



MARICOPA COUNTY SHERIFF'S OFFICE
Traffic Stops Quarterly Report 17
2024 Extended Stop Indicator Use



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Traffic Stops Quarterly Report: 2024 Extended Stop Indicator Use
March 2025

This study was developed and conducted by the Maricopa County Sheriff's Office (MCSO) Traffic Stop Analysis Unit and Research and Reporting Unit. The developed methodology was approved by the Court Monitoring Team and Parties on January 10, 2025. This report is intended to meet the requirements of Paragraph 65 of the First Order, as Traffic Stop Quarterly Report for Quarter 1, 2025.

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Executive Summary

This research examined the use of Extended Traffic Stop Indicators (ETSI), arrest indicators, and search indicators in the 2024 MCSO traffic stop data. ETSIs are used by MCSO deputies during traffic stops to identify common reasons the typical traffic stop might take longer to complete. MCSO currently employs seven ETSIs and identify when an arrest and/or search is made in the Vehicle Stop Contact Form (VSCF). For this research we included arrests and searches as delays during traffic stops because they extend the typical stop. The current ETSIs in the VSCF that document delays are Driving Documentation Issues, DUI Investigations, Language Barriers, Technical Issues, Vehicle Tows, Training Stops, and Other Delays. Descriptions of these ETSIs may be found in the main body of this report¹.

MCSO does not consider racial/ethnic difference associated with Extended Traffic Stop Indicator use as a measure of potential bias as defined by the Second Order. Rather Extended Traffic Stop Indicators, along with comments entered into the VSCF, identify and document circumstances which extend the length of a typical traffic stop.

The purpose of the study was to describe the prevalence of delays during stops as documented by ETSIs and other VSCF information, to identify what types, and to what extent delays impact stop length during MCSO traffic stops. Most importantly, the research sought to determine whether ETSIs continue to be used appropriately and with fidelity by deputies when documenting delays during traffic stops.²

This research identified the use of the different ETSIs for the Office by district, deputy, beat, and for the Technical Issues ETSI, by vehicle number. We provide rates of ETSI use, by year and month, since the beginning of 2022. We also identify the use of ETSIs by race/ethnicity for traffic stops made in 2024. The research provides descriptive statistics for stop length for each ETSI and multiple ETSIs, used in combinations. We identify citation and warning rates for stops with ETSIs and describe the relationship among ETSI use and citations identified in the data. The research modeled stop length using regression analysis as a function of ETSI-documented delays and race/ethnicity. The research closely investigated the use of the “Other Delay” and “Driving Documentation” ETSIs and used deputy comments in the VSCF and BWC footage to identify traffic stop delays associated with the use of these two indicators, respectively. Finally, the MCSO reviewed Body Worn Camera (BWC) footage and VSCF comments from a random sample of traffic stops to determine whether deputies are employing ETSIs appropriately and with fidelity. Major findings from the research are as follows:

- MCSO deputies documented delays to traffic stops during 10,607 traffic stops in 2024

¹ For complete descriptions see section beginning on page 5.

² MCSO confirmed using 2022 and 2023 traffic stop data that deputies’ use of ETSI indicators to document delays during traffic stops was appropriate and that deputies utilized ETSI indicators with fidelity.

(52.34% of traffic stops).

- District 7 used ETSIs at the lowest rate (32.52% of traffic stops) and District 2 used ETSIs at the highest rate with over two-thirds of their stops delayed (68.29% of traffic stops).
- The most common ETSI used for the Office and for all districts was Driving Documentation Issues.
- MCSO deputies documented delays for each ETSI at a statistically significant higher rate for Black, Hispanic, and Minority drivers than White drivers for all ETSI types, with the exception of stops with Technical Issue experienced by Black drivers.
- Stops with Black, Hispanic, and Minority drivers experiencing Driving Documentation Issues were longer than stops of White drivers experiencing the same issue. These differences were statistically significant.
- During 6,782 stops (33.46% of traffic stops), deputies documented delays using one ETSI alone and during 3,825 (18.87%) traffic stops, deputies identified multiple delays impacting traffic stops.
- Vehicle Tows had the largest impact on stop length, with stops averaging almost 109 minutes when a vehicle tow was at least one documented delay during the stop.
- Driving Documentation Issues and Technical Issues had the lowest impact on stop length, with stops extended by approximately 4 minutes when these ETSIs were used (when controlling for all ETSIs).
- A majority of traffic stops with one or more delay documented had a higher citation rate than stops with no delays documented, except where Training and Technical Issues were at least one of the selected delays. The citation rate without documented delays was similar to the citation rate with documented delays.
- The Other Issues ETSI often included complex circumstances not easily defined, nor specific to other ETSI options, which led to delayed traffic stops.
- Review of BWC footage and VSCF comments revealed high agreement between the use of ETSIs by deputies and BWC footage. This review confirmed that deputies use ETSI indicators appropriately and with fidelity.

After completing this research, MCSO identified several areas for further investigation and documentation that might be improved. Accordingly, MCSO is taking the following actions based on the findings from this research:

- Review all stops where the Other Issues ETSI was selected but there was no clear description of the delay in the VSCF and send out data refinements.
- Review data for stops with unusual stop lengths associated with ETSI use (*e.g.*, stops with very short stop lengths and any ETSI is selected)

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- Continue the process (implemented Q1, 2024) of reviewing traffic stops exceeding 20 minutes in length where no ETSI was selected and send out data validations where ETSIs are applicable.
 - Conduct internal town halls with each district explaining the results of this research, reinforce proper use of the ETSIs and work with District Commanders to better understand each district's unique circumstances that delay traffic stops.
 - Communicate with fleet management to inspect vehicles and equipment associated with a high proportion of stops experiencing technical issues.
 - Discuss findings with the MCSO Internal Review Group (IRG) to determine any additional actions MCSO Patrol may take.

Introduction

MCSO evaluates disparity in traffic stop length and outcomes for the office annually and reports the results in the Traffic Stop Annual Report (TSAR). MCSO also analyzes individual deputy stop activity for disparity in stop length in the Traffic Stop Monthly Report (TSMR). Stop length was originally cited in the first court order as deputies had been holding Hispanic drivers for extended lengths of time during traffic stops to determine whether the driver or passengers in the vehicle were undocumented.³

Absent deputy questions about immigration status, MCSO does not consider racial/ethnic inequality in ETSI use as indicia of potential bias as defined by the Second Order. Rather ETSIs identify and document circumstances which extend the length of a traffic stop.

Stop length is analyzed in the TSAR and TSMR in different ways and the TSAR analysis seeks to account for delays in the traffic stop that are considered reasonable or relevant to the deputy's law enforcement duties. The Monitor's team and parties first approved the exclusion of ETSIs in the analysis of stop length prior to the publication of TSAR 4. Traffic stops can be delayed for many reasons and MCSO has included ETSIs in the Vehicle Stop Contact Form (VSCF) to identify these delays and document when and why stops may be extended. Delays associated with arrests and searches during traffic stops are also accounted for in analyses of stop length in the TSAR and TSMR. Delays in traffic stops for individual deputies are investigated monthly during TSMR reviews. Extended stops with ETSI indicators are not controlled for in TSMR analyses but are examined during monthly reviews of deputies that are flagged for stop length disparity in the TSMR.

The Monitor's team and parties first approved the use of five ETSIs in 2017 after identifying the most common circumstances with extended stop lengths. In March of 2021, MCSO examined the use of ETSIs during 2020 traffic stops and published its findings in TSQR 3.⁴ Following this research, MCSO analyzed long non-extended stops for their fourth quarterly report.⁵ The results from this research indicated the need to incorporate two additional ETSIs into the VSCF (Driving Documentation Issues and Other Delays). Following the publication of TSAR 8, MCSO received comments from the Monitor's team and Parties indicating an interest in investigating ETSI use again to determine if ETSIs were still being used with fidelity and to determine the prevalence of use of each indicator. Results of this analysis were published in TSQR 13⁶ and confirmed that

³MCSO deputies are explicitly forbidden by policy to ask about a driver's immigration status. Since reviewing traffic stops for stop length, including TSQR3, TSQR4, TSQR13, reviewing stops for follow-up to the TSQR 10, TSQR 12, TSQR 14, TSQR 15, and TSQR 16, and monthly TSMR reviews, MCSO identified no traffic stops when a deputy asked for immigration status.

⁴TSQR 3 "Extended Stop Indicator Use," was published in March of 2021 and can be accessed here: https://www.mcsobio.org/files/ugd/c866a6_f37279fd33394818bb370ab6af46820e.pdf

⁵TSQR 4 "Long Non-Extended Traffic Stops" was published in June of 2021 and can be accessed here: https://www.mcsobio.org/files/ugd/c866a6_011aa6a557db4b5da212fac8c72f30dd.pdf

⁶TSQR 13 "2023 Extended Stop indicator Use," was published in March of 2024 and can be accessed here: https://www.mcsobio.org/files/ugd/b6f92b_ac4262279ed84a10b0815b362e687837.pdf

deputies used ETSI indicators appropriately and with fidelity. Following the TSAR 9 publication, MCSO received comments from the Monitor’s team and Parties indicating an interest in investigating ETSI use again.

Response to TSQR 13⁷

Since the publication of TSQR 13, during the third and fourth quarters of 2024, MCSO has taken action to address disparity in traffic stop length and increase documentation of delays during traffic stops. These include:

1. Review stops for which “Other Delay” was selected but for which there is no clear description of the delay in the Vehicle Stop Contact Form (VSCF) and send out data validations as necessary.
2. Review data for stops with unusual stop lengths associated with ETSI use.
3. Review long non-extended stops (those that exceed 20 minutes) and send out data validations as necessary.
4. Disseminate or publish guidelines, or “cheat sheet,” on the appropriate use of ETSIs. Include use of ETSIs in TSAR training, including the appropriate use of the “Other” category.
5. Conduct Internal Town Halls with each district going over the results of MCSO research to inform deputies of each district’s unique circumstances that delay traffic stops.
6. Communicate with Fleet Management to inspect vehicles and equipment associated with a high proportion of stops experiencing technical issues that delay traffic stops.
7. Reinforce appropriate and consistent use of ETSI indicators with deputies via regular TSAU briefings with district personnel.

Currently, MCSO has seven extended stop indicators available for use in the VSCF. These include:

- Driving Documentation Issues
- DUI Investigations
- Language Barriers
- Technical Issues
- Vehicle Tows
- Training Stops
- Other Delays

In addition to these ETSIs, this research also examined the use of driver arrest indicators and search (vehicle or driver) indicators from VSCF data. The inclusion of arrests and searches was necessary

⁷For a detailed explanation of the MCSO action resulting from TSQR 13 and status updates regarding these actions see “Response Plan TSQR 13 Quarterly Report,” available here: <https://www.mcsobio.org/traffic-stop-data>

because when searches or arrests occur, they extend the length of the traffic stop. For this report, we include arrests and searches as “ETSI” although they are characteristically different from the seven ETSI indicators.⁸

Descriptions of these indicators and their uses are provided below.⁹

Arrests

Following the publication of TSQR 7 on MCSO arrest activity, MCSO identified that many driver arrests are characteristically different from one another. As a result, MCSO modified the “Driver Arrest Type” field in the VSCF to include options that more accurately capture the circumstances of the arrest. There are currently six types of arrests documented in the VSCF data.

- *Booked Arrests:* Booked arrests occur when a driver is arrested, charged with a crime, and booked into one of the seven Maricopa County jail facilities. Once arrested, defendants remain in the jail facility and have an arraignment with a judge to determine additional legal options for the defendant. These types of arrests occur with both misdemeanor and felony charges or may occur when a driver has an active warrant out of Maricopa County (as opposed to municipal warrants).
- *Cite and Release/Custodial Arrest:* Cite and Release Custodial Arrests occur when a driver is taken into custody and processed for charges related to the arrest. These arrests are common for DUI arrests when the driver is taken into custody and evidence is collected related to DUI charges (such as the collection biological samples) and questioned about their alcohol or drug consumption. Absent additional charges, drivers are released following processing at MCSO sub-stations.
- *Cite and Release/No Custodial Arrest:* Cite and Release/No Custodial Arrests are the most common arrest type effectuated by MCSO deputies (77.31% of all arrests). These arrests occur when the driver is charged with a misdemeanor offense and not taken into custody. In most cases, these arrests proceed like a typical traffic stop. The most common misdemeanor charge for cite and release/no custodial arrest by MCSO deputies was for criminal speed (68% of all arrests of this type were for criminal speed in 2025; N = 641). The second most common misdemeanor charge for cite and release/no custodial arrest was for driving on suspended license (ARS 28-3473A; 29% of cite and release/no custodial arrests, N = 268). When these arrests occur, drivers must see a judge to address the citation that was issued (instead of simply paying a fine).
- *Custodial Arrest/Pending Follow-up and/or Long Form:* Custodial Arrest/Pending Follow-up and/or long form arrests occur when a driver is taken into custody while deputies collect

⁸Note that both arrests and searches are analyzed as stop outcomes in the TSAR and the TSMR, while the seven ETSIs, arrests, and searches are used as control variables in analyses of stop length in the TSAR and the TSMR.

⁹Exact verbiage used in TraCS to describe these indicators is available in Appendix A of this report.¹⁰The MCSO began motorcycle patrols in 2024. Motorcycle patrols are specific to traffic enforcement and traffic stops made by the motorcycle unit occur throughout Maricopa County. For this research, we have assigned the previously deprecated “District 6” designation to stops made by motorcycle patrols.

and/or process evidence related to the suspected crime. The majority of arrests in this category are DUI arrests.

- *Custodial Arrest/Released No Further Action*: Physical arrest, released with no further action (*i.e.*, probable cause dispelled after further investigation, decision made not to charge due to Maricopa County Attorney's Office charging standards not met) or Other Agency declines to pick up on warrant.
- *Custodial Arrest/Released to Other Agency*: Custodial Arrest/Released to Other Agency arrests are arrests of drivers on warrants from another local jurisdiction.

Driving Documentation Issues

ETSI for driving documentation issues are used when drivers have issues with driver's licenses, identification, registration, insurance, or license plates. These delays may be caused by drivers not having their driver's license, registration, or proof of insurance in their possession, and deputies must confirm the driver's identity using information provided by the driver (*e.g.*, name, date of birth, address, etc.). When registration for the vehicle is absent, deputies must identify and record the VIN number from the vehicle and confirm licensing of the vehicle. When proof of insurance is not available, deputies may allow drivers to access this information on their smartphones or may confirm insurance coverage with the Arizona Motor Vehicle Division (MVD). Delays associated with license plates are often the result of fictitious plates or license plates that have been suspended by the Arizona MVD for lacking insurance on the vehicle. In these cases, license plates are seized by the deputy. Many of the delays associated with driving documentation require deputies to enter driver and/or vehicle information into TraCS manually or deputies must take extra time to confirm information about the driver or vehicle. Finally, driving documentation delays occur when drivers take extra time to find and produce requested licenses, proof of insurance, and registration when deputies request these items at the beginning of the traffic stop. We investigated circumstances of driving documentation issues and present findings from this investigation later in this report.

DUI Investigations

DUI investigations occur when deputies have reasonable suspicion and/or probable cause to suspect that a driver is under the influence of drugs or alcohol. Stops are delayed for DUI investigations because deputies must take additional steps (*i.e.*, field sobriety tests) to determine if the driver is impaired.. When a deputy selects the ETSI for a DUI, this does not necessarily mean that a DUI arrest has occurred, rather, the stop was delayed to determine whether the driver may be under the influence of alcohol or drugs..

Language Barriers

Delays related to language barriers occur when a deputy cannot communicate with drivers due to

language differences, or when communication with the driver is impeded by language. The most common language barrier delay occurs when the deputy and driver do not speak the same language. However, language barrier delays also occur when drivers may be deaf and communication between the deputy and driver must be accomplished using writing. In other situations, language barriers may be present during the stop, but the driver and deputy may be able to communicate, only less efficiently than if both the driver and deputy speak the same language fluently. In most cases, language barriers may be overcome with the use of the audio Voiance translation service used by MCSO deputies to translate between two different languages. In some situations, a bilingual deputy may arrive at the stop and translate for the primary deputy.

Searches

Searches occur during traffic stops for many reasons and may be searches of drivers or vehicles. Most searches during MCSO traffic stops are searches that are incident to arrest or inventory searches for vehicle tows, these searches are non-discretionary and dictated by MCSO policy. Other searches, which are considered discretionary, are not dictated by MCSO policy and occur when a deputy has reason to search a person or vehicle during a stop. Discretionary searches are analyzed in the search benchmark of the TSAR and TSMR process. Discretionary searches of vehicles or drivers are rare, occurred during 0.59 percent (N = 119) of MCSO traffic stops in 2024. MCSO evaluated searches in TSQR 10.

Technical Issues

Delays caused by technical issues often occur during MCSO traffic stops when technology facilitating the deputy's duties inhibit the timely processing of the traffic stop. These delays may be caused by connectivity issues with computers or radios. They may also be caused by other equipment not functioning such as scanners for driver's licenses and vehicle registration. Deputies have documented situations where computers must be restarted, or situations where printers for citations and other contact receipts are not functioning, requiring the deputy to handwrite all paperwork. In previous research on ETSI use, MCSO determined that deputies would often select the technical issues ETSI when they needed to manually enter driver and vehicle information into their computers.

Vehicle Tows

Delays caused by vehicle tows are prolonged. Deputies first determine whether towing the vehicle is appropriate. When a vehicle is towed deputies must produce additional paperwork (a tow receipt), conduct an inventory search of the vehicle and document valuables in the vehicle if the driver is unable to take the valuables with them. Deputies must wait for tow trucks to arrive at the scene of the traffic stop and work with tow-truck drivers to document the tow. This includes

collecting driver’s license information from the tow-truck driver and producing a tow receipt for the driver. Finally, in many cases, when a driver’s vehicle is towed, deputies may wait with a driver until the driver is able to be picked up by a friend or family member, or the deputy may provide the driver with a courtesy ride to their home or a different location. This is especially common during the summer months when temperatures routinely exceed 115 degrees.

Training Stops

Delays during training stops occur for several reasons. Deputies in training are unfamiliar with many aspects of a traffic stop and often require extra time to identify required processes, forms, ARS statutes, etc. During training stops the Field Training Officer (FTO) often provides guidance to the trainee with instructions or answering questions the trainee may have.

Other Delays

The Other Delay ETSI was added to the VSCF in 2022. When a deputy determines that a traffic stop has been delayed for reasons other than what is available in the other ETSIs, they may select the Other Delay ETSI. When they do so, the VSCF prompts the deputy to identify the delay in the comments of the VSCF. The Other Delay ETSI was added to the VSCF because MCSO identified many situations occurring during stops that were beyond the control of the deputy but would require the addition of multiple ETSIs specific to unique situations. In the research below, we identify the common delays during traffic stops which deputies identify and indicate that the stop was delayed for “other” reasons. Examples include drivers who are talkative and ask many questions, drivers taking a long time to stop when deputies initiate the stop, deputies waiting for a safe place to initiate the stop after they have made the decision to stop, waiting for traffic lights to cycle, asking drivers to move their vehicles to a safer location to process the stop and situations with animals or children in the vehicle.

Purpose of the Research

This research examined the use of ETSIs in the 2024 MCSO traffic stop data. The research sought to determine whether ETSIs continue to be appropriately used by deputies to document delays during traffic stops. Researchers also reviewed the “Other Issues” and “Driving Documentation Issues” ETSI comments to document common situations associated with the use of these two indicators. The research describes the prevalence of delays during stops as documented by ETSIs and identifies what types of delays impact stop length during MCSO traffic stops.

The organization of this report is as follows. In the next section we detail the methods used to investigate ETSI use throughout the remainder of the report and describe the data used for this research. Following this, we provide summary statistics for ETSI use over time since 2022 by year

and by month (2022–2024). We identify ETSIs used by individual districts and disaggregate the different ETSIs and their use by District. Next, we analyze whether different racial/ethnic groups experience delays, documented by ETSIs, at a different rate. We then provide tabulations of ETSI use and summary statistics for stop length for all ETSIs. We provide regression analyses of stop length for different racial/ethnic groups using ETSI indicators as control variables. We then provide a detailed analysis of the relationship between citation outcomes and individual ETSIs. Next, we provide results from reviewing comments from stops for which deputies selected the Other Delays ETSI. We provide results of BWC reviews of stops for which deputies selected the Driving Documentation Issues ETSI. Finally, we present the measure of agreement between BWC reviewers, VSCF comments, and deputies' selection of the ETSIs to confirm that deputies use ETSI indicators accurately and with fidelity.

Following the presentation of the results from this research we discuss limitations of the analyses and summarize the main findings of the research. We conclude the report with a summary statement and identify MCSO's response to the findings from the research.

Methods

Data for the analysis was obtained from the MCSO’s Traffic and Criminal Software (TraCS) database. The data includes a population of traffic stops made by MCSO deputies from January 2024 through December 2024 (N = 20,266). Several subsets of the data were used for different analyses in the report. The first consisted of a population of stops where at least one ETSI was used (N = 10,607). Second, we identified all stops for which deputies selected the “Other Delay” ETSI (N = 2,532). A third subset of data consisted of a random sample of stops with the Driving Documentation ETSI selected (N = 100). Fourth, we selected a stratified random sample of traffic stops identifying 60 traffic stops with at least one ETSI selected and identifying 20 traffic stops with no ETSI selected (N = 80). Finally, in addition to the 2024 traffic stop data, we briefly utilized TSAR 8 (2022) and TSAR 9 (2023) data to tabulate annual and monthly ETSI use for the years 2022–2024.

We employ a number of variables throughout the report. The variables used in the analyses were: district number, beat number, deputy number, vehicle number, ETSI use (Yes/No), ETSI Type (Arrest, Driving Documentation, DUI, Language, Search, Technical, Tow, Training, and Other), Driver Race/Ethnicity (Black, Hispanic, White, and non-White Minority drivers which included Asian, Black, Hispanic, and Native American drivers combined), Stop Length (in minutes), and Stop Outcome (Citation, Warning, and Incidental Contact). All variables were nominal, except for stop length, which was interval-ratio.

In the first analysis presented below, we provide ETSI use for each ETSI type as a proportion of traffic stops annually for the years 2022–2024. We also provide ETSI use for each ETSI type, as a proportion of traffic stops, by month, for the years 2022–2024. Following this, all analyses used 2024 traffic stop data only.

