

Service Authority for Freeways and Expressways

Fiscal Year 2016-2017 Annual Report



Prepared by
The Transportation Agency for Monterey County



www.tamcmonterey.org

Executive Summary

The Service Authority for Freeway Emergencies motorist aid system in Monterey County has installed and oversees the operation of 190 call boxes on these major highways and County roads: State Route 1, State Route 68, State Route 156, US Highway 101, Jolon Road (G14, G18), and Carmel Valley/Arroyo Seco Roads. Since its inception in 1999, thousands of stranded motorists have received assistance through call boxes in Monterey County.

The program is self-funded, from a \$1 registration fee on each registered vehicle in Monterey County collected by the Department of Motor Vehicles, which generates approximately \$350,000 per year for Monterey County. The annual operating cost for fiscal year 2016-2017 was \$137,183. Remaining funding is used for periodic call box maintenance and upgrades, and other motorist aid services (ridesharing and traveler information).

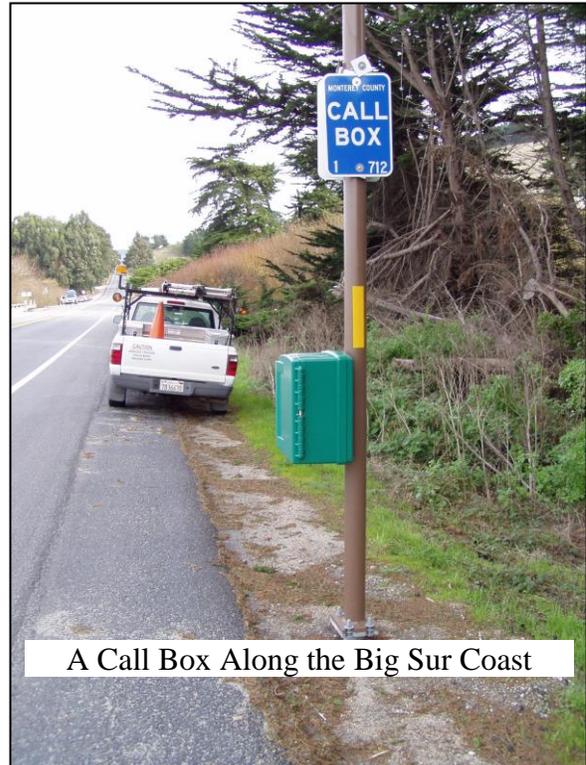
In fiscal year 2016-2017, a total of 575 calls were made, an average of approximately 48 calls per month. July showed the heaviest usage, while November had the fewest calls. Overall, there were considerably fewer total calls in fiscal year 2016-2017 than during previous three years, and far fewer than in fiscal year 2005-2006, when data was first collected. 2016-17 saw a dramatic drop in calls from State Route 1, declining from 487 in 2015-16 to 266 in 2016-17. The decline in usage corresponds to the record storm season for the Big Sur Coast, where there were frequent road closures during the winter and spring, culminating with a complete closure of State Route 1 from Pfeiffer Canyon Bridge in Big Sur to the San Luis Obispo County Line following the Pfeiffer Canyon Bridge failure.

Between 2016-2017, the Agency conducted a multi-year usage analysis to determine if reducing the size of the call box system was warranted. The analysis showed a considerable decline in usage along routes 101, 156, 68, and 1 north of Carmel. The decline corresponds to an increase in cell phone reception along these routes, as well as the continued proliferation of cell phone ownership. Based on this analysis, the Agency is beginning the process of establishing a Call Box Removal Plan, in coordination with Caltrans and the California Highway Patrol. The plan is expected to be finalized in 2018.

Background

Purpose of Program

The Transportation Agency for Monterey County's Service Authority for Freeways and Expressways program provides free emergency telephone service to stranded motorists through call boxes. The program is a joint effort between California Department of Transportation, California Highway Patrol and the Transportation Agency. Agency staff oversees the daily operations and contracts of the program. The call boxes are directly linked to a call answering center where live operators dispatch the calls to the California Highway Patrol, tow truck, and/or emergency services.



