Transportation Plan?*

FIGURE 18 ADDITIONAL HIGH PRIORITY PROJECTS, STRATEGIES



More than two-thirds (69%) of residents indicated there were no additional high priority projects that should be included in the Long Range Transportation Plan, or that none came to mind. It is also noteworthy that the top specific responses to Question 8 simply repeated categories that had in fact been addressed in Question 7, including adding/improving rail services (5%), improving public transportation in general (4%), and widening roads/freeways (4%).

CARPOOL CONGESTION SOLUTIONS Federal regulations require carpool lanes on local freeways to operate at 45 miles per hour during peak periods. If local carpool lanes do not meet this performance standard, Orange County could lose federal funding for transportation projects or face other penalties. After providing the aforementioned background information to respondents, Question 9 presented three strategies being considered by Caltrans to keep car-

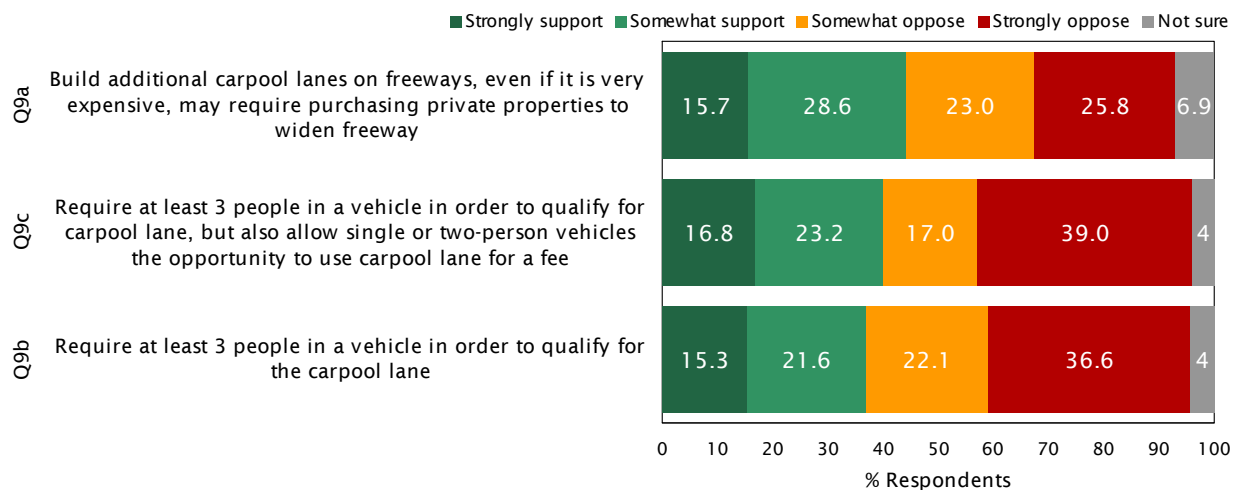
pool lanes flowing during peak periods and asked respondents whether they supported or opposed each strategy.

As shown in Figure 19, none of the approaches to reducing peak-period congestion in carpool lanes tested in Question 9 achieved majority support, and the levels of support for each strategy were more consistent than what one might expect. Although the general strategy of widening freeways to reduce traffic congestion is popular among Orange County residents (see *Transportation Priorities* on page 24), support for widening freeways to build additional carpool lanes on freeways is less so, especially when respondents are informed that it would be very expensive and may require purchasing private properties (44%). Requiring at least three people in a vehicle to use the carpool lane as a strategy to reduce peak-period congestion was somewhat less popular among survey participants (37%), although when combined with allowing single- or two-person vehicles the opportunity to use the carpool lanes for a fee (HOT lane), support ticked up to 40%.

In sum, although none of the strategies achieved majority support, it is notable that the most expensive approach for addressing congestion in carpool lanes (building additional carpool lanes) did not find substantially higher support than strategies that would accomplish the task far more cost-effectively (i.e., HOT lanes). Moreover, it is also important to keep in mind that even the most popular strategies for addressing carpool lane congestion are likely to find tepid support, at best, for the simple reason that the majority of adults are not regular users of carpool lanes. Those who do not use carpool lanes tend to exhibit less interest in making improvements to these lanes.

Question 9 *Federal regulations require that our local freeways include carpool lanes, and that the carpool lanes operate at 45 miles per hour during peak periods. If local carpool lanes do not meet this performance standard, Orange County could lose federal funding for transportation projects or face other penalties. To keep carpool lanes flowing during peak periods, there are several strategies being considered by Caltrans. As I read the following strategies, please indicate whether you would support or oppose each strategy.*

FIGURE 19 CARPOOL LANE STRATEGIES



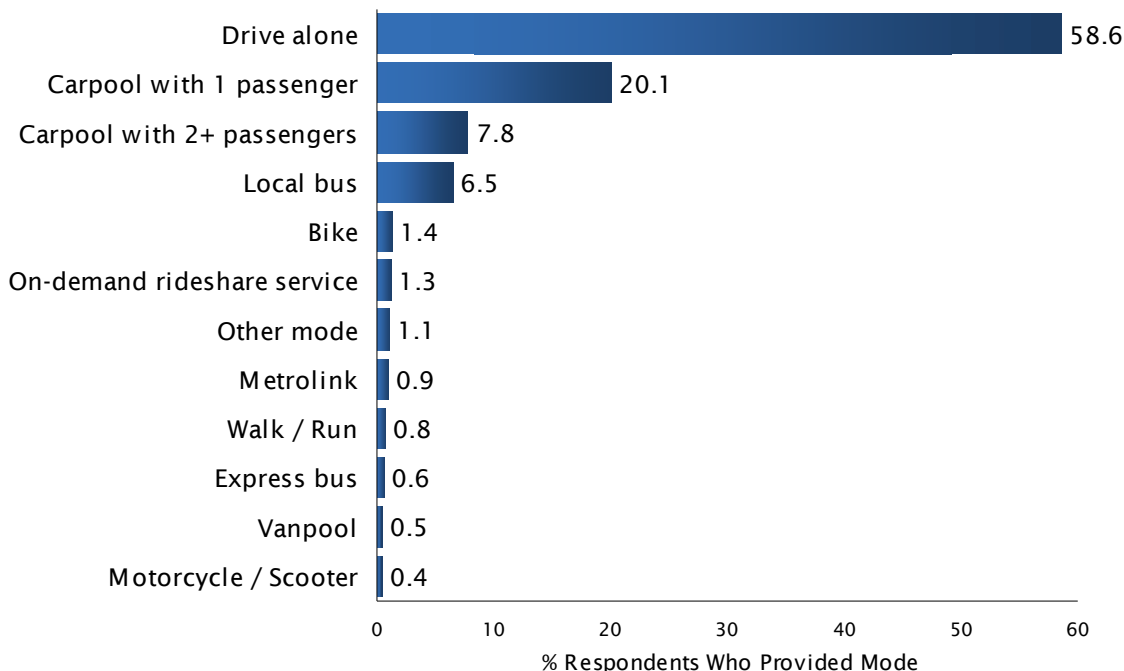
TRAVEL BEHAVIOR & USE OF SYSTEM

Naturally, an individual’s opinions about transportation priorities and policies can be shaped by the type of transportation they primarily use, whether they commute to work or school, and other aspects of their travel behavior. Accordingly, the survey included a number of questions designed to profile respondents’ travel behavior, the results of which are presented in this section.

PRIMARY MODE OF TRANSPORTATION The first question in this series (Question 10) was designed to identify respondents’ *primary* mode of transportation when they travel in Orange County. As shown in Figure 20, the majority (59%) of residents surveyed indicated that they primarily drive alone, whereas over a quarter (28%) typically drive with one (20%) or two passengers (8%). Overall, 7% stated that they primarily travel by local bus and 7% primarily travel by alternative modes including biking, walking, on-demand rideshare service, Metrolink, express bus, vanpooling, or motorcycle. The 2018 findings with respect to primary mode choice are similar to those found in 2015.

Question 10 *Next, I'd like to know about the types of transportation you use when traveling in Orange County. What form of transportation do you use most often when traveling in Orange County?*

FIGURE 20 PRIMARY TRANSPORTATION MODE



Figures 21-24 on the next page show how primary mode of travel varied by resident age, household income, Supervisorial District, and ethnicity. In general, the percentage of residents who primarily drive alone increased with household income, and was highest among residents 25 to 64 years of age and those who describe their ethnicity as other or mixed. By comparison, use of public transit as a primary mode was highest among residents 18 to 24 years of age, low-income residents (less than \$25K per year), and African Americans.