Using all 2024 traffic stop data, we provide the frequency and proportion of traffic stops with ETSI-documented delays for each of MCSO’s districts.¹⁰ These numbers are presented in aggregate (any ETSI selected) and by ETSI type. We then present an office-level analysis of the frequency and percentage of stops with an ETSI by race/ethnicity for all ETSIs and for each ETSI type. We employ the Fisher’s Exact Test to test for racial/ethnic differences in ETSI use and a critical value of $p < 0.05$ to test the null hypothesis of whether ETSI use between White drivers and other racial/ethnic groups (Black, Hispanic, and Minority drivers) are equal.

We provide descriptive statistics for stop length for each ETSI indicator and include the number of stops, the minimum and maximum stop length, the mean, median and standard deviation for stop length, and as a measure of skewness, the percent of stops above the mean stop length. We present these statistics for all stops with a given ETSI (ETSI use was not mutually exclusive) and

¹⁰The MCSO began motorcycle patrols in 2024. Motorcycle patrols are specific to traffic enforcement and traffic stops made by the motorcycle unit occur throughout Maricopa County. For this research, we have assigned the previously deprecated “District 6” designation to stops made by motorcycle patrols.

for stops with only one ETSI selected. In Appendix B of the report, we provide these summary statistics for all combinations of ETSIs observed in the data.

To address the impact identified delays have on stop length, we model racial/ethnic differences in stop length in two ways. First, we compare stop lengths with a single ETSI selected, for each ETSI type, to determine whether different racial/ethnic groups (Black, Hispanic, and Minority) have different stop lengths when compared to White drivers. To compare stop lengths, we used an independent samples t-test and employed a critical value of $p < 0.05$ to test the hypothesis of no difference in the average stop length between groups. Second, we provide a series of five regression models modeling stop length as function of ETSIs and race/ethnicity. For this analysis we disaggregate arrests into custodial and non-custodial arrests because of their unique impact on stop length.

Following our analysis of stop length, we provide a descriptive analysis of ETSI use and contact conclusions (citations v. warnings). For this analysis we identify the number of stops with each ETSI selected and provide the citation and warning rates for those stops. To identify how ETSIs and contact conclusions are broadly related we include a bivariate correlation analysis of the relationship among ETSI indicators and citation outcomes.

We conducted three analyses of subsets of stops and associated ETSI use to describe the uses of two ETSIs (Other Delays and Driving Documentation Issues) and to confirm appropriate use of ETSI indicators during stops. First, we qualitatively reviewed VSCF comments for all stops with the “Other Delays” ETSI selected (N = 2,535), categorized documented delays into 16 categories, and identified stops for which no delay was documented in the comments of the VSCF¹¹ We tabulated and provided a description of each type of delay. We include examples of delays derived from VSCF comments.

In the second analysis we reviewed BWC footage of a random sample of traffic stops with the Driving Documentation ETSI selected (N = 100). These reviews documented the specific delays associated with driving documentation. Causes of the delays associated with driving documentation were coded into four categories: 1) extra time needed to provide license, insurance, and registration, 2) suspended, cancelled, or revoked licenses, 3) no driver’s license, and 4) other driving documentation delays. When reviewers identified other driving documentation delays, they identified and documented the source of delay (e.g. manual entry of driver or vehicle information).

In the third analysis, MCSO reviewed BWC footage for 80 randomly-selected traffic stops to evaluate the proper selection of ETSIs by deputies. Of these stops, 60 stops were selected for which deputies indicated at least one ETSI and 20 stops were included which no ETSI was selected. To evaluate whether deputies used ETSI indicators with fidelity, we conducted three analyses. The first analysis included a blind review of stops where reviewers had no prior knowledge of the types of delays (or lack thereof) that occurred during the stop. Reviewers documented observed delays

¹¹Categories were derived from the analysis in TSQR 13. For a list of the categories, see Table 16.

during the stops and identified whether individual ETSI indicators were appropriate. Following BWC reviews, MCSO conducted an agreement analysis of delays identified in BWC footage with the ETSIs selected by deputies in the VSCF. A second analysis involved coding VSCF comments for the sample of stops to identify delays that were documented by deputies. We conducted an agreement analysis between coded deputy comments and ETSI indicators selected in the VSCF. Finally, we identified whether BWC reviews or VSCF comments documented a delay during the stop and whether these documented delays were in statistical agreement with the ETSIs selected in the VSCF. For all analyses of agreement, we used Cohen's Kappa and a critical value of $p < 0.05$.

In Appendix C of this report, we provide frequency tables for ETSI use by Beat for each ETSI indicator. We provide frequency tables of ETSI use by deputy, for each ETSI indicator in Appendix D. Finally, in Appendix E, we provide a tabulation of the Technical ETSI indicator by vehicle to identify possible equipment malfunctions.

ETSI Data and Analysis

Data for analysis included all traffic stops for the 2024 calendar year ($N = 20,266$). Of all traffic stops made by MCSO deputies during the study period a total of 10,607 (52.34%) involved a delay documented by at least one of the nine indicators analyzed in this report. The descriptive analysis below begins with an overview of the content of these cases, by District (Tables 3 and 4). Additional analyses of the frequency and percent of indicator use by Beat, Deputy, and Vehicles are excluded from the main body of the report due to space limitations but are available for review in the Appendix of this report. In the next section, ETSI use is separated by the driver's perceived race/ethnicity and the results of Fisher's Exact Test for racial/ethnic differences in ETSI use are presented. Next, descriptive statistics for stop length (number of observations, minimum, maximum, mean, median, standard deviation, and percent of cases above the mean) are provided for the use of each indicator, and indicators in combination with all others. This is followed by an analysis of ETSI use and stop outcome for each of the nine indicators. The next section includes results from evaluating the VSCF comments from stops where deputies selected the Other Delay ETSI. Comments were coded into categories to identify common explanations for delays associated with the Other Delay ETSI.¹² Findings from this analysis are presented and discussed. Finally, we present the results of reviews of BWC footage and VSCF comments as a quality check on the use of ETSIs. We use Cohen's Kappa¹³ as a measure of agreement between (a) deputy ETSI selection and reviewers' determinations of delays, (b) deputy ETSI selection use and VSCF comments, and (c) deputy selection and reviewer determinations of delays and VSCF comments combined.

¹² Saldaña, Johnny. 2016. *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage Publications.

¹³Cohen, J. 1960. "A Coefficient of Agreement for Nominal Scales." *Educational and Psychological Measurement* XX(1): 37-46.

Findings

Frequency of ETSI Use Over Time

In Table 1 below we provide the proportion of traffic stops with documented delays, by year. Since the Driving Documentation ETSI was added to the VSCF in 2022, it has been indicated as the most common delay during traffic stops, impacting stop length of over one-third of stops in 2024.

Table 1: ETSI use as a Proportion of Traffic Stops, by Year

	2022 ¹⁴	2023	2024
Any ETSI (Includes Arrests and Searches)	29.38%	39.35%	52.43%
Arrests	4.64%	5.47%	5.98%
Driving Documentation	13.89%	24.69%	36.79%
DUI Investigations	1.94%	1.93%	1.83%
Language Barrier	1.96%	2.37%	2.70%
Search	2.45%	2.69%	2.68%
Technical Issues	6.91%	7.46%	10.44%
Vehicle Tow	1.73%	1.99%	1.78%
Training	5.91%	5.68%	5.93%
Other Delay	3.35%	6.84%	12.51%

¹⁴The Driving Documentation and Other Delay ETSIs were added to the VSCF after the 2022 data year began.

In Table 2 we provide descriptive statistics for documented delays in traffic stops by month and ETSI for the years 2022-2024.

Table 2: ETSI USE as a Proportion of Traffic Stops, by Month

	Arrest	Driving Docs	DUI	Language	Search	Tech	Tow	Training	Other Delay	
2022	Jan.	5.37%	N/A	1.64%	1.90%	2.29%	5.18%	1.64%	1.97%	N/A
	Feb.	4.55%	0.07%	1.03%	2.62%	3.31%	5.10%	1.52%	2.00%	N/A
	March	4.45%	13.35%	2.52%	1.29%	2.31%	8.69%	1.39%	9.00%	4.02%
	April	4.60%	12.86%	1.65%	2.18%	2.12%	7.73%	1.83%	14.40%	3.30%
	May.	4.44%	15.16%	3.09%	2.42%	2.84%	7.43%	2.06%	14.08%	3.20%
	June	4.55%	17.40%	1.63%	1.81%	2.39%	6.60%	1.63%	8.76%	3.50%
	July	4.46%	14.87%	2.28%	1.83%	1.98%	5.80%	1.59%	3.92%	2.43%
	Aug.	4.74%	15.18%	1.18%	1.56%	2.26%	6.19%	1.67%	2.48%	4.04%
	Sept.	4.44%	15.46%	2.36%	1.67%	2.13%	7.61%	1.44%	1.21%	5.59%
	Oct.	4.35%	17.84%	1.35%	2.32%	2.32%	6.82%	1.50%	2.32%	3.67%
	Nov.	4.45%	20.49%	1.94%	2.02%	2.75%	7.77%	2.19%	4.53%	4.78%
	Dec.	5.39%	24.42%	2.17%	2.24%	3.01%	7.98%	2.45%	3.01%	5.67%
2023	Jan.	3.08%	23.81%	1.49%	2.13%	1.74%	8.38%	1.49%	7.24%	5.51%
	Feb.	4.41%	21.56%	1.10%	2.02%	2.51%	4.96%	1.90%	5.63%	4.78%
	March	4.80%	23.68%	1.71%	1.78%	3.03%	6.58%	2.04%	8.68%	7.50%
	April	4.80%	24.22%	2.36%	2.66%	2.73%	7.53%	2.22%	3.69%	7.90%
	May.	5.56%	26.37%	2.58%	2.97%	4.46%	9.08%	3.21%	5.40%	8.37%
	June	4.37%	26.15%	1.79%	3.37%	3.51%	7.66%	2.72%	6.23%	7.38%
	July	5.23%	26.13%	2.22%	3.80%	3.64%	7.84%	3.09%	7.76%	8.23%
	Aug.	5.56%	26.07%	0.87%	2.55%	1.91%	8.05%	1.39%	6.32%	6.14%
	Sept.	6.95%	23.32%	1.62%	2.46%	2.46%	8.63%	1.74%	4.32%	5.64%
	Oct.	6.80%	24.76%	0.71%	1.74%	1.90%	6.49%	1.19%	3.80%	7.44%
	Nov.	6.60%	24.59%	1.25%	1.65%	2.11%	6.86%	1.32%	5.35%	6.53%
	Dec.	7.55%	26.25%	4.90%	1.90%	3.00%	7.35%	2.15%	3.70%	7.85%
2024	Jan.	5.68%	30.48%	1.15%	1.59%	2.61%	8.16%	1.79%	3.95%	9.69%
	Feb.	5.27%	33.95%	1.05%	2.03%	2.27%	9.48%	1.22%	3.57%	10.78%
	March	4.84%	30.26%	1.99%	2.59%	2.72%	10.02%	1.66%	11.61%	9.95%
	April	6.01%	28.89%	1.37%	2.86%	2.40%	10.70%	1.54%	3.83%	10.81%
	May.	5.81%	30.51%	2.13%	2.65%	2.54%	10.28%	2.02%	3.89%	8.56%
	June	6.30%	37.74%	1.52%	1.94%	3.25%	8.66%	1.25%	4.71%	10.66%
	July	7.03%	39.62%	3.35%	3.24%	2.81%	9.89%	2.16%	2.86%	12.27%
	Aug.	5.96%	39.93%	3.26%	3.51%	2.91%	11.52%	2.05%	5.91%	15.33%
	Sept.	6.00%	38.23%	1.58%	3.41%	2.64%	11.95%	1.73%	4.83%	15.00%
	Oct.	4.77%	44.58%	1.00%	1.88%	2.06%	11.90%	1.35%	12.90%	14.25%
	Nov.	6.96%	42.39%	1.68%	2.61%	2.86%	10.57%	2.05%	8.33%	16.03%
	Dec.	6.81%	43.36%	1.22%	3.43%	3.03%	11.06%	2.15%	5.36%	15.37%

Frequency of ETSI Use by District¹⁵

In Table 3 below, we provide an overview of ETSI use by District for each of MCSO’s districts.¹⁶ District 2 had the highest ETSI use rate when compared to other districts, with over half of all traffic stops delayed by a search, arrest, or documented extended stop circumstances. In contrast, District 7 deputies had the lowest proportion of stops delayed by arrests, searches, or documented traffic stop delays (32.52%). In total, over 50 percent (52.34%) of stops made by MCSO deputies were documented as delayed for arrests, searches, or by the ETSI circumstances.

Table 3: Number of Traffic Stops and Stops with ETSIs, by District

District	Number of Stops	Number of Stops with an ETSI	Percent Stops with an ETSI
1	2,853	1,745	61.16%
2	2,296	1,568	68.29%
3	1,722	880	51.10%
4	4,053	2,473	61.02%
5	5,196	2,489	47.90%
6	1,320	533	40.38%
7	2,826	919	32.52%
MCSO	20,266	10,607	52.34%

In Tables 4a, 4b, and 4c we report delays for each ETSI and District. In Table 4a below, we identify ETSI use for Arrests, Driving Documentation, and DUIs. In 2024, MCSO had 1,212 traffic stops that involved the arrest of a driver.¹⁷ This accounted for 5.98 percent of all MCSO traffic stops. District 5 had the highest rate of delays associated with arrests, with 8.43 percent of stops delayed for this reason. In contrast, District 4 made 78 arrests during traffic stops, accounting for 1.92 percent of all District 4 stops in 2024.

Delays caused by issues with driving documentation occurred during over one third (36.80%) of

¹⁵ We identify the motors traffic unit with District 6. The motors unit operates across the Valley and is designated as dedicated traffic enforcement.

¹⁶District 6 represents stops made by MCSO’s motorcycle unit.

¹⁷Arrests by MCSO deputies during traffic stops are effectuated in different ways and depend on the circumstance(s) of the stop. Cite and release arrests occur when drivers are issued a citation for a criminal violation. The most common arrest of this type are arrests for criminal speed. In these circumstances it is unlikely that a driver is detained but are issued a criminal citation during the stop. Custodial arrests occur when the driver is detained and processed for the arrest. These arrests occur during DUI stops, stops with other more serious violations, or when a driver possesses a warrant. Most arrests made by MCSO deputies during traffic stops are not custodial arrests. For more information on MCSO traffic stop arrest activity see TSQR 7 available at

https://www.mcsobio.org/_files/ugd/c866a6_8bb2dabbd9fa4b0e8473184e32edf1f5.pdf.

all MCSO traffic stops made in 2024.¹⁸ Driving Documentation Issues were most common in Districts 2 and 4, with around half of their traffic stops delayed for this reason (52.57% and 50.63%, respectively). In contrast, delays caused by driving documentation were least common in Districts 6 and 7. In District 6, 26.44 percent of stops were delayed for driving documentation issues, and in District 7, 15.64 percent of traffic stops were delayed for this reason.

Delays for DUI Investigations occurred during nearly 2 percent of all traffic stops (1.83%). Investigations for DUIs across all districts are relatively rare, except for District 5. District 4 had the lowest proportion of stops delayed for DUI investigations with less than one percent (0.69%) of stops delayed for this reason. Approximately two percent of stops in Districts 1 and 2 were delayed for DUI investigations (2.00% and 2.09%, respectively). Delays associated with DUI investigations were most common in District 5 (3.12%). The higher rate of delays for DUI investigations in District 5 (Lake Patrol) is due, in part, to District management of the DUI Taskforce special assignments and because the district is largely comprised of recreational areas.¹⁹ Throughout the year deputies are deployed to identify impaired drivers. These taskforces are deployed during special events, holidays, and in conjunction with DUI-specific municipal police operations.

¹⁸Research on MCSO stop activity, presented in TSQR 13, identified that driving documentation was also the most common delay during traffic stops in 2022. This research is available at

https://www.mcsobio.org/files/ugd/b6f92b_297d4d705ca444de9c053083bf50ec5e.pdf.

¹⁹Research on special assignment activity was conducted for TSQR 9 which explains the role the DUI Taskforce plays in MCSO's patrol activity. TSQR 9 can be accessed at

https://www.mcsobio.org/files/ugd/b6f92b_089d19c100b24f53a01ee1b453e40a79.pdf.

Table 4a: Number and Percent of ETSI Use by District and Type (ETSI use not mutually exclusive)

District	Arrest		Driving Document		DUI	
	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops
1	205	7.19%	1,258	44.09%	57	2.00%
2	132	5.75%	1,207	52.57%	48	2.09%
3	71	4.12%	583	33.86%	33	1.92%
4	78	1.92%	2,052	50.63%	28	0.69%
5	438	8.43%	1,566	30.14%	162	3.12%
6	78	5.91%	349	26.44%	11	0.83%
7	210	7.43%	442	15.64%	32	1.13%
MCSO	1,212	5.98%	7,457	36.80%	371	1.83%

In Table 4b below, we identify ETSI use for Language Barriers, Searches, and Technical Issues. During all MCSO traffic stops, 548, or 2.70%, of stops involved delays associated with language barriers. The Language Barrier ETSI was most common in District 2, with 4.49 percent of stops involving a delay caused by language communication issues. Districts 4 and 7 had relatively low instances of delays caused by language barriers. In District 4, only 70 stops (1.73 percent of all District 4 stops) were delayed because of language barriers. In District 7, less than one percent (0.67%, N = 19) of traffic stops were delayed due to a language barrier.

Delays due to searches²⁰ occurred during 2.68 percent of all MCSO traffic stops. Like other types of delays, certain districts have higher rates of delays from searches. District 1 had the highest overall search rate in 2024, with 4.98 percent of traffic stops involving a search of some kind. In contrast, District 6 had the lowest incidence (N = 12) and rate (0.91 %) of searches when compared to other districts.

Technical Issues delayed 10.44 percent of all MCSO traffic stops in 2024. The number of delays due to technical issues was highest in District 5 (N = 498), although District 2 had the highest rate of technical delays with 19.73 percent (N = 453) of traffic stops delayed because of technical issues. District 6 had the lowest number and rate of technical issues of any district. In District 6 only 65 (4.92%) traffic stops involved a delay for technical issues.

²⁰ Note that these searches include both discretionary and non-discretionary searches. Non-discretionary searches are searches which are required by MCSO policy. Non-discretionary searches include searches incident to arrest, inventory searches for vehicle tows, and consent searches for courtesy rides. Discretionary searches occur when a deputy has reason to search a person or vehicle during consensual or investigative contact but is not required by MCSO policy. Discretionary searches may include Terry Frisk, Protective Sweep, Plain View, and Consent Search.

Table 4b: Number and Percent of ETSI Use by District and Type (ETSI use not mutually exclusive)

District	Language		Search		Technical	
	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops
1	110	3.86%	142	4.98%	365	12.79%
2	103	4.49%	112	4.88%	453	19.73%
3	44	2.56%	55	3.19%	131	7.61%
4	70	1.73%	50	1.23%	395	9.75%
5	177	3.41%	124	2.39%	498	9.58%
6	25	1.89%	12	0.91%	65	4.92%
7	19	0.67%	48	1.70%	209	7.40%
MCSO	548	2.70%	543	2.68%	2,116	10.44%

In Table 4c below, we identify delays caused by Vehicle Tows, Training Stops, and Other documented delays that cannot be readily captured by the other ETSI indicators. Delays for vehicle tows were most common in Districts 1 and 2. District 1 had 87 vehicle tows, which accounted for 3.05 percent of District 1 traffic stops. In District 2, 79 traffic stops involved a vehicle tow (3.44% of District 2 traffic stops). In contrast, District 6 had the fewest (N = 14) and lowest percent (1.06%) of stops with vehicle tows compared to all other districts. MCSO overall made vehicle tows (N = 360) during 1.78 percent of traffic stops conducted in 2024.

Overall, 5.93 percent of MCSO traffic stops involved training. Delays from training were most common in District 2, where 266 stops involved training (11.59% of District 2 traffic stops). District 7 had the fewest of all districts, with only one stop involving delays related to training (0.04% of District 7 stops).

Lastly, MCSO deputies selected the Other Delay ETSI during 12.51 percent of traffic stops. District 1 used this ETSI at the highest rate (18.51%) when compared to other districts. Whereas District 6 deputies selected this ETSI during only 5.98 percent of their stops. Note that when deputies select the Other Delay ETSI, they are prompted to identify the delay in the comment field in the VSCF. An analysis of these comments is available in the “Other Delays ETSI Comments” section below.

Table 4c: Number and Percent of ETSI Use by District and Type (ETSI use not mutually exclusive)

District	Tow		Training		Other Delay	
	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops	N ETSI	Percent of All Stops
1	87	3.05%	208	7.29%	528	18.51%
2	79	3.44%	266	11.59%	277	12.06%
3	28	1.63%	148	8.59%	185	10.74%
4	49	1.21%	165	4.07%	591	14.58%
5	71	1.37%	343	6.60%	577	11.10%
6	14	1.06%	71	5.38%	79	5.98%
7	32	1.13%	1	0.04%	298	10.54%
MCSO	360	1.78%	1,202	5.93%	2,535	12.51%

Use of ETSIs by Race/Ethnicity

Tables 5a and 5b provide the overall use of ETSIs by race/ethnicity for all stops during the study period. Fischer’s Exact Test probability values are provided for differences in ETSI use for Hispanic, Black, and Minority drivers, with White drivers as the comparison group. The Exact Test is used to determine the empirical association between categorical variables (*e.g.*, race/ethnicity and ETSI use). Differences in ETSI use are notable for each ETSI type at the $p < 0.05$ level.²¹

Statistically significant differences in Arrest, Search, and all other ETSIs used were present for all but one comparison. There was no statistically significant difference between Black and White drivers when the stop involved technical issues.

Overall, delays documented by ETSIs impacted Black, Hispanic, and Minority drivers at a higher rate when compared to White drivers. Deputies documented at least one ETSI during 46.92 percent of stops with White drivers, whereas documented delays for Black drivers during 61.54 percent of stops. Deputies documented delays for Hispanic and Minority drivers during 63.98 percent and 62.33 percent of their stops, respectively.

White drivers were arrested during 4.78 percent of stops whereas Black, Hispanic, and Minority drivers were arrested at rates above 8 percent. Black drivers were arrested during 8.41 percent of stops; Hispanic drivers were arrested during 8.34 percent of stops; and Minority drivers were arrested during 8.20 percent of stops.