A Call Box Along the Big Sur Coast

Currently, the call box program provides a system of approximately 190 call boxes allowing motorists to request roadside assistance along the following routes: State Route 1, State Route 68, State Route 156, US Highway 101, Jolon Road (G14, G18), and Carmel Valley Road /Arroyo Seco Road. Since its inception in 1999, thousands of stranded motorists have received assistance through call boxes in Monterey County. The call boxes along Jolon Road and Carmel Valley/Arroyo Seco Roads were added in 2010 at the request of Monterey County Public Works and the South Monterey County Fire Protection District to enhance safety and provide emergency roadside assistance to motorists, given the lack of cellular reception in these areas. These locations include areas that have historically seen accidents and fires, and that have limited or no access to other forms of communication (such as pay phones and residential/commercial districts).

Maintenance Activities

In February 2014, the Transportation Agency entered a \$421,134, three-year maintenance and improvement contract with CASE Systems Inc. to ensure all call boxes are maintained and meet Americans with Disabilities Act (ADA) access requirements to accommodate persons in wheelchairs. The contract was renewed for an additional three years in 2017. Under this contract, CASE Systems Inc. is responsible for performing corrective maintenance on all call boxes. This work includes making repairs associated with electronics, transceivers, power supply, and the interface with the cellular system, in addition to keeping call boxes clean and operational by conducting preventive maintenance field visits at least two times a year. While the contract also requires site improvements at the call boxes to improve accessibility for disabled motorists, this work has been put on hold while a call box usage analysis was conducted during 2016-2017 and pending the adoption of the Call Box Removal Plan.

Previous Annual Reports

The Agency has baseline data from the program starting in fiscal year 2005/06, and has accurately tracked call box usage in a consistent manner over the past three years for year-to-year comparisons. Since 2005-2006, there has been a decline in usage, and call box usage has also shifted. The majority of calls now come from call boxes on State Route 1, whereas call boxes on US 101 had the highest usage in fiscal year 2005-2006.

Revenue Source

Funding for the program is from a \$1 registration fee on each registered vehicle in Monterey County collected by the Department of Motor Vehicles, which generates approximately \$350,000 per year for Monterey County. The annual operating cost for fiscal year 2015-2016 was \$137,183. In the past, revenues in excess of annual operating costs were utilized to pay the capital costs to acquire and install each new phase of call box equipment, and currently these excess funds are being used to support the Agency's Rideshare and Traveler Information programs.

Usage Evaluation

Consultants Keolis America Inc./CDS Net and T-Cubed have provided data on call box usage for fiscal year 2015-2016, which allows the Agency to evaluate the program.

Calls by Roadway

In fiscal year 2016-2017, a total of 575 calls were made from the 190 call boxes in operation, an average of approximately 48 calls per month.

As shown in Figure 1, forty-six percent (46%) of total calls for aid came from boxes located on State Route 1. Forty percent (40%) of total calls made were from call boxes along US 101, while call boxes along other routes make up for the balance of total calls.

Figure 1: Percentage of Call Box Calls by Route (Fiscal Year 2016-2017)