FIGURE 21 PRIMARY TRANSPORTATION MODE BY AGE

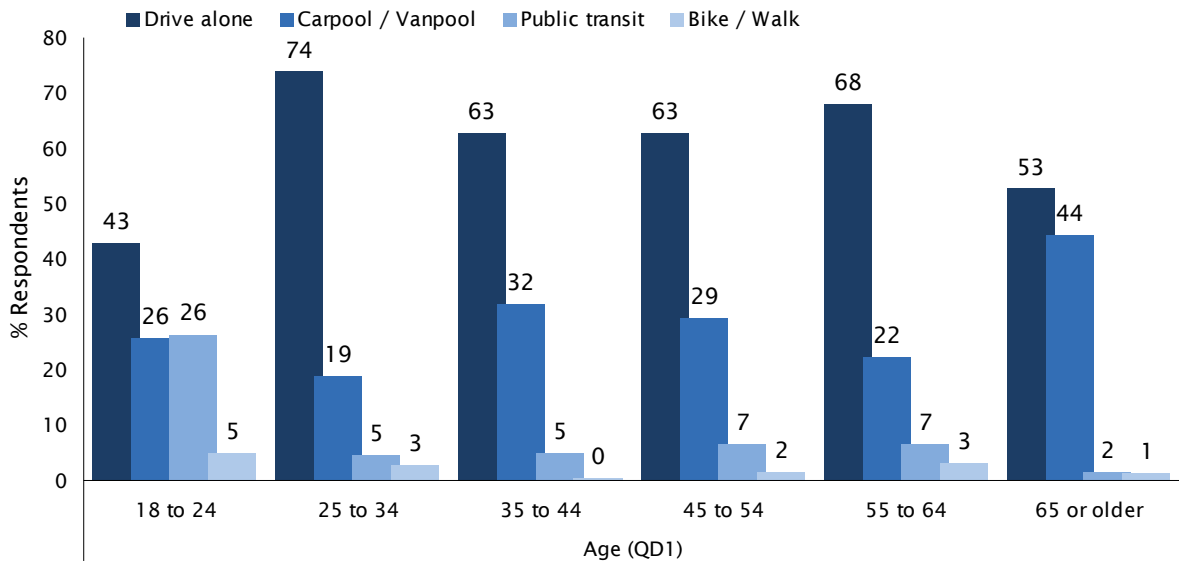


FIGURE 22 PRIMARY TRANSPORTATION MODE BY HSLD INCOME

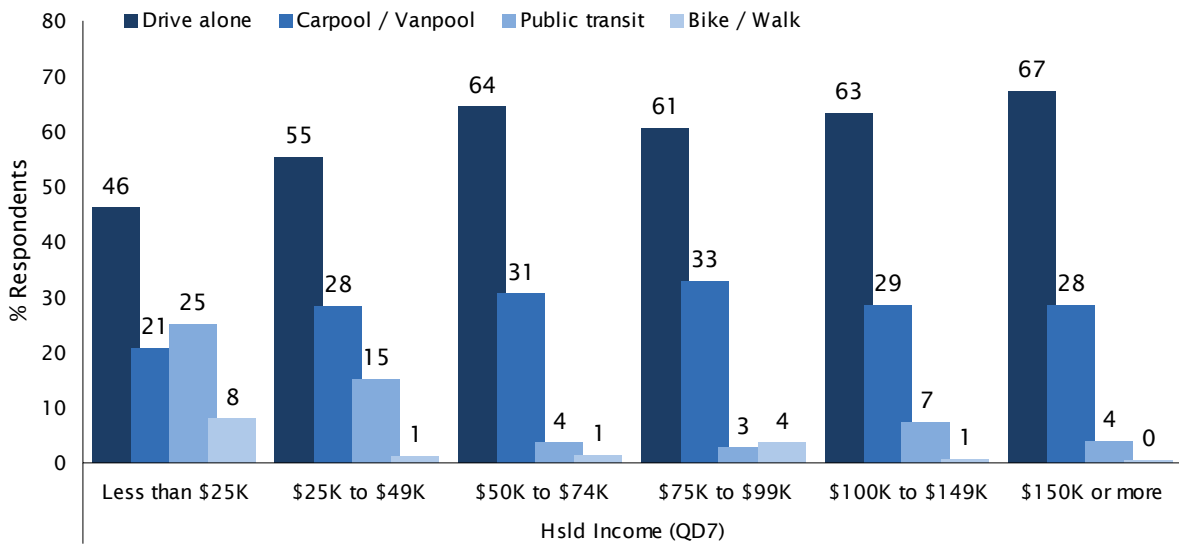


FIGURE 23 PRIMARY TRANSPORTATION MODE BY DISTRICT

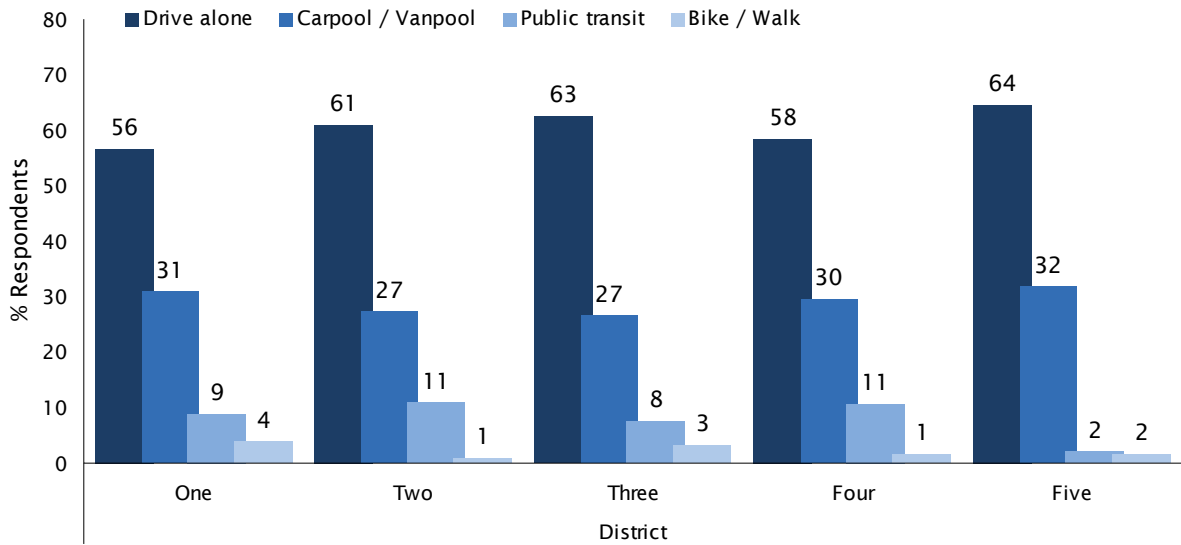
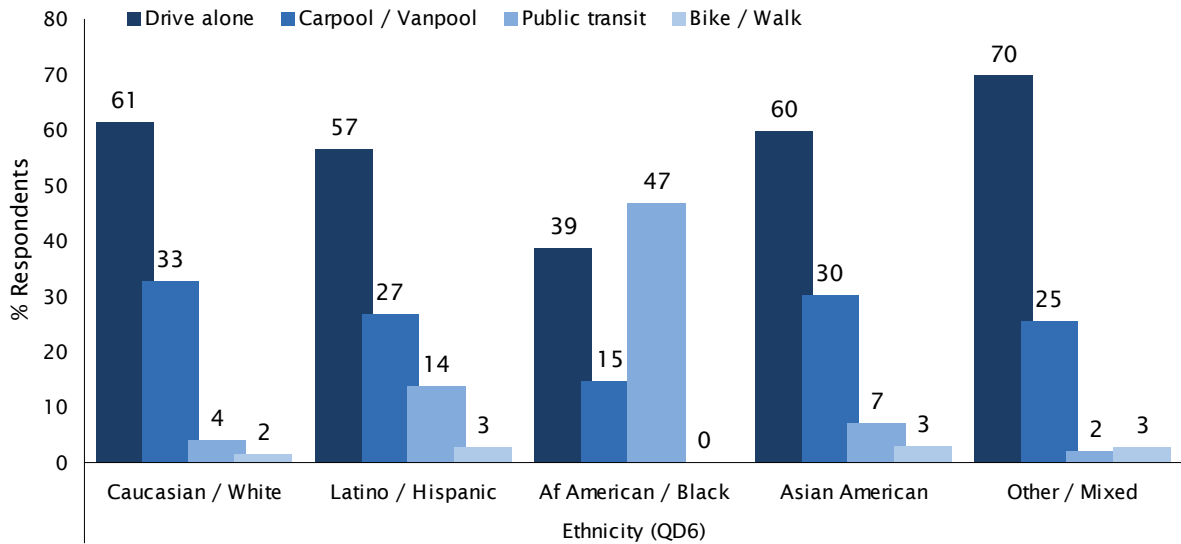


FIGURE 24 PRIMARY TRANSPORTATION MODE BY ETHNICITY



USE OF TRANSIT & 91 EXPRESS LANES Having identified respondents’ primary mode of travel, the survey next asked respondents how frequently they had used each of the transit and toll road options listed in Figure 25 in the 12 months prior to the interview. Overall, residents reported the highest frequency of use for the 91 Express Lanes Toll Road (40% use; 4% weekly), followed by Metrolink commuter rail (26% use; 1.5% weekly), regular bus service (23% use; 8% weekly), express bus service (11% use; 2.0% weekly), and ACCESS paratransit service (5% use; 1.7% weekly).

For the interested reader, Figures 26-29 show how the frequency of using each transit and toll road option varied by age, household income, Supervisorial District, Metrolink service in home zip code, and ethnicity. When compared to the 2015 survey, the percentage who indicated they had used the 91 Express Lanes, Metrolink, and express bus service increased significantly (see Table 7).

Question 11 *In the past 12 months, have you used: _____ when traveling in Orange County? If no, record answer. If yes, ask: Have you used the service at least once per week, 2 to 3 times per month, once per month, once every two or three months, or less frequently than once every three months?*