²¹Reported p -values can be interpreted as the probability there is a relationship between race/ethnicity and ETSI use when no relationship exists. P -values do not demonstrate that the differences in ETSI use are caused by the race/ethnicity of the driver, only that the observed difference are greater than chance.

Black, Hispanic, and Minority drivers experienced delays related to driving documentation at higher rates than White drivers. White drivers experienced delays due to driving documentation issues during 31.87 percent of stops. In contrast, Black drivers experienced driving documentation delays during 46.30 percent of stops. Hispanic drivers experienced delays associated with driving documentation issues during 47.06 percent of their stops. Finally, Minority drivers, as a group, experienced delays with driving documentation issues during 45.88 percent of traffic stops.

Stops with DUI investigations occurred during 1.35 percent of stops of White drivers. In contrast, 2.57 percent of traffic stops of Black drivers involved a DUI investigation. Hispanic drivers experienced a DUI investigation 2.91 percent of the time. Finally, Minority drivers, as a group, experienced delays associated with DUI investigations during 2.72 percent of traffic stops.

Hispanic drivers were impacted by language barrier delays more than any other racial/ethnic group. While only 32 (0.24%) White drivers experienced delays due to a language barrier, 451 traffic stops of Hispanic drivers (9.50% of stops) were delayed due to language barriers. Language barriers occurred during 11 stops of Black drivers (0.69%). Minority drivers, as a group, experienced delays due to language barriers during 7.24 percent of stops.

Delays associated with searches differed for all groups when compared to White drivers. White drivers experienced searches during 1.35 percent of traffic stops. In contrast, Black drivers experienced searches during 3.39 percent of traffic stops, while Hispanic drivers experienced searches during 6.19 percent of traffic stops. Finally, Minority drivers, as a group, experienced delays associated with searches during 5.14 percent of traffic stops.

Hispanic and Minority drivers experienced delays associated with technical issues at a statistically significant higher rate when compared to White drivers. There was no statistically significant difference in stops associated with technical issues between Black and White drivers. White drivers were delayed by technical issues during 1,244 traffic stops, accounting for 9.47 percent of traffic stops of White drivers. Black drivers were delayed for technical issues during 10.23 percent of traffic stops. Hispanic drivers experienced delays associated with technical issues during 13.23 percent of their traffic stops. Finally, Minority drivers as a group experienced delays from technical issues during 12.24 percent of stops.

Vehicle tows extend traffic stops well beyond the “typical stop.” White drivers experienced a vehicle tow during 0.62 percent of their traffic stops (N = 81), while Black driver vehicle tows occurred during 1.38 percent of stops (N = 22). Hispanic drivers had the highest rate of vehicle tows, with 5.12 percent of Hispanic stops involving a vehicle being towed (N = 243). Minority drivers experienced a vehicle tow during 3.92 percent of their traffic stops (N = 279).

This research found statistically significant differences in delays caused by training between all racial/ethnic groups when compared to White drivers. White drivers experienced delays associated with training during 5.54 percent of traffic stops. In contrast, Black drivers experienced delays associated with training during 6.96 percent of their traffic stops. Training stops were identified during 6.80 percent of stops of Hispanic drivers and 6.65 percent of stops of all Minority drivers.

Finally, “other” delays documented during traffic stops impacted all racial/ethnic groups at a higher rate when compared to White drivers. Deputies documented that White drivers were delayed for other issues during 11.30 percent of stops. In contrast, Black drivers were delayed during stops for other issues during 14.99 percent of stops. Hispanic drivers were delayed for other issues during 14.87 percent of traffic stops, while Minority drivers, as a group, were delayed during 14.74% of stops. Discussion of the other issues ETSI is provided in greater depth in the “Other Delays ETSI Comments” section below.

Table 5a: Frequency and percent use of ETSIs (ETSI use not mutually exclusive)

ETSI Type	Race/Ethnicity	Number of Stops	N ETSI	Percent ETSI By Race	Fisher’s Exact p-value
All ETSIs	Black	1,594	981	61.54%	<0.05*
	Hispanic	4,747	3,037	63.98%	<0.05*
	Minority	7,125	4,441	62.33%	<0.05*
	White	13,141	6,166	46.92%	

Table 5b: Frequency and Percent Use of ETSIs (ETSI use not mutually exclusive)

ETSI Type	Race/Ethnicity	Number of Stops	N ETSI Within Type	Percent ETSI By Race	Fisher's Exact p-value
Arrest	Black	1,594	134	8.41%	<0.05*
	Hispanic	4,747	396	8.34%	<0.05*
	Minority	7,125	584	8.20%	<0.05*
	White	13,141	628	4.78%	–
Driving Documentation	Black	1,594	738	46.30%	<0.05*
	Hispanic	4,747	2,234	47.06%	<0.05*
	Minority	7,125	3,269	45.88%	<0.05*
	White	13,141	4,188	31.87%	–
DUI	Black	1,594	41	2.57%	<0.05*
	Hispanic	4,747	138	2.91%	<0.05*
	Minority	7,125	194	2.72%	<0.05*
	White	13,141	177	1.35%	–
Language	Black	1,594	11	0.69%	<0.05*
	Hispanic	4,747	451	9.50%	<0.05*
	Minority	7,125	516	7.24%	<0.05*
	White	13,141	32	0.24%	–
Search	Black	1,594	54	3.39%	<0.05*
	Hispanic	4,747	294	6.19%	<0.05*
	Minority	7,125	366	5.14%	<0.05*
	White	13,141	177	1.35%	–
Technical	Black	1,594	163	10.23%	0.321
	Hispanic	4,747	628	13.23%	<0.05*
	Minority	7,125	872	12.24%	<0.05*
	White	13,141	1,244	9.47%	–
Tow	Black	1,594	22	1.38%	<0.05*
	Hispanic	4,747	243	5.12%	<0.05*
	Minority	7,125	279	3.92%	<0.05*
	White	13,141	81	0.62%	–
Training	Black	1,594	111	6.96%	<0.05*
	Hispanic	4,747	323	6.80%	<0.05*
	Minority	7,125	474	6.65%	<0.05*
	White	13,141	728	5.54%	–
Other	Black	1,594	239	14.99%	<0.05*
	Hispanic	4,747	706	14.87%	<0.05*
	Minority	7,125	1,050	14.74%	<0.05*
	White	13,141	1,485	11.30%	–

* $p < 0.05$

ETSI Descriptive Statistics

In the section below, we identify ETSI use by type of ETSI and report summary statistics for stop length that include the minimum and maximum length of stop observed for stops with each ETSI type, median stop length, the mean and standard deviations for each ETSI and, as a measure of skewness, we provide the percent of cases whose stop lengths are above the mean.

Because multiple ETSIs may be selected during any given stop, we provide analyses of stop length when the ETSI is selected, but other ETSIs may also be selected (*e.g.*, ETSIs are not mutually exclusive) in Table 6 below. In contrast, we provide summary statistics for stop length when only one ETSI was selected on the VSCF (*e.g.*, ETSIs are mutually exclusive) in Table 7. In Appendix B we provide nine tables with summary statistics for all combinations of ETSIs observed in the data.

Table 6: Descriptive Statistics for Stop Length (in minutes; ETSI use not mutually exclusive)

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
Any ETSI Used	10,606	1	750	14.00	21.27	29.58	56.54%
Arrest	1,212	5	750	21.00	51.80	72.55	25.41%
Driving Documentation	7,457	1	750	15.00	21.20	28.18	24.26%
DUI	371	7	456	45.00	93.15	91.98	40.70%
Language Barrier	548	6	456	22.00	34.54	43.02	20.80%
Search	543	5	538	74.00	102.80	83.03	34.25%
Technical Issue	2,116	4	750	16.00	20.34	22.96	29.30%
Tow	360	15	538	75.00	108.98	84.64	31.67%
Training	1,202	1	750	17.00	23.65	36.03	25.71%
Other Delay	2,534	2	538	17.00	25.66	34.24	23.28%

Table 7: Descriptive Statistics for Stop Length (ETSI use is mutually exclusive)

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with One ETSI	6,781	1	110	13.00	14.27	6.50	35.64%
Arrest	403	7	110	11.00	12.70	7.65	33.75%
Driving Documentation	4,228	1	73	13.00	14.07	5.91	34.53%
DUI	69	7	89	16.00	18.93	11.82	33.33%
Language Barrier	99	6	43	16.00	16.86	6.87	44.44%
Search	5	8	18	17.00	14.60	4.45	60.00%
Technical Issue	737	4	54	13.00	14.30	5.64	35.82%
Tow	1	36	36	36.00	36.00	—	—
Training	484	4	54	13.00	14.29	5.21	40.91%
Other Delay	755	3	95	13.00	15.43	8.91	36.04%

Modeling Stop Length from ETSIs

In Table 8 below we compare stop lengths for stops with a single ETSIs selected. We used White drivers as the comparison group for all comparisons. We found statistically significant differences in stop length for Black, Hispanic, and Minority drivers for stops with the Driving Documentation ETSI selected. There were no other statistically significant differences in stop length when a single ETSI was selected.

Table 8: Stop Length Comparison with one ETSI selected

	White drivers	Black Drivers	Hispanic Drivers	Minority Drivers
Custodial Arrest	24.00 (n = 2)	N/A	47.50 (n = 4)	47.50 (n = 4)
Cite and Release	11.72 (n = 261)	14.10*	12.50 (n = 82)	13.38 (n = 136)
Non-Custodial Arrest	13.25 (n = 2,642)	16.21*	15.16*	15.42*
Driving Documentation	20.00 (n = 44)	16.77 (n = 13)	17.36 (n = 11)	17.04 (n = 25)
DUI	14.78 (n = 9)	19.50 (n = 2)	17.13 (n = 75)	17.07 (n = 90)
Language	14.60 (n = 5)	N/A	N/A	N/A
Search	14.39 (n = 470)	13.45 (n = 44)	14.37 (n = 192)	14.14 (n = 267)
Technical	N/A	N/A	36.00 (n = 1)	36.00 (n = 1)
Tow	14.15 (n = 331)	14.94 (n = 94)	14.67 (n = 102)	14.58 (n = 153)
Training	10.08* (n = 6,975)	10.84* (n = 613)	10.43* (n = 1,710)	10.50* (n = 2,684)
No ETSI				

* $p < 0.05$ for independent sample t-test for difference in means with White drivers as the comparison group

After tabulating ETSI use and providing stop lengths for each combination of ETSIs observed in the data (see Appendix B), MCSO researchers sought to identify the overall impact on stop length for each type of delay indicated by the ETSI used, independent of other ETSIs.²² In Table 9 below we provide two regression equations identifying the impact of delays indicated by ETSIs, searches, and arrests. In the first model, we use the ETSIs described and used throughout this report (Arrest, Driving Documentation Issues, DUI Investigations, Language, Search, Technical Issues, Vehicle Tows, Training, and Other Delay). In this model, the Constant can be interpreted as the stop length, in minutes, for traffic stops where no ETSI, search, or arrest, was indicated in the VSCF. In this case stops without documented delays lasted about 22 minutes. All variables in this model were statistically significant. The coefficients for each ETSI can be interpreted as the average number of minutes added to the Constant, when these delays occurred. Some notable patterns in Model 1 are that all arrests combined contribute almost 15 minutes to traffic stops, on average, when holding other ETSI indicators constant. Searches have the largest impact on stop length, according to this model, adding nearly 43 minutes to a traffic stop, absent other delays. The variables used in Model 1 explained about 56 percent ($R^2 = 0.558$) of the variation in stop length for MCSO traffic stops in 2023.

Because the coefficient for arrests was low in Model 1, we also modeled stop length as a function of ETSIs and arrests disaggregated as custodial arrests and cite and release/non-custodial arrests.²³ Like Model 1, all predictors used in Model 2 were statistically significant. Based on Model 2, we found that cite and release/non-custodial arrests add about six minutes to a traffic stop, when holding other predictors constant and that custodial arrests add an average of almost 78 minutes to a traffic stop. The variables used in Model 2 explain nearly 63 percent of variation in stop length.

As discussed above, we recognize that the traffic stop delays documented in the VSCF are often related to one another and likely interact in different ways.²⁴ For example, in comparing these two models the reader can observe the impact of disaggregating the arrest type has on effect of DUI investigations on stop length. As the goal of the analysis presented in Table 12 was to model the impact of the ETSI-documented delays on stop length, independent of one another, we did not explore how different delays interact with each other and acknowledge that interactions among certain events during traffic stops play an important role in predicting how long a traffic stop might last.

²² MCSO calculated stop lengths for stops with no ETSI selected. Stops of White drivers averaged 10.08 minutes; Stops of Black drivers averaged 10.84 minutes; Stops of Hispanic drivers averaged 10.43 minutes; And stops of Minority drivers averaged 10.50 minutes. Using White drivers as the comparison group, all differences in average stop lengths for stops with no ETSIs were statistically significant ($p < 0.05$).

²³Custodial arrests comprised 22.69% (N = 275) of arrests during traffic stops in 2024 while cite and release/non-custodial arrests accounted for 77.31% (N = 937) of arrests during traffic stops in 2024.

²⁴Post-hoc examination of variance inflation factors found no predictors with VIF scores above 3.0 in either Models 1-5.

Table 9: Regression Equations Predicting Stop Length from ETSI Indicators

ETSI Predictors	Model 1	Model 2
	B (Standard Error)	B (Standard Error)
All Arrests	14.53* (0.48)	–
Cite & Release/No Custodial Arrest	–	6.24* (0.46)
Custodial Arrest	–	77.62* (1.12)
Driving Documentation	3.76* (0.22)	4.15* (0.20)
DUI	42.83* (0.84)	27.46* (0.81)
Language	5.22* (0.65)	3.36* (0.60)
Search	45.62* (0.97)	21.14* (0.97)
Technical Issue	3.25* (0.34)	3.71* (0.31)
Tow	34.73* (1.10)	37.91* (1.01)
Training	6.11* (0.44)	5.51* (0.40)
Other Delay	4.39* (0.32)	4.54* (0.30)
Constant (No ETSI)	21.95* (0.87)	9.93* (0.13)
N	20,265	20,265
F	2,836.81*	3,405.62*
R ²	0.558	0.627

* $p < 0.05$

In Table 10 below we provide three models examining the effect of race on stop length while controlling for situations documented using the ESI indicators. Differences in stop length were statistically significant for each racial/ethnic group. Model 3 indicated that when controlling for ETSIs stops of Black drivers, stops of Black drivers lasted about 72 seconds longer, on average, when compared to White drivers.

Table 10: Regression Results using ETSI Predictors and Race/Ethnicity

	Model 3	Model 4	Model 5
Black	1.21* (0.30)	–	–
Hispanic	–	0.87* (0.23)	–
Minority	–	–	1.05* (0.21)
Cite & Release/No Custodial Arrest	4.74* (0.47)	4.90* (0.47)	6.13* (0.46)
Custodial Arrest	75.94* (1.34)	75.26* (1.12)	77.76* (1.12)
Driving Documentation	3.41* (0.20)	3.68* 0.21	4.05* (0.20)
DUI	26.13* (1.17)	28.56* (0.83)	27.40* (0.81)
Language	2.23 (1.71)	6.55* (0.62)	5.80* (0.61)
Search	23.16* (1.17)	22.60* 0.99	20.97* (0.97)
Technical Issue	3.56* (0.32)	3.38* (0.31)	3.67* (0.31)
Tow	46.55* (1.42)	37.57 (1.02)	37.72* (1.01)
Training	4.65* (0.40)	4.89* (0.41)	5.48* (0.40)
Other Delay	4.51* (0.29)	4.78* (0.30)	4.53* (0.30)
Constant (No ETSI)	9.90* (0.12)	9.81* (0.13)	9.63* (0.14)
N	14,734	17,888	20,265
F	2,361.72*	3,101.84*	3,102.20*
R ²	0.638	0.656	0.628

* $p < 0.05$

In Model 4, we compare stop lengths of White and Hispanic drivers when controlling for ETSI indicators. In this model, stops of Hispanic drivers were about 52 seconds longer, on average, than stops of White drivers. Finally, in Model 5 we compared stop lengths of White and Minority drivers while controlling for ETSI indicators. Based on this model, traffic stops of Minority drivers were about 63 seconds longer, on average, than stops of White drivers while controlling for ETSI indicators.

In the next section, we investigate stop outcomes (citation/warning) and their association with the ETSI indicators.

Contact Conclusion and Extended Stop Indicator Use

In this section we identify the contact conclusion of citations and warnings for stops with ETSIs documented in the VSCF. For comparison, we include contact conclusion information for stops where no ETSI was indicated. Table 11 provides stop outcome (citation, warning, incidental contact) rates for stops with ETSIs (multiple ETSI may be selected for these stops). Overall, the citation rate for stops with at least one ETSI indicated was similar to those with no ETSI indicated (61.89% and 60.24%, respectively). However, several patterns in the relationships between stop outcomes and ETSIs are notable. Only two of the nine delays had a citation rate lower than stops with no ETSIs indicated. Stops where technical issues were documented resulted in citations 48.35 percent of the time, and stops with training involved resulted in citations 43.51 percent of the time. Stops involving the remaining seven ETSIs resulted in citations over 60 percent of the time.²⁵

Table 11: Percent Distribution of Contact Conclusion for ETSI stops (ETSI use not mutually exclusive)²⁶

Contact Conclusion	N Stops	N Citation	Percent Citation	N Warning	Percent Warning	N Incidental Contact	Percent Incidental Contact
All Stops	20,266	12,384	61.11%	7,755	38.27%	122	0.60%
No ETSI	9,659	5,819	60.24%	3,798	39.32%	40	0.41%
Any ETSI	10,607	6,565	61.89%	3,957	37.31%	82	0.77%
Arrest	1,212	1,189	98.10%	22	1.82%	1	0.08%
Driving Docs	7,457	4,779	64.09%	2,635	35.34%	42	0.56%
DUI	371	270	72.78%	99	26.68%	2	0.54%
Language	548	339	61.86%	206	37.59%	3	0.55%
Search	543	491	90.42%	50	9.21%	1	0.18%
Technical	2,116	1,023	48.35%	1,085	51.28%	8	0.38%
Tow	360	351	97.50%	8	2.22%	1	0.28%
Training	1,202	523	43.51%	670	55.74%	9	0.75%
Other Issue	2,535	1,644	64.85	838	33.06%	51	2.01%

The relationship between stop outcomes and ETSIs largely reflects the circumstances of the stop and MCSO would expect that certain ETSIs be unrelated to citation/warning outcomes while other ETSIs are directly related to citations/warnings. For example, when an arrest was made, 98.10 percent of drivers were issued citations, and citations for criminal driving offenses and arrests are concurrent. For custodial arrests, MCSO policy dictates that drivers are searched prior to being

²⁵ MCSO conducted t-tests for stops with each ETSI compared to stops without that ETSI selected. Note that these estimates do not account for stops with multiple ETSIs and are therefore suggestive of relationships between ETSIs and citations, absent additional controls. Results of t-tests for differences in proportions were as follows (positive t-values indicate that stops with that ETSI had a higher citation rates than stops without that ETSI): Arrests ($t = 16.29$, $p < 0.05$); Driving Documentation Issues ($t = 4.34$, $p < 0.05$); DUI investigations ($t = -1.92$, $p = 0.055$), Language Barrier ($t = -1.52$, $p = 0.13$); Search ($t = 0.89$, $p = 0.37$); Technical Issues ($t = 11.65$, $p < 0.05$); Vehicle Tow ($t = 0.81$, $p = 0.42$); Training ($t = -11.94$, $p < 0.05$); Other Delay ($t = 1.26$, $p = 0.21$).

²⁶Field Interviews and Long Form contact conclusions are excluded from calculations made for this table.

placed in a patrol vehicle. For drivers who were arrested and issued warnings (N = 22), 14 were arrested on warrants, while the remaining eight drivers were arrested for DUIs (N = 5) and possession of dangerous drug (N = 3). In these cases, warnings for the initial traffic violations were issued.

Similarly, the high citation rate of 90.42 percent when a search occurred and the high citation rate of 97.50 percent when a tow occurred are, in part, a result of ARS 28-3511A.1.a-c. This statute dictates that a deputy shall tow the vehicle when a person’s driving privilege is revoked for any reason, the person has not ever been issued a driver’s license or permit issued by this state or any other jurisdiction, or the person is subject to ignition interlock device and is operating the vehicle without one. These violations are almost universally cited, and searches of vehicles are required when a tow occurs.

To illustrate how the ETSIs are related to one another, we have produced a correlation matrix for the ETSIs used during traffic stops (Table 12) and included citations in this matrix. The strongest relationships among ETSIs, citations, and warnings were: between DUI investigations and arrests ($r = 0.253$); between searches and arrests ($r = 0.373$); between vehicle tow and arrests ($r = 0.251$); between citations and arrests ($r = 0.191$), and conversely, between warnings and arrests ($r = -0.191$); between DUI investigations and searches ($r = 0.353$); between DUI investigations and vehicle tows ($r = 0.252$); and between vehicle tows and searches ($r = 0.699$).

Table 12: Correlations Among ETSIs and Citations²⁷

	Arrest	Driving Docs	DUI	Language	Search	Technical	Tow	Training	Other Issue
Driving Docs	0.049	–	–	–	–	–	–	–	–
DUI	0.253	0.028	–	–	–	–	–	–	–
Language	0.021	0.124	0.061	–	–	–	–	–	–
Search	0.373	0.109	0.353	0.112	–	–	–	–	–
Technical	–0.014	0.108	0.003	0.036	0.004	–	–	–	–
Tow	0.251	0.109	0.252	0.137	0.699	0.009	–	–	–
Training	–0.005	0.051	0.028	0.020	0.011	0.076	0.015	–	–
Other Issue	0.102	0.163	0.013	0.058	0.138	0.080	0.075	–0.002	–
Citation	0.191	0.047	0.033	0.002	0.100	–0.091	0.100	–0.091	0.037

²⁷Excluded from analyses are stops with outcomes other than a citation or warning. Correlations among ETSIs and warnings are the inverse of the correlation of the ETSI and a citation (e.g., the correlation between Arrest and Warning is –0.191).

