ATTACHMENT A

Service Authority for Freeway Emergencies Annual Report Fiscal Year 2017-18

Introduction

The Orange County Transportation Authority (OCTA) serves as the Service Authority for Freeway Emergencies (SAFE), which is managed by the Motorist Services Department of the Operations Division. SAFE operates the call box system and the Freeway Service Patrol (FSP) program, and participates as a partner with the California Department of Transportation (Caltrans), California Highway Patrol (CHP), Los Angeles County SAFE (LA SAFE), and Ventura County Transportation Commission (VCTC), in the development and operation of the Southern California 511 Motorist Aid and Traffic Information System (Southern California 511).

This report provides a summary of activities that occurred during fiscal year (FY) 2017-18.

Call Box System

SAFE operates a system of call boxes located on freeways, toll roads, select state highways, and select transit centers. Funding to operate the call box system comes from a $1 registration fee on vehicles registered in the County. This revenue stream generated approximately $2,726,586 in FY 2017-18. Revenue from the $1 registration fee pays for the cost of contracted maintenance, call answering services, call box cellular phone service, the proportional share of the actual wage for one-half of the CHP SAFE Coordinator position, and the proportional share of the wages and benefits of Motorist Services staff. Remaining funds support FSP and Southern California 511 motorist aid programs.

Orange County pioneered the implementation of a roadside telephone network when SAFE was formed in 1987. Solar powered cellular telephone call boxes, available about every two miles, allow motorists to report road hazards, mechanical breakdowns, traffic accidents, and other incidents to a contracted call box call center. Orange County call boxes are also equipped with typewritten messaging to assist speech and hearing-impaired individuals. OCTA manages the on-going operations and maintenance of the callbox system, including repair or replace, routine testing, and periodic upgrades that are necessary to maintain compatibility with more advanced cellular communications networks.

SAFE will likely be required to undergo another radio upgrade in FY 2019-20, as cellular service providers abandon their 3G cellular networks for newer cellular technologies. In preparation for that change, staff will prepare a replacement plan that may include additional call box reductions, placing more emphasis on mobile call box functionality within the 511 Motorist Assistance and Traveler Information System.

In FY 2017-18, twenty-four call boxes were knocked down or damaged as the result of vehicle collisions, incurring repair costs of $69,430. Staff worked with CHP accident investigators and OCTA Risk Management to recover costs associated with repairing knocked down call boxes. OCTA has a maintenance contract in place to repair and

replace damaged callboxes. This maintenance contract includes a pre-negotiated replacement level of up to ten percent (41 units), ensuring that OCTA incurs no additional expenses for knockdown callboxes. During FY 2017-18, $32,732 was recovered for call box knockdowns. This includes $20,598 for knockdowns occurring during the FY and $12,134 recovered from claims made during previous FYs. An additional $9,831 is pending investigation and subrogation. Table 1 provides a summary of knockdown and recovery efforts for FY 2017-18. Table 2 provides a summary of funds recovered from previous year knockdowns.

Tables 1 and 2 – Call Box Knockdown Loss Recovery

FY 2017-18 Knockdowns			
17	Unrecoverable - No Accident Report Available	$39,001	56%
3	Submitted to Risk Management for Recovery (Pending)	$9,831	14%
4	Recovered by Risk Management During Same FY	$20,598	30%
24	**Total FY 2018 Knockdowns**	**$69,430**	

Risk Management Previous Year Recovery Progress	
Recovered in FY 2017-18 from Previous Fiscal Years	$12,133
Pending from Previous Fiscal Years	$2,171

A mobile call box service, as part of the Southern California 511 system, was deployed on July 26, 2012. The mobile call box service allows motorists to reach assistance using a personal cell phone, rather than using a freeway call box, by calling 511. These calls are routed to OCTA's call box call answering center. During FY 2017-18, the contracted call-answering center fielded 1,246 calls for assistance through the call box system and 3,888 calls for motorist aid through the Southern California 511 system, representing a six percent decrease from FY 2016-17, in which a combined 5,504 calls were received.

Eighty-one percent of the FY 2017-18 calls were for disabled vehicles or requests for FSP service. These calls included vehicles with flat tires, vehicles out of gas, vehicles overheated, or vehicles that were not operable due to a mechanical problem. When calls are received on roadways where FSP operates, during FSP operating hours, the call-answering center notifies CHP, and an FSP truck is dispatched to the caller's location to provide assistance. Calls related to road hazards, accidents, medical incidents, crimes, and fires are dispatched to the appropriate first responder. In cases where the call is from a call box on a roadway where FSP does not operate, such as on the toll roads, Carbon Canyon Road, Ortega Highway, and Santiago Canyon Road, the call answering

center assists the caller by offering to send a CHP rotation tow truck (at the caller's expense), by calling a road side assistance provider subscribed to by the caller, or by calling a family member or friend. Figure 1 depicts FY 2017-18 combined call box and 511 motorist aid calls by type. Figure 2 shows call box and 511 call volumes for the last ten years.