FIGURE 25 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS

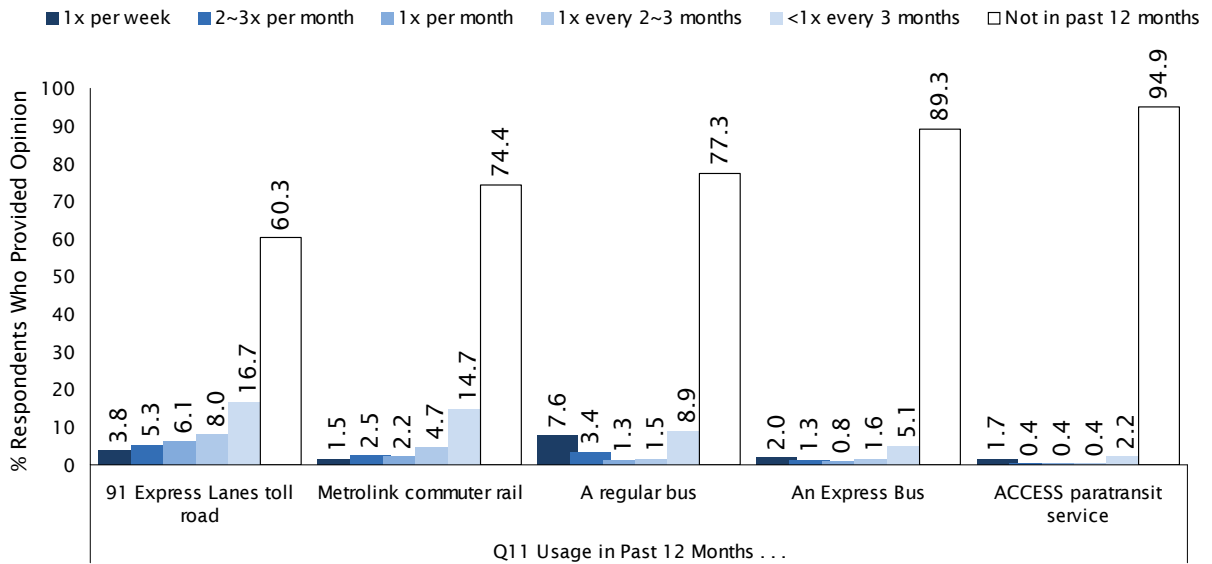


FIGURE 26 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS BY AGE

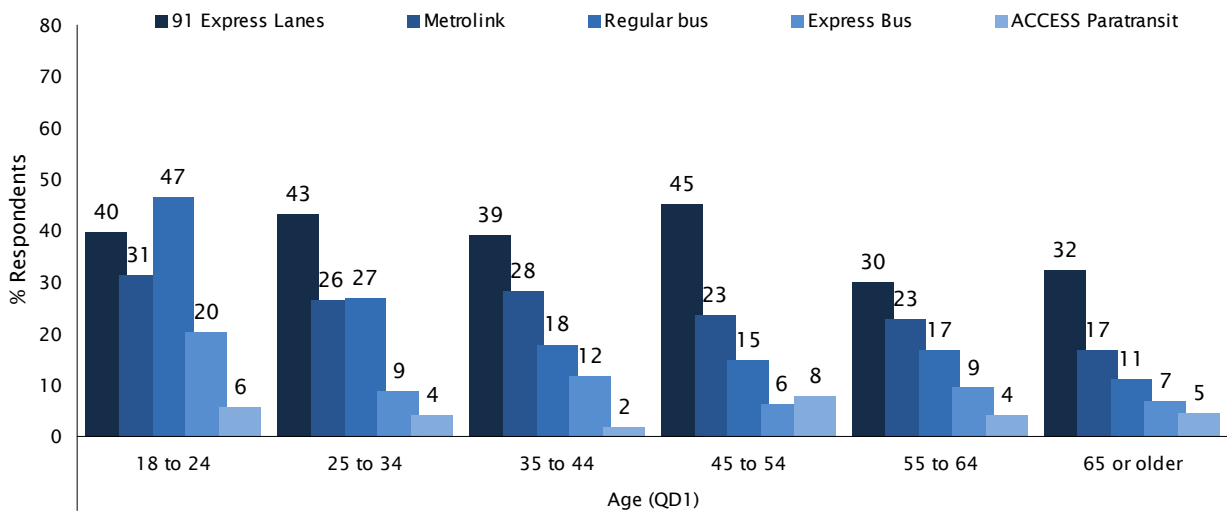


FIGURE 27 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS BY HSLD INCOME

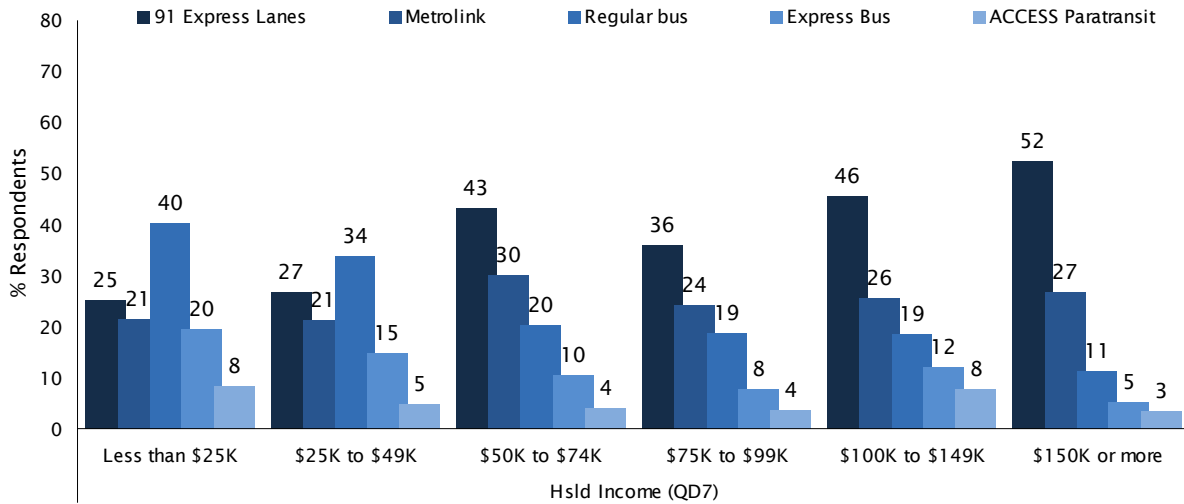


FIGURE 28 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS BY DISTRICT & METROLINK SERVICE IN HOME ZIP CODE

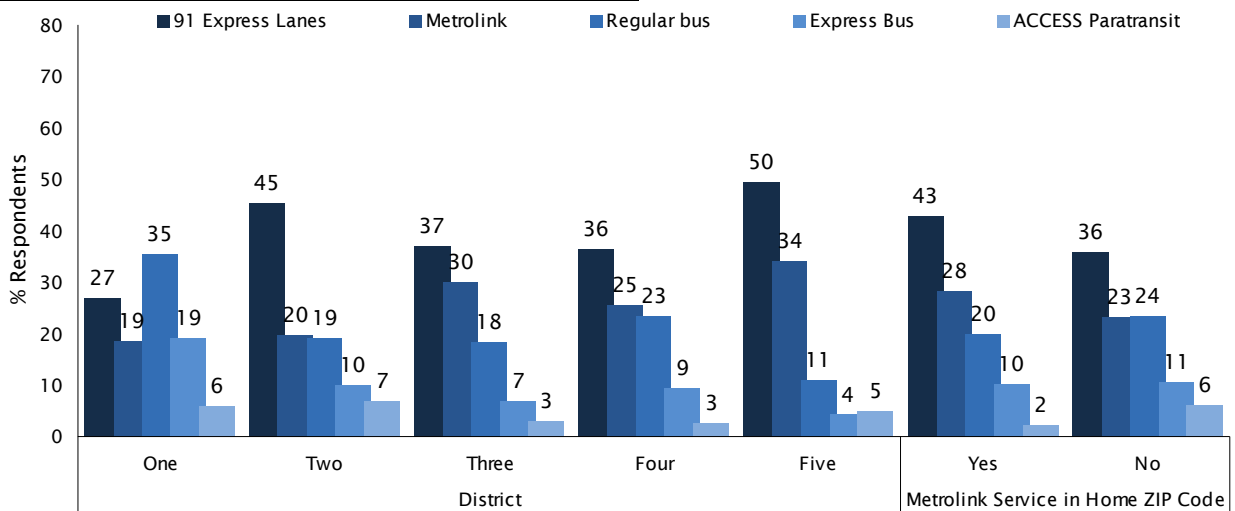


FIGURE 29 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS BY ETHNICITY

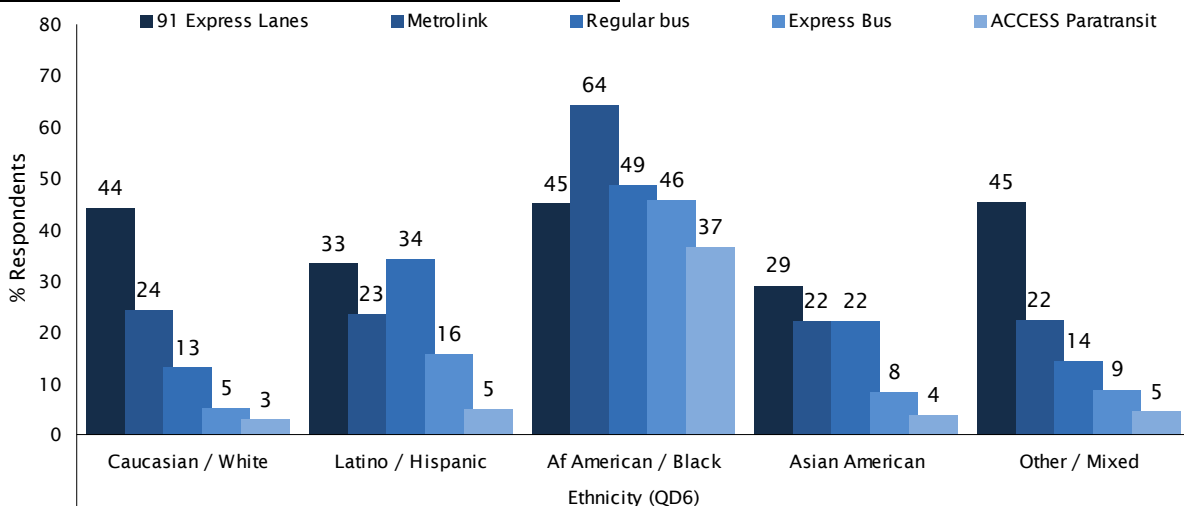


TABLE 7 TRANSPORTATION SERVICES USAGE IN PAST 12 MONTHS BY STUDY YEAR

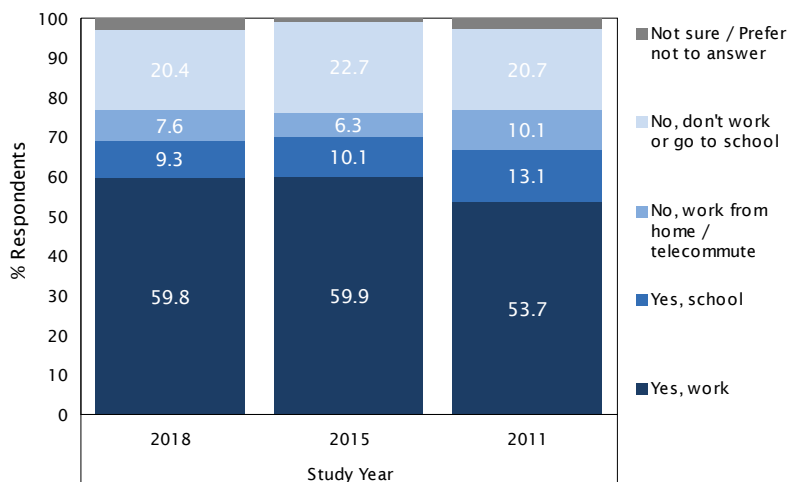
	Study Year			Change in Usage '15 to '18
	2018	2015	2011	
91 Express Lanes toll road	39.7	30.4	37.6	+9.3†
Metrolink commuter rail	25.6	18.7	17.7	+6.8†
An Express Bus	10.7	6.0	5.6	+4.7†
ACCESS paratransit service	5.1	3.7	4.5	1.4
A regular bus	22.7	22.6	23.1	0.1

† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

COMMUTE TO WORK OR SCHOOL? The next question (Question 12) sought to categorize respondents according to their commute status. Overall, 60% indicated that they commute to work at least three times per week, 9% do so for school, and 8% reported that they work or attend school at home. Approximately 20% stated that they do not commute to work or school at least three times per week, whereas 3% preferred to not answer the question. When compared to the 2015 survey, commute status remained stable with no statistically significant changes.

Question 12 *Do you commute to work or school at least three times per week? If says both work and school, ask which is the longer commute and record.*

FIGURE 30 COMMUTING BEHAVIOR BY STUDY YEAR



Figures 31 and 32 show how commute status among Orange County residents surveyed for this study varied by age, Supervisorial District, household income, and ethnicity. Age was the primary determinant of commute status, with the percentage that did not work or go to school generally increasing with age. Residents under the age of 25 and seniors were the least likely to report commuting to *work* at least three times per week, and residents 18 to 24 years of age were the most likely to report commuting to *school* at least three time per week. Household income was also strongly related to commute status. Commuting to work at least three times per week steadily increased as household income increased, whereas commuting to school increased as household income decreased.

FIGURE 31 COMMUTING BEHAVIOR BY AGE & DISTRICT

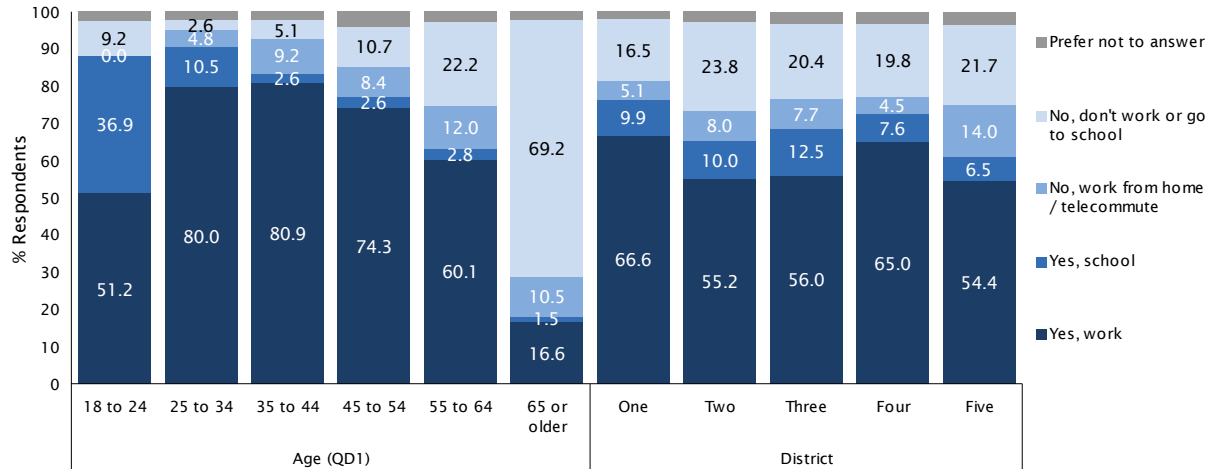
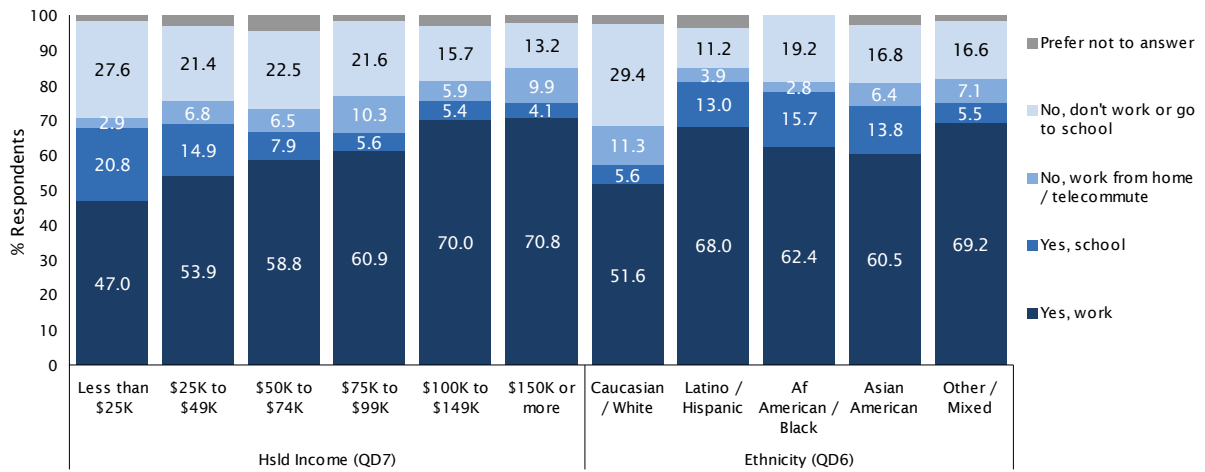


FIGURE 32 COMMUTING BEHAVIOR BY HSLD INCOME & ETHNICITY



COMMUNICATIONS

This section of the report presents the results of questions designed to measure respondents' satisfaction with OCTA's efforts to communicate with residents, profile residents' desire for additional information from OCTA, understand the communication channels residents use most often, and assess awareness of Measure M and OC Go.

OVERALL SATISFACTION Question 13 of the survey asked residents to report their overall satisfaction with OCTA's efforts to communicate with residents through E-newsletters, advertisements, the Internet, news media, and other means. Overall, 49% of respondents indicated they were satisfied with OCTA's efforts in this respect in 2018, with 19% indicating that they were *very* satisfied (Figure 33). The remaining respondents were either dissatisfied with OCTA's communication efforts (24%) or unsure of their opinion (28%). Driven by a statistically significant increase in the percentage of respondents who were unsure over the past three years, there was a small but statistically significant decline in the percentage very satisfied with OCTA's communication efforts when compared to 2015. When examining only those who provided an opinion, overall satisfaction remained similar between 2015 and 2018 (67% vs 70%).

Question 13 *Overall, are you satisfied or dissatisfied with OCTA's efforts to communicate with Orange County residents through E-newsletters, advertisements, the Internet, news media, and other means?*

FIGURE 33 SATISFACTION WITH COMMUNICATION BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

Figures 34-37 recalculate the results to Question 13 to be among just those with an opinion and show how satisfaction with OCTA's communication efforts varied across key resident subgroups. Overall, residents who have lived in Orange County five to nine years, those 18 to 24 years of age, residents employed part-time, students, and homemakers, Latino/Hispanic respondents, those with a household income under \$50,000 per year, residents in Supervisorial District One, those with a favorable opinion of OCTA, and residents who had not heard of Measure M or were unsure reported higher satisfaction with OCTA's communication efforts than their subgroup counterparts.