In Table 13 below, we provide contact conclusion rates for stops with ETSIs when only one ETSI was selected. Citation rates for stops with only one ETSI selected were overall comparable to stops with No ETSI, both having citation rates of about 60 percent. When only that ETSI was selected, four ETSIs had a higher citation rate than stops with no ETSIs documented. For stops with only an arrest, the citation rate was 99.5 percent. Of these stops, 370 citations were for criminal speed. For citations issued during these stops, other violations included criminal traffic violations such as driving on a suspended license or reckless driving. Of these arrests, 397 were “cite and release/no custodial arrest” type arrests (98.51%). There was only one instance when only the Vehicle Tow ETSI was selected, which concluded in a citation (100%). Stops where only driving documentation issues and searches were selected resulted in citations for 63.10 percent and 80 percent of the stops, respectively.

Table 13: Percent Distribution of Contact Conclusion for ETSI stops (ETSI use mutually exclusive)²⁸

Contact Conclusion	N Stops	N Citation	Percent Citation	N Warning	Percent Warning	N Incidental Contact	Percent Incidental Contact
No ETSI	9,659	5,819	60.24%	3,798	39.32%	40	0.41%
Any One ETSI	6,782	4,073	60.06%	2,653	39.12%	54	0.80%
Arrest	403	401	99.50%	1	0.25%	1	0.25%
Driving Docs	4,228	2,668	63.10%	1,544	36.52%	16	0.38%
DUI	69	34	49.28%	35	50.72%	0	0.00%
Language	99	52	52.53%	46	46.46%	1	1.01%
Search	5	4	80.00%	1	20.00%	0	0.00%
Technical	737	293	39.76%	440	59.70%	4	0.54%
Tow	1	1	100.00%	0	0.00%	0	0.00%
Training	484	165	34.09%	316	64.29%	3	0.62%
Other Issue	756	455	60.19%	270	35.71%	30	3.97%

²⁸Field Interviews and Long Form contact conclusions are excluded from calculations made for this table.

In the next section we address the question of how deputies have used the Other Delay ETSI and analyze what common delays occurred during traffic stops when the Driving Documentation ETSI was selected. We conclude with an analysis of agreement between deputy ETSI and traffic stop reviewers to determine if deputies have been using ETSI indicators appropriately.

Other Delay ETSI Comments

In 2022 an ETSI was added to the VSCF to capture delays in traffic stops that were not available with the existing ETSIs. When deputies select “Other Delay” in the VSCF, they receive a prompt to document the circumstances of the delay in the comments field of the VSCF. In 2024, 2,535 stops occurred in which deputies selected the Other Delay ETSI (12.51% of MCSO traffic stops). In most of these stops (N = 1,779, 70.17%) deputies also selected additional ETSI indicators. There were 756 stops where the only ETSI that was selected was Other Delay.

MCSO identified all stops for which the Other Delay ETSI was used and qualitatively coded the comments associated with these stops to determine the circumstance(s) for which deputies considered the Other Delay as appropriate. As with the other stops with ETSI indicators selected, these traffic stops included circumstances where multiple delays occurred. This was a common theme in most of the stops for which a deputy used the Other Delay ETSI. Comments indicated that delays associated with technology, arrests, searches, driving documentation, etc. would necessitate the use of existing ETSIs. Additionally, after coding the comments associated with the Other Delay ETSIs, multiple delays, not available in existing ETSIs, were common.

In Table 16 below, we have provided a tabulation of categories that were apparent in the VSCF comments documenting the use of the Other Delay ETSI. Note that in addition to existing ETSI indicators, these multiple other delays associated within these different categories were documented in the VSCF comments. We discuss these categories and their contents below.

Table 16: Categories of Delays from Qualitative Reviews of Stops with Other Issue ETSIs, Categories not mutually exclusive

	N	Percent Other Delay Stops	Percent all ETSI Stops	Percent All Stops
Assisting Driver	28	1.10%	0.26%	0.14%
Communication/Education	518	20.46%	4.88%	2.56%
Complex Stop	107	4.22%	1.01%	0.53%
Commercial Vehicles	10	0.39%	0.09%	0.05%
Driver Pick-Up	39	1.54%	0.37%	0.19%
Dispatch Issue	119	4.70%	1.12%	0.59%
Firearm	110	4.34%	1.04%	0.54%
Investigation	61	2.41%	0.56%	0.30%
Manual Entry	341	13.45%	3.21%	1.68%
Multiple Vehicles	36	1.42%	0.34%	0.18%
Passenger Contact	61	2.41%	0.58%	0.30%
Physical/Mental Health	22	0.87%	0.21%	0.11%
Seized Plates	260	10.28%	2.45%	1.28%
Stop Process Issues	364	14.36%	3.43%	1.80%
Warrant	98	3.87%	0.92%	0.48%
No Issue Indicated	142	5.61%	1.34%	0.70%
Other Issue	729	28.85%	6.87%	3.60%

Assisting Driver delays occurred when deputies assisted drivers in a variety of circumstances. Common delays identified in this category included deputies providing directions for drivers and deputies assisting drivers with issues with their vehicles. For example, drivers who had been stopped for failing to display license plates often had temporary license plates in their vehicles. In these situations, deputies would assist drivers attaching license plates. Other examples included drivers who were stopped with no headlights. Deputies determined the drivers did not know how to turn the headlights on (because they were new or rental vehicles) and would help drivers with their equipment so they could drive away safely. Similarly, there was one recorded interaction where the deputy helped a driver re-fuel the driver’s car after it ran out of gas. On one stop, the passenger in the vehicle had a potentially life-threatening head injury and the deputy assisted with the driver’s route to the hospital. During some traffic stops, deputies provided courtesy rides to stranded drivers or passengers. On one occasion, a deputy escorted and assisted a driver in locating the driver’s dog that had previously been left behind.

Communication/Education delays occurred when drivers were especially talkative during the stop, asked multiple questions, or wished to discuss topics with the deputies unrelated to the traffic stop. In several cases, drivers were argumentative with deputies about citations or details about the

traffic stop. For example, several drivers requested to see the radar/laser gun reading related to the speeding violation as evidence they were speeding, and in some cases, drivers requested to speak to supervisors. Additional delays for communication occurred when drivers evidenced distress and deputies worked to de-escalate situations.

Educational conversations were common when deputies used the Other Delay ETSI. During these circumstances, deputies often explained different laws and consequences related to specific violations such as driving after using marijuana, helmet requirements for minors on OHVs, and the difference between civil and criminal speeding violations. In other instances drivers had multiple questions about the citation or processes to address the citation (such as how to mitigate license/plate suspension order or update vehicle insurance/registration). In many cases, drivers asked for directions and deputies spent extra time explaining where to go.

Within communication/education delays, several stops involved juvenile drivers whose parents were contacted and notified of the citation. Notably, in a couple of instances the driver's parents requested that the deputy educate their child on the consequences of unsafe driving.

Complex Stops occurred when comments indicated multiple delays that were often related to one another or occurred during fluid situations that clearly departed from what one might consider to be a "normal" traffic stop. Many of these delays could have been documented by existing ETSIs, however, this research identified the circumstances for complex stops documented in the VSCF comments as exceptional. Many complex stops included DUI or drug investigations, stolen vehicles, firearms present in the vehicle, and warrant arrests.

These stops often included medical issues, driving documentation issues, delays associated with warrants, children in vehicles, multiple persons in the vehicle, and/or contacting parents when the driver was a juvenile.

Deputies documented delays for complex stops very well in the incident reports or extensive comments in the VSCF.

Commercial Vehicle stops occurred at a relatively low rate compared to the other categories that emerged from reviews of the VSCF comments. These stops were often initiated for equipment violations (e.g., required mud flaps or inoperable taillights). Deputies identified delays associated with commercial vehicles as related to commercial vehicle inspections. Often commercial vehicle stops were extended for relocating the vehicle to a safe place off the roadway.

Driver Pick-Up delays occurred when deputies remained with drivers who were stopped while awaiting the arrival of another driver or vehicle. Circumstances common in this category of delay were minor drivers waiting for parents, or drivers who could not legally drive the vehicle away because of a suspended/revoked/cancelled license, no license, or suspended license plates. In a number of cases, deputies also provided courtesy rides to drivers who were unlicensed or had suspended licenses.

Dispatch Issues were identified in the comments of 119 stops. Common delays associated with

dispatch included miscommunications between the deputy and the dispatcher and when a deputy would require the dispatcher to identify information about the vehicle or driver. Additional dispatch delays occurred when radio traffic was restricted for priority events or when radio traffic was especially high. In these cases, deputies identified the need to wait for the radio to clear or the need to contact dispatch via other means. Deputies also documented delays from CAD (computer aided dispatch).

Firearm delays occurred when deputies or drivers identified that a firearm was present in the vehicle or was on the driver's person. In these situations, deputies would take possession of the firearm, process the traffic stop, and return the firearm to the driver.

Investigation delays occurred when deputies identified that the traffic stop involved investigation into other crimes unrelated to the traffic stop itself or in some cases DUIs. These stops occurred during ATL traffic stops, or during stops that evolved into drug investigations, missing persons investigations, identification of minors in vehicles with open containers of alcohol, investigations of stolen vehicles, vehicles with fictitious plates, or when deputies identified drivers or passengers as suspects in open criminal cases.

Manual Entry delays were the second most common delay identified in VSCF comments when the Other Delay ETSI was selected. Manual entry delays occurred when deputies were required to enter driver and/or vehicle information into TraCS to process the traffic stop. Circumstances leading to manual entry included drivers not providing appropriate driving documentation (license, registration, and/or proof of insurance) or when the driving documentation would not scan information into a deputy's computer, which was common with out-of-state licenses and registration.

Multiple Vehicle stops were not common in the VSCF comments. However, these stops included 2-4 vehicles stopped at the same time which clearly extended stops. In most of these cases, the vehicles were OHV vehicles with drivers riding in groups and violations associated with each of the drivers. In these situations, deputies were required to create contact receipts (citations/warnings/incidental contact) for each driver. Multiple vehicle stops of OHVs often involved children who were not wearing safety equipment such as helmets or eye protection. Some multiple vehicle stops initially involved one vehicle, but other vehicles would arrive at the stop and required the deputy's engagement which extended the stop. Often, when another vehicle approached the deputy during a stop it was to notify the deputy of a different incident nearby.

Passenger Contact delays were caused by deputies interacting with passengers. In some cases, passengers would initiate conversations with deputies, asking questions about the stop or engage in conversation with the deputy as he processed the traffic stop. In other situations, passengers would be contacted by the deputy because contact was relevant to the traffic stop. This occurred most often when the driver of the vehicle could not drive because their license was suspended/revoked/canceled or when the driver did not have a license. In these situations, deputies would identify whether the passenger was licensed to drive and released the vehicle to the

passenger. In stops with passenger contacts deputies indicated providing contact receipts to passengers further prolonging the traffic stop. Some stops involving passenger contact involved front-seat passengers not wearing their seatbelts, for which they were warned or cited.

Physical/Mental Health delays occurred during a number of stops when the Other ETSI was selected, and drivers evidenced mental or physical health limitations or deputies assisted drivers with health emergencies. In some stops deputies contacted emergency medical personnel to perform evaluations on drivers. During several stops drivers indicated the need to use the restroom and deputies allowed drivers to do so before processing the traffic stop.

During many of these stops, deputies initially suspected drivers were under the influence because of the driving behavior they observed. After speaking with drivers, the deputies determined that other medical (e.g., Parkinson's Disease) or mental health issues were influencing their interactions with drivers. Some drivers indicated they were hard of hearing or had neurodevelopmental challenges such as ADHD, or Autism Spectrum Disorder, which required lengthened stops to ensure the driver heard and understood the reason for the stop. During some stops, drivers (often juvenile) were in distress after being pulled over. During these stops, deputies would work to calm drivers, offering assurances or conducting grounding/breathing exercises. In several situations, drivers were on their way to hospital emergency rooms and deputies would escort the drivers to their destinations.

Seized Plates delay traffic stops for several reasons. Based on the comments reviewed when Other Delay was selected, deputies seized fictitious license plates and license plates suspended by the Arizona MVD for lack of mandatory insurance. Prior to the seizures, deputies would take time to confirm that the plate was fictitious or suspended. Deputies would use a screwdriver or other tool to remove the plate from the vehicle. Drivers whose license plates were seized were cited for criminal violations and in some cases, vehicles were towed from the scene. When plates are seized, deputies are compelled to provide drivers are provided with a property receipt which takes additional time.

Stop Process Issues included delays associated with additional steps for the stop that are typically routine. Examples included correcting paperwork during the stop (most common), taking time to research correct ARS codes for the violations, identifying the proper court for the citation, stopping of the wrong driver (drivers issued incidental contact forms), or reading the wrong plate number to dispatch. One other common stop process delay included traffic stops during which a deputy requested drivers to relocate their vehicles to a safe location before continuing (e.g., move away from freeway ramps, busy intersections, entrances to a building, or heavy traffic).

Warrants: When drivers were stopped and possessed warrants for their arrest, deputies spent time to determine whether warrants were extraditable and to confirm that the warrant was valid. On occasion, deputies did not arrest a driver with a warrant due to the nature of the circumstances (e.g., children were in the vehicle, municipal police could not receive the driver for processing, warrants were non-extraditable, etc.). When arrests did not occur under these types of

circumstances, deputies indicated discussing warrants with drivers and advising them on how to address the warrants.

No Issue Indicated: When reviewing VSCF comments, reviewers identified stops where deputies did not explain the circumstances justifying the use of the “Other Issue” ETSI. There were several notable patterns in the VSCF comments when this occurred. There were a number of stops identified in this category for which deputies ended the stop to attend to priority calls or the stop conclusion was incidental contact. Other comments in the VSCF identified situations that could have been expanded on by the deputy to clarify how the stop was delayed. For example, several stops’ comments identified suspended license plates, but did not indicate if the plate was seized or how suspended plates were related to delays during the stop. Similarly, deputies would note lack of driving documentation but did not clarify how this extended the traffic stop. Finally, deputies noted during some stops that body worn cameras needed to be restarted or were not functioning.

Other Issues included traffic stop delays that could not be categorized as one of the previously discussed reasons for delays. Comments for these stops often indicated that other ETSIs were relevant in delaying the stop. These commonly included technological issues and delays associated with driving documentation. Deputies commonly indicated that drivers took extra time accessing driving documentation information (license, insurance, and registration) or that drivers did not possess a license, proof of insurance, or registration. Often delays were co-current, with multiple situations leading to delays occurring during the stop. During a number of stops, deputies identified seizing canceled driver’s licenses, requiring a property receipt.

Other reasons documented for these delays were often unique. Several stops in this category included law enforcement from other agencies arriving at the stop. Deputies identified that the citations were hand-written. Deputies sometimes indicated the need to contact the AZ MVD, supervisors, or the MCSO help desk. One deputy noted that he was stung by a bee during the traffic stop and this caused a slight delay. During other stops, deputies identified open containers of alcohol in the vehicle and issuing citations to passengers.

In TSQR 3, published in March of 2021, MCSO identified that deputies often used the Technical Issues ETSI in unique ways when drivers did not possess required driving documents. In that research, deputies identified the Technical Issues ETSI to include the inability to scan drivers’ licenses and registration and the necessity to enter drivers’ information into TraCS by hand, thus delaying the processing of the traffic stop. A similar pattern was observed in the analysis presented above. This confusion underscores the distinction (or lack thereof) between Driving Documentation Issues, Technical Issues, and Other Delays. Deputies identified “manual entry” of drivers’ information in 341 stops when the Other Delay ETSI was selected. Furthermore, during the 1,612 stops, deputies selected the Other Delay ETSI in conjunction with either technical issues or driving documentation issues.

An additional insight gained from evaluating the comments from stops with the Other ETSI selected was that it was typical that deputies documented their stops thoroughly, allowing

reviewers to identify reasons stops were delayed and importantly allowed supervisory review of stops that exceeded typical stop times (stops with the Other Delay ETSI selected averaged over 25 minutes in length, over two times longer than stops with no ETSI selected, see Table 6). Stops with the Other Delay ETSI selected when no clear rationale was provided for the delay comprised 5.61 percent of stops with the Other Delay ETSI selected, 1.34 percent of all stops with an ETSI selected and 0.70 percent of all MCSO stops.

Body Worn Camera Analysis and Driving Documentation

For this quarterly report MCSO reviewed a random sample of 100 Body Worn Camera videos for stops when deputies selected the Driving Documentation ETSI. The purpose of this analysis was to identify the common situations that prolonged the stop when the Driving Documentation ETSI was selected. During 75 stops, reviewers identified deputies providing drivers with extra time to collect their licenses, insurance information, and vehicle registration. During 20 stops, drivers were identified as having suspended, cancelled, or revoked driver's licenses. During 3 stops, drivers did not possess a valid driver's license. Reviewers also identified 51 stops with "other document delays." The most common other document delay was manual entry of driver or vehicle information. In these cases, drivers often had valid licenses, but did not have their driver's licenses with them. Similarly, drivers often lacked the physical (scannable) vehicle registration and deputies would enter vehicle information into TraCS manually. These two situations were observed in 31 BWC videos.

Another common situation identified by reviewers were problems with license plates. For example, reviewers identified delays associated with MI suspended license plates (mandatory insurance). When vehicles display a license plate that has been suspended by the MVD for no insurance, deputies seize the plate (per ARS 28-4139) and issue the driver a property receipt. This delay was identified during eight stops. During three stops, license plates that were attached to the vehicle were not associated with the vehicle. During these stops, deputies would identify the vehicle information from the VIN. During one stop, the vehicle did not have a license plate while two stops were identified as rental vehicles with no registration or proof of insurance in the vehicle. During one stop, the vehicle was not registered but had a dealer plate out of New York. While another stop was delayed because the license plate was a temporary (but expired) plate out of Utah.

A common theme across all reviews was that drivers often had multiple driving documentation issues concurrently. For example, during some stops drivers did not have a driver's license, proof of insurance, or registration. In this situation deputies would allow drivers time to provide proof of insurance on their smartphone and write down the driver's information. If there was no registration in the vehicle, deputies would need to identify the vehicle with the VIN and enter vehicle information into TraCS manually.

Finally, for all BWC footage reviewed with Driving Documentation ETSIs, reviewers were able to confirm driving documentation issues that impacted the stop.

Body Worn Camera and ETSI Comment Analysis

Body Worn Camera footage was reviewed to determine the appropriateness of deputy-selected ETSI indicators. Social interactions and the circumstances of the stop were observed to determine whether stop activities were consistent with the use of any of the ETSIs. Reviewers also made note of additional activity during the stops that could have potentially delayed the stop. Additionally, MCSO reviewed VSCF comments from each stop to determine if an explanation for the ETSI was available to verify its use. Videos were randomly assigned to reviewers and reviewers had no knowledge of the delays. The sample size for the reviews was N = 80. Twenty stops had no ETSI selected in the VSCF. In Table 17, we report the results of the analysis of the agreement between a) reviewers' observations of delays and deputy-selected ETSIs in the VSCF; b) VSCF comments documenting the delay and deputy-selected ETSIs in the VSCF; and c) reviewers' observations of delays and VSCF comments documenting the delay combined and deputy-selected ETSIs in the VSCF.

We found high and statistically significant agreement for all deputy-selected ETSIs and reviewers' determinations of delays. For all possible selections from the 80 stops (with 9 possible selections each) there were a total of 720 possible ETSI selections in the sample. The agreement between reviewers and deputy-selected ETSIs was 93.47 percent, and this level of agreement was statistically significant.

Table 17: Agreement Analysis Results for BWC Reviews and VSCF Data

VSCF Items	Reviewer Agreement	VSCF Comments Agreement	Reviewer/VSCF Combined
Arrest	95.50% (K = 0.844*)	95.00% (K = 0.643*)	98.75% (K = 0.927*)
Driving Documentation	81.25% (K = 0.627*)	93.75% (K = 0.875*)	82.50% (K = 0.653*)
DUI	100.00% (K = 1.000*)	100.00% (K = 1.000*)	100.00% (K = 1.000*)
Language	100.00% (K = 1.000*)	100.00 % (K = 1.000*)	100.00% (K = 1.000*)
Search	97.50% (K = 0.787*)	98.75% (K = 0.902*)	100.00% (K = 1.000*)
Technical	88.75% (K = 0.575*)	96.25% (K = 0.858*)	93.75% (K = 0.790*)
Tow	100.00% (K = 1.000*)	100.00% (K = 1.000*)	100.00% (K = 1.000*)
Training	93.75% (K = 0.764*)	92.50% (K = 0.590*)	95.00% (K = 0.817*)
Other Delay	82.50% (K = 0.357*)	90.00% (K = 0.549*)	85.00% (K = 0.510*)
All ETSIs	93.47% (K = 0.741*)	96.25% (K = 0.837*)	94.44% (K = 0.789*)

* $p < 0.05$

The highest level of agreement was for stops with DUI investigations, language barriers, and vehicle tows (each at 100%). The lowest level of agreement between deputy-selected ETSIs and reviewers was for driving documentation (81.25%) and other delay (82.50%).

In the next section, we discuss limitations related to reviews of BWC footage as well as limitations to other analyses presented in this report.

Limitations

Limitations to this research must be acknowledged. Deputies select extended stop indicators based on their perception of the circumstances that delay the stop. These perceptions can often be subjective and influenced by many factors that may be routine to one deputy, yet out of the ordinary for another. The language barrier ETSI provides a good example for this point. If a deputy stops a driver who speaks only Spanish and the deputy is Spanish-English bilingual, there would be no language barrier. If a deputy speaks only English and the driver speaks only Spanish, it is clear there is a language barrier that would delay the stop and that use of the Voiance translation service or receiving assistance from a bilingual deputy would be appropriate. However, many residents of Maricopa County have both “working” English and/or Spanish language skills which would allow communication between a deputy and a driver. In these circumstances, a deputy may facilitate the stop in a normal fashion but must determine whether the language differences impacted the stop length.

A similar limitation exists for the use of the Driving Documentation ETSI and the Technical Issues ETSI. When drivers present deputies with driving documentation with bar codes that will not scan, deputies are required to enter driver information into TraCS by hand. The deputy is delayed during the stop because of this but must make a subjective decision about whether this is a Technical Issue, Driving Documentation issue, or Other Delay ETSI. As we found in TSQR3, deputies often selected the Technical Issue ETSI in this circumstance and during the course of BWC reviews and review of the Other Issue ETSI comments, we identified deputies using different ETSIs in these situations. What is encouraging however, is that deputies are documenting these delays when they occur with at least one ETSI, allowing MCSO to identify circumstances outside of the deputy’s control that impact stop length.