Figure 1 - FY 2017-18 Combined Call Box and 511 Motorist Aid Calls by Type

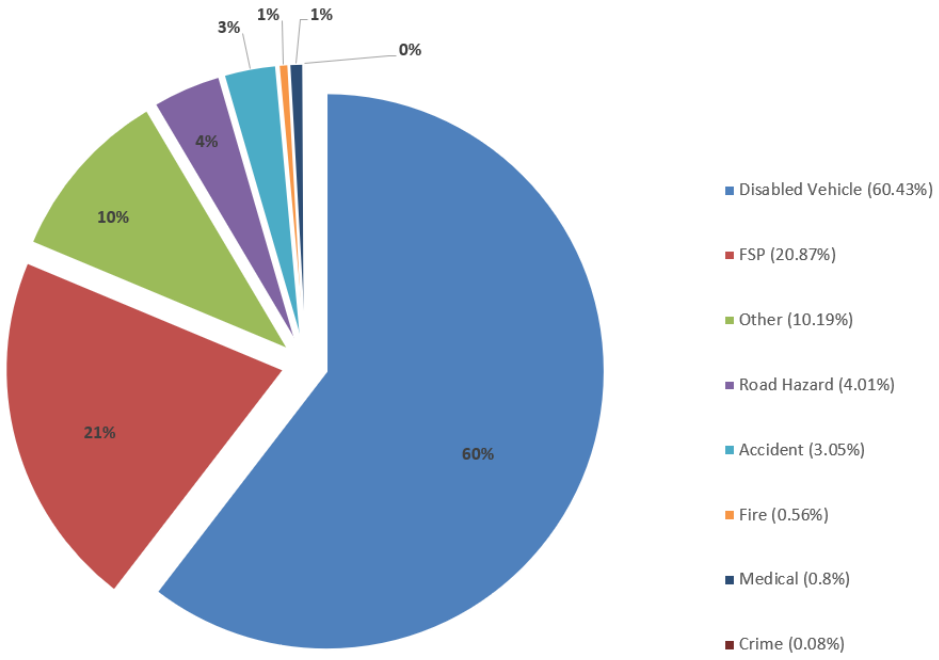
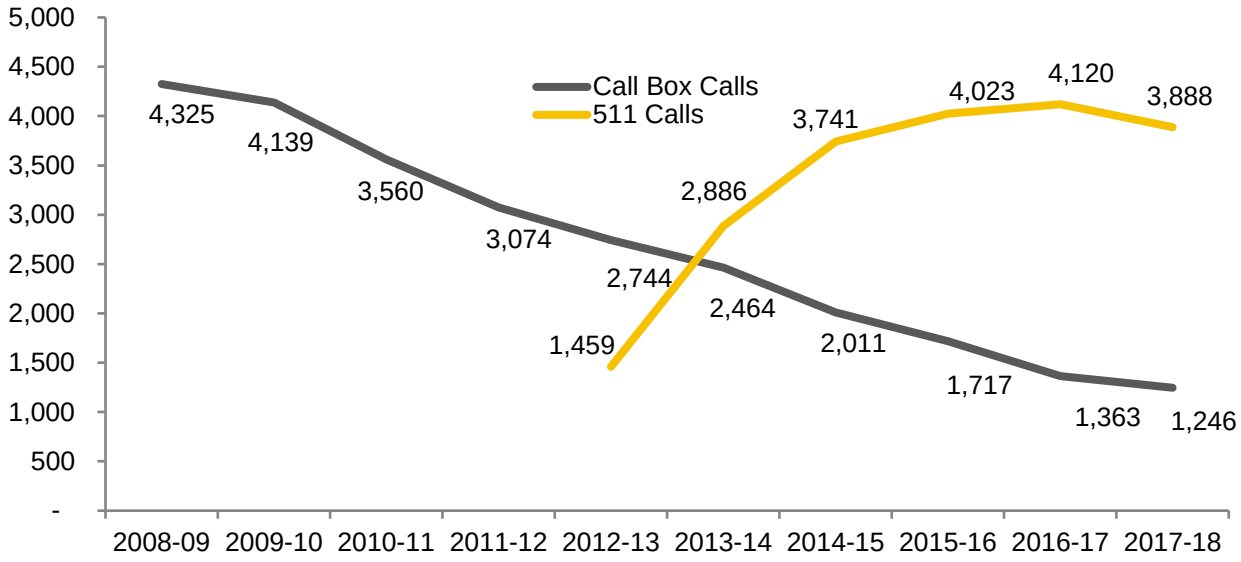


Figure 2 - Annual Call Box and 511 Call Volumes



Reasons for the decline in call box calls may include increases in the availability and use of cell personal phones and increased awareness of the availability of roving FSP services. A survey of call box users indicates approximately 38 percent of the callers did not have a working cell phone in their possession. Callers who had cell phones reported that they were unable to utilize their cell phone because it was not functioning properly, was not charged, or because they did not know who to call for assistance.