FIGURE 34 SATISFACTION WITH COMMUNICATION BY YEARS IN ORANGE COUNTY & AGE

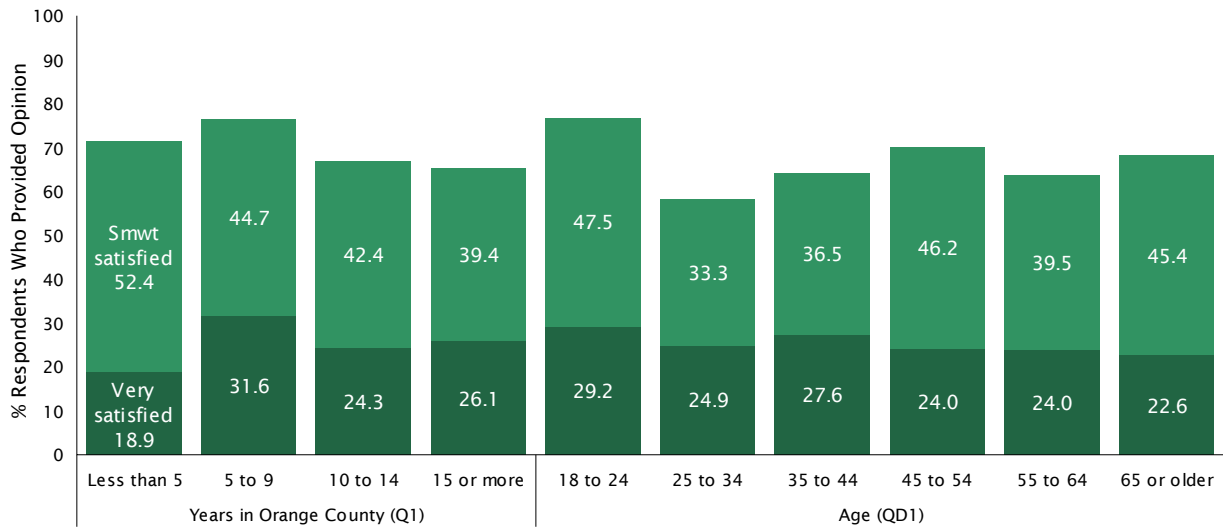


FIGURE 35 SATISFACTION WITH COMMUNICATION BY EMPLOYMENT STATUS & ETHNICITY

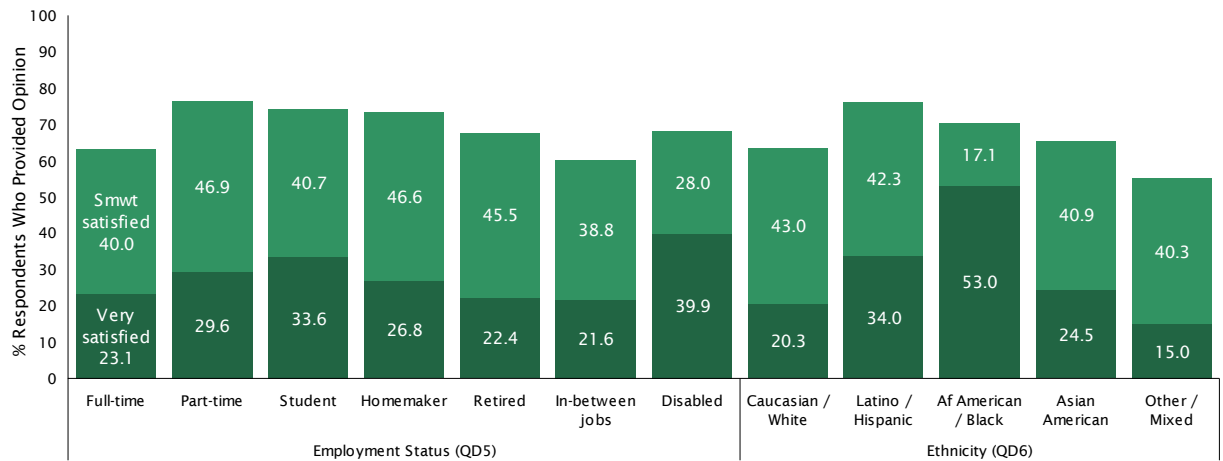


FIGURE 36 SATISFACTION WITH COMMUNICATION BY HSLD INCOME & DISTRICT

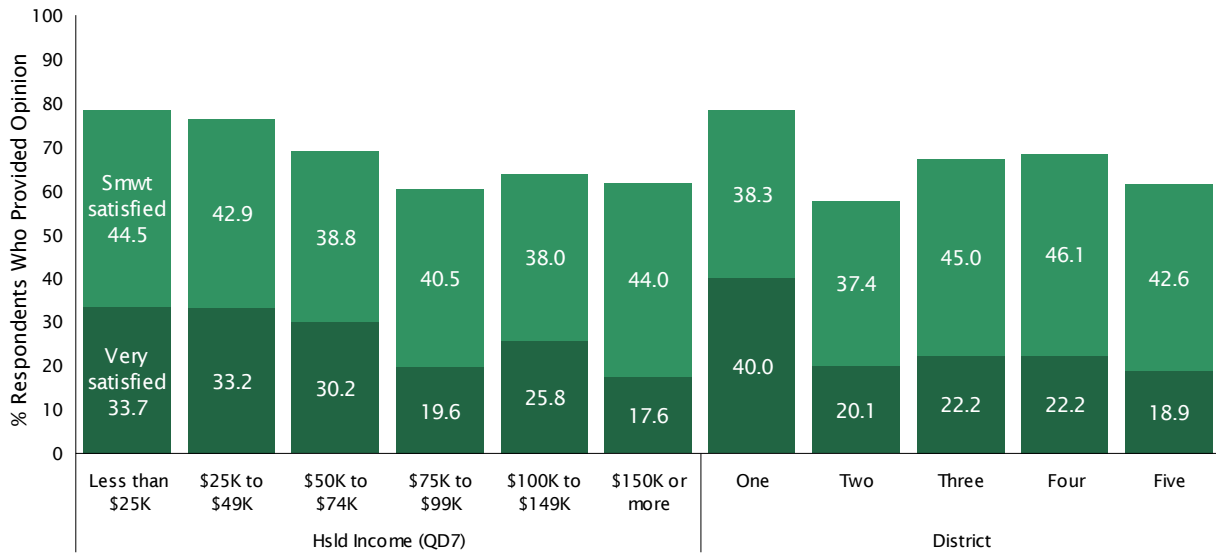
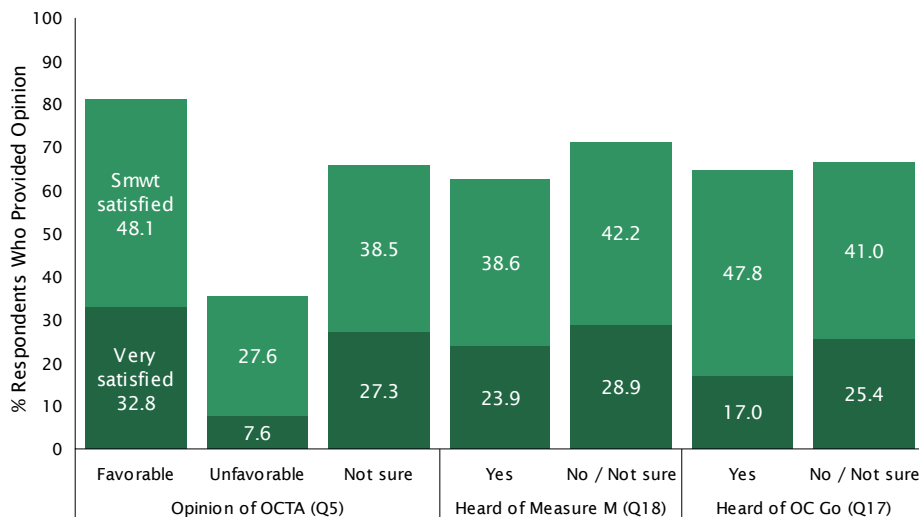


FIGURE 37 SATISFACTION WITH COMMUNICATION BY OPINION OF OCTA, HEARD OF MEASURE M & HEARD OF OC GO



TOPICS OF INTEREST New to the 2018 study, residents were asked whether there was a particular topic or issue that they would like to receive more information about from OCTA. As shown in Figure 38 on the next page, more than three-quarters of residents either did not desire additional information from OCTA (54%), were unsure (22%), or preferred to not answer the question (1%). Overall, 23% of Orange County residents responded in the affirmative, indicating that there was a topic or issue about which they would like more information from OCTA. For the interested reader, Figures 39-42 show the percentage of residents who desired additional information from OCTA by a variety of subgroups. Disabled residents, those with an unfavorable opinion of OCTA, and residents dissatisfied with OCTA’s communication efforts were the most likely to desire additional information.

Question 14 *Is there a particular topic or issue that you'd like to receive more information about from OCTA?*

FIGURE 38 DESIRE ADDITIONAL INFO FROM OCTA

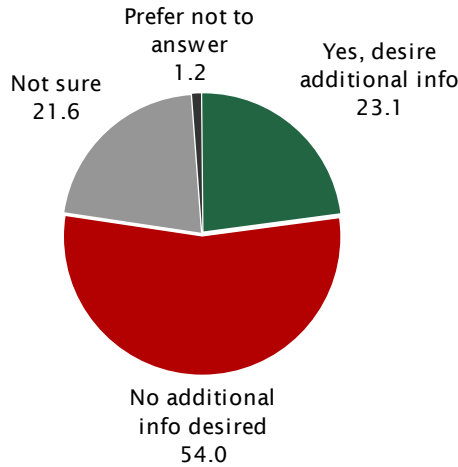


FIGURE 39 DESIRE ADDITIONAL INFO FROM OCTA BY YEARS IN ORANGE COUNTY & AGE

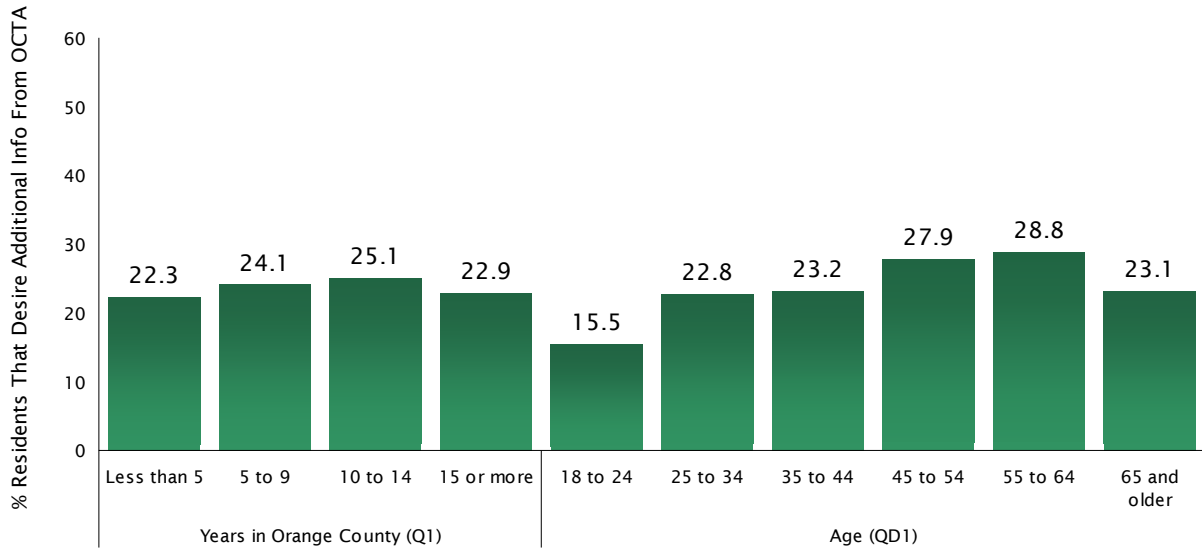


FIGURE 40 DESIRE ADDITIONAL INFO FROM OCTA BY EMPLOYMENT STATUS & OPINION OF OCTA

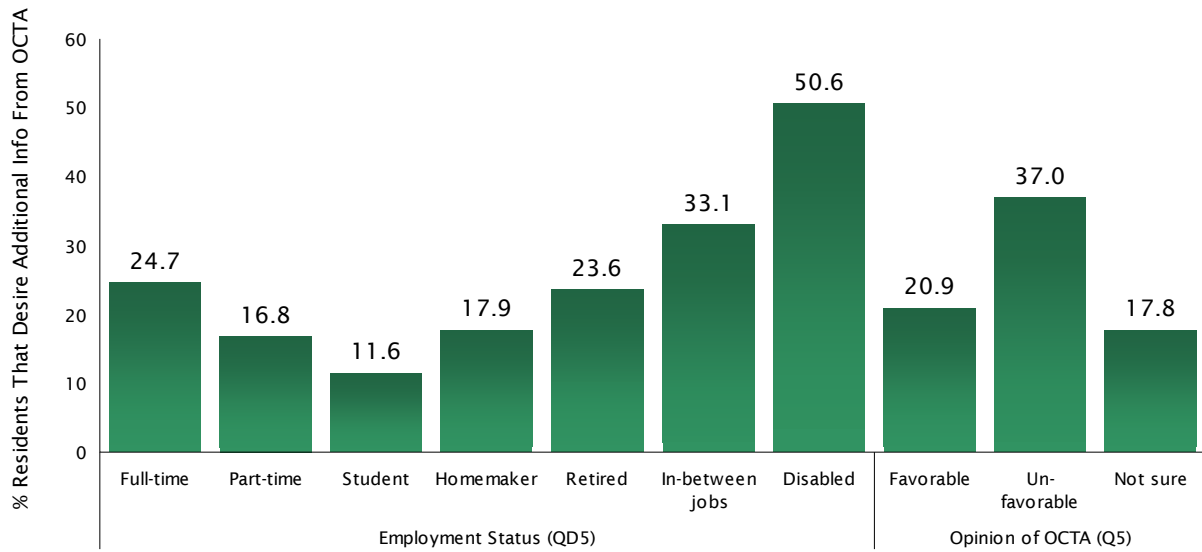


FIGURE 41 DESIRE ADDITIONAL INFO FROM OCTA BY DISTRICT & SATISFACTION WITH COMMUNICATION

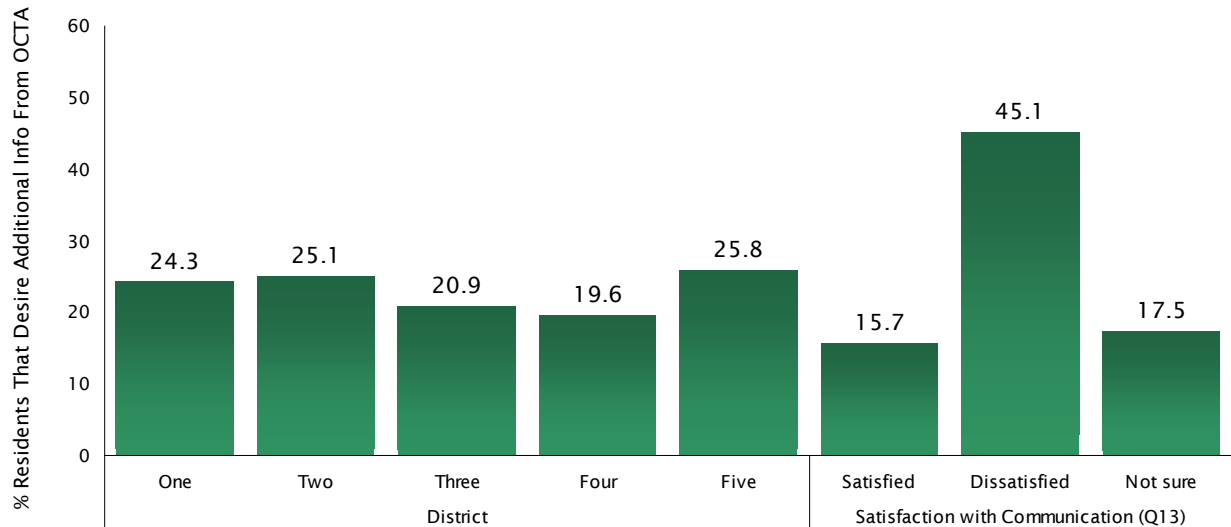
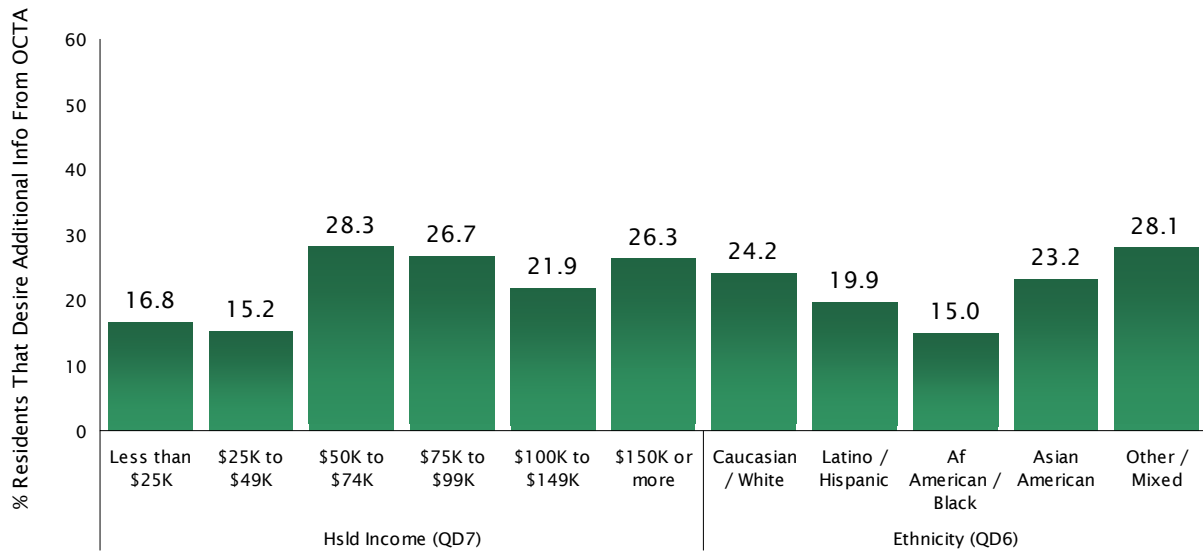