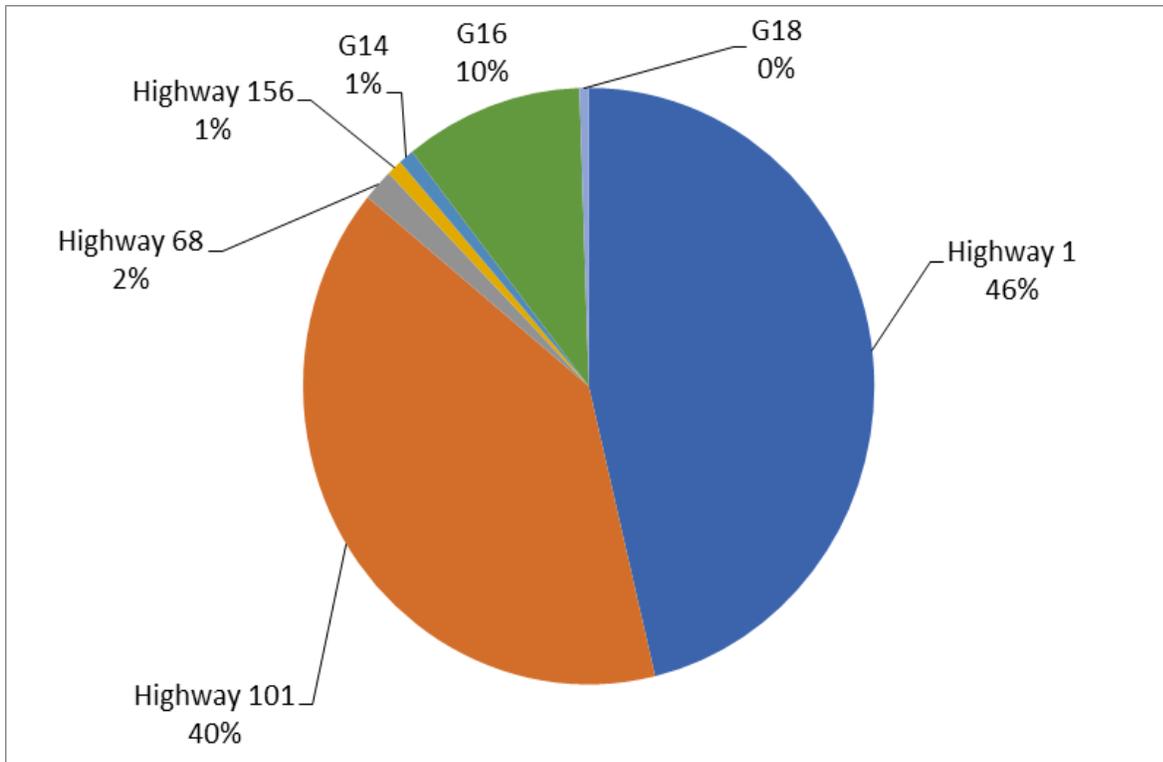
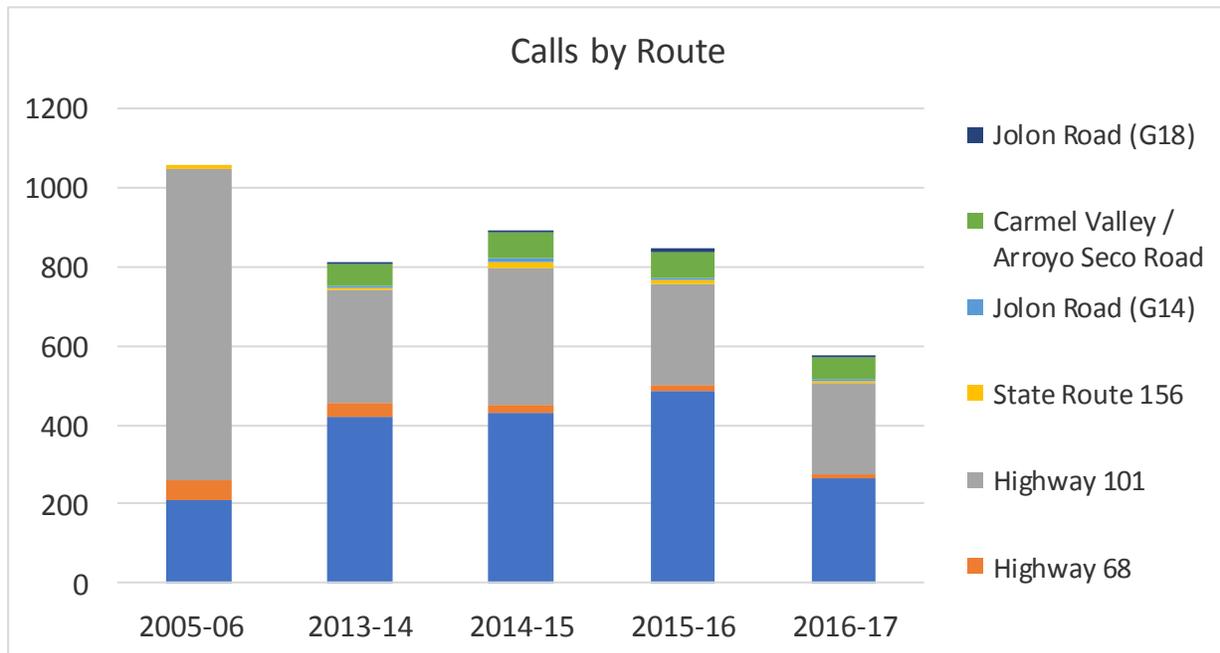