Freeway Service Patrol

FSP is a traffic congestion management program designed for the rapid removal of disabled vehicles from traffic lanes and shoulders, as well as timely response to accidents and other incidents that require the removal of vehicles and/or debris from freeway traffic lanes. The FSP program is provided in partnership with Caltrans, CHP, and OCTA. Private tow truck companies operate the program under contract to OCTA. Each tow truck operator patrols an assigned freeway segment during specified service hours, stopping to assist stranded motorists. The tow truck operator offers assistance, such as changing a flat tire, providing a free gallon of gas, or taping a coolant hose. If assistance cannot be completed to restore the vehicle to driving condition within 10 minutes, the tow truck operator will tow the vehicle off the freeway to a designated drop zone.

FSP began providing peak-hour service along County freeways in November 1992. FSP service during peak hours (6:00 a.m. to 10:00 a.m. and 3:00 p.m. to 7:00 p.m.) is divided into 12 areas (excluding construction zones), called service areas. Service areas are further divided into 34 peak hour beats. Five midday beats (10:30 a.m. to 2:30 p.m.) were added in 2007 and are now funded by Measure M2 (M2). Two additional midday beats were added in 2012 using M2 funds to cover congested areas of the freeway and major interchanges. Weekend service is provided on Interstate 5 (I-5) in South County, on State Route 91 (SR-91) through Anaheim Canyon, and on State Route 22 through the I-5 and State Route 57 (SR-57) interchanges using M2 funds. FSP service is also provided during non-peak hours (10:00 a.m. to 3:00 p.m. and 7:00 p.m. to 10:00 p.m.) in certain construction zone areas.

The FSP program is funded through a combination of state and local funds including funds from the State Highway Account (SHA) provided through Caltrans, the $1 fee on vehicle registration that supports the call box program and other motorist aid services, and M2. These funds are used to pay for contracted towing services, CHP overtime attributable to the FSP program, one CHP dispatcher position, radio maintenance and operation, computer equipment maintenance and operation, field equipment and supplies, mandatory quarterly training, and the proportional share of the wages and benefits of Motorist Services staff. The funding from the SHA is distributed to SAFE agencies based on freeway congestion levels, urban freeway lane miles, population in each county where FSP is operated, and local agency ability to provide required matching funds. In FY 2017-18, the County's FSP program was apportioned $2,550,433, requiring a local match of $637,609.

FY 2017-18 SHA funding was down 2 percent from FY 2016-17 because more SAFE agencies accepted their full allocation in FY 2017-18. Some agencies that operate FSP are not able to accept their full allocation because they cannot provide the required local match or for other reasons. These funds are then reallocated, using the same formula, to counties that overmatch state funds, such as Orange County, to operate their FSP programs.

Funds from M2 became available to support the FSP program in FY 2010-11. Guidelines for the use of M2 FSP funds were approved by the OCTA Board of Directors on February 13, 2012, and allow for the following eligible expenditures:

- Maintaining existing service levels for the 34 peak-hour service beats, five midday service beats, and two weekend service beats,
- Operating new FSP service beats, provided a benefit/cost (B/C) analysis results in a minimum three to one ratio,
- Providing FSP service for the M2 freeway program of projects,
- Contracting for additional CHP supervision,
- Contracting for additional CHP dispatch.

In June 2012, the FSP program realigned existing midday service beats to operate more efficiently and better serve the most heavily utilized sections of freeway, added two new midday service beats, and added two weekend service beats utilizing M2 funds. This significantly increased midday and weekend FSP coverage.

In April 2017, the Governor of California signed the Road Repair and Accountability Act of 2017 (SB1) into law. SB1 includes an annual allocation for California FSP programs. Caltrans has divided the SB1 funding into two categories, namely, for inflation relief and new or expanded services. Orange County FSP is eligible for reimbursement up to $1,244,321 for inflation relief and $991,890 for new or expanded service for FY 2017-18. This new funding has been used to expand FSP service on the east end of SR-91 and on SR-57 in December 2018. Staff is also evaluating other service improvements that could be supported by SB1 funding in the future.