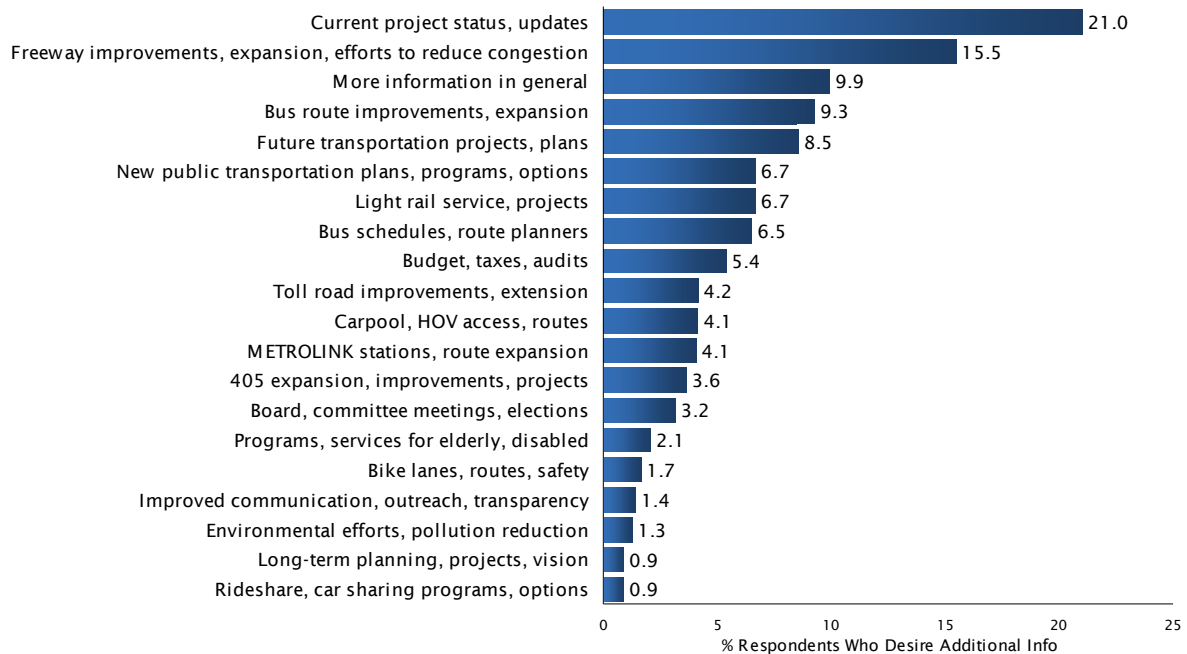
FIGURE 42 DESIRE ADDITIONAL INFO FROM OCTA BY HSLD INCOME & ETHNICITY



When those who expressed interest in more information from OCTA were asked to provide additional details regarding the specific topics of interest (see Figure 43), information about current projects/status updates was the most frequently mentioned topic (21%), followed by more information about freeway improvements/expansion and efforts to reduce freeway traffic (16%).

Question 15 *Please briefly describe the topic.*

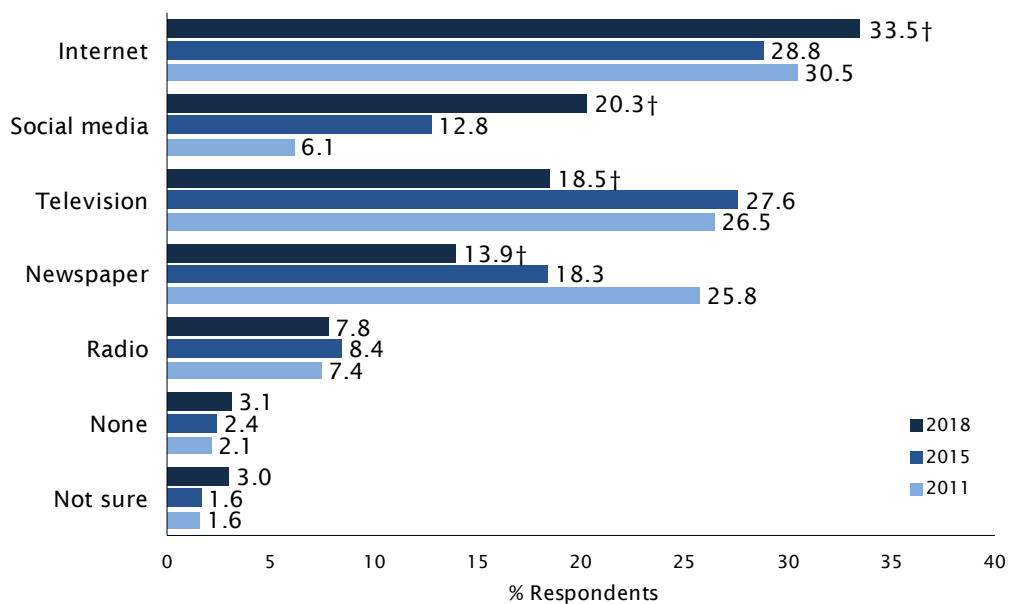
FIGURE 43 ADDITIONAL INFORMATION TOPICS DESIRED



PRIMARY INFORMATION SOURCE The next question in the communication series (Question 16) transitioned to the topic of information sources. Specifically, respondents were asked to identify which channel—newspapers, television, radio, Internet, or social media—is their *primary* source for information about news and events in Orange County. As shown in Figure 44, one-third (34%) indicated in 2018 that they rely on the Internet for most of their information about Orange County news and events, followed by social media (20%) and television (19%). The remaining sources—newspapers and radio—were identified as primary information sources for news and events in Orange County by 14% and 8% of respondents, respectively. Over the past three years, the percentage of Orange County residents who rely on television and newspapers as their primary information source declined significantly, whereas the percentage who primarily turn to the Internet and social media for their news increased significantly.

Question 16 Which of the following would you say is your primary source for information about news and events in Orange County? Newspapers, television, radio, the Internet, or social media like Facebook and Twitter?

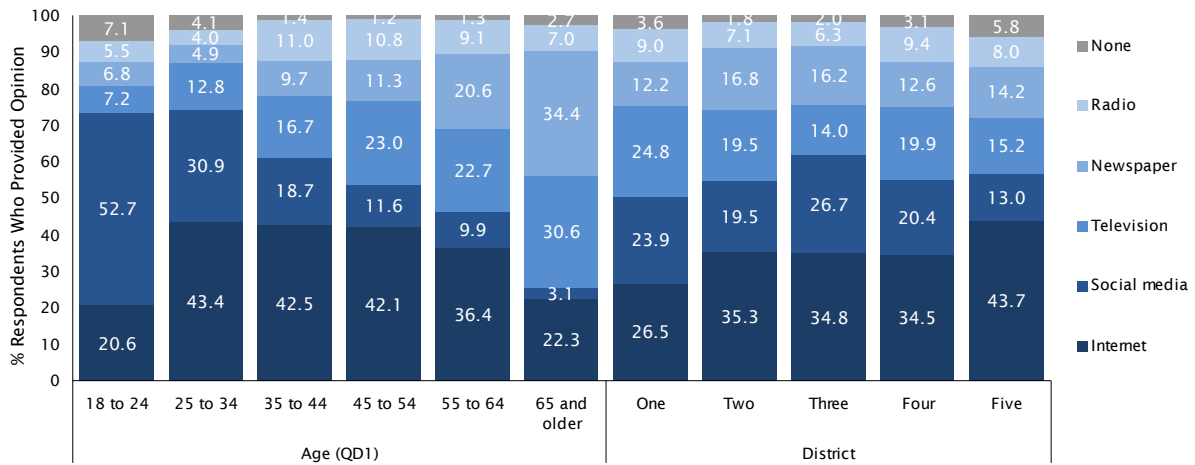
FIGURE 44 PRIMARY SOURCE FOR ORANGE COUNTY NEWS & EVENTS BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

Figure 45 on the next page shows how the reliance on particular information sources in 2018 varied according to respondent age and Supervisorial District. The most consistent patterns occur with respect to age. Primary reliance on the Internet or social media declined with age, whereas use of newspapers and television increased with age.

FIGURE 45 PRIMARY SOURCE FOR ORANGE COUNTY NEWS & EVENTS BY AGE & DISTRICT

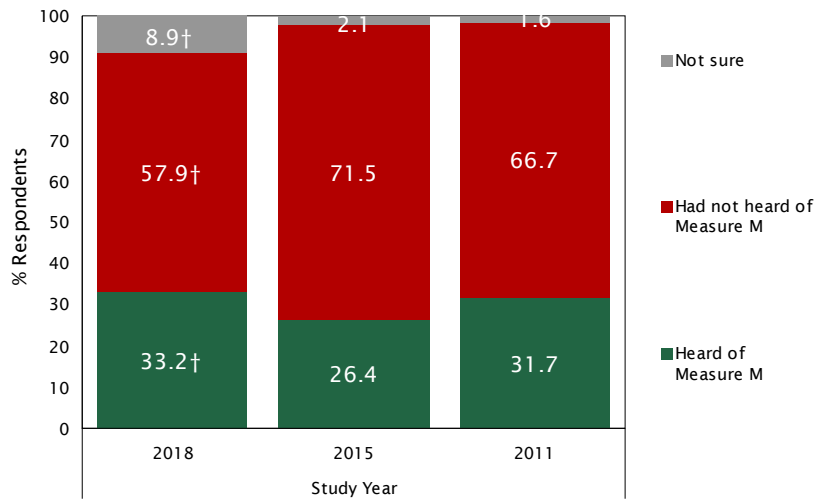


MEASURE M In 1990, Orange County voters approved establishing a local half-cent sales tax (Measure M) dedicated to transportation improvements and traffic relief projects, including expanding and improving freeways, upgrading intersections, adding capacity and improved maintenance of city streets, and enhancing rail transit services. Renewed by voters for an additional 30 year term in 2011 (M2), it is estimated that the combined Measure M plans will deliver approximately \$17 billion in transportation improvements to Orange County by the year 2041.

When asked if they had heard of Measure M prior to taking the survey, one-third (33%) indicated that they had heard of Measure M, whereas 58% had not heard of Measure M and 9% were unsure (see Figure 46). When compared to the 2015 survey, public awareness of Measure M increased approximately 7%, which is statistically significant and similar to the awareness level recorded in 2011. Awareness of Measure M also varied across subgroups, with self-reported awareness being highest among respondents who have lived in Orange County at least 10 years, those in a Supervisorial District other than District Two, residents who primarily rely on the newspaper for Orange County information, and those with an unfavorable opinion of OCTA (see Figures 47-48).

Question 18 Prior to taking this survey, had you heard of Measure M?

FIGURE 46 HEARD OF MEASURE M BY STUDY YEAR



† Statistically significant change ($p < 0.05$) between the 2015 and 2018 studies.