Additional limitations in reviews of BWC footage must be acknowledged. Reviewers observed several situations that could not be easily coded in the BWC reviews. When deputies experienced technical issues with computer equipment, or some issues with driving documentation delays, these issues may not have been visible in the BWC footage. Thus, while reviewers could not directly confirm these delays, their existence could not be ruled out. Finally, one limitation of the reviews with the “Other Issue” ETSIs selected included reviewers’ ability to identify whether circumstances that were not clearly defined like other extended stop indicators actually delayed the stop. This was apparent in the low level of agreement between reviewers and the deputy’s use of the Other ETSI. Furthermore, reviewers identified other ETSIs (e.g., Technical Issues or Documentation Issues) as appropriate for a stop when the deputies themselves selected the Other ETSI.

Finally, the analysis of racial/ethnic differences in ETSI use as presented in this report identified differences in ETSI use, searches, and arrests by race. This analysis only identified that a difference existed but did not investigate other correlates of delays during traffic stops that may have impacted these stops. Most relevant to this comparison are the racial/ethnic differences in arrests

and searches. This research did not identify types of arrests that may impact stop length such as warrant or DUI arrests or arrests that resulted from other investigations that occurred during the traffic stop. Regarding searches, MCSO distinguishes types of searches in the VSCF and identify searches of drivers and vehicles. Furthermore, MCSO identifies searches as discretionary and non-discretionary in their analyses of searches in the TSAR and TSMR. These distinctions were not investigated in this quarterly.²⁹

²⁹Research on MCSO arrests and searches has been conducted using previous years' data in TSQR 7 and TSQR 10, respectively. Furthermore, monthly investigation of racial/ethnic disparity in arrests and searches is conducted with the TSMR and annual analyses of disparity in searches and arrests are conducted each year in the TSAR. Finally, analyses of searches and arrest activity at the district level has been conducted in two quarterly reports, TSQR 5 and TSQR 12. Future analyses of arrests and searches at the office and district-level will be conducted for TSAR 9 and TSQR 14, respectively. All published annual and quarterly reports are available at:

<https://www.mcsobio.org/traffic-stop-data>.

Summary of Findings

In this section, we provide a summary of the major findings identified by analyses of this report and draw attention to patterns of ETSI use which MCSO considers important. Delays during traffic stops are common and MCSO uses the ETSI options in the VSCF to document these delays as stop length is one of the major benchmarks used in the TSAR, TSMR, and TSQR reports as indicia of potential bias, which MCSO is required to investigate based on the dictates of the Second Order.

Frequency of ETSI use over Time

Examination of the use of ETSIs over time revealed their increased use since 2022. In 2022, deputies documented delays during approximately 27 percent of all traffic stops. In 2024, deputies documented delays during over 52 percent of all traffic stops. Deputies increasingly documented driving documentation, technical, and other delays between the beginning of 2022 and the end of 2024. The largest increase in documented delays have been for driving documentation, technology, and for uncategorized other delays. The Driving Documentation and Other Delays ETSIs were added to the VSCF in March of 2022. In March of 2022, deputies documented delays for driving documentation during 13.35 percent of traffic stops. In December of 2024, deputies documented delays related to driving documentation during 43.36 percent of traffic stops. Deputies documented delays due to technical issues during 5.18 percent of stops in January of 2022. In December 2024, deputies identified 11.06 percent of stops that were impacted by delays related to technology. Finally, in March of 2022, MCSO deputies identified 4.02 percent of traffic stops as delayed for other reasons while in December of 2024 deputies documented other delays during 15.37 percent of traffic stops.

Office and District-Level Differences in ETSI Use

MCSO deputies documented delays during just over half of traffic stops made in 2024. The most common delay during traffic stops was a delay associated with driving documentation (*see* Table 1). This delay was the most common delay across all districts (Tables 2a-2c). However, this delay impacted stops differentially by district with some districts experiencing delays associated with driving documentation during approximately 50 percent of their stops (52.57% in District 2; and 50.63% in District 4) while stops made by deputies from other districts were delayed for driving documentation issues at less than half that rate (15.64% of traffic stops; District 7).

At the district level, arrest rates were highest in District 1 (7.19%), District 5 (8.43%), and District 7 (7.43%). Stops with DUI investigations were most common in District 5 (3.12% of traffic stops). Delays associated with language barriers were most common in District 1 (3.86%) and District 2 (4.49%). Delays associated with searches of vehicles or drivers were most common in District 1 (4.98%) and District 2 (4.88%). Deputies indicated delays associated with technical issues most commonly in District 1 (12.79%), District 2 (19.73%), and District 4 (9.75%). Delays associated with vehicle tows were most common in District 1 (3.05%) and District 2 (3.44%). Training stops

were most common in District 2, with nearly 12 percent of stops involving training (11.59%). District 1 and District 3 also had a relatively high proportion of stops with delays associated with training at 7.29 percent and 8.59 percent of stops, respectively. Finally, the Other Issue ETSI was most frequently used in District 1, with 18.51 percent of stops delayed due to circumstances identified by deputies as some other delay.

Racial/Ethnic Differences in ETSI Use

MCSO compared rates across all ETSIs, searches, and arrests and found that these documented delays were more common for Black, Hispanic, and Minority drivers than they were for White drivers, with the exception of delays for technical issues with Black drivers (Table 3). In most cases the magnitude of the racial/ethnic differences in documented delays were high, as was the case with Arrests, Driving Documentation issues, Language Barriers, Searches, Vehicle Tows, and Other Issues. For example, nearly half (45.88%) of stops involving Minority drivers involved documented delays with driving documentation issues, while 31.87 percent of stops of White drivers involved delays of this type. The racial/ethnic difference in delays associated with language barriers were expected based on previous research and the cultural/demographic composition of Maricopa County. Differences in vehicle tows and searches have been documented in previous MCSO research and are, in part, a product of ARS 28-3151A (driver's license requirement) and ARS 28-3511 (requirement to tow vehicles driven by a driver who has never been issued a driver's license). Additional investigation is necessary for MCSO to better understand the racial/ethnic differences identified in this report for delays for DUI, Technical Issues, Training, and Other Issues. In regard to training issues, MCSO has previously documented that training stops are most common in District 2, which is the district with the highest proportion of stops of Hispanic drivers and the MCSO's largest district by land area (*See* TSQR 12).

Descriptive Statistics on ETSI Use

MCSO provided summary statistics for stop length for all ETSIs, arrests, and searches identified by deputies in 2024 (Tables 6 and 7 and Appendix B). One challenge to this analysis was identifying the impact on stop length not only when a single ETSI was used, but also when ETSIs were used in combinations. To address this, MCSO provided a regression analysis predicting stop length as a function of ETSI indicators searches and arrests and provided summary statistics for all empirical combinations of ETSIs observed in the data. Additionally, certain types of delays may interact with one another, impacting stop length in different ways. (*See* Table 12 for correlations among ETSIs) Of all ETSIs indicated by deputies, custodial arrests had the largest impact on the length of a stop. This was true when only one ETSI was selected or when the ETSI was selected in combination with other documented delays.

Contact Conclusion and ETSI Use

MCSO identified citation and warning rates for stops identified as extended (Table 11). Without accounting for whether multiple delays were experienced during the stop (*e.g.*, multiple ETSIs

used), we found that citation rates were higher for stops associated with each ETSI compared to those with no ETSIs indicated, with the exception of stops with technical issues and training stops. When evaluating the relationship between ETSI use and citation activity, we identified that certain ETSIs are commonly used together (*See* Table 14). MCSO identified highly correlated ETSI use for the following ETSI combinations: Vehicle Tow/Searches; Arrests/Searches; DUI/Searches; and DUI/Vehicle Tow. The strongest correlation between citations/warnings and ETSI involved arrests. While findings from the analysis of ETSI use and citation activity cannot be conclusive, the relationships identified with this analysis identifies that stop length (and delays during the stop) and arrests are indeed related. Several examples underscore this point. When the only delay indicated in the VSCF was that an arrest was made (N = 403), nearly every driver was cited for a criminal traffic offense. Furthermore, stops with DUI arrests are often delayed for DUI investigations, searches, and vehicle tows. Similarly, because MCSO policy requires inventory searches of vehicles prior to a tow, which often coincides with custodial arrests, these delays often occur during the same stop.

The Other Delay ETSI

MCSO reviewed VSCF comments from all stops when deputies utilized the “Other Issue” delay in the VSCF. There was a total of 2,535 stops when deputies indicated that some other delay was present during the stop. MCSO reviewed and coded all comments from these stops based on delays described in the comments. A total of 17 categories for Other Delay ETSI were used in this process. Note that deputies often identified multiple delays during these stops that included existing ETSIs as well as different delays identified by the 17 categories. Based VSCF comments, the most common Other Delay that deputies indicated in VSCF comments included stops during which “other issues” were present. (28.85% of other ETSI, VSCF comments). Other issues documented in the comments section of the VSCF often included multiple types of delays impacting the traffic stop, including delays associated with existing ETSIs. The second most common delay identified when the “Other Delay” ETSI was selected included communication and/or education. These delays occurred when drivers were especially talkative during the traffic stop. While many of these conversations included information relevant to the stop, many also included information unrelated to the stop such as drivers asking for directions. Over 14 percent of VSCF comments from “Other Issue” stops included some discussion of delays associated with manual entry of a driver or vehicle information into TraCS. One overarching theme in the review of comments from the “Other Issues” stops was that deputies would identify multiple delays during the stops. This was most apparent in stops that were coded as “Other Issue” or “Complex Stop,” when circumstances during the stop could not be captured using single existing ETSIs or simple narratives. For these stops, deputies identified delays in comments and often selected other ETSI indicators in the VSCF. For 5.6 percent of stops reviewed with the Other Delay ETSI selected, MCSO could not identify a clear reason why the stop was delayed. This represented 0.70 percent of all MCSO traffic stops.

Appropriate Use of ETSI Indicators

In the final analysis presented in this report, MCSO utilized a random sample of traffic stops that employed ETSI indicators and a selection of stops that had no ETSI selected. We reviewed BWC footage and VSCF comments to determine whether deputies were appropriately using extended stop indicators. Analysis of agreement from the initial reviews showed high, statistically significant, agreement between reviewers and deputy documentation, with agreement between deputies and reviewers exceeding 81 percent. Agreement between reviewers and VSCF data were statistically significant for all ETSI indicators. MCSO also coded comments from these stops to identify whether deputies documented delays associated with the ETSIs selected in the VSCF. We identified agreement between deputy comments and ETSIs selected in the VSCF to exceed 90 percent for each ETSI indicator. Agreement between VSCF comments and ETSI indicators was statistically significant for all ETSI indicators. Finally, MCSO investigated whether there was agreement between VSCF comments and reviewers' evaluations of delays with deputy-selected ETSI indicators. We identified high and statistically significant agreement between these two measures with agreement exceeding 82 percent for all ETSI indicators. Based on this analysis, MCSO concludes that deputies use ETSI indicators appropriately and with fidelity when documenting delays during traffic stops.

Conclusion and MCSO Response

With this research, MCSO sought to document and describe the use of extended stop indicators used by deputies to identify circumstances during traffic stops that led to delays during the stop and validate that MCSO deputies are using ETSI's appropriately when delays occurred. MCSO found high levels of agreement between deputy-reported delays and secondary review of traffic stops. Therefore, MCSO concludes that deputies in the field are using ETSI's appropriately.

The use of extended stop indicators is not a legal outcome, but a documentation measure used by a deputy when he/she encounters circumstances that delay their "normal" traffic stop. Another purpose of the research was to examine the use of the "Other Delay" ETSI and determine how deputies use the Other Delay ETSI during traffic stops. The "Other Delay" ETSI captures delays from complex stops that include current ETSIs and situations that are relatively rare but taken together capture dynamic and fluid situations which deviate from a "typical" traffic stop. Furthermore, MCSO investigated the use of the Driving Documentation ETSI to identify common circumstances that occur during stops with these types of delays. MCSO identified that the most common delay during a traffic stop when the deputies selected Driving Documentation ETSI was allowing drivers to collect and provide their licenses, insurance information, and registration. This delay was observed during 75 percent of reviewed stops with the Driving Documentation ETSI selected. Driving documentation delays were observed in 100 percent of BWC reviews of stops for which deputies selected the Driving Documentation ETSI was selected.

This research has led to additional recommendations to further improve MCSO's data collection and understanding of traffic stop delays. In addition to addressing the findings of this report with our Internal Review Group, a multidisciplinary group including policy, patrol, and compliance staff to determine recommendations for additional actions in the next quarter, we currently suggest the following for follow-up to this report.

- Review all stops for which the Other Issues ETSI was selected but for which there was no clear description of the delay in the VSCF and send out data validations.
- Review stops and stop data for stops which have unusual stop lengths associated with ETSI use (*e.g.*, stops with very short stop lengths and any ETSI is selected)
- Continue the new process implemented in January 2024 whereby reviews of stops where no ETSI was selected, but which exceeded 20 minutes in length occur and data validations sent out if determined to be appropriate.
- Disseminate published guidelines, or "cheat sheet", for the use of ETSIs to reinforce the proper use of ETSIs.
- Conduct internal town halls with each district explaining the results of this research and work with District commanders to better understand each district's unique circumstances that delay traffic stops.

-
- Communicate with fleet management to inspect vehicles and equipment associated with a high proportion of stops experiencing technical issues.
 - Discuss findings with the MCSO Internal Review Group to determine any additional actions MCSO Patrol may take.

Appendices:

In these appendices, we present information referenced throughout the main body of the report. In Appendix A we provide definitions supplied to deputies in the Vehicle Stop Contact form for Extended Traffic Stop Indicators. In Appendix B we supply tabulations of ETSI use and summary statistics for all combinations of ETSIs. In Appendix C we provide a tabulation of ETSI use by beat. In Appendix D we supply a tabulation of ETSI use by deputy. Finally, in Appendix E we supply a tabulation of the use of Technical Issue ETSIs by patrol vehicles to identify if any vehicles may need additional service to prevent traffic stop delays for technical issues.

Appendix A: Vehicle Stop Contact Form Definitions/Instructions for Extended Stop Indicators

Included below are the descriptions of the extended stop indicators provided in TraCS to assist deputies while filling out the VSCF.

Driving Documentation: Were driver's license/registration/insurance verification issues experienced during the stop? Select "Yes" if the stop was delayed due to license/registration/insurance issues. (Example: driver required additional time to produce documents or documents required additional time for verification)

DUI: Did the stop involve a DUI investigation? Select "Yes" if stop involved a DUI Investigation. (Note any specifics in the "Comments" box.)

Language: Was there a language issue experienced on the stop? Select "Yes" if stop involved a DUI investigation. (Note any specifics in the "Comments" box.)

Technical Issues: Were there any technological issues during the stop? Select "Yes" if there were technological issues during the stop. (Technological issues would include, but not be limited to MDC, TraCS, Scanner, Printer failures/resets, etc.)

Vehicle Tow: Was the Vehicle Towed from the scene? Select "Yes" if a vehicle was towed from the scene. (Note any specifics in the "Comments" box.)

Training: Did the traffic stop involve training? Select "Yes" if stop duration was impacted due to MCSO personnel training/learning. (Note any specifics in the "Comments" box.)

Other Delays: Select "Yes" if the stop was delayed due to other issues (Examples may include deputy error, education conversation, license plate seizure, traffic issues, or unspecified investigation. Note: Issue must be specified in the comments)

Search: Not technically an ETSI, this is indicated whenever a deputy indicates a search was conducted either on a person or vehicle.

Arrest: Not technically an ETSI, an arrest is marked anytime a custodial restraint or temporary custody of a person occurs. Various types of arrest are counted in this category, they are as follows:

Booked - Custodial arrest and transported/in jail

Cite and Release/Custodial Arrest - Physical custody, later released with criminal citation.

Cite and Release/No Custodial Arrest - No physical custody, released with criminal citation

Custodial Arrest/Pending Follow-Up and/or Long Form - Physical custody, released pending follow-up/(i.e. evidence examination/testing/collection, witness statements, etc.)

Custodial Arrest/Released Other Agency - Physical arrest, turned over to another agency (i.e. city warrant)

Custodial Arrest/Released No Further Action - Physical arrest, released with no further action (i.e. Probable cause dispelled after further investigation, decision made not to charge due to Maricopa County Attorney's Office charging standards not met).

Appendix B: Summary Statistics for ETSI Combinations

Following our analyses of individual ETSIs we include nine tables below that provide summary statistics for stops with multiple ETSIs selected. Table B1 identifies all combinations in the data where only two ETSIs were selected by a deputy and Table B2-B3 identifies stops with three ETSIs selected (and so forth). The most ETSIs selected for all MCSO traffic stops in 2024 were eight, whose combinations and summary statistics are available in Table B9.

Table B1: Descriptive Statistics for Stop Length when Two ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Two ETSIs	2,582	1	207	17.00	20.38	13.02	34.24%
Arrest, Driving Docs	185	8	176	19.00	22.11	15.18	32.97%
Arrest: DUI	9	13	154	119.00	87.78	62.74	55.56%
Arrest; Language	4	15	31	20.00	21.50	6.95	50.00%
Arrest; Search	4	21	207	44.00	79.00	87.41	25.00%
Arrest; Technical	13	11	34	17.00	17.31	5.92	38.46%
Arrest; Tow	1	51	51	51	51	–	–
Arrest; Training	7	8	29	26.00	20.57	8.50	57.14%
Arrest; Other	64	7	53	17.00	19.72	8.35	35.94%
Driving Docs; DUI	39	11	48	23.00	24.46	8.92	48.72%
Driving Docs; Language	161	8	59	20.00	24.46	8.92	40.99%
Driving Docs; Search	13	15	63	23.00	31.08	17.55	30.77%
Driving Docs; Technical	617	6	65	16.00	18.40	7.85	37.93%
Driving Docs; Tow	17	20	103	51.00	53.41	17.00	41.18%
Driving Docs; Training	298	1	66	18.00	20.12	9.27	40.94%
Driving Docs; Other	824	2	136	16.00	18.94	10.92	39.44%
DUI; Language	3	13	29	21.00	21.00	8.00	33.33%
DUI; Search	1	40	40	40.00	40	–	–
DUI; Technical	7	16	45	20.00	23.14	9.79	14.29%
DUI; Training	7	14	39	24.00	25.71	9.91	42.86%
DUI; Other	6	14	52	16.00	25.00	15.85	33.33%
Language; Search	2	43	48	45.5	45.50	3.54	50.00%
Language; Technical	7	16	52	25.00	26.71	12.28	28.57%
Language; Training	7	11	38	20.00	24.14	11.14	42.86%
Language; Other	15	8	37	15.00	18.07	9.32	66.66%
Search; Technical	2	12	29	20.50	20.50	12.02	50.00%
Search; Tow	10	35	88	61.00	60.20	14.94	50.00%
Search; Training	1	37	37	37.00	37.00	–	–
Search; Other	13	10	118	17.00	27.77	29.35	23.08%
Technical; Training	90	8	73	17.50	18.97	8.77	42.22%
Technical; Other	131	6	111	15.00	17.48	10.93	34.35%
Tow; Other	1	80	80	80	80	–	–
Training; Other	23	8	59	16.00	19.09	11.53	34.78%

Table B2: Descriptive Statistics for Stop Length when Three ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Three ETSIs	788	6	410	25.00	39.64	41.68	27.03%
Arrest; Driving Docs; DUI	8	25	74	38.00	41.50	14.71	37.50%
Arrest; Driving Docs; Language	10	17	39	22.50	24.50	7.86	40.00%
Arrest; Driving Docs; Search	16	23	238	70.5	98.81	69.67	43.75%
Arrest; Driving Docs; Technical	28	15	61	22.00	27.93	13.95	35.71%
Arrest; Driving Docs; Tow	1	15	15	15	15	–	–
Arrest; Driving Docs; Training	8	27	61	41.00	41.25	24.61	50.00%
Arrest; Driving Docs; Other	81	12	150	25.00	31.94	24.61	30.86%
Arrest; DUI; Language	1	126	126	126.00	126.00	–	–
Arrest; DUI; Search	34	85	410	132.00	151.68	66.57	37.50%
Arrest; DUI; Technical	1	31	31	31.00	31.00	–	–
Arrest; DUI; Tow	2	180	221	200.50	200.50	28.99	50.00%
Arrest; DUI; Training	1	247	247	247.00	247.00	–	–
Arrest; DUI; Other	3	27	115	40.00	60.67	47.50	33.33%
Arrest; Search; Tow	10	54	142	84.00	88.70	33.49	40.00%
Arrest; Search; Training	1	54	54	54.00	54.00	–	–
Arrest; Search; Other	17	22	231	66.00	91.76	59.78	47.06%
Arrest; Technical; Tow	1	27	27	27.00	27.00	–	–
Arrest; Technical; Training	3	23	25	24.00	24.00	1.00	33.33%
Arrest; Technical; Other	7	17	34	21.00	23.43	6.60	42.86%
Arrest; Tow; Other	1	71	71	71.00	71.00	–	–
Arrest; Training; Other	1	21	21	21.00	21.00	–	–
Driving Docs; DUI; Language	6	19	78	30.5	36.83	22.19	33.33%
Driving Docs; DUI; Search	2	28	53	40.50	40.50	17.68	50.00%
Driving Docs; DUI; Technical	7	35.43	14	29.00	35.43	16.55	42.86%

Table B3: Descriptive Statistics for Stop Length when Three ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Three ETSIs	788	6	410	25.00	39.64	41.68	27.03%
Driving Docs, DUI, Tow	1	72	72	72.00	72.00	–	–
Driving Docs; DUI; Training	3	14	25	21.00	20.00	5.57	66.66%
Driving Docs; DUI; Other	9	13	56	33.00	34.78	16.13	33.33%
Driving Docs; Language; Technical	40	13	49	24.00	26.25	9.35	42.50%
Driving Docs; Language; Tow	4	65	79	71.00	71.50	7.55	50.00%
Driving Docs; Language; Training	19	17	65	26.00	29.47	12.24	36.84%
Driving Docs; Language; Other	53	8	66	23.00	25.75	12.66	39.62%
Driving Docs; Search; Technical	2	14	97	45.50	45.50	19.09	50.00%
Driving Docs; Search; Tow	44	30	100	62.00	62.66	15.91	47.73%
Driving Docs; Search; Other	22	14	97	34.00	45.41	28.26	40.91%
Driving Docs; Technical; Tow	1	56	56	56.00	56.00	–	–
Driving Docs; Technical; Training	83	8	50	22.00	24.57	10.61	43.37%
Driving Docs; Technical; Other	177	8	61	18.00	19.71	8.40	40.68%
Driving Docs; Tow; Training	1	124	124	124.00	124.00	–	–
Driving Docs; Tow; Other	4	51	122	76.00	81.25	30.32	50.00%
Driving Docs; Training; Other	56	6	62	21.00	23.18	10.66	33.93%
Language; Search; Other	1	22	22	22.00	22.00	–	–
Search; Technical; Tow	1	78	78	78.00	78.00	–	–
Search; Technical; Other	1	12	12	12.00	12.00	–	–