Table 1 compares call box usage from fiscal year 2005-2006 to fiscal year 2016-2017. In 2005-2006 a total of 1,059 calls were made during the fiscal year, and seventy-five percent (75%) of total calls for aid came from boxes located on Highway 101.

Recent usage is generally lower than past usage; specifically, there have been fewer total calls in the past two fiscal years than in 2005-2006. From 2005 to 2016, the greatest decline in usage occurred along Highway 101, but there was an increase in usage along State Route 1. Also listed in Table 1 are calls from the newer call boxes along Jolon Road (G14 – Lockwood to King City), Carmel Valley/Arroyo Seco Roads (G16), and Jolon Road (G18- Bradley - Lockwood), which were added in 2010.

2016-17 saw a dramatic drop in calls on State Route 1, declining from 487 in 2015-16 to 266 in 2016-17. The decline in usage corresponds to the record storm season for the Big Sur Coast, where there were frequent road closures during the winter, culminating with a complete closure of State Route 1 from Pfeiffer Canyon Bridge in Big Sur to the San Luis Obispo County Line. The decline in usage for State Route 1 will likely continue into the next fiscal year until State Route 1 is completely reopened.

Table 1: Call Box Calls by Route, Year to Year Comparison



Top Call Box Usage

Table 2 lists the most used call boxes in Monterey County. During the fiscal year 2016-2017, five call boxes were used for 20 or more calls, making them the most used call boxes in the system. Four of the five call boxes are located on Highway 1, while the other is on Carmel Valley Road. All of the call boxes with the highest call volumes in fiscal year 2016-2017 were located in areas of poor cell phone reception. The lack of good cell phone service, combined with their attractiveness for tourists, makes these prime locations for call box usage. This fact is exemplified by the busiest call box location, Salmon Creek.

Table 2: Most Frequently Used Call Boxes (Fiscal Year 2016-2017)

Rank	Highway	Location	Number of Calls
1	1	Salmon Creek	60
2	1	Garrapata Beach	49
3	1	Bixby Creek Bridge	30
4	Carmel Valley Road	4.4 North of Arroyo Seco Road	22
5	1	Soberanes Point	20