FIGURE 47 HEARD OF MEASURE M BY YEARS IN ORANGE COUNTY & DISTRICT

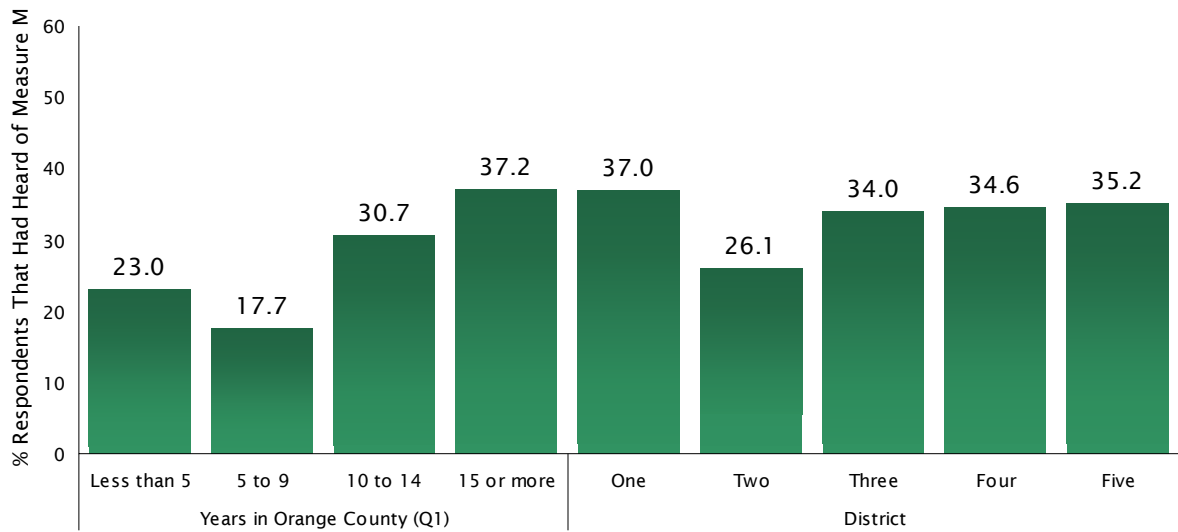
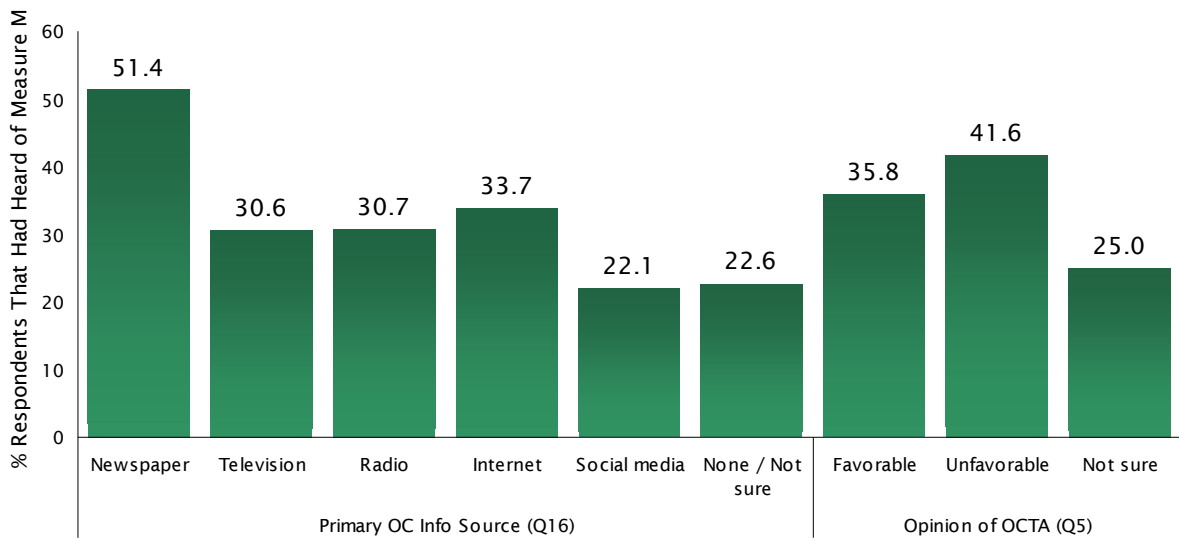


FIGURE 48 HEARD OF MEASURE M BY PRIMARY OC INFO SOURCE & OPINION OF OCTA



As a follow-up, residents who reported being aware of Measure M prior to taking the survey were asked to briefly describe Measure M in their own words. The distribution of responses shown in Figure 49 reveals that one-third (33%) of respondents who had ‘heard’ of Measure M confided that they know nothing about it beyond the name. Twenty-two percent (22%) accurately recalled that Measure M is a half-cent sales tax to fund transportation projects and improvements, 15% mistakenly identified it as a bond measure but were correct that it funds transportation projects, and 16% provided a *partially* correct description noting that it provides funding for or addresses transportation improvements and congestion relief. It is worth noting that 8% identified Measure M as the *Los Angeles County* traffic improvement plan or a gas tax, and 3% provided a general response that it is a voter approved measure with no mention of transportation.

Question 19 *Please briefly describe Measure M in your own words.*

FIGURE 49 MEASURE M DESCRIPTORS



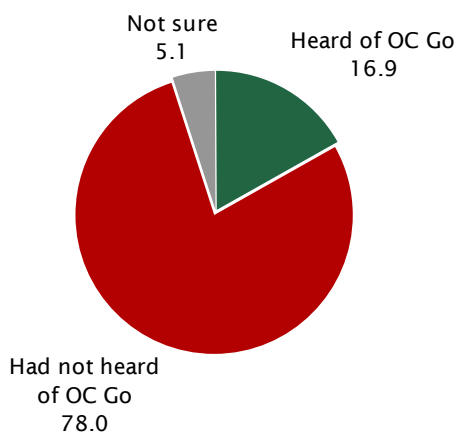
OC GO Despite the importance of Measure M to Orange County’s transportation system, the strength of the local economy, and the quality of life in the region, just one-in-three Orange County residents indicated they had heard of Measure M prior to taking the survey. Moreover, as noted in Figure 49, many of those who had heard of Measure M either had an incorrect understanding of what it is, or had no idea. In terms of brand recognition and equity, Measure M falls well short of its potential.

Complicating this matter is the fact that Measure M is not a brand that is unique to OCTA. In every major election year, Orange County voters are presented with alternative measures carrying the Measure M label, and messaging related to these measures that has nothing to do with OCTA’s transportation funding measure. In November 2016, for example, Measure M was assigned to the Capistrano Unified School District’s proposed bond measure which met with stiff local resistance and ultimately failed with 46% support. That same election, Los Angeles County voters were asked to support a transportation sales tax measure with the Measure M label, and as shown in Figure 49 some Orange County residents think of *that* measure when they see the Measure M brand.

Recognizing that Measure M is a brand that OCTA can’t effectively shape and control, in recent years OCTA has rebranded the Measure M program as OC Go. Using a split-sample approach in which half of the sample received Measure M questions (Questions 18 & 19) and half received questions about OC Go (Question 17), the survey also inquired as to public awareness of the new OC Go moniker.

Question 17 *Prior to taking this survey, had you heard of OC Go (Oh-See-Go) - Orange County's voter-approved half cent transportation sale tax?*

FIGURE 50 HEARD OF OC GO



Overall, approximately 17% of Orange County residents had heard of OC Go prior to taking the survey, 78% had not heard of OC Go, and 5% were unsure. Figures 51-52 on the next page display OC Go awareness by years in Orange County, Supervisorial District, primary Orange County information source, and opinion of OCTA. Awareness of OC Go varied substantially across sub-groups, being much higher among residents who have lived in Orange County five to nine years and longtime residents, those in Supervisorial Districts One, Three, and Five, residents who primarily rely on the newspaper for Orange County information, and those with an unfavorable opinion of OCTA.

FIGURE 51 HEARD OF OC GO BY YEARS IN ORANGE COUNTY & DISTRICT

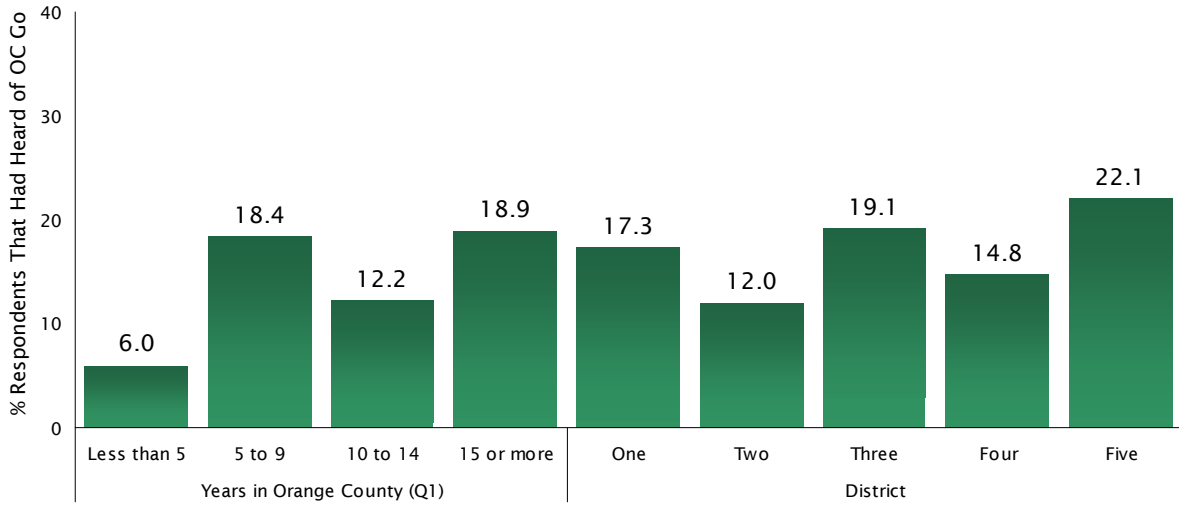
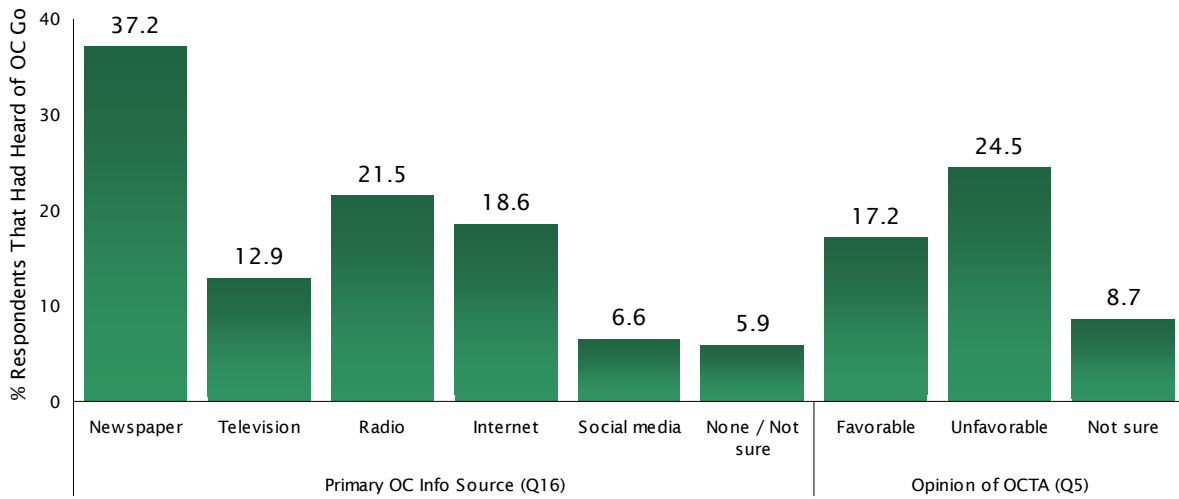


FIGURE 52 HEARD OF OC GO BY PRIMARY OC INFO SOURCE & OPINION OF OCTA





BACKGROUND & DEMOGRAPHICS

TABLE 8 DEMOGRAPHIC OF SAMPLE BY STUDY YEAR

	Study Year		
	2018	2015	2011
<i>Total Respondents</i>	2,525	2,000	2,010
District			
One	22.4	20.8	21.3
Two	21.2	22.7	23.8
Three	18.5	17.7	18.6
Four	20.8	23.6	23.1
Five	17.1	18.3	18.4
Years in Orange County (Q1)			
Less than 5	11.8	6.0	9.8
5 to 9	7.6	6.8	8.7
10 to 14	8.6	9.7	12.3
15 or more	71.7	77.3	68.9
Prefer not to answer	0.4	0.1	0.3
Age (QD1)			
18 to 24	16.2	14.2	14.2
25 to 34	16.5	18.8	18.1
35 to 44	17.9	19.3	17.3
45 to 54	17.1	18.3	17.0
55 to 64	13.2	13.3	11.7
65 or older	17.2	13.9	13.7
Prefer not to answer	2.0	2.3	7.9
Employment Status (QD5)			
Employed full time	49.9	52.2	47.3
Employed part time	13.7	13.4	11.0
Student	7.5	6.7	9.6
Homemaker	3.1	6.8	5.7
Retired	16.7	13.4	13.5
Between jobs	3.6	3.6	5.5
Disabled	1.6	2.6	1.6
Prefer not to answer	3.8	1.4	5.9
Ethnicity (QD6)			
Caucasian / White	37.6	40.0	39.8
Latino / Hispanic	30.6	31.7	29.0
Af Amer / Black	2.5	5.1	1.4
Asian American	14.7	14.1	15.4
Other / Mixed	8.0	7.3	2.8
Prefer not to answer	6.6	1.9	11.6
Hsld Income (QD8)			
Less than \$25K	11.1	15.9	10.5
\$25K to \$49K	17.4	19.3	15.3
\$50K to \$74K	15.2	16.5	13.6
\$75K to \$99K	16.9	13.5	13.0
\$100K to \$149K	13.8	12.5	11.3
\$150K or more	18.5	12.0	10.3
Prefer not to answer	7.1	10.3	25.9
Gender			
Male	49.3	50.6	51.8
Female	47.3	49.4	48.2
Prefer not to answer	3.4	0.0	0.0

Table 8 presents the key demographic and background information that was collected during the survey. Although the primary motivation for collecting the background and demographic information was to provide a better insight into how the results of the substantive questions of the survey vary by demographic characteristics (see cross-tabulations in Appendix A for a full breakdown of each question), the information is also valuable for understanding the current profile of Orange County's adult population.