Table B4: Descriptive Statistics for Stop Length when Four ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Four ETSIs	297	12	750	55.00	81.80	84.22	12.67%
Arrest; Driving Docs; DUI; Search	16	20	313	137.00	137.88	80.52	50.00%
Arrest; Driving Docs; DUI; Technical	1	18	18	18.00	18.00	–	–
Arrest; Driving Docs; DUI; Tow	1	110	110	110.00	110.00	–	–
Arrest; Driving Docs; DUI; Training	2	33	35	34.00	34.00	1.41	50.00%
Arrest; Driving Docs; DUI; Other	1	30	30	30.00	30.00	–	–
Arrest; Driving Docs; Language; Search	1	354	354	354.00	354.00	–	–
Arrest; Driving Docs; Language; Technical	2	32	36	34.00	34.00	2.83	50.00%
Arrest; Driving Docs; Language; Other	2	15	18	16.50	16.50	2.12	50.00%
Arrest; Driving Docs; Search; Technical	2	41	86	63.50	63.50	31.82	50.00%
Arrest; Driving Docs; Search; Tow	25	29	252	61.00	82.44	56.74	28.00%
Arrest; Driving Docs; Search; Training	2	45	97	71.00	71.00	36.77	50.00%
Arrest; Driving Docs; Search; Other	32	22	190	57.00	69.75	42.22	37.50%
Arrest; Driving Docs; Technical; Tow	1	89	89	89.00	89.00	–	–
Arrest; Driving Docs; Technical; Training	4	23	750	35.50	211.00	359.45	25.00%
Arrest; Driving Docs; Technical; Other	20	16	113	35.50	41.40	23.42	40.00%
Arrest; Driving Docs; Tow; Training	1	35	35	35.00	35.00	–	–
Arrest; Driving Docs; Tow; Other	1	74	74	74.00	74.00	–	–
Arrest; Driving Docs; Training; Other	3	21	40	31.00	30.67	9.50	66.67%
Arrest; DUI; Search; Tow	37	87	405	134.00	157.08	66.39	40.54%
Arrest; DUI; Search; Train	1	114	114	114.00	114.00	–	–
Arrest; DUI; Search; Other	3	149	217	185.00	183.67	34.02	66.67%
Arrest; Language; Search; Tow	1	89	89	89.00	89.00	–	–
Arrest; Language; Search; Other	2	40	98	69.00	69.00	41.01	50.00%

Table B5: Descriptive Statistics for Stop Length when Four ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Four ETSIs	297	12	750	55.00	81.80	84.22	12.67%
Driving Docs; DUI; Language; Train	2	19	25	22.00	22.00	4.24	50.00%
Driving Docs; DUI; Language; Other	1	15	15	15.00	15.00	–	–
Driving Docs; DUI; Search; Other	3	29	48	47.00	41.33	10.69	66.67%
Driving Docs; DUI; Technical; Train	2	20	32	26.00	26.00	8.49	50.00%
Driving Docs; DUI; Technical; Other	3	12	22	15.00	16.33	5.13	33.33%
Driving Docs; Language; Search; Tow	17	28	102	63.00	61.12	19.15	58.82%
Driving Docs; Language; Search; Other	2	77	81	79.00	79.00	2.83	50.00%
Driving Docs; Language; Technical; Tow	2	51	70	60.50	60.50	13.44	50.00%
Driving Docs; Language; Technical; Train	2	28	31	29.50	29.50	2.12	50.00
Driving Docs; Language; Technical; Other	11	15	83	24.00	28.55	19.36	36.36%
Driving Docs; Language; Tow; Other	3	38	75	59.33	65.00	19.14	66.67%
Driving Docs; Search; Technical; Tow	10	20	114	50.00	55.70	28.21	30.00%
Driving Docs; Search; Technical; Training	1	45	45	45.00	45.00	–	–
Driving Docs; Search; Technical; Other	4	14	34	23.00	23.50	8.19	25.00%
Driving Docs; Search; Tow; Training	3	54	87	63.00	68.00	17.06	33.33%
Driving Docs; Search; Tow; Other	21	36	538	64.00	85.38	104.69	14.29%
Driving Docs; Search; Training; Other	1	50	50	50.00	50.00	–	–
Driving Docs; Technical; Training; Other	30	16	43	27.00	24.50	7.93	40.00%

Table B6: Descriptive Statistics for Stop Length when Five ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Five ETSIs	115	5	506	80.00	116.72	91.55	36.65%
Arrest; Driving Docs; DUI; Language; Search	2	172	214	193.00	193.00	29.70	50.00%
Arrest; Driving Docs; DUI; Language; Other	1	131	131	131.00	131.00	–	–
Arrest; Driving Docs; DUI; Search; Tech	1	216	216	216.00	216.00	–	–
Arrest; Driving Docs; DUI; Search; Tow	19	81	371	189.00	216.32	77.29	47.37
Arrest; Driving Docs; DUI; Search; Training	1	380	380	380.00	380.00	–	–
Arrest; Driving Docs; DUI; Search; Technical	1	216	216	216.00	216.00	–	–
Arrest; Driving Docs; DUI; Search; Other	4	44	186	87.00	101.00	67.34	50.00%
Arrest; Driving Docs; DUI; Training; Other	1	75	75	75.00	75.00	–	–
Arrest; Driving Docs; Language, Search, Technical	1	25	25	25.00	25.00	–	–
Arrest; Driving Docs; Language; Search; Tow	3	109	254	142.00	168.33	76.00	33.33%
Arrest; Driving Docs; Language; Technical; Other	2	19	38	28.50	28.50	13.44	50.00
Arrest; Driving Docs; Search; Technical; Other	5	5	107	34.00	41.20	42.12	40.00%
Arrest; Driving Docs; Search; Tow; Training	2	80	102	91.00	91.00	15.56	50.00%
Arrest; Driving Docs; Search; Tow; Other	23	25	506	85.00	117.09	103.44	30.43%
Arrest; Driving Docs; Search; Train; Other	2	43	43	43.00	43.00	0.00	50.00%
Arrest; Driving Docs; Technical; Training; Other	2	30	31	30.50	30.50	0.71	50.00%
Arrest; Driving Docs; Tow; Training; Other	1	50	50	50.00	50.00	–	–
Arrest; DUI; Search; Tow; Training	4	192	230	203.50	207.25	16.15	25.00%
Arrest; DUI; Search; Tow; Other	2	234	277	255.50	255.50	30.41	50.00%
Arrest; Language; Search; Tow; Other	1	114	114	114.00	114.00	–	–
Driving Docs; DUI; Language; Search; Technical	1	79	79	79.00	79.00	–	–
Driving Docs; DUI; Language; Search; Other	1	68	68	68.00	68.00	–	–
Driving Docs; DUI; Language; Technical; Training	1	43	43	43.00	43.00	–	–
Driving Docs; DUI; Language; Technical; Other	3	14	19	16.00	16.33	2.52	33.33%
Driving Docs; DUI; Search; Technical; Tow	1	102	102	102.00	102.00	–	–
Driving Docs; DUI; Technical; Training; Other	1	33	33	33.00	33.00	–	–
Driving Docs; Language; Search; Technical; Tow	6	56	89	64.50	68.17	11.82	33.33%
Driving Docs; Language; Search; Tow; Train	1	59	59	59.00	59.00	–	–
Driving Docs; Language; Search; Tow; Other	12	52	134	74.00	79.83	21.82	33.33%
Driving Docs; Language; Technical; Training; Other	2	30	50	40.00	40.00	14.14	50.00%
Driving Docs; Search; Technical; Tow; Train	1	66	66	66.00	66.00	–	–
Driving Docs; Search; Technical; Tow; Other	5	48	75	62.00	61.80	11.10	60.00%
Driving Docs; Search; Technical; Training; Other	1						
Driving Docs; Search; Tow; Training; Other	1	80	80	80.00	80.00	–	–
DUI; Language; Search; Technical; Other	1	40	40	40.00	40.00	–	–

Table B7: Descriptive Statistics for Stop Length when Six ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Six ETSIs	33	43	456	172	169.70	97.41	54.54%
Arrest; Driving Docs; DUI; Language; Search; Technical	1	71	71	71.00	71.00	–	–
Arrest; Driving Docs; DUI; Language; Search; Tow	4	84	456	164.50	217.25	164.00	25.00%
Arrest; Driving Docs; DUI; Search; Tow; Training	3	178	213	182.00	191.00	19.16	33.33%
Arrest; Driving Docs; DUI; Search; Tow; Other	6	170	380	249.50	270.17	73.71	33.33%
Arrest; Driving Docs; DUI; Search; Train; Other	1	209	209	209.00	209.00	–	–
Arrest; Driving Docs; Language; Search; Tow; Other	1	85	85	85.00	85.00	–	–
Arrest; Driving Docs; Language; Search; Training; Other	1	172	172	172.00	172.00	–	–
Arrest; Driving Docs; Search; Technical; Tow; Other	2	83	90	86.50	86.50	4.95	50.00%
Arrest; Driving Docs; Search; Tow; Train; Other	2	43	199	121.00	121.00	110.31	50.00%
Arrest; DUI; Language; Search; Tow; Train	1	68	68	68.00	68.00	–	–
Driving Docs; DUI; Search; Technical; Tow; Other	1	224	224	224.00	224.00	–	–
Driving Docs; Language; Search; Technical; Tow; Other	4	72	119	85.00	90.25	21.16	50.00
License; Language; Technical; Tow; Training	1	61	61	61.00	61.00	–	–

Table B8: Descriptive Statistics for Stop Length when Seven ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Seven ETSIs	7	40	422	122	156.29	130.90	28.57%
Arrest; Driving Docs; DUI; Language; Search; Tow; Train	4	46	422	172.00	203.00	161.31	50.00%
Arrest; Driving Docs; DUI; Language; Search; Search; Tow; Other	1	120	120	120.00	120.00	–	–
Arrest; Driving Docs; DUI; Language; Technical; Training; Other	1	40	40	40.00	40.00	–	–
Arrest; Driving Docs; Search; Technical; Tow; Training; Other	1	122	122	122.00	122.00	–	–

Table B9: Descriptive Statistics for Stop Length when Eight ETSIs were Indicated in the VSCF

Type of Stop	N	Min	Max	Median	Mean	Standard Deviation	Percent Above Mean
No ETSI	9,659	1	43	10.00	10.20	2.85	38.04%
All Stops with Eight ETSIs	3	57	354	167	192.67	150.15	33.33%
Arrest; Driving Docs; DUI; Language; Search; Technical; Tow; Other	1	167	167	167.00	167.00	–	–
Arrest; Driving Docs; DUI; Language; Search; Tow; Train; Other	1	354	354	354.00	354.00	–	–
Arrest; Driving Docs; DUI; Search; Technical; Tow; Training; Other	1	57	57	57.00	57.00	–	–

There were no traffic stops with all nine ETSIs selected.

Appendix C: ETSI Use by Beat

In this appendix, each table provides values for the 7 ETSI (Driving Documentation Issues, DUI Investigations, Language Barriers, Technical Issues, Vehicle Tows, Training Stops, and Other Delays), searches, and arrests as presented in this report for MCSO beats. Note that the beat “LAK” is a beat on water. As reservoir levels in Maricopa rise and fall seasonally, land may become exposed and OHV vehicles are able to traverse areas that are inundated during other times of the year. Thus, traffic stops may occur in the geographic boundary of a body of water. The beat “PNL” are traffic stops which occur in Pinal County. These are most common in the southeast portion of Maricopa County as deputies must enter Pinal County to access San Tan Regional Park which is a Maricopa County Regional Park. It should be noted that MCSO deputies are authorized to make traffic stops anywhere in the state of Arizona.

Table C1: Number/Percentage of Traffic Stops with Arrests, by Beat

Beat	N Stops	N Arrests	Percent of Beat Stops	Beat	N Stops	N Arrests	Percent of Beat Stops
121	438	13	2.97%	436	640	9	1.41%
122	669	44	6.58%	437	1	1	100.00%
123	317	27	8.52%	521	581	63	10.84%
124	368	32	8.70%	522	637	30	4.71%
125	504	54	10.71%	523	528	46	8.71%
126	459	36	7.84%	524	94	7	7.45%
127	885	65	7.34%	525	17	0	0.00%
128	28	1	3.57%	529	102	8	7.84%
221	197	12	6.09%	531	50	10	20.00%
222	469	24	5.12%	532	18	4	22.22%
223	348	22	6.32%	536	16	0	0.00%
224	36	2	5.56%	541	24	1	4.17%
225	851	76	8.93%	543	496	32	6.45%
229	19	0	0.00%	544	31	4	12.90%
231	139	7	5.04%	545	4	1	25.00%
232	146	7	4.79%	547	10	1	10.00%
233	41	6	14.63%	551	13	0	0.00%
234	101	2	1.98%	552	5	0	0.00%
235	390	8	2.05%	741	1057	50	4.73%
236	9	0	0.00%	742	408	14	3.43%
341	709	55	7.76%	743	274	16	5.84%
342	296	11	3.72%	744	271	28	10.33%
343	332	19	5.72%	745	110	8	7.27%
344	813	39	4.80%	521W	1	0	0.00%
345	448	30	6.70%	522W	3	0	0.00%
346	220	12	5.45%	523W	1	0	0.00%
347	306	67	21.90%	532W	1	0	0.00%
348	1	0	0.00%	541W	3	1	33.33%
351	16	1	6.25%	542W	1	0	0.00%
352	4	0	0.00%	CEN	3	0	0.00%
371	122	6	4.92%	D1J	1	0	0.00%
431	74	1	1.35%	LAK	17	1	5.88%
432	803	29	3.61%	PIR	1	0	0.00%
433	792	31	3.91%	PNL	41	3	7.32%
434	2388	58	2.43%	PRK	1	0	0.00%
435	466	44	9.44%				

Table C2: Number/Percentage of Traffic Stops with the Driving Documentation ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	118	26.94%	436	640	267	41.72%
122	669	210	31.39%	437	1	1	100.00%
123	317	115	36.28%	521	581	164	28.23%
124	368	143	38.86%	521W	1	0	0.00%
125	504	182	36.11%	522	637	121	19.00%
126	459	236	51.42%	522W	3	2	66.67%
127	885	438	49.49%	523	528	36	6.82%
128	28	12	42.86%	523W	1	0	0.00%
221	197	115	58.38%	524	94	4	4.26%
222	469	265	56.50%	525	17	14	82.35%
223	348	178	51.15%	529	102	24	23.53%
224	36	12	33.33%	531	50	21	42.00%
225	851	396	46.53%	532	18	11	61.11%
229	19	10	52.63%	532W	1	1	100.00%
231	139	67	48.20%	536	16	8	50.00%
232	146	80	54.79%	541	24	8	33.33%
233	41	30	73.17%	541W	3	3	100.00%
234	101	49	48.51%	542W	1	1	100.00%
235	390	126	32.31%	543	496	195	39.31%
236	9	6	66.67%	544	31	19	61.29%
341	709	217	30.61%	545	4	2	50.00%
342	296	94	31.76%	547	10	1	10.00%
343	332	144	43.37%	551	13	3	23.08%
344	813	199	24.48%	552	5	3	60.00%
345	448	188	41.96%	741	1057	192	18.16%
346	220	65	29.55%	742	408	73	17.89%
347	306	89	29.08%	743	274	53	19.34%
348	1	1	100.00%	744	271	29	10.70%
351	16	6	37.50%	745	110	19	17.27%
352	4	1	25.00%	CEN	3	1	33.33%
371	122	54	44.26%	D1J	1	0	0.00%
431	74	32	43.24%	LAK	17	2	11.76%
432	803	386	48.07%	PIR	1	1	100.00%
433	792	382	48.23%	PNL	41	9	21.95%
434	2388	1187	49.71%	PRK	1	0	0.00%
435	466	62	13.30%				

Table C3: Number/Percentage of Traffic Stops with the DUI ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	3	0.68%	436	640	2	0.31%
122	669	7	1.05%	437	1	0	0.00%
123	317	4	1.26%	521	581	59	10.15%
124	368	9	2.45%	521W	1	0	0.00%
125	504	26	5.16%	522	637	17	2.67%
126	459	7	1.53%	522W	3	0	0.00%
127	885	20	2.26%	523	528	0	0.00%
128	28	0	0.00%	523W	1	0	0.00%
221	197	5	2.54%	524	94	1	1.06%
222	469	10	2.13%	525	17	1	5.88%
223	348	10	2.87%	529	102	3	2.94%
224	36	0	0.00%	531	50	3	6.00%
225	851	23	2.70%	532	18	0	0.00%
229	19	0	0.00%	532W	1	0	0.00%
231	139	1	0.72%	536	16	1	6.25%
232	146	4	2.74%	541	24	0	0.00%
233	41	1	2.44%	541W	3	0	0.00%
234	101	0	0.00%	542W	1	0	0.00%
235	390	1	0.26%	543	496	21	4.23%
236	9	0	0.00%	544	31	2	6.45%
341	709	13	1.83%	545	4	0	0.00%
342	296	5	1.69%	547	10	0	0.00%
343	332	10	3.01%	551	13	0	0.00%
344	813	7	0.86%	552	5	0	0.00%
345	448	10	2.23%	741	1057	7	0.66%
346	220	2	0.91%	742	408	2	0.49%
347	306	4	1.31%	743	274	3	1.09%
348	1	0	0.00%	744	271	1	0.37%
351	16	2	12.50%	745	110	1	0.91%
352	4	0	0.00%	CEN	3	0	0.00%
371	122	1	0.82%	D1J	1	0	0.00%
431	74	1	1.35%	LAK	17	0	0.00%
432	803	11	1.37%	PIR	1	0	0.00%
433	792	12	1.52%	PNL	41	1	2.44%
434	2388	13	0.54%	PRK	1	0	0.00%
435	466	11	2.36%				

Table C4: Number/Percentage of Traffic Stops with the Language ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	4	0.91%	436	640	9	1.41%
122	669	13	1.94%	437	1	0	0.00%
123	317	9	2.84%	521	581	19	3.27%
124	368	17	4.62%	521W	1	0	0.00%
125	504	10	1.98%	522	637	11	1.73%
126	459	15	3.27%	522W	3	0	0.00%
127	885	48	5.42%	523	528	4	0.76%
128	28	0	0.00%	523W	1	0	0.00%
221	197	11	5.58%	524	94	1	1.06%
222	469	25	5.33%	525	17	4	23.53%
223	348	14	4.02%	529	102	2	1.96%
224	36	1	2.78%	531	50	2	4.00%
225	851	31	3.64%	532	18	4	22.22%
229	19	0	0.00%	532W	1	0	0.00%
231	139	7	5.04%	536	16	1	6.25%
232	146	9	6.16%	541	24	3	12.50%
233	41	6	14.63%	541W	3	0	0.00%
234	101	3	2.97%	542W	1	0	0.00%
235	390	16	4.10%	543	496	53	10.69%
236	9	0	0.00%	544	31	0	0.00%
341	709	12	1.69%	545	4	0	0.00%
342	296	6	2.03%	547	10	0	0.00%
343	332	11	3.31%	551	13	1	7.69%
344	813	19	2.34%	552	5	0	0.00%
345	448	13	2.90%	741	1057	11	1.04%
346	220	5	2.27%	742	408	5	1.23%
347	306	8	2.61%	743	274	0	0.00%
348	1	1	100.00%	744	271	0	0.00%
351	16	1	6.25%	745	110	0	0.00%
352	4	0	0.00%	CEN	3	0	0.00%
371	122	3	2.46%	D1J	1	0	0.00%
431	74	0	0.00%	LAK	17	0	0.00%
432	803	12	1.49%	PIR	1	0	0.00%
433	792	23	2.90%	PNL	41	0	0.00%
434	2388	35	1.47%	PRK	1	0	0.00%
435	466	4	0.86%				

Table C5: Number/Percentage of Traffic Stops with the Search ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	5	1.14%	436	640	4	0.63%
122	669	11	1.64%	437	1	0	0.00%
123	317	13	4.10%	521	581	35	6.02%
124	368	18	4.89%	521W	1	0	0.00%
125	504	25	4.96%	522	637	7	1.10%
126	459	36	7.84%	522W	3	0	0.00%
127	885	52	5.88%	523	528	2	0.38%
128	28	1	3.57%	523W	1	0	0.00%
221	197	12	6.09%	524	94	1	1.06%
222	469	29	6.18%	525	17	0	0.00%
223	348	18	5.17%	529	102	2	1.96%
224	36	0	0.00%	531	50	5	10.00%
225	851	41	4.82%	532	18	2	11.11%
229	19	1	5.26%	532W	1	0	0.00%
231	139	6	4.32%	536	16	0	0.00%
232	146	5	3.42%	541	24	1	4.17%
233	41	4	9.76%	541W	3	0	0.00%
234	101	5	4.95%	542W	1	0	0.00%
235	390	4	1.03%	543	496	30	6.05%
236	9	0	0.00%	544	31	0	0.00%
341	709	7	0.99%	545	4	0	0.00%
342	296	4	1.35%	547	10	0	0.00%
343	332	17	5.12%	551	13	0	0.00%
344	813	11	1.35%	552	5	1	20.00%
345	448	16	3.57%	741	1057	16	1.51%
346	220	3	1.36%	742	408	4	0.98%
347	306	5	1.63%	743	274	2	0.73%
348	1	0	0.00%	744	271	2	0.74%
351	16	1	6.25%	745	110	3	2.73%
352	4	0	0.00%	CEN	3	0	0.00%
371	122	8	6.56%	D1J	1	0	0.00%
431	74	0	0.00%	LAK	17	0	0.00%
432	803	6	0.75%	PIR	1	0	0.00%
433	792	14	1.77%	PNL	41	1	2.44%
434	2388	31	1.30%	PRK	1	0	0.00%
435	466	4	0.86%				