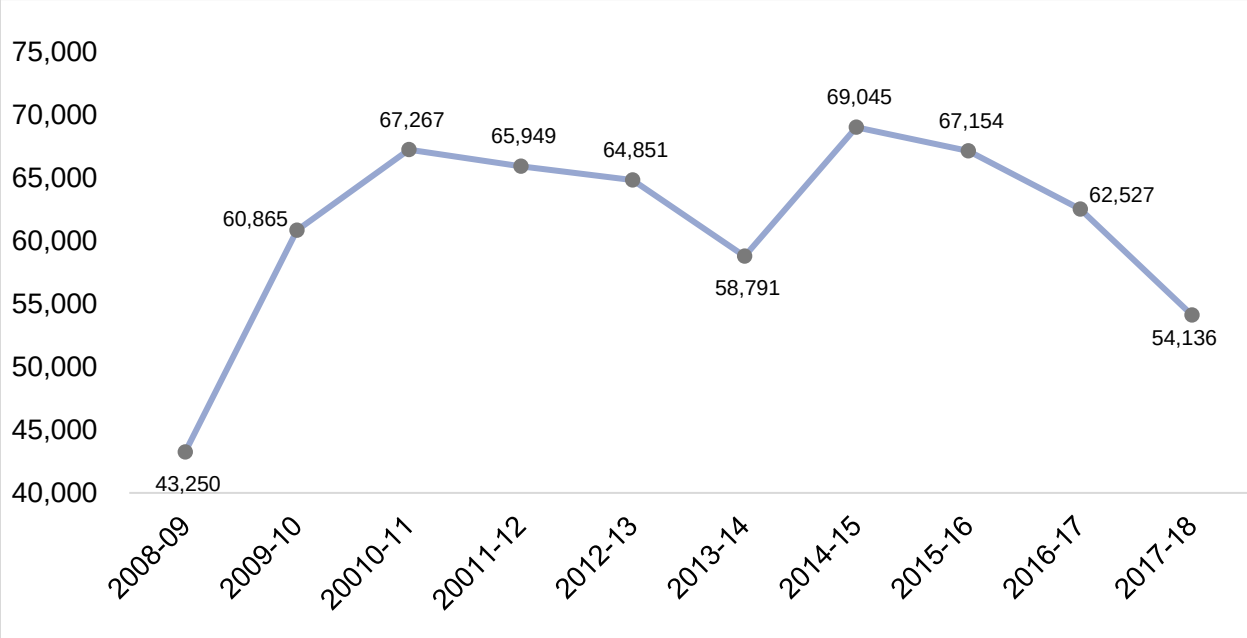
No less than every three years, Caltrans contracts with a consultant to prepare a statewide B/C analysis of the FSP program. The model used for the B/C analysis was developed by the Institute of Transportation Studies at the University of California, Berkeley, following extensive field measurements before and after FSP deployment. The model estimates delay-saving benefits based on the FSP beats' geometric and traffic characteristics, as well as the frequency and type of FSP-assisted freeway incidents. The estimated benefits include reductions in incident-induced vehicular delays, fuel consumption, and air pollution emissions.

The last B/C analysis of Orange County FSP was conducted for FY 2015-16. Results of the analysis for the Orange County FSP beats indicate that OCTA FSP maintains the highest B/C ratio in the state, providing an average of $13.00 of congestion relief benefit for each dollar spent during weekday peak operating hours and $6.00 of congestion relief

benefit for each dollar spent during weekend operating hours. The combined program average is estimated to be $12.00 of congestion relief benefit for each dollar spent on the program. Because the program provides significantly more service on weekdays than on weekends, the weekend service has little impact on the blended B/C average. While the OCTA FSP program has the highest B/C ratio statewide, this represents a $6.00 per hour decrease in B/C compared to FY 2014-15. Increased program and tow service costs, a reduction in the number of assists completed because of increased time required to complete documentation, and reductions in traffic congestion are believed to be the primary contributors to the decrease in B/C. Caltrans plans to have the FY 2017-18 B/C analysis completed by the fourth quarter of FY 2017-18.

FSP tow truck operators provided services to 54,136 motorists whose vehicles had become disabled in FY 2017-18, a 13 percent decrease from FY 2016-17. Reasons for decreases in the number of assists include changes to CHP requirements that operators complete all assist paperwork and log books off the freeway, and more frequent assists requiring a tow off the freeway. Program supervisors have also been required to move some FSP drop zones further from the freeway due to changes in city parking regulations, which has increased the length of time required to complete an assist when a vehicle is towed off the freeway. These changes to the program operation all result in a reduction of the time that an FSP vehicle is available for service. Figure 3 shows total services provided annually for the last ten years.

Figure 3 - Total Annual FSP Services



In January 2013, staff deployed a new vehicle tracking and data collection system that utilizes OCTA-provided in-vehicle edge controller (black box) devices for vehicle tracking and tow contractor-provided iPad or Android tablet devices for data collection. System functionality includes geo-fencing, schedule adherence, system alerts, and an advanced reporting feature designed to enhance program tracking. The data collection system includes a customer survey module that allows customers to complete an online survey. Most disabled vehicles are discovered by FSP operators while patrolling their service beats; however, CHP may also dispatch calls for service through the system from requests that come in through the call box, 511 and 911 systems, or through a CHP officer request. Survey responses from customers who received FSP assistance indicate that 86 percent of FSP assists are initiated through FSP operator discovery of the vehicle. Figure 4 shows how survey respondents received FSP service in FY 2017-18.