M E T H O D O L O G Y

The following sections outline the methodology used in the study, as well as the motivation for using certain techniques.

QUESTIONNAIRE DEVELOPMENT Dr. McLarney of True North Research worked closely with OCTA to develop a questionnaire that covered the topics of interest and avoided the many possible sources of systematic measurement error, including position-order effects, wording effects, response-category effects, scaling effects and priming. Several questions included multiple individual items. Because asking the items in a set order can lead to a systematic position bias, the items were asked in a random order for each respondent.

Some questions asked in this study were presented only to a subset of respondents. For example, only respondents who had heard of Measure M (Question 18) were asked to describe Measure M in their own words (Question 19). The questionnaire included with this report (see *Questionnaire & Toplines* on page 51) identifies the skip patterns that were used during the interview to ensure that each respondent received the appropriate questions. Many of the questions were also tracked from prior surveys conducted for OCTA in 2015, 2011, 2006, and 2004.

PROGRAMMING, PRE-TEST & TRANSLATION Prior to fielding the survey, the questionnaire was CATI (Computer Assisted Telephone Interviewing) programmed to assist interviewers when conducting the telephone interviews. The CATI program automatically navigates the skip patterns, randomizes the appropriate question items, and alerts the interviewer to certain types of keypunching mistakes should they occur. The survey was also programmed into a passcode-protected online survey application to allow online participation for sampled residents. The integrity of the questionnaire was pre-tested internally by True North and by dialing into random homes in Orange County prior to formally beginning the survey. Once finalized, the survey was professionally translated into Spanish and Vietnamese to give respondents the option of participating in English, Spanish, or Vietnamese.

SAMPLE, RECRUITING & DATA COLLECTION A comprehensive database of households within Orange County was utilized for this study, ensuring that all households had the opportunity to participate in the survey. From this master database, True North developed a stratified, random sample of residents to recruit to participate in the survey. Once selected at random, additional contact information (telephone and/or email) was appended to the sample of households using publicly available and private sources. Residents were recruited to participate in the survey using a combination of emailed invitations and/or telephone calls.⁴ Households that received an email invitation were invited to participate in the survey online at a secure, passcode-protected website designed and hosted by True North. Each household was assigned a unique passcode to ensure that only residents who received an invitation could access the online survey site, and that the survey could be completed one time only. Households that did not respond to an emailed invitation or that only had telephone contact information were recruited to participate in the survey by telephone (land line and/or cell phone).

4. The recruiting method(s) selected for a respondent depended on the contact information that was available for that particular household.

Telephone interviews averaged 18 minutes in length and were conducted during weekday evenings (5:30PM to 9PM) and on weekends (10AM to 5PM). It is standard practice not to call during the day on weekdays because most working adults are unavailable and thus calling during those hours would likely bias the sample. A total of 2,525 surveys were completed between June 17 and June 30, 2018.

STATISTICAL MARGIN OF ERROR By using a probability-based sample and monitoring the sample characteristics as data collection proceeded, True North ensured that the sample was representative of adult residents in Orange County. The results of the survey can thus be used to estimate the opinions of *all* adult residents in the County. Because not all adult residents participated in the survey, however, the results have what is known as a statistical margin of error due to sampling. The margin of error refers to the difference between what was found in the survey of 2,525 respondents for a particular question and what would have been found if all of the estimated 2,411,039 adult residents⁵ had been interviewed.

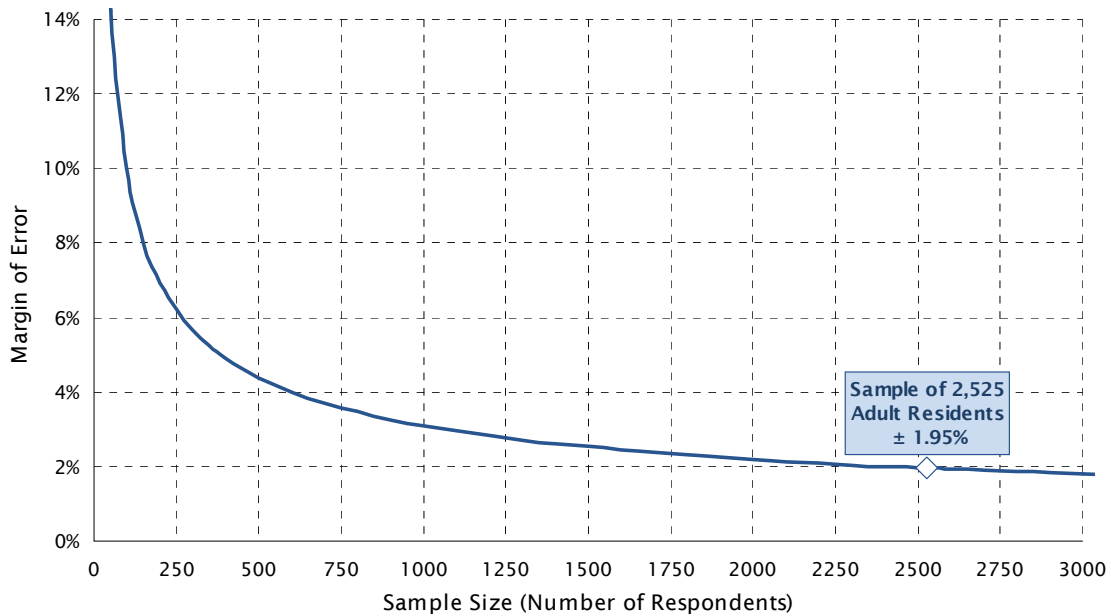
For example, in estimating the percentage of adult residents who have heard of OCTA (Question 4), the margin of error can be calculated if one knows the size of the population, the size of the sample, a desired confidence level, and the distribution of responses to the question. The appropriate equation for estimating the margin of error, in this case, is shown below:

$$\hat{p} \pm t \sqrt{\left(\frac{N-n}{N}\right) \frac{\hat{p}(1-\hat{p})}{n-1}}$$

where \hat{p} is the proportion of survey respondents who had heard of OCTA (0.88 for 88% in this example), N is the population size of all adult residents (2,411,039), n is the sample size that received the question (2,525), and t is the upper $\alpha/2$ point for the t-distribution with $n-1$ degrees of freedom (1.96 for a 95% confidence interval). Solving the equation using these values reveals a margin of error of $\pm 1.25\%$. This means that with 88% of survey respondents indicating they had heard of OCTA, we can be 95% confident that the actual percentage of all adult residents in Orange County who had heard of OCTA is between 87% and 89%.

Figure 53 provides a plot of the *maximum* margin of error in this study. The maximum margin of error for a dichotomous percentage result occurs when the answers are evenly split such that 50% provide one response and 50% provide the alternative response (i.e., $\hat{p} = 0.5$). For this survey, the maximum margin of error is $\pm 1.95\%$ for questions answered by all 2,525 respondents countywide.

5. Source: U.S. Census Bureau, 2012-2016 5-Year American Community Survey.

FIGURE 53 MAXIMUM MARGIN OF ERROR DUE TO SAMPLING

Within this report, figures and tables show how responses to certain questions varied by sub-groups such as years living in Orange County, age of the respondent, and Supervisorial District. Figure 53 above is thus useful for understanding how the maximum margin of error for a percentage estimate will grow as the number of individuals asked a question (or in a particular sub-group) shrinks. Because the margin of error grows exponentially as the sample size decreases, the reader should use caution when generalizing and interpreting the results for small sub-groups. For example, within individual Supervisorial Districts, the maximum margin of error is between $\pm 3.5\%$ and $\pm 6.0\%$.

DATA PROCESSING Data processing consisted of checking the data for errors or inconsistencies, coding and recoding responses, categorizing open-ended responses, and preparing frequency analyses and crosstabulations. The final data were weighted to adjust for minor discrepancies in age and ethnicity within each of the five Supervisorial Districts. Where applicable, tests of statistical significance were conducted to evaluate whether a change in responses between 2015 and 2018 was due to an actual change in opinion or was likely an artifact of independently drawn cross-sectional samples.

ROUNDING Numbers that end in 0.5 or higher are rounded up to the nearest whole number, whereas numbers that end in 0.4 or lower are rounded down to the nearest whole number. These same rounding rules are also applied, when needed, to arrive at numbers that include a decimal place in constructing figures and charts. Occasionally, these rounding rules lead to small discrepancies in the first decimal place when comparing tables and pie charts for a given question.

QUESTIONNAIRE & TOPLINES



OCTA
Attitudinal & Awareness Survey
Final Toplines (n=2,525)
Spring 2018

Section 1: Introduction to Study

Standard Intro: Hi, may I please speak to: _____. Hi, my name is _____ and I'm calling from TNR, an independent public opinion research company. We're conducting a survey about important issues in Orange County and I'd like to get your opinions.

If Land Line, no name on file: Hi, my name is _____ and I'm calling from TNR, an independent public opinion research company. We're conducting a survey about important issues in Orange County and I'd like to get your opinions.

If needed: This is a survey about important issues in your community. I'm NOT trying to sell anything and I won't ask for a donation. Your responses will be confidential.

If needed: The survey should take about 14 minutes to complete.

If needed: If now is not a convenient time, can you let me know a better time so I can call back? You can also take the survey online if you prefer.

If the person asks who is sponsoring the survey, explain: For statistical purposes, I can't reveal the sponsor of the survey at the beginning of this interview, but I will tell you at the end.

If the person says they are an elected official or is somehow associated with the survey, politely explain that this survey is designed to measure the opinions of those not closely associated with the study, thank them for their time, and terminate the interview.

Section 2: Screener for Inclusion if Land Line & No Name

For statistical reasons, I would like to speak to the youngest adult male currently at home that is at least 18 years of age. *If there is no male currently at home that is at least 18 years of age, then ask:* Ok, then I'd like to speak to the youngest female currently at home that is at least 18 years of age.

If there is no adult currently available, then ask for a callback time.

NOTE: Adjust this screener as needed to match sample quotas on gender & age

If respondent asks why we want to speak to a particular demographic group, explain: Its important that the sample of people for the survey is representative of the adult population in Orange County for it to be statistically reliable. At this point, we need to balance our sample by asking for people who fit a particular demographic profile.

Section 3: Quality of Life & Local Issues

I'd like to begin by asking you a few questions about life in Orange County.

Q1	How long have you lived in Orange County?		
	1	Less than 1 year	1%
	2	1 to 2 years	4%
	3	3 to 4 years	7%
	4	5 to 9 years	8%
	5	10 to 14 years	9%
	6	15 years or longer	72%
	99	Prefer not to answer	0%

Q2	How would you rate the overall quality of life in Orange County? Would you say it is excellent, good, fair, poor or very poor?		
	1	Excellent	26%
	2	Good	53%
	3	Fair	16%
	4	Poor	3%
	5	Very Poor	1%
	98	Not sure	1%
	99	Prefer not to answer	0%
Q3	Thinking about Orange County as a whole, what would you say is the most important issue facing Orange County today? Verbatim responses recorded and later grouped into categories shown below.		
	Homelessness		20%
	Real estate, housing		13%
	Not sure / Cannot think of anything		12%
	Traffic congestion		11%
	Cost of living		6%
	Population, overcrowding		5%
	Illegal immigration issues		4%
	Public transportation		4%
	Public safety		3%
	Infrastructure maintenance, repair		3%
	Economy, unemployment		2%
	Taxes		2%
	Leadership, government		2%
	Water issues, drought		2%
	Development, loss of open space		2%
	Budget, spending		1%
	Education, schools		1%
	Healthcare		1%
	Environment		1%
	Socioeconomic issues		1%
	No issues / Everything is okay		1%

Section 4: Awareness & Opinions of OCTA								
Q4	Prior to taking this survey, had you heard of the Orange County Transportation Authority, also known as O.C.T.A (Oh-See-Tee-Ay)?							
	1	Yes	88%					
	2	No	11%					
	98	Not sure	1%					
	99	Prefer not to answer	0%					
Q5	<p>To clarify, the Orange County Transportation Authority or O.C.T.A. (Oh-See-Tee-Ay) is a public agency responsible for planning, funding, managing and developing Orange County's transportation system, including freeways, streets and roads, bus and transit services, and the 91 Express Lanes. OCTA does NOT manage the 73, 133 (one-thirty-three), 241 (two-forty-one) or 261 (two-sixty-one) toll roads.</p> <p>In general, would you say you have a favorable or unfavorable opinion of the Orange County Transportation Authority - or do you have no opinion either way? <i>Get answer, if 'favorable' or 'unfavorable', ask: Would that be very (favorable/unfavorable) or somewhat (favorable/unfavorable)?</i></p>							
	1	Very favorable	15%					
	2	Somewhat favorable	34%					
	3	Somewhat unfavorable	14%					
	4	Very unfavorable	6%					
	98	Not sure	29%					
	99	Prefer not to answer	3%					
Q6	<p>Next, I'm going to read a series of statements. For each that I read, please tell me whether you agree or disagree with the statement. If you don't have an opinion, just say so. Here is the (first/next) one: O.C.T.A _____. Do you agree or disagree with this statement? <i>Get answer, then ask: Would that be strongly (agree/disagree) or somewhat (agree/disagree)?</i></p>							
		<i>Randomize</i>	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Opinion	Prefer not to answer
A	Makes good use of public funds		10%	27%	12%	10%	40%	1%
B	Is actively seeking solutions to our transportation issues		14%	34%	11%	8%	32%	1%
C	Is a public agency I trust		15%	39%	10%	8%	28%	1%
D	Listens to the general public		9%	27%	12%	11%	40%	1%
E	Has made many improvements to Orange County's transportation system in the past 5 years		18%	33%	13%	9%	26%	1%
F	Helps our local and regional economies function by improving our transportation system		19%	38%	13%	8%	21%	1%

Section 5: Long Range Transportation Plan

Over the next 20 years, Orange County’s population is expected to increase by 10%, and the number of people employed in the County is expected to increase by 17%. These changes will naturally lead to greater traffic congestion unless improvements are made to the County’s transportation system.