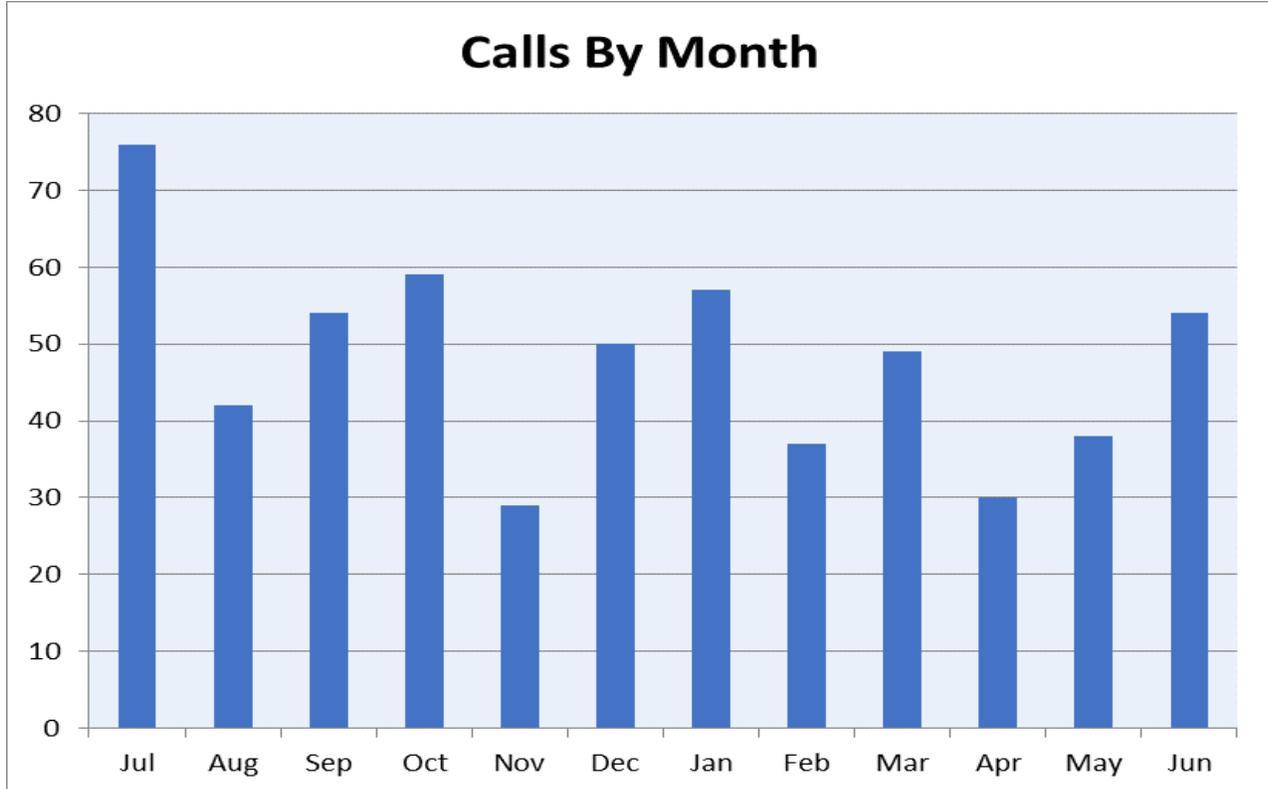
Calls by Month

The call box system in Monterey County averaged approximately 48 calls per month, although the number of calls ranged from a low of 29 to a high of 76 calls. Contrary to previous years, there was not a seasonal decline in winter, which saw average and even above average call rates. This pattern may again be due in part to the unusually strong winter, which may have resulted in more people needing roadside assistance.

Table 4: Call Box Calls by Month (Fiscal Year 2016-2017)

Month	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Total
Calls	76	42	54	59	29	50	57	37	49	30	39	54	575

Figure 2: Call Box Calls by Month (Fiscal Year 2016-2017)