Figure 4 – How FSP Customers Received Service – FY 2017-18

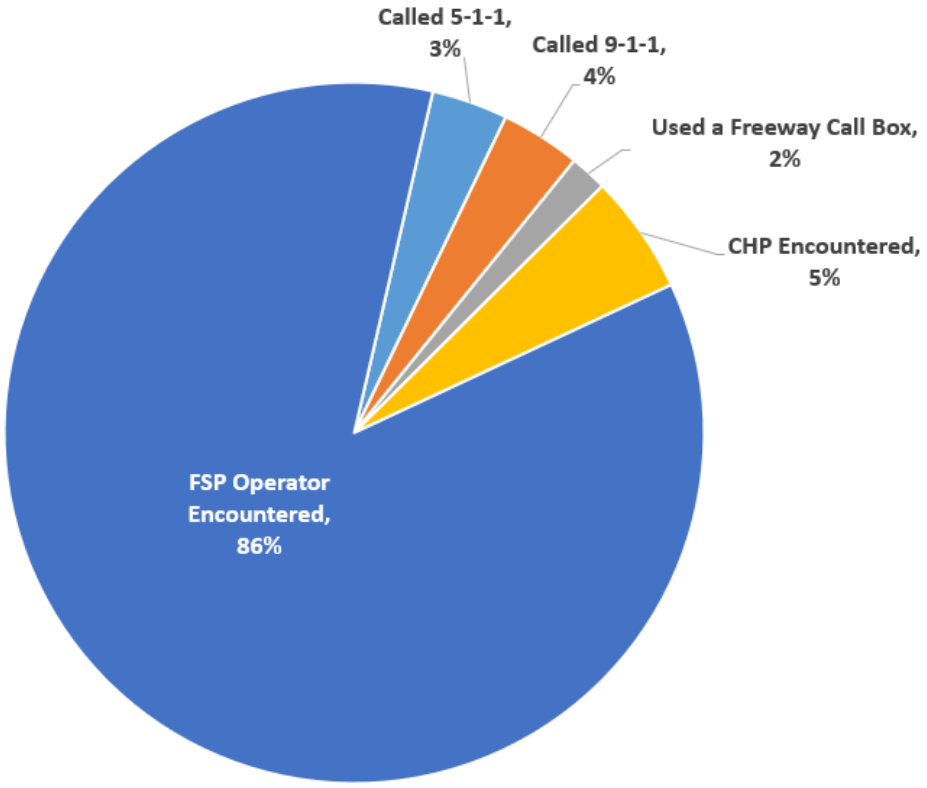
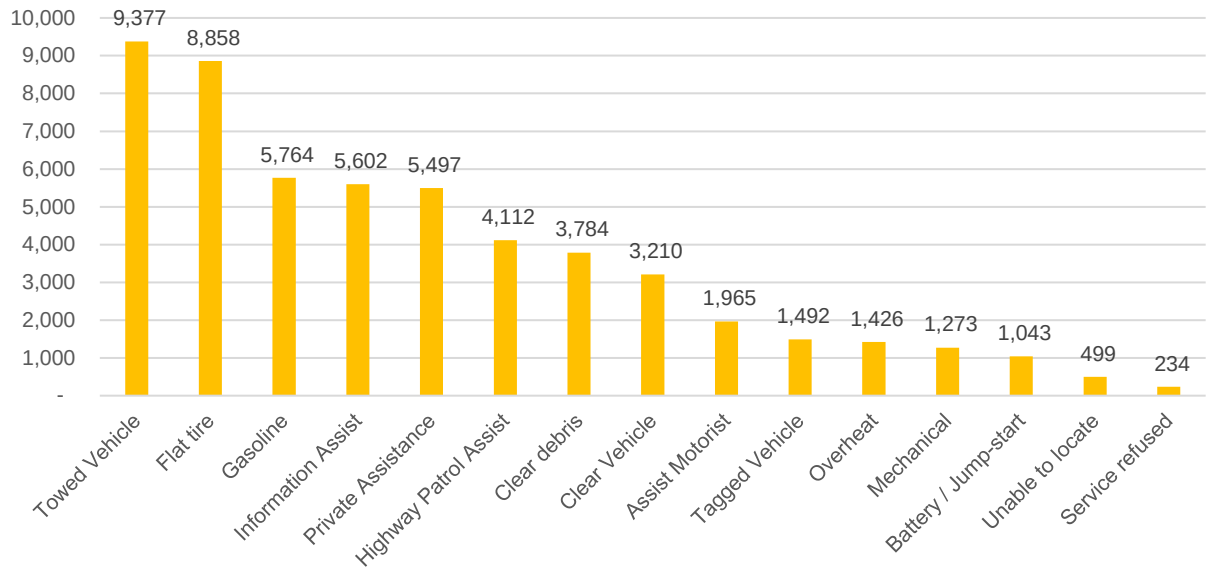


Figure 5 shows the distribution of assists by type for FY 2017-18. The highest number of recorded assists required that the vehicle be towed, followed by the changing of a flat tire. Information Assist generally refers to incidents where tow operators discover a motorist stopped on the side of the road whose vehicle is not disabled. Reasons motorists are stopped on the side of the freeway often include navigation, telephone calls, texting, emailing, and resting.