To help ensure that Orange County’s transportation system is prepared for these changes and to relieve traffic congestion, OCTA is developing a **Long Range Transportation Plan**. The Plan will identify priority projects, improvements, and mobility strategies to improve the transportation system, keep people moving, and relieve traffic congestion.

Q7 As I read the following list of projects and strategies that could be part of the Long Range Transportation Plan, please indicate whether you think it should be a high priority, a medium priority, or a low priority. If you think that a project or strategy should not be part of the Plan, please say so. Please keep in mind that due to limited funds, not all of the items can be high priorities.

Here is the (first/next) one: _____. Should this be a high, medium or low priority for the Long Range Transportation Plan – or should it not be included?

	<i>Randomize</i>	High Priority	Medium Priority	Low Priority	Shouldn't spend money on project	Not Sure	Prefer not to answer
A	Widen freeways, where possible	54%	26%	12%	6%	1%	1%
B	Increase & expand bus services	36%	34%	19%	6%	5%	1%
C	Add faster express bus services	32%	30%	23%	7%	7%	1%
D	Increase & expand commuter rail services including Metrolink and Amtrak	47%	26%	17%	5%	4%	1%
E	Increase carpool, vanpool, and rideshare programs	33%	32%	22%	9%	4%	1%
F	Improve the network of bike lanes	22%	30%	31%	14%	3%	1%
G	Improve and repair the network of sidewalks	32%	33%	27%	5%	2%	0%
H	Synchronize traffic signals on major roadways	61%	26%	8%	2%	2%	0%
I	Fix potholes and repair roadways	64%	26%	6%	2%	1%	0%
J	Fix freeway bottlenecks at interchanges, merge areas, and on/off ramps	70%	20%	6%	2%	2%	1%
K	Enhance infrastructure to accommodate autonomous, driverless vehicles	15%	20%	32%	26%	6%	1%
L	Add streetcar services in areas with high potential ridership	29%	31%	22%	12%	6%	1%
M	Create on-demand shared ride community shuttles	23%	35%	26%	11%	6%	1%
N	Add toll lanes on existing highways	10%	18%	31%	37%	4%	1%
O	Add carpool lanes to toll roads	18%	18%	30%	28%	5%	1%

Q8	Is there a project or strategy I <i>didn't</i> mention that you think should be a high priority for inclusion in the Long Range Transportation Plan? <i>If yes, ask:</i> Please provide a brief description. Verbatim responses recorded and later grouped into categories shown below.									
	None, cannot think of any						69%			
	Add, improve rail services						5%			
	Improve public transportation in general						4%			
	Widen roads, freeways						4%			
	Add bus routes, stops						2%			
	Add, utilize tunnels, subway system						2%			
	Eliminate, reduce toll roads						1%			
	Repair, improve infrastructure						1%			
	Improve, synchronize traffic lights						1%			
	Provide public education on driving rules, skills						1%			
	Improve, expand public transportation schedule, hours						1%			
	Add, improve bike lanes, facilities						1%			
	Address carpool lane issues, enforce laws						1%			
	Improve bus stops, facilities						1%			
	Limit growth, development						1%			
	Reduce traffic congestion in general						1%			
	Improve traffic, travel safety						1%			
	Improve budgeting, reduce expenses						1%			
	Provide more rideshare, car-sharing programs						1%			
Q9	Federal regulations require that our local freeways include carpool lanes, and that the carpool lanes operate at 45 miles per hour during peak periods. If local carpool lanes do not meet this performance standard, Orange County could lose federal funding for transportation projects or face other penalties.									
	To keep carpool lanes flowing during peak periods, there are several strategies being considered by Caltrans. As I read the following strategies, please indicate whether you would support or oppose each strategy. Here is the (first/next) one:_____. Would you support or oppose this strategy? <i>Get answer, then ask:</i> Would that be strongly (support/oppose) or somewhat (support/oppose)?									
	<i>Read in Order. Show one at a time.</i>				Strongly Support	Somewhat Support	Somewhat Oppose	Strongly Oppose	Not Sure	Prefer not to answer
A	Build additional carpool lanes on freeways, even if it is very expensive and may require purchasing private properties to widen the freeway.				16%	29%	23%	26%	6%	0%

B	Require at least 3 people in a vehicle in order to qualify for the carpool lane	15%	22%	22%	37%	4%	1%
C	Require at least 3 people in a vehicle in order to qualify for the carpool lane, but also allow single or two-person vehicles the opportunity to use the carpool lane for a fee	17%	23%	17%	39%	3%	1%

Section 6: Travel Behavior

Next, I'd like to know about the types of transportation you use when traveling in Orange County.

Q10 What form of transportation do you use most often when traveling in Orange County?
If they say drive, car, etc. ask: Do you most often drive by yourself or with other people in the vehicle? If with other people, ask: When you ride with other people, do you typically ride with one other person, or with at least two other people? If they say bus, ask: Do you most often ride the local bus, or an express bus service?

1	Drive alone (auto/truck/van/SUV)	58%
2	Carpool/drive with ONE other person	20%
3	Carpool/drive with TWO or more other people	8%
4	Vanpool	0%
5	Bus (local)	6%
6	Bus (express service)	1%
7	Metrolink commuter rail	1%
8	Motorcycle/Moped/Motorized Scooter	0%
9	Bike	1%
10	Walk/Run	1%
11	On-demand rideshare service	1%
12	Other mode	1%
98	Not sure	0%
99	Prefer not to answer	1%

Q11 In the past 12 months, have you used: _____ when traveling in Orange County? *If no, record answer. If yes, ask: Have you used the service at least once per week, 2 to 3 times per month, once per month, once every two or three months, or less frequently than once every three months?*

		Once per week	2 to 3 times per month	Once per month	Once every 2 to 3 months	Less often than once every 3 months	No, haven't used in past 12 months	Not Sure/ prefer not to answer
	<i>Read in Order</i>							
A	A regular bus	7%	3%	1%	2%	9%	76%	2%
B	An Express Bus	2%	1%	1%	2%	5%	87%	3%
C	METROLINK commuter rail	1%	2%	2%	5%	14%	73%	2%

D	ACCESS paratransit service	2%	0%	0%	0%	2%	89%	6%	
E	The 91 Express Lanes toll road	4%	5%	6%	8%	16%	59%	3%	
Q12	Do you commute to work or school at least three times per week? <i>If says both work and school, ask which is the longer commute and record.</i>								
	1	Yes, work							60%
	2	Yes, school							9%
	4	No, work from home/telecommute							8%
	5	No, don't work or go to school							20%
	99	Prefer not to answer							3%

Section 7: Communications

Now for a different topic...

Q13	Overall, are you satisfied or dissatisfied with OCTA's efforts to communicate with Orange County residents through E-newsletters, advertisements, the Internet, news media, and other means? <i>Get answer, then ask: Would that be very (satisfied/dissatisfied) or somewhat (satisfied/dissatisfied)?</i>								
	1	Very satisfied							19%
	2	Somewhat satisfied							30%
	3	Somewhat dissatisfied							15%
	4	Very dissatisfied							9%
	98	Not Sure							26%
	99	Prefer not to answer							1%
Q14	Is there a particular topic or issue that you'd like to receive more information about from OCTA?								
	1	Yes	23%				Ask Q15		
	2	No	54%				Skip to Q16		
	98	Not sure	22%				Skip to Q16		
	99	Refused	1%				Skip to Q16		
Q15	Please briefly describe the topic. Verbatim responses recorded and later grouped into categories shown below.								
	Current project status, updates						21%		
	Freeway improvements, expansion, efforts to reduce congestion						16%		
	More information in general						10%		
	Bus route improvements, expansion						9%		
	Future transportation projects, plans						9%		
	New public transportation plans, programs, options						7%		

	Light rail service, projects		7%
	Bus schedules, route planners		6%
	Budget, taxes, audits		5%
	Carpool, HOV access, routes		4%
	Toll road improvements, extension		4%
	405 expansion, improvements, projects		4%
	METROLINK stations, route expansion		4%
	Board, committee meetings, elections		3%
	Bike lanes, routes, safety		2%
	Programs, services for elderly, disabled		2%
	Environmental efforts, pollution reduction		1%
	Long-term planning, projects, vision		1%
	Improved communication, outreach, transparency		1%
	Rideshare, car sharing programs, options		1%
Q16	Which of the following would you say is your primary source for information about news and events in Orange County? Newspapers, television, radio, the Internet, or social media like Facebook, Instagram, and Twitter?		
	1	Newspapers	14%
	2	Television	18%
	3	Radio	8%
	4	Internet	33%
	5	Social media like Facebook, Instagram, and Twitter	20%
	6	None/Don't pay attention to news and events in Orange County	3%
	98	Not sure	2%
	99	Prefer not to answer	1%
<i>Split Sample. Random half of sample receive Q17. Other half receive Q18 & Q19.</i>			
Q17	Prior to taking this survey, had you heard of OC Go (Oh-See-Go) - Orange County's voter-approved half cent transportation sale tax?		
	1	Yes	17% <i>Skip to D1</i>
	2	No	78% <i>Skip to D1</i>
	98	Not sure	5% <i>Skip to D1</i>
	99	Prefer not to answer	1% <i>Skip to D1</i>

Q18 Prior to taking this survey, had you heard of Measure M ?			
1	Yes	33%	Ask Q19
2	No	58%	Skip to D1
98	Not sure	9%	Skip to D1
99	Prefer not to answer	0%	Skip to D1
Q19 Please briefly describe Measure M in your own words. Verbatim responses recorded and later grouped into categories shown below.			
	Not sure, only heard of it	33%	
	Half-cent sales tax to fund transportation projects, improvements	22%	
	Bond to fund transportation projects, improvements	15%	
	Prefer not to answer	14%	
	Money, budget for transportation projects, improvements	9%	
	LA County Traffic Improvement Plan	7%	
	Reduces, addresses traffic congestion	7%	
	Proposal, plan for transportation projects, improvements	5%	
	Voter-approved measure, funding in general	3%	
	Gas tax	1%	

Section 8: Background & Demographics

Thank you so much for your participation. I have just a few background questions for statistical purposes.

D1 In what year were you born? Year recoded into age categories shown below.			
1	18 to 24	16%	
2	25 to 34	17%	
3	35 to 44	18%	
4	45 to 54	17%	
5	55 to 64	13%	
6	65 and over	17%	
99	Prefer not to answer	2%	

D2	What is your gender?		
	1	Male	49%
	2	Female	47%
	99	Prefer not to answer	3%
D3	How would you describe your access to a personal vehicle? Would you say you always have access, sometimes have access, rarely have access, or never have access to a personal vehicle?		
	1	Always	83%
	2	Sometimes	8%
	3	Rarely	2%
	4	Never	4%
	99	Prefer not to answer	2%
D4	Which of the following best describes your current home?		
	1	Single family detached home	57%
	2	Apartment	20%
	3	Condominium	14%
	4	Mobile home	3%
	99	Prefer not to answer	5%
D5	Which of the following best describes your employment status? Would you say you are employed full-time, part-time, a student, a homemaker, retired, or are you in-between jobs right now? <i>If they work and go to school, ask them to choose the category that best describes them: worker or student.</i>		
	1	Employed full-time	50%
	2	Employed part-time	14%
	3	Student	7%
	4	Homemaker	3%
	5	Retired	17%
	6	In-between jobs	4%
	7	Disabled/unable to work	2%
	99	Prefer not to answer	4%

D6 What ethnic group do you consider yourself a part of or feel closest to? <i>Read list if respondent hesitates</i>		
1	Caucasian/White	38%
2	Latino/Hispanic	31%
3	African-American/Black	3%
4	American Indian or Alaskan Native	1%
5	Asian—Korean, Japanese, Chinese, Vietnamese, Filipino or other Asian	15%
6	Pacific Islander	0%
7	Middle Eastern	2%
8	Mixed Heritage	3%
98	Other	2%
99	Prefer not to answer	7%
D7 I have just one more question for you for statistical reasons. I am going to read some income categories. Please stop me when I reach the category that best describes your total household income.		
1	Less than \$25,000	11%
2	\$25,000 to less than \$50,000	17%
3	\$50,000 to less than \$75,000	15%
4	\$75,000 to less than \$100,000	17%
5	\$100,000 to less than \$150,000	14%
6	\$150,000 to less than \$200,000	11%
7	\$200,000 or more	7%
98	Not sure	1%
99	Prefer not to answer	7%

Those are all of the questions that I have for you! Thanks very much for participating.

Post Interview Items

S1 Supervisorial District		
1	District 1	22%
2	District 2	21%
3	District 3	18%
4	District 4	21%
5	District 5	17%