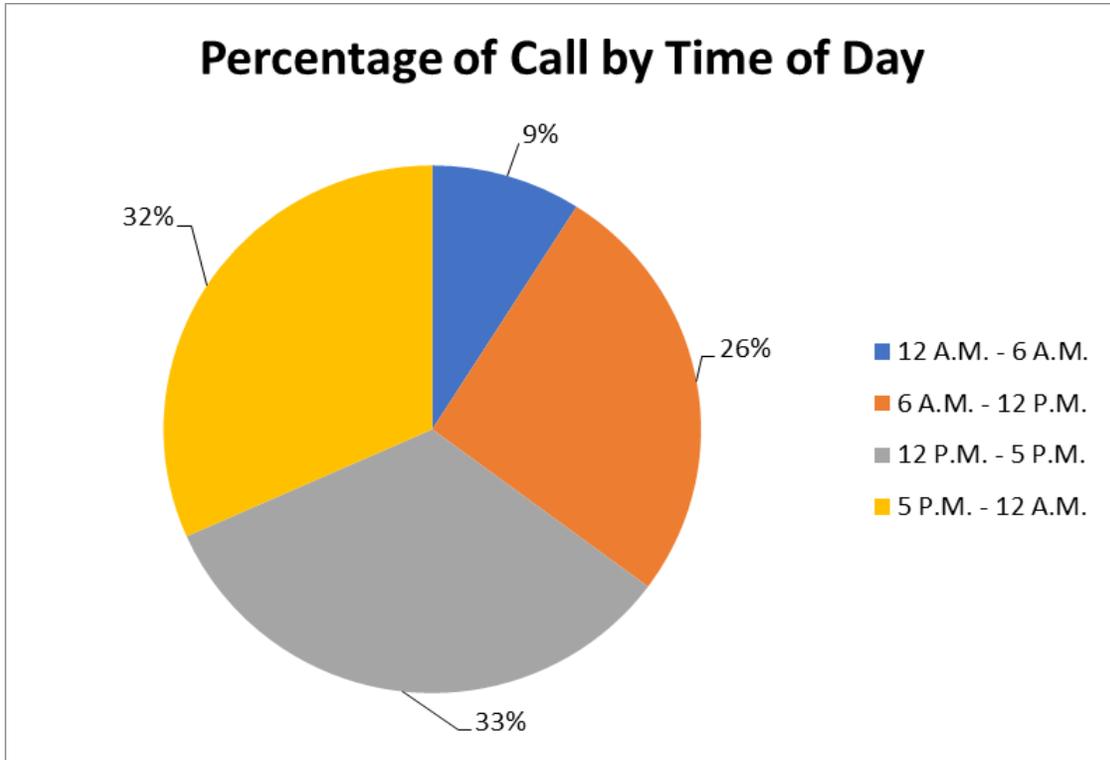


Calls by Time of Day

Knowledge of call times helps first responders and motorist assistance services, such as the California Highway Patrol and the Freeway Service Patrol, anticipate when motorists are likely to need assistance. For purpose of analysis, call box calls are grouped into four different time segments: late night/early morning (12 a.m.-6 a.m.), morning (6 a.m. to 12 p.m.), afternoon (12 p.m. to 5 p.m.), and evening (5 p.m. to 12 a.m.).

The Call Answering Center received the most calls during the afternoon period (33%), thirty-two percent (32%) during the evening, twenty-five percent (26%) in the morning, and nine percent (9%) of the total requests happened in the late night/early morning. The percentage of calls corresponds to the peak travel periods, as well as the expected drop in calls during the late night period when fewer travelers are on the roads.

Figure 3: Percentage of Call Box Calls by Time of Day (Fiscal Year 2016-2017)