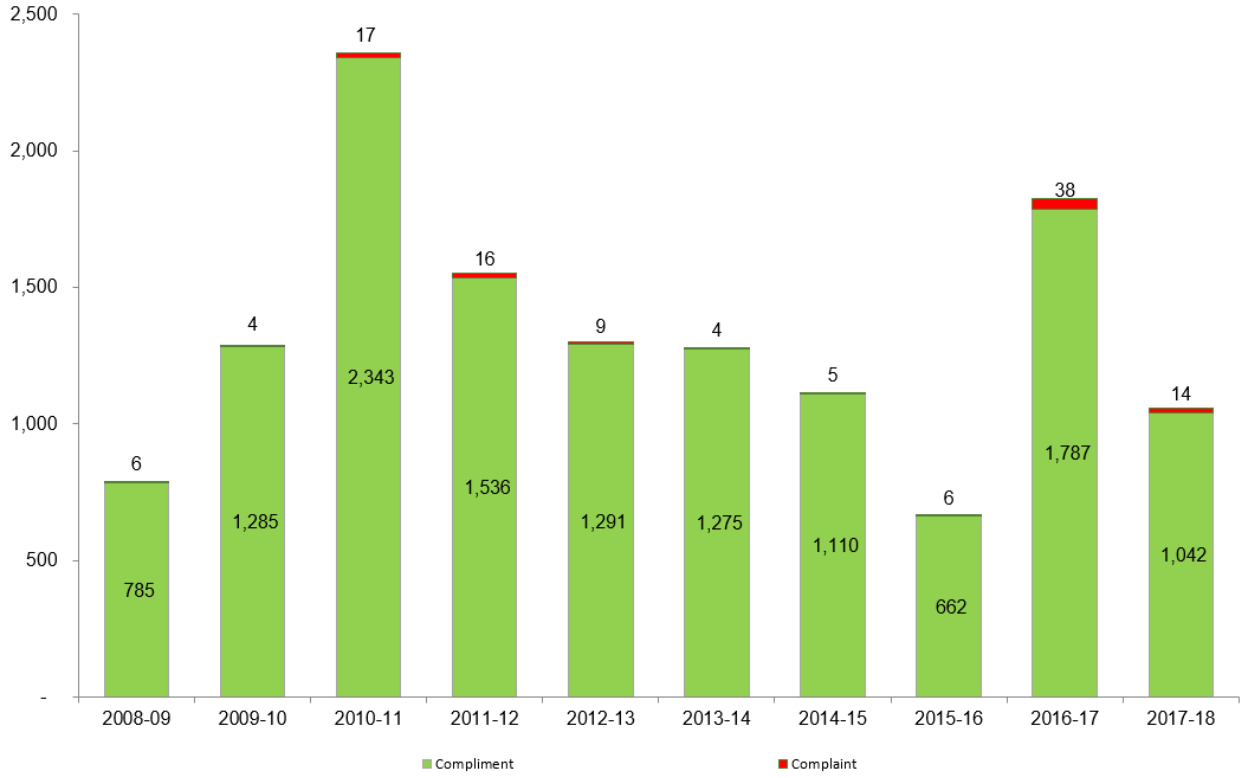
Figure 5 - FSP Assists by Type – FY 2017-18



Primary assist types include changing a flat tire, information assist, providing a gallon of gasoline, waiting for private assistance, towing a vehicle to a designated drop zone if unable to remedy the issue within program guidelines, and assisting CHP officers. Other assist types include clearing disabled vehicles or debris from the freeway traffic lanes, tagging unattended vehicles for CHP attention, or assisting motorists with overheated vehicles or with minor mechanical defects. Operators often encounter motorists who refuse FSP service because they already have their own (private) assistance enroute, and occasionally refuse service for unknown or undisclosed reasons.

The FSP program recorded 1,056 customer comments through the Customer Relations call center and FSP online customer survey in FY 2017-18, down 42 percent from FY 2016-17. Callers who were happy with the service comprise 99 percent of the total comments. The program received 14 complaints from motorists who were not satisfied with the service. Complaints included dissatisfaction with the service provided, operator driving technique, and claims for damage. A CHP Program Supervisor investigates each customer complaint and provides a response to the complaining party. CHP Program Supervisors also follow-up with FSP contractors and tow operators as appropriate to address customer concerns and to prevent future occurrences. Claims for damage range from stripped or broken wheel studs to damage caused as the result of a collision. OCTA is shielded from claims for damage by contract language that requires FSP contractors to name OCTA as additional insured, and to indemnify and hold OCTA harmless against any claims for loss or damage. Figure 6 charts compliments and complaints received for the last ten years.

Figure 6 - FSP Customer Comments



Southern California 511

The Southern California 511 system is a partnership between Caltrans, CHP, LA SAFE, OCTA, and VCTC, designed to provide a motorist aid and traveler information system for Los Angeles, Orange, and Ventura counties. The official launch of the Southern California 511 (Go511) system occurred in January 2011. The Go511 mobile application was launched in May 2014. The system allows travelers and commuters to access up-to-the minute information on highway conditions, traffic speeds, transit, and commuter services via the mobile application, the same information that they receive by dialing 511 from their telephone. By visiting Go511.com, users can obtain similar information compared to calling 511. Driving directions and information on bicycling, airports, and taxis are also available.