Table C6: Number/Percentage of Traffic Stops with the Technical ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	30	6.85%	436	640	46	7.19%
122	669	68	10.16%	437	1	1	100.00%
123	317	38	11.99%	521	581	45	7.75%
124	368	38	10.33%	521W	1	0	0.00%
125	504	46	9.13%	522	637	47	7.38%
126	459	53	11.55%	522W	3	1	33.33%
127	885	130	14.69%	523	528	12	2.27%
128	28	2	7.14%	523W	1	0	0.00%
221	197	44	22.34%	524	94	0	0.00%
222	469	77	16.42%	525	17	4	23.53%
223	348	56	16.09%	529	102	5	4.90%
224	36	5	13.89%	531	50	17	34.00%
225	851	112	13.16%	532	18	8	44.44%
229	19	4	21.05%	532W	1	0	0.00%
231	139	33	23.74%	536	16	7	43.75%
232	146	28	19.18%	541	24	2	8.33%
233	41	9	21.95%	541W	3	2	66.67%
234	101	19	18.81%	542W	1	0	0.00%
235	390	87	22.31%	543	496	59	11.90%
236	9	3	33.33%	544	31	7	22.58%
341	709	59	8.32%	545	4	2	50.00%
342	296	13	4.39%	547	10	3	30.00%
343	332	31	9.34%	551	13	0	0.00%
344	813	65	8.00%	552	5	0	0.00%
345	448	36	8.04%	741	1057	80	7.57%
346	220	11	5.00%	742	408	45	11.03%
347	306	25	8.17%	743	274	26	9.49%
348	1	0	0.00%	744	271	8	2.95%
351	16	1	6.25%	745	110	4	3.64%
352	4	0	0.00%	CEN	3	0	0.00%
371	122	10	8.20%	D1J	1	0	0.00%
431	74	12	16.22%	LAK	17	2	11.76%
432	803	102	12.70%	PIR	1	0	0.00%
433	792	67	8.46%	PNL	41	2	4.88%
434	2388	230	9.63%	PRK	1	0	0.00%
435	466	22	4.72%				

Table C7: Number/Percentage of Traffic Stops with the Vehicle Tow ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	2	0.46%	436	640	5	0.78%
122	669	6	0.90%	437	1	0	0.00%
123	317	9	2.84%	521	581	18	3.10%
124	368	13	3.53%	521W	1	0	0.00%
125	504	10	1.98%	522	637	5	0.78%
126	459	26	5.66%	522W	3	0	0.00%
127	885	33	3.73%	523	528	1	0.19%
128	28	1	3.57%	523W	1	0	0.00%
221	197	9	4.57%	524	94	0	0.00%
222	469	22	4.69%	525	17	0	0.00%
223	348	10	2.87%	529	102	1	0.98%
224	36	0	0.00%	531	50	3	6.00%
225	851	31	3.64%	532	18	1	5.56%
229	19	1	5.26%	532W	1	0	0.00%
231	139	4	2.88%	536	16	1	6.25%
232	146	6	4.11%	541	24	0	0.00%
233	41	2	4.88%	541W	3	0	0.00%
234	101	2	1.98%	542W	1	0	0.00%
235	390	3	0.77%	543	496	18	3.63%
236	9	0	0.00%	544	31	1	3.23%
341	709	6	0.85%	545	4	0	0.00%
342	296	4	1.35%	547	10	0	0.00%
343	332	11	3.31%	551	13	0	0.00%
344	813	7	0.86%	552	5	0	0.00%
345	448	6	1.34%	741	1057	9	0.85%
346	220	1	0.45%	742	408	3	0.74%
347	306	3	0.98%	743	274	2	0.73%
348	1	0	0.00%	744	271	2	0.74%
351	16	1	6.25%	745	110	1	0.91%
352	4	0	0.00%	CEN	3	1	33.33%
371	122	5	4.10%	DIJ	1	0	0.00%
431	74	0	0.00%	LAK	17	0	0.00%
432	803	7	0.87%	PIR	1	0	0.00%
433	792	14	1.77%	PNL	41	0	0.00%
434	2388	26	1.09%	PRK	1	0	0.00%
435	466	3	0.64%				

Table C8: Number/Percentage of Traffic Stops with the Training ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	11	2.51%	436	640	21	3.28%
122	669	28	4.19%	437	1	0	0.00%
123	317	30	9.46%	521	581	52	8.95%
124	368	22	5.98%	521W	1	0	0.00%
125	504	72	14.29%	522	637	65	10.20%
126	459	37	8.06%	522W	3	0	0.00%
127	885	85	9.60%	523	528	19	3.60%
128	28	2	7.14%	523W	1	0	0.00%
221	197	60	30.46%	524	94	2	2.13%
222	469	56	11.94%	525	17	2	11.76%
223	348	15	4.31%	529	102	8	7.84%
224	36	1	2.78%	531	50	1	2.00%
225	851	57	6.70%	532	18	1	5.56%
229	19	14	73.68%	532W	1	0	0.00%
231	139	21	15.11%	536	16	0	0.00%
232	146	31	21.23%	541	24	0	0.00%
233	41	4	9.76%	541W	3	0	0.00%
234	101	5	4.95%	542W	1	0	0.00%
235	390	20	5.13%	543	496	4	0.81%
236	9	0	0.00%	544	31	0	0.00%
341	709	32	4.51%	545	4	0	0.00%
342	296	18	6.08%	547	10	1	10.00%
343	332	27	8.13%	551	13	2	15.38%
344	813	85	10.46%	552	5	1	20.00%
345	448	32	7.14%	741	1057	1	0.09%
346	220	12	5.45%	742	408	0	0.00%
347	306	8	2.61%	743	274	0	0.00%
348	1	0	0.00%	744	271	2	0.74%
351	16	1	6.25%	745	110	0	0.00%
352	4	1	25.00%	CEN	3	0	0.00%
371	122	6	4.92%	D1J	1	0	0.00%
431	74	2	2.70%	LAK	17	0	0.00%
432	803	26	3.24%	PIR	1	0	0.00%
433	792	38	4.80%	PNL	41	5	12.20%
434	2388	99	4.15%	PRK	1	1	100.00%
435	466	3	0.64%				

Table C9: Number/Percentage of Traffic Stops with the Other Delay ETSI, by Beat

Beat	N Stops	N ETSI	Percent of Beat Stops	Beat	N Stops	N ETSI	Percent of Beat Stops
121	438	56	12.79%	436	640	77	12.03%
122	669	84	12.56%	437	1	1	100.00%
123	317	45	14.20%	521	581	30	5.16%
124	368	67	18.21%	521W	1	0	0.00%
125	504	64	12.70%	522	637	24	3.77%
126	459	82	17.86%	522W	3	0	0.00%
127	885	163	18.42%	523	528	28	5.30%
128	28	1	3.57%	523W	1	0	0.00%
221	197	25	12.69%	524	94	4	4.26%
222	469	51	10.87%	525	17	4	23.53%
223	348	39	11.21%	529	102	6	5.88%
224	36	7	19.44%	531	50	7	14.00%
225	851	100	11.75%	532	18	6	33.33%
229	19	3	15.79%	532W	1	0	0.00%
231	139	22	15.83%	536	16	1	6.25%
232	146	20	13.70%	541	24	2	8.33%
233	41	5	12.20%	541W	3	1	33.33%
234	101	17	16.83%	542W	1	0	0.00%
235	390	35	8.97%	543	496	119	23.99%
236	9	0	0.00%	544	31	7	22.58%
341	709	92	12.98%	545	4	1	25.00%
342	296	24	8.11%	547	10	2	20.00%
343	332	46	13.86%	551	13	0	0.00%
344	813	58	7.13%	552	5	1	20.00%
345	448	73	16.29%	741	1057	119	11.26%
346	220	22	10.00%	742	408	69	16.91%
347	306	47	15.36%	743	274	34	12.41%
348	1	0	0.00%	744	271	13	4.80%
351	16	3	18.75%	745	110	15	13.64%
352	4	1	25.00%	CEN	3	0	0.00%
371	122	15	12.30%	D1J	1	0	0.00%
431	74	17	22.97%	LAK	17	3	17.65%
432	803	110	13.70%	PIR	1	0	0.00%
433	792	118	14.90%	PNL	41	2	4.88%
434	2388	308	12.90%	PRK	1	0	0.00%
435	466	28	6.01%				

Appendix D: ETSI Use by Deputy

In this appendix we supply a tabulation of ETSI use by deputies for each of the seven ETSI indicators, arrests and searches. For confidentiality we use random numbers to identify individual deputies but have supplied the Monitor's team and parties with the serial numbers of each deputy identified by these numbers.

Table D1: Number/Percent Arrests, by Deputy

Deputy	N stops	N Arrests	Percent	Deputy	N stops	N Arrests	Percent
1	1	0	0.00%	36	23	1	4.35%
2	1	0	0.00%	37	1	0	0.00%
3	708	70	9.89%	38	88	0	0.00%
4	44	1	2.27%	39	33	1	3.03%
5	222	28	12.61%	40	3	0	0.00%
6	16	2	12.50%	41	255	35	13.73%
7	19	2	10.53%	42	80	2	2.50%
8	24	0	0.00%	43	33	0	0.00%
9	1	0	0.00%	44	36	2	5.56%
10	14	0	0.00%	45	13	0	0.00%
11	2	0	0.00%	46	3	0	0.00%
12	177	15	8.47%	47	4	0	0.00%
13	8	0	0.00%	48	20	2	10.00%
14	93	5	5.38%	49	7	0	0.00%
15	17	0	0.00%	50	39	0	0.00%
16	538	54	10.04%	51	27	2	7.41%
17	1923	211	10.97%	52	1	1	100.00%
18	12	2	16.67%	53	28	0	0.00%
19	13	0	0.00%	54	6	0	0.00%
20	141	5	3.55%	55	4	0	0.00%
21	1	0	0.00%	56	4	0	0.00%
22	26	0	0.00%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	0	0.00%
25	3	1	33.33%	60	59	0	0.00%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	0	0.00%
28	9	2	22.22%	63	18	0	0.00%
29	37	0	0.00%	64	1	0	0.00%
30	15	9	60.00%	65	1	0	0.00%
31	1	0	0.00%	66	26	8	30.77%
32	3	1	33.33%	67	38	3	7.89%
33	20	2	10.00%	68	1	1	100.00%
34	1	0	0.00%	69	65	0	0.00%
35	58	3	5.17%	70	1051	11	1.05%

Table D2: Number/Percent Arrests, by Deputy

Deputy	N stops	N Arrests	Percent	Deputy	N stops	N Arrests	Percent
71	40	0	0.00%	106	95	0	0.00%
72	117	24	20.51%	107	6	0	0.00%
73	44	8	18.18%	108	307	17	5.54%
74	53	3	5.66%	109	172	25	14.53%
75	14	0	0.00%	110	981	16	1.63%
76	3	1	33.33%	111	32	0	0.00%
77	3	1	33.33%	112	398	12	3.02%
78	11	0	0.00%	113	37	0	0.00%
79	205	12	5.85%	114	61	1	1.64%
80	79	12	15.19%	115	15	2	13.33%
81	22	8	36.36%	116	2	0	0.00%
82	34	6	17.65%	117	23	0	0.00%
83	34	2	5.88%	118	32	0	0.00%
84	81	2	2.47%	119	132	11	8.33%
85	77	2	2.60%	120	3	0	0.00%
86	27	3	11.11%	121	8	0	0.00%
87	1	0	0.00%	122	66	1	1.52%
88	41	2	4.88%	123	60	1	1.67%
89	1	0	0.00%	124	125	5	4.00%
90	1	0	0.00%	125	6	0	0.00%
91	7	0	0.00%	126	70	6	8.57%
92	2	1	50.00%	127	104	1	0.96%
93	133	6	4.51%	128	3	0	0.00%
94	173	10	5.78%	129	607	44	7.25%
95	57	6	10.53%	130	65	4	6.15%
96	9	0	0.00%	131	17	0	0.00%
97	21	1	4.76%	132	674	65	9.64%
98	4	2	50.00%	133	24	1	4.17%
99	110	0	0.00%	134	123	1	0.81%
100	10	0	0.00%	135	1	1	100.00%
101	143	7	4.90%	136	24	0	0.00%
102	114	10	8.77%	137	6	0	0.00%
103	7	2	28.57%	138	86	14	16.28%
104	21	0	0.00%	139	82	2	2.44%
105	3	0	0.00%	140	226	12	5.31%

Table D3: Number/Percent Arrests, by Deputy

Deputy	N stops	N Arrests	Percent	Deputy	N stops	N Arrests	Percent
141	64	11	17.19%	176	98	4	4.08%
142	7	0	0.00%	177	16	5	31.25%
143	31	0	0.00%	178	7	0	0.00%
144	16	0	0.00%	179	13	0	0.00%
145	3	1	33.33%	180	14	0	0.00%
146	28	4	14.29%	181	17	0	0.00%
147	17	0	0.00%	182	81	4	4.94%
148	11	1	9.09%	183	41	1	2.44%
149	1	0	0.00%	184	225	14	6.22%
150	11	0	0.00%	185	8	0	0.00%
151	134	8	5.97%	186	55	4	7.27%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	1	16.67%	189	26	0	0.00%
155	277	3	1.08%	190	2	0	0.00%
156	149	24	16.11%	191	15	0	0.00%
157	12	1	8.33%	192	31	0	0.00%
158	11	0	0.00%	193	44	9	20.45%
159	6	0	0.00%	194	61	2	3.28%
160	2	0	0.00%	195	32	1	3.13%
161	5	1	20.00%	196	41	0	0.00%
162	3	0	0.00%	197	50	3	6.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	5	15.15%
165	2	0	0.00%	200	191	3	1.57%
166	18	1	5.56%	201	401	17	4.24%
167	11	1	9.09%	202	32	1	3.13%
168	73	2	2.74%	203	3	0	0.00%
169	115	0	0.00%	204	67	2	2.99%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	2	4.44%
172	60	0	0.00%	207	189	18	9.52%
173	160	1	0.63%	208	21	0	0.00%
174	56	1	1.79%	209	49	0	0.00%
175	9	0	0.00%	210	33	0	0.00%

Table D4: Number/Percent Arrests, by Deputy

Deputy	N stops	N Arrests	Percent	Deputy	N stops	N Arrests	Percent
211	4	0	0.00%	246	26	3	11.54%
212	163	16	9.82%	247	48	1	2.08%
213	5	0	0.00%	248	135	4	2.96%
214	9	0	0.00%	249	32	1	3.13%
215	93	2	2.15%	250	14	1	7.14%
216	114	17	14.91%	251	195	4	2.05%
217	32	0	0.00%	252	60	5	8.33%
218	100	8	8.00%	253	143	2	1.40%
219	151	2	1.32%	254	24	1	4.17%
220	31	2	6.45%	255	134	0	0.00%
221	70	0	0.00%	256	25	2	8.00%
222	8	0	0.00%	257	46	1	2.17%
223	185	0	0.00%	258	15	1	6.67%
224	2	2	100.00%	259	61	0	0.00%
225	4	0	0.00%	260	33	2	6.06%
226	231	3	1.30%	261	16	1	6.25%
227	7	0	0.00%	262	63	5	7.94%
228	112	4	3.57%	263	12	1	8.33%
229	39	1	2.56%	264	39	3	7.69%
230	129	12	9.30%	265	15	2	13.33%
231	32	0	0.00%	266	7	0	0.00%
232	2	0	0.00%	267	8	0	0.00%
233	2	1	50.00%	268	21	2	9.52%
234	776	57	7.35%	269	10	1	10.00%
235	10	0	0.00%	270	19	1	5.26%
236	14	2	14.29%	271	19	0	0.00%
237	12	0	0.00%	272	21	1	4.76%
238	7	0	0.00%	273	35	2	5.71%
239	114	0	0.00%	274	9	0	0.00%
240	159	10	6.29%	275	13	1	7.69%
241	15	0	0.00%	276	4	0	0.00%
242	149	2	1.34%	277	19	1	5.26%
243	33	3	9.09%	278	40	4	10.00%
244	71	3	4.23%	279	22	0	0.00%
245	73	0	0.00%	280	14	0	0.00%

Table D5: Number/Percent Use of Driving Documentation ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	12	52.17%
2	1	0	0.00%	37	1	0	0.00%
3	708	40	5.65%	38	88	35	39.77%
4	44	9	20.45%	39	33	19	57.58%
5	222	78	35.14%	40	3	0	0.00%
6	16	6	37.50%	41	255	75	29.41%
7	19	6	31.58%	42	80	16	20.00%
8	24	1	4.17%	43	33	7	21.21%
9	1	0	0.00%	44	36	18	50.00%
10	14	12	85.71%	45	13	5	38.46%
11	2	1	50.00%	46	3	1	33.33%
12	177	81	45.76%	47	4	2	50.00%
13	8	2	25.00%	48	20	11	55.00%
14	93	33	35.48%	49	7	2	28.57%
15	17	11	64.71%	50	39	4	10.26%
16	538	224	41.64%	51	27	15	55.56%
17	1923	105	5.46%	52	1	0	0.00%
18	12	6	50.00%	53	28	4	14.29%
19	13	1	7.69%	54	6	4	66.67%
20	141	102	72.34%	55	4	4	100.00%
21	1	0	0.00%	56	4	2	50.00%
22	26	18	69.23%	57	9	3	33.33%
23	1	0	0.00%	58	15	7	46.67%
24	2	1	50.00%	59	6	4	66.67%
25	3	3	100.00%	60	59	22	37.29%
26	1	0	0.00%	61	1	0	0.00%
27	12	5	41.67%	62	14	9	64.29%
28	9	2	22.22%	63	18	14	77.78%
29	37	21	56.76%	64	1	0	0.00%
30	15	7	46.67%	65	1	1	100.00%
31	1	1	100.00%	66	26	20	76.92%
32	3	2	66.67%	67	38	19	50.00%
33	20	4	20.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	33	50.77%
35	58	44	75.86%	70	1051	238	22.65%

Table D6: Number/Percent Use of Driving Documentation ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	14	35.00%	106	95	13	13.68%
72	117	113	96.58%	107	6	0	0.00%
73	44	25	56.82%	108	307	74	24.10%
74	53	18	33.96%	109	172	57	33.14%
75	14	8	57.14%	110	981	867	88.38%
76	3	2	66.67%	111	32	5	15.63%
77	3	1	33.33%	112	398	198	49.75%
78	11	2	18.18%	113	37	0	0.00%
79	205	42	20.49%	114	61	10	16.39%
80	79	53	67.09%	115	15	11	73.33%
81	22	7	31.82%	116	2	2	100.00%
82	34	12	35.29%	117	23	8	34.78%
83	34	13	38.24%	118	32	0	0.00%
84	81	39	48.15%	119	132	55	41.67%
85	77	22	28.57%	120	3	1	33.33%
86	27	2	7.41%	121	8	1	12.50%
87	1	1	100.00%	122	66	6	9.09%
88	41	8	19.51%	123	60	26	43.33%
89	1	0	0.00%	124	125	40	32.00%
90	1	1	100.00%	125	6	0	0.00%
91	7	1	14.29%	126	70	9	12.86%
92	2	0	0.00%	127	104	11	10.58%
93	133	41	30.83%	128	3	1	33.33%
94	173	29	16.76%	129	607	176	29.00%
95	57	18	31.58%	130	65	50	76.92%
96	9	8	88.89%	131	17	2	11.76%
97	21	2	9.52%	132	674	85	12.61%
98	4	3	75.00%	133	24	8	33.33%
99	110	51	46.36%	134	123	12	9.76%
100	10	4	40.00%	135	1	0	0.00%
101	143	42	29.37%	136	24	7	29.17%
102	114	32	28.07%	137	6	0	0.00%
103	7	1	14.29%	138	86	70	81.40%
104	21	0	0.00%	139	82	12	14.63%
105	3	3	100.00%	140	226	82	36.28%

Table D7: Number/Percent Use of Driving Documentation ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	22	34.38%	176	98	35	35.71%
142	7	5	71.43%	177	16	5	31.25%
143	31	21	67.74%	178	7	4	57.14%
144	16	8	50.00%	179	13	5	38.46%
145	3	2	66.67%	180	14	1	7.14%
146	28	22	78.57%	181	17	3	17.65%
147	17	2	11.76%	182	81	13	16.05%
148	11	5	45.45%	183	41	16	39.02%
149	1	0	0.00%	184	225	221	98.22%
150	11	0	0.00%	185	8	6	75.00%
151	134	47	35.07%	186	55	48	87.27%
152	15	1	6.67%	187	13	10	76.92%
153	9	1	11.11%	188	2	0	0.00%
154	6	1	16.67%	189	26	17	65.38%
155	277	122	44.04%	190	2	0	0.00%
156	149	33	22.15%	191	15	7	46.67%
157	12	4	33.33%	192	31	14	45.16%
158	11	3	27.27%	193	44	24	54.55%
159	6	2	33.33%	194	61	60	98.36%
160	2	1	50.00%	195	32	22	68.75%
161	5	2	40.00%	196	41	24	58.54%
162	3	2	66.67%	197	50	38	76.00%
163	38	3	7.89%	198	2	2	100.00%
164	7	0	0.00%	199	33	18	54.55%
165	2	2	100.00%	200	191	45	23.56%
166	18	7	38.89%	201	401	123	30.67%
167	11	5	45.45%	202	32	14	43.75%
168	73	17	23.29%	203	3	1	33.33%
169	115	23	20.00%	204	67	25	37.31%
170	8	2	25.00%	205	13	1	7.69%
171	13	8	61.54%	206	45	32	71.11%
172	60	24	40.00%	207	189	111	58.73%
173	160	18	11.25%	208	21	10	47.62%
174	56	22	39.29%	209	49	35	71.43%
175	9	1	11.11%	210	33	8	24.24%