Call Answering Center Service Level

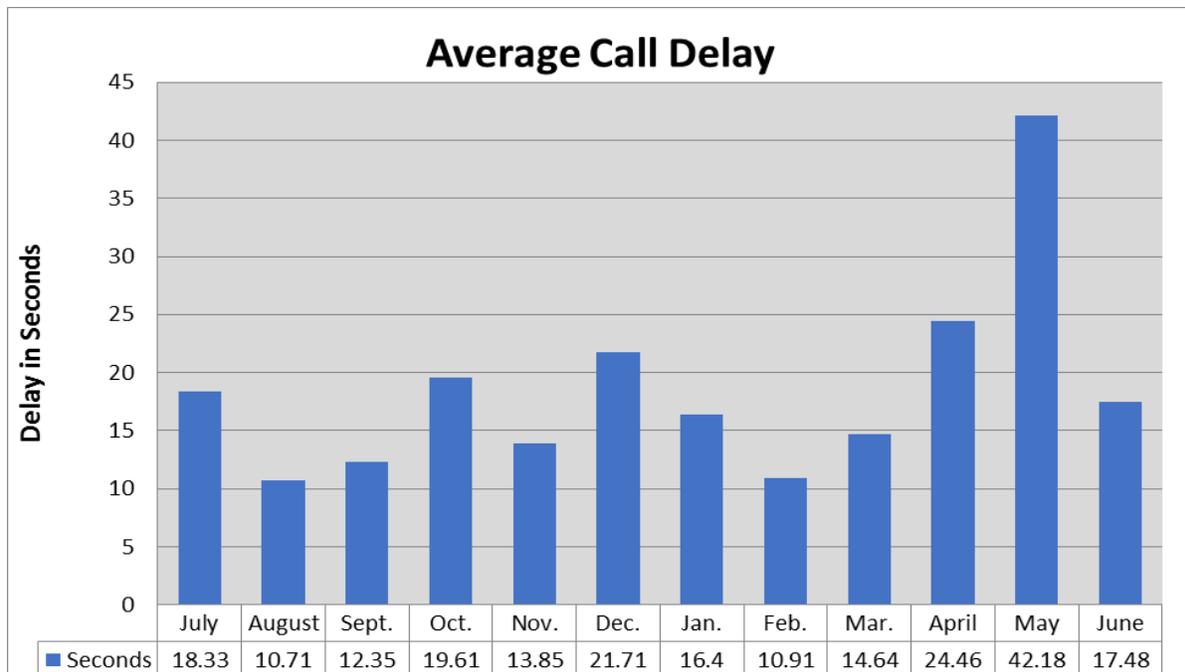
Routing

Call box calls were originally routed to and answered by the California Highway Patrol. In January of 2005, the Agency shifted the call answering service to a private call answering center to reduce costs, improve service, and increase reporting. In June 2016, following a competitive procurement process, the Agency approved a new three-year contract with Keolis America Inc./CDS Net to continue as the call box answering service. The new contract is in place until 2019, and includes an option for one renewal for an additional three years.

Wait Time

The answering delay fluctuates monthly based on factors such as call volumes, time period (peak vs. off-peak), and staffing. The average call delay during fiscal year 2016-2017 was approximately 18.5 seconds. On a monthly basis, the longest average call delay was 42 seconds, in the month of May, while the shortest delay was in August and February. Excluding the month of May, which was an aberration, the call answering center performed within an acceptable level of delay.

Figure 4: Average Call Delay by Month (Fiscal Year 2016-2017)



Answering Service Quality

Each month a portion of the calls received by the answering center are randomly selected by the answering center, reviewed, and rated based on items such as efficiency and courtesy using a scale of 1-10. For fiscal year 2016-17, the answering center for Monterey County call boxes earned a rating of 10, or “excellent service”, for all twelve months. Overall, the call answering center responded to motorists’ requests with a high quality of service throughout the year.

Next Steps

Going forward, the Transportation Agency will continue to track call box usage for year-to-year comparisons. Additionally, staff will continue to work on other motorist-aid programs, such as implementing the 511 traveler information system.

In 2016-2017, the Agency conducted multi-year usage analysis to determine if reducing the size of the call box system was warranted. The analysis showed a considerable decline in usage along routes 101, 156, 68, and 1 north of Carmel. The decline corresponds to an increase in cell phone reception along these routes, as well as the continued proliferation of cell phone ownership. Based on this analysis, the Agency is beginning the process of establishing a Call Box Removal Plan with Caltrans and the California Highway Patrol. The plan is expected to be finalized in 2018.