In FY 2017, LA SAFE, with participation from OCTA staff, procured a vendor for the further development of the Go511 system. Known to the project partners as the Next Gen 511, the project provides a more robust interactive voice response system for callers, a less governmental web interface for web users, and improved mobile content for application users. The Next Gen 511 project also aims to establish cooperative agreements with the Riverside County Transportation Commission (RCTC) and the San Bernardino County Transportation Authority (SBCTA), to bring Riverside and San Bernardino into the Go511 system and rebrand the system to “So Cal 511.” LA SAFE and OCTA staff are currently

working with staff from RCTC and SBCTA to develop the necessary cooperative agreements to implement this part of the project.

Southern California 511 Interactive Voice Response (IVR) system services were transitioned to a new vendor as part of 511 system next-generation development. While reliable call data was not available during first part of the FY because of transition and development activities, the 511 IVR received an average of 50,000 calls per month during the fourth quarter of FY 2017-18, with seven percent of the calls originating in Orange County. Although the total number of 511 calls are down when compared to FY 2016-17, the percentage of calls originating from Orange County increased from five percent to seven percent. Figure 7 displays the number of 511 IVR calls received during FY 2017-18, along with the percentage of calls that originated from Orange County.

Figure 7 - 511 IVR Calls Received, Calls with Orange County Percentages

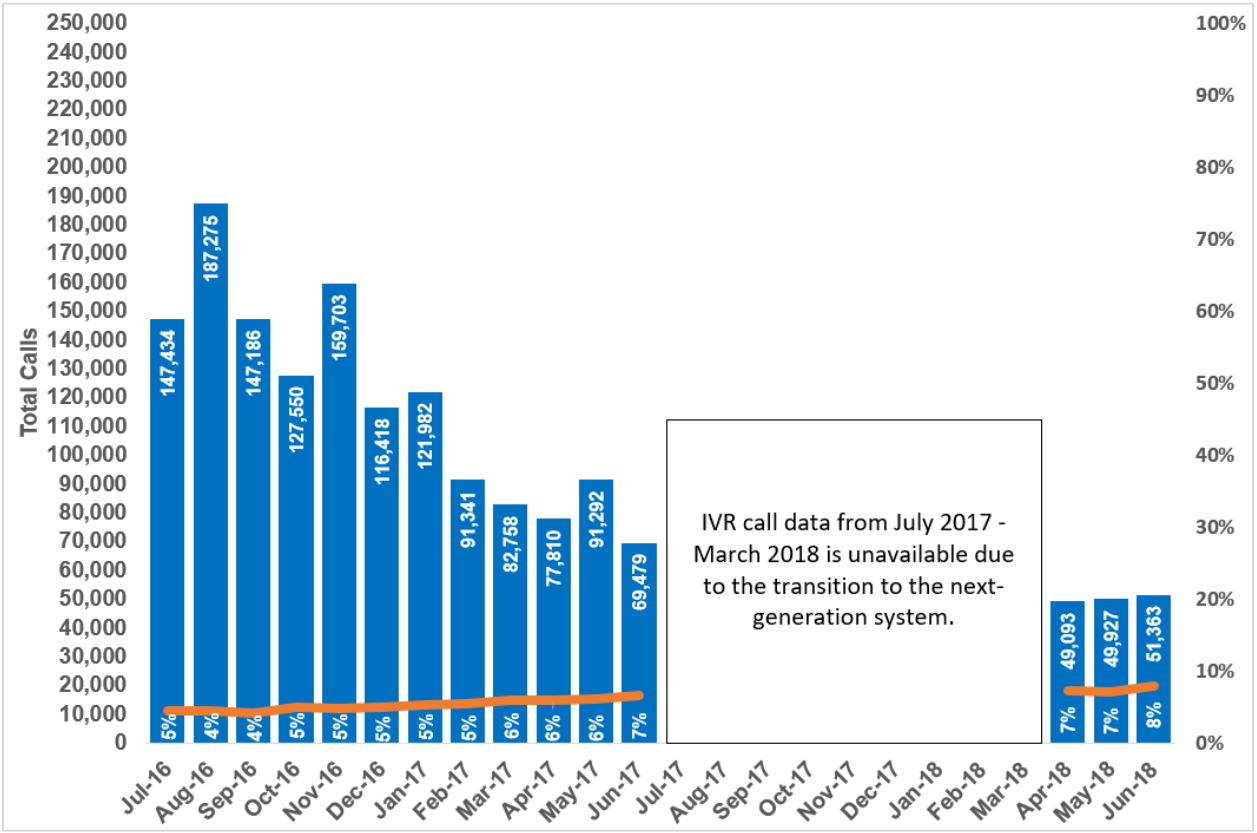
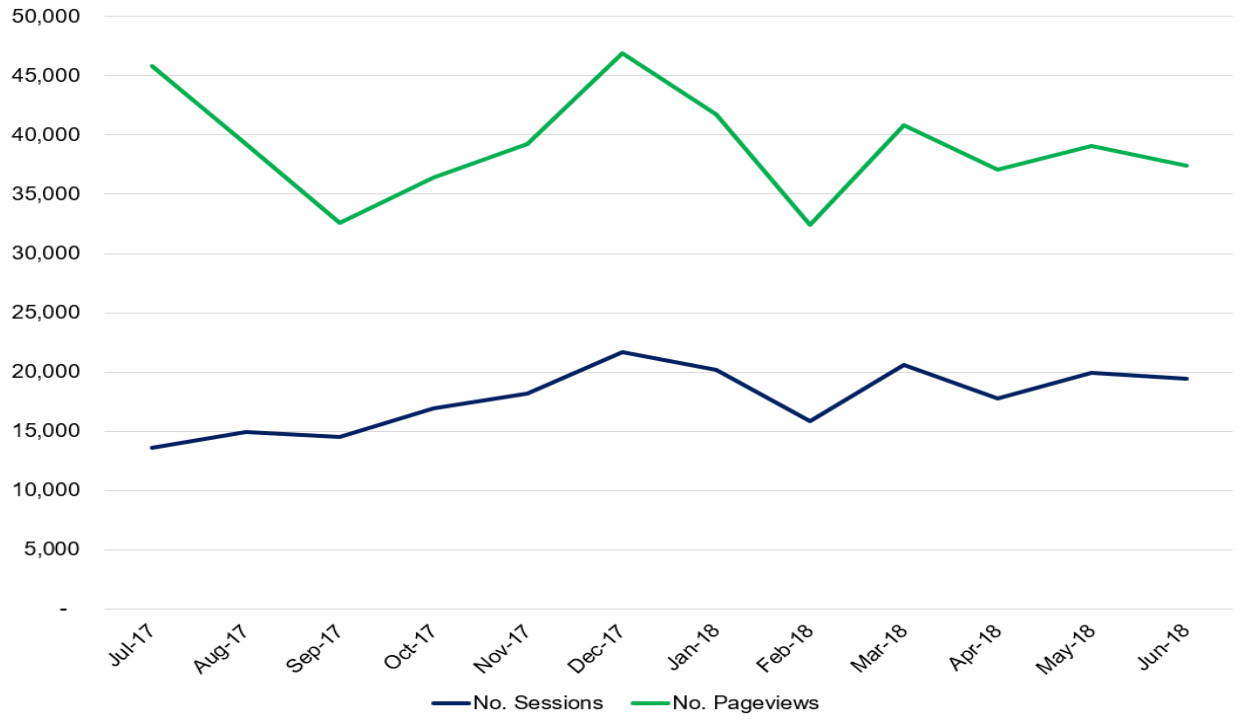


Table 6 displays the number of Go 511 website visits and page views during FY 2017-18 for Los Angeles and Orange counties. The Go511.com website received an average of 24,489 hits per month, down ten percent from an average 27,300 hits per month in FY 2016-17. The decline in website visits may be due to the previous vendor reporting each page that was viewed in addition to website hits (essentially double counting). To ensure reporting consistency, LA SAFE and OCTA staff are now using data available through Google analytics to track website sessions and page views. This data is more reliable and will be consistent, regardless of the vendor contracted to provide support and web content development for the Go 511 system. Figure 8 shows the number of website visits and page views for FY 2017-18.

Table 6 - Southern California 511 Usage by Quarter – FY 2017-18

	1st Quarter Jul-Sep 2017	2nd Quarter Oct-Dec 2017	3rd Quarter Jan-Mar 2018	4th Quarter Apr-Jun 2018	Total
Number of Website Sessions	43,022	56,763	135,768	58,315	293,868
Number of Website Pageviews	117,714	122,574	314,476	116,983	671,747
IVR Calls Received					
Total IVR Calls	IVR call data from July 2017 - March 2018 is unavailable due to the transition to the next-generation system.			150,383	150,383
Orange County				11,150	11,150

Figure 8 – Go511 Web Sessions versus Pageviews



To increase motorist awareness of the 511 program in Orange County, staff initiated an awareness campaign distributing 511 logo promotional materials to the public through FSP operators assisting motorists, through the OCTA store and reception area at OCTA Headquarters building, through distribution to bus patrons using OC Fair Express and Laguna Beach Summer Breeze bus services, at the KABC Holiday Stuff-A-Bus event, and at other events as appropriate. In FY 2017-18 staff applied 511 Motorist Aid decals on all Orange County Freeway call boxes to help increase awareness of mobile call box functionality within the 511 program. Users dialing 511 and selecting Motorist Assistance from a Los Angeles County, Orange County, or Ventura County freeway will reach the call box call center and may obtain roadside assistance as if calling from a freeway call box. Staff will continue to market the 511 program to increase public awareness of the program and has initiated the marketing of the changeover to So Cal 511 which will include Riverside and San Bernardino Counties.