Table D8: Number/Percent Use of Driving Documentation ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	4	100.00%	246	26	14	53.85%
212	163	120	73.62%	247	48	17	35.42%
213	5	1	20.00%	248	135	94	69.63%
214	9	2	22.22%	249	32	11	34.38%
215	93	39	41.94%	250	14	10	71.43%
216	114	54	47.37%	251	195	71	36.41%
217	32	20	62.50%	252	60	30	50.00%
218	100	79	79.00%	253	143	93	65.03%
219	151	98	64.90%	254	24	9	37.50%
220	31	14	45.16%	255	134	74	55.22%
221	70	34	48.57%	256	25	9	36.00%
222	8	3	37.50%	257	46	19	41.30%
223	185	126	68.11%	258	15	10	66.67%
224	2	2	100.00%	259	61	17	27.87%
225	4	4	100.00%	260	33	13	39.39%
226	231	135	58.44%	261	16	9	56.25%
227	7	3	42.86%	262	63	18	28.57%
228	112	40	35.71%	263	12	11	91.67%
229	39	18	46.15%	264	39	21	53.85%
230	129	59	45.74%	265	15	10	66.67%
231	32	23	71.88%	266	7	5	71.43%
232	2	2	100.00%	267	8	1	12.50%
233	2	2	100.00%	268	21	15	71.43%
234	776	271	34.92%	269	10	8	80.00%
235	10	9	90.00%	270	19	16	84.21%
236	14	9	64.29%	271	19	10	52.63%
237	12	4	33.33%	272	21	1	4.76%
238	7	3	42.86%	273	35	6	17.14%
239	114	26	22.81%	274	9	4	44.44%
240	159	69	43.40%	275	13	1	7.69%
241	15	14	93.33%	276	4	4	100.00%
242	149	53	35.57%	277	19	9	47.37%
243	33	8	24.24%	278	40	18	45.00%
244	71	54	76.06%	279	22	1	4.55%
245	73	5	6.85%	280	14	6	42.86%

Table D9: Number/Percent Use of DUI ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	0	0.00%
2	1	0	0.00%	37	1	0	0.00%
3	708	2	0.28%	38	88	0	0.00%
4	44	0	0.00%	39	33	1	3.03%
5	222	3	1.35%	40	3	0	0.00%
6	16	2	12.50%	41	255	0	0.00%
7	19	1	5.26%	42	80	2	2.50%
8	24	0	0.00%	43	33	0	0.00%
9	1	0	0.00%	44	36	6	16.67%
10	14	0	0.00%	45	13	0	0.00%
11	2	0	0.00%	46	3	0	0.00%
12	177	3	1.69%	47	4	0	0.00%
13	8	0	0.00%	48	20	0	0.00%
14	93	1	1.08%	49	7	0	0.00%
15	17	0	0.00%	50	39	0	0.00%
16	538	15	2.79%	51	27	3	11.11%
17	1923	29	1.51%	52	1	0	0.00%
18	12	1	8.33%	53	28	0	0.00%
19	13	0	0.00%	54	6	0	0.00%
20	141	6	4.26%	55	4	0	0.00%
21	1	0	0.00%	56	4	0	0.00%
22	26	0	0.00%	57	9	3	33.33%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	0	0.00%
25	3	0	0.00%	60	59	0	0.00%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	0	0.00%
28	9	0	0.00%	63	18	1	5.56%
29	37	0	0.00%	64	1	0	0.00%
30	15	0	0.00%	65	1	0	0.00%
31	1	0	0.00%	66	26	2	7.69%
32	3	0	0.00%	67	38	0	0.00%
33	20	0	0.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	0	0.00%
35	58	1	1.72%	70	1051	6	0.57%

Table D10: Number/Percent Use of DUI ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	0	0.00%	106	95	0	0.00%
72	117	2	1.71%	107	6	0	0.00%
73	44	0	0.00%	108	307	5	1.63%
74	53	0	0.00%	109	172	17	9.88%
75	14	1	7.14%	110	981	3	0.31%
76	3	1	33.33%	111	32	0	0.00%
77	3	0	0.00%	112	398	2	0.50%
78	11	0	0.00%	113	37	0	0.00%
79	205	6	2.93%	114	61	0	0.00%
80	79	11	13.92%	115	15	1	6.67%
81	22	4	18.18%	116	2	0	0.00%
82	34	3	8.82%	117	23	0	0.00%
83	34	3	8.82%	118	32	0	0.00%
84	81	0	0.00%	119	132	2	1.52%
85	77	0	0.00%	120	3	0	0.00%
86	27	1	3.70%	121	8	0	0.00%
87	1	0	0.00%	122	66	0	0.00%
88	41	0	0.00%	123	60	1	1.67%
89	1	0	0.00%	124	125	1	0.80%
90	1	0	0.00%	125	6	0	0.00%
91	7	0	0.00%	126	70	9	12.86%
92	2	0	0.00%	127	104	2	1.92%
93	133	8	6.02%	128	3	0	0.00%
94	173	4	2.31%	129	607	2	0.33%
95	57	6	10.53%	130	65	1	1.54%
96	9	0	0.00%	131	17	0	0.00%
97	21	0	0.00%	132	674	8	1.19%
98	4	1	25.00%	133	24	0	0.00%
99	110	0	0.00%	134	123	0	0.00%
100	10	0	0.00%	135	1	1	100.00%
101	143	30	20.98%	136	24	0	0.00%
102	114	0	0.00%	137	6	0	0.00%
103	7	0	0.00%	138	86	0	0.00%
104	21	0	0.00%	139	82	0	0.00%
105	3	0	0.00%	140	226	16	7.08%

Table D11: Number/Percent Use of DUI ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	1	1.56%	176	98	3	3.06%
142	7	0	0.00%	177	16	4	25.00%
143	31	0	0.00%	178	7	0	0.00%
144	16	0	0.00%	179	13	0	0.00%
145	3	0	0.00%	180	14	0	0.00%
146	28	0	0.00%	181	17	0	0.00%
147	17	0	0.00%	182	81	0	0.00%
148	11	0	0.00%	183	41	0	0.00%
149	1	0	0.00%	184	225	5	2.22%
150	11	0	0.00%	185	8	0	0.00%
151	134	2	1.49%	186	55	1	1.82%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	0	0.00%	189	26	0	0.00%
155	277	3	1.08%	190	2	0	0.00%
156	149	9	6.04%	191	15	0	0.00%
157	12	0	0.00%	192	31	0	0.00%
158	11	0	0.00%	193	44	3	6.82%
159	6	0	0.00%	194	61	1	1.64%
160	2	0	0.00%	195	32	1	3.13%
161	5	0	0.00%	196	41	1	2.44%
162	3	0	0.00%	197	50	0	0.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	1	3.03%
165	2	0	0.00%	200	191	0	0.00%
166	18	0	0.00%	201	401	1	0.25%
167	11	0	0.00%	202	32	0	0.00%
168	73	0	0.00%	203	3	0	0.00%
169	115	0	0.00%	204	67	0	0.00%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	4	8.89%
172	60	0	0.00%	207	189	3	1.59%
173	160	1	0.63%	208	21	0	0.00%
174	56	0	0.00%	209	49	0	0.00%
175	9	0	0.00%	210	33	0	0.00%

Table D12: Number/Percent Use of DUI ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	0	0.00%	246	26	1	3.85%
212	163	4	2.45%	247	48	2	4.17%
213	5	0	0.00%	248	135	2	1.48%
214	9	0	0.00%	249	32	1	3.13%
215	93	0	0.00%	250	14	0	0.00%
216	114	7	6.14%	251	195	1	0.51%
217	32	0	0.00%	252	60	0	0.00%
218	100	0	0.00%	253	143	1	0.70%
219	151	1	0.66%	254	24	0	0.00%
220	31	0	0.00%	255	134	0	0.00%
221	70	1	1.43%	256	25	1	4.00%
222	8	0	0.00%	257	46	1	2.17%
223	185	0	0.00%	258	15	0	0.00%
224	2	0	0.00%	259	61	0	0.00%
225	4	0	0.00%	260	33	2	6.06%
226	231	4	1.73%	261	16	1	6.25%
227	7	0	0.00%	262	63	2	3.17%
228	112	2	1.79%	263	12	0	0.00%
229	39	0	0.00%	264	39	0	0.00%
230	129	1	0.78%	265	15	1	6.67%
231	32	0	0.00%	266	7	0	0.00%
232	2	0	0.00%	267	8	0	0.00%
233	2	1	50.00%	268	21	2	9.52%
234	776	25	3.22%	269	10	0	0.00%
235	10	0	0.00%	270	19	1	5.26%
236	14	0	0.00%	271	19	0	0.00%
237	12	0	0.00%	272	21	0	0.00%
238	7	0	0.00%	273	35	1	2.86%
239	114	1	0.88%	274	9	0	0.00%
240	159	12	7.55%	275	13	1	7.69%
241	15	0	0.00%	276	4	1	25.00%
242	149	1	0.67%	277	19	0	0.00%
243	33	2	6.06%	278	40	2	5.00%
244	71	1	1.41%	279	22	0	0.00%
245	73	0	0.00%	280	14	0	0.00%

Table D13: Number/Percent Use of the Language Barrier ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	1	4.35%
2	1	0	0.00%	37	1	0	0.00%
3	708	6	0.85%	38	88	4	4.55%
4	44	1	2.27%	39	33	0	0.00%
5	222	7	3.15%	40	3	0	0.00%
6	16	5	31.25%	41	255	3	1.18%
7	19	0	0.00%	42	80	3	3.75%
8	24	0	0.00%	43	33	0	0.00%
9	1	0	0.00%	44	36	3	8.33%
10	14	3	21.43%	45	13	2	15.38%
11	2	1	50.00%	46	3	0	0.00%
12	177	6	3.39%	47	4	0	0.00%
13	8	1	12.50%	48	20	0	0.00%
14	93	4	4.30%	49	7	0	0.00%
15	17	3	17.65%	50	39	0	0.00%
16	538	34	6.32%	51	27	0	0.00%
17	1923	1	0.05%	52	1	0	0.00%
18	12	0	0.00%	53	28	3	10.71%
19	13	0	0.00%	54	6	0	0.00%
20	141	11	7.80%	55	4	0	0.00%
21	1	0	0.00%	56	4	0	0.00%
22	26	0	0.00%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	1	16.67%
25	3	0	0.00%	60	59	2	3.39%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	3	21.43%
28	9	1	11.11%	63	18	0	0.00%
29	37	0	0.00%	64	1	0	0.00%
30	15	3	20.00%	65	1	0	0.00%
31	1	0	0.00%	66	26	2	7.69%
32	3	1	33.33%	67	38	1	2.63%
33	20	0	0.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	2	3.08%
35	58	6	10.34%	70	1051	13	1.24%

Table D14: Number/Percent Use of the Language Barrier ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	0	0.00%	106	95	2	2.11%
72	117	3	2.56%	107	6	0	0.00%
73	44	1	2.27%	108	307	4	1.30%
74	53	1	1.89%	109	172	0	0.00%
75	14	0	0.00%	110	981	26	2.65%
76	3	1	33.33%	111	32	0	0.00%
77	3	0	0.00%	112	398	12	3.02%
78	11	1	9.09%	113	37	0	0.00%
79	205	8	3.90%	114	61	1	1.64%
80	79	1	1.27%	115	15	1	6.67%
81	22	4	18.18%	116	2	0	0.00%
82	34	1	2.94%	117	23	0	0.00%
83	34	0	0.00%	118	32	0	0.00%
84	81	3	3.70%	119	132	14	10.61%
85	77	6	7.79%	120	3	0	0.00%
86	27	2	7.41%	121	8	0	0.00%
87	1	0	0.00%	122	66	0	0.00%
88	41	0	0.00%	123	60	1	1.67%
89	1	0	0.00%	124	125	3	2.40%
90	1	0	0.00%	125	6	1	16.67%
91	7	0	0.00%	126	70	4	5.71%
92	2	0	0.00%	127	104	1	0.96%
93	133	14	10.53%	128	3	0	0.00%
94	173	2	1.16%	129	607	8	1.32%
95	57	3	5.26%	130	65	0	0.00%
96	9	0	0.00%	131	17	0	0.00%
97	21	1	4.76%	132	674	1	0.15%
98	4	0	0.00%	133	24	1	4.17%
99	110	1	0.91%	134	123	1	0.81%
100	10	0	0.00%	135	1	0	0.00%
101	143	6	4.20%	136	24	0	0.00%
102	114	2	1.75%	137	6	0	0.00%
103	7	1	14.29%	138	86	8	9.30%
104	21	0	0.00%	139	82	0	0.00%
105	3	0	0.00%	140	226	12	5.31%

Table D15: Number/Percent Use of the Language Barrier ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	2	3.13%	176	98	4	4.08%
142	7	1	14.29%	177	16	1	6.25%
143	31	1	3.23%	178	7	0	0.00%
144	16	0	0.00%	179	13	1	7.69%
145	3	0	0.00%	180	14	2	14.29%
146	28	1	3.57%	181	17	0	0.00%
147	17	1	5.88%	182	81	2	2.47%
148	11	0	0.00%	183	41	0	0.00%
149	1	0	0.00%	184	225	14	6.22%
150	11	0	0.00%	185	8	0	0.00%
151	134	3	2.24%	186	55	6	10.91%
152	15	0	0.00%	187	13	0	0.00%
153	9	1	11.11%	188	2	0	0.00%
154	6	0	0.00%	189	26	0	0.00%
155	277	7	2.53%	190	2	0	0.00%
156	149	6	4.03%	191	15	0	0.00%
157	12	0	0.00%	192	31	0	0.00%
158	11	0	0.00%	193	44	1	2.27%
159	6	0	0.00%	194	61	0	0.00%
160	2	0	0.00%	195	32	2	6.25%
161	5	0	0.00%	196	41	6	14.63%
162	3	0	0.00%	197	50	1	2.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	4	12.12%
165	2	0	0.00%	200	191	3	1.57%
166	18	1	5.56%	201	401	9	2.24%
167	11	0	0.00%	202	32	3	9.38%
168	73	1	1.37%	203	3	0	0.00%
169	115	0	0.00%	204	67	0	0.00%
170	8	1	12.50%	205	13	0	0.00%
171	13	0	0.00%	206	45	3	6.67%
172	60	0	0.00%	207	189	8	4.23%
173	160	1	0.63%	208	21	0	0.00%
174	56	2	3.57%	209	49	3	6.12%
175	9	1	11.11%	210	33	4	12.12%

Table D16: Number/Percent Use of the Language Barrier ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N ETSIs	N ETSIs	Percent
211	4	0	0.00%	246	26	0	0.00%
212	163	1	0.61%	247	48	3	6.25%
213	5	0	0.00%	248	135	9	6.67%
214	9	0	0.00%	249	32	0	0.00%
215	93	2	2.15%	250	14	0	0.00%
216	114	5	4.39%	251	195	10	5.13%
217	32	1	3.13%	252	60	3	5.00%
218	100	2	2.00%	253	143	2	1.40%
219	151	6	3.97%	254	24	1	4.17%
220	31	0	0.00%	255	134	1	0.75%
221	70	1	1.43%	256	25	1	4.00%
222	8	0	0.00%	257	46	1	2.17%
223	185	3	1.62%	258	15	2	13.33%
224	2	0	0.00%	259	61	1	1.64%
225	4	0	0.00%	260	33	1	3.03%
226	231	3	1.30%	261	16	0	0.00%
227	7	0	0.00%	262	63	5	7.94%
228	112	4	3.57%	263	12	3	25.00%
229	39	5	12.82%	264	39	3	7.69%
230	129	8	6.20%	265	15	1	6.67%
231	32	0	0.00%	266	7	0	0.00%
232	2	1	50.00%	267	8	0	0.00%
233	2	1	50.00%	268	21	1	4.76%
234	776	17	2.19%	269	10	0	0.00%
235	10	1	10.00%	270	19	0	0.00%
236	14	0	0.00%	271	19	3	15.79%
237	12	1	8.33%	272	21	0	0.00%
238	7	0	0.00%	273	35	1	2.86%
239	114	7	6.14%	274	9	0	0.00%
240	159	5	3.14%	275	13	0	0.00%
241	15	0	0.00%	276	4	1	25.00%
242	149	3	2.01%	277	19	0	0.00%
243	33	2	6.06%	278	40	0	0.00%
244	71	4	5.63%	279	22	0	0.00%
245	73	3	4.11%	280	14	1	7.14%

Table D17: Number/Percent Searches, by Deputy

Deputy	N stops	N Searches	Percent	Deputy	N stops	N Searches	Percent
1	1	0	0.00%	36	23	0	0.00%
2	1	0	0.00%	37	1	0	0.00%
3	708	3	0.42%	38	88	6	6.82%
4	44	0	0.00%	39	33	1	3.03%
5	222	6	2.70%	40	3	0	0.00%
6	16	1	6.25%	41	255	1	0.39%
7	19	0	0.00%	42	80	2	2.50%
8	24	0	0.00%	43	33	0	0.00%
9	1	0	0.00%	44	36	3	8.33%
10	14	0	0.00%	45	13	0	0.00%
11	2	0	0.00%	46	3	0	0.00%
12	177	10	5.65%	47	4	0	0.00%
13	8	0	0.00%	48	20	1	5.00%
14	93	3	3.23%	49	7	0	0.00%
15	17	0	0.00%	50	39	1	2.56%
16	538	23	4.28%	51	27	1	3.70%
17	1923	34	1.77%	52	1	0	0.00%
18	12	1	8.33%	53	28	0	0.00%
19	13	0	0.00%	54	6	0	0.00%
20	141	0	0.00%	55	4	0	0.00%
21	1	0	0.00%	56	4	1	25.00%
22	26	0	0.00%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	0	0.00%
25	3	0	0.00%	60	59	0	0.00%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	0	0.00%
28	9	1	11.11%	63	18	0	0.00%
29	37	0	0.00%	64	1	0	0.00%
30	15	1	6.67%	65	1	0	0.00%
31	1	1	100.00%	66	26	8	30.77%
32	3	1	33.33%	67	38	2	5.26%
33	20	0	0.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	1	1.54%
35	58	1	1.72%	70	1051	5	0.48%

Table D18: Number/Percent Searches, by Deputy

Deputy	N stops	N Searches	Percent	Deputy	N stops	N Searches	Percent
71	40	1	2.50%	106	95	0	0.00%
72	117	3	2.56%	107	6	0	0.00%
73	44	2	4.55%	108	307	3	0.98%
74	53	0	0.00%	109	172	15	8.72%
75	14	0	0.00%	110	981	14	1.43%
76	3	2	66.67%	111	32	0	0.00%
77	3	1	33.33%	112	398	13	3.27%
78	11	0	0.00%	113	37	0	0.00%
79	205	5	2.44%	114	61	0	0.00%
80	79	5	6.33%	115	15	3	20.00%
81	22	4	18.18%	116	2	0	0.00%
82	34	1	2.94%	117	23	0	0.00%
83	34	2	5.88%	118	32	0	0.00%
84	81	0	0.00%	119	132	4	3.03%
85	77	1	1.30%	120	3	0	0.00%
86	27	1	3.70%	121	8	1	12.50%
87	1	0	0.00%	122	66	1	1.52%
88	41	1	2.44%	123	60	2	3.33%
89	1	0	0.00%	124	125	7	5.60%
90	1	0	0.00%	125	6	0	0.00%
91	7	1	14.29%	126	70	5	7.14%
92	2	1	50.00%	127	104	3	2.88%
93	133	5	3.76%	128	3	0	0.00%
94	173	4	2.31%	129	607	4	0.66%
95	57	4	7.02%	130	65	10	15.38%
96	9	0	0.00%	131	17	0	0.00%
97	21	0	0.00%	132	674	10	1.48%
98	4	1	25.00%	133	24	0	0.00%
99	110	0	0.00%	134	123	0	0.00%
100	10	0	0.00%	135	1	1	100.00%
101	143	5	3.50%	136	24	0	0.00%
102	114	1	0.88%	137	6	0	0.00%
103	7	0	0.00%	138	86	6	6.98%
104	21	0	0.00%	139	82	0	0.00%
105	3	0	0.00%	140	226	8	3.54%

Table D19: Number/Percent Searches, by Deputy

Deputy	N stops	N Searches	Percent	Deputy	N stops	N Searches	Percent
141	64	6	9.38%	176	98	3	3.06%
142	7	1	14.29%	177	16	1	6.25%
143	31	2	6.45%	178	7	1	14.29%
144	16	0	0.00%	179	13	1	7.69%
145	3	1	33.33%	180	14	0	0.00%
146	28	3	10.71%	181	17	0	0.00%
147	17	0	0.00%	182	81	3	3.70%
148	11	0	0.00%	183	41	1	2.44%
149	1	0	0.00%	184	225	18	8.00%
150	11	0	0.00%	185	8	1	12.50%
151	134	8	5.97%	186	55	7	12.73%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	0	0.00%	189	26	0	0.00%
155	277	3	1.08%	190	2	0	0.00%
156	149	9	6.04%	191	15	0	0.00%
157	12	0	0.00%	192	31	0	0.00%
158	11	0	0.00%	193	44	5	11.36%
159	6	0	0.00%	194	61	0	0.00%
160	2	0	0.00%	195	32	1	3.13%
161	5	1	20.00%	196	41	2	4.88%
162	3	0	0.00%	197	50	4	8.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	4	12.12%
165	2	0	0.00%	200	191	2	1.05%
166	18	1	5.56%	201	401	6	1.50%
167	11	0	0.00%	202	32	2	6.25%
168	73	0	0.00%	203	3	0	0.00%
169	115	0	0.00%	204	67	1	1.49%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	9	20.00%
172	60	2	3.33%	207	189	11	5.82%
173	160	0	0.00%	208	21	0	0.00%
174	56	1	1.79%	209	49	0	0.00%
175	9	0	0.00%	210	33	0	0.00%

Table D20: Number/Percent Searches, by Deputy

Deputy	N stops	N Searches	Percent	Deputy	N stops	N Searches	Percent
211	4	0	0.00%	246	26	3	11.54%
212	163	18	11.04%	247	48	1	2.08%
213	5	0	0.00%	248	135	2	1.48%
214	9	0	0.00%	249	32	0	0.00%
215	93	2	2.15%	250	14	1	7.14%
216	114	8	7.02%	251	195	3	1.54%
217	32	0	0.00%	252	60	2	3.33%
218	100	1	1.00%	253	143	3	2.10%
219	151	3	1.99%	254	24	1	4.17%
220	31	1	3.23%	255	134	0	0.00%
221	70	0	0.00%	256	25	1	4.00%
222	8	0	0.00%	257	46	0	0.00%
223	185	0	0.00%	258	15	1	6.67%
224	2	2	100.00%	259	61	0	0.00%
225	4	1	25.00%	260	33	1	3.03%
226	231	3	1.30%	261	16	0	0.00%
227	7	0	0.00%	262	63	2	3.17%
228	112	2	1.79%	263	12	1	8.33%
229	39	3	7.69%	264	39	3	7.69%
230	129	11	8.53%	265	15	1	6.67%
231	32	0	0.00%	266	7	0	0.00%
232	2	0	0.00%	267	8	0	0.00%
233	2	1	50.00%	268	21	2	9.52%
234	776	23	2.96%	269	10	1	10.00%
235	10	0	0.00%	270	19	1	5.26%
236	14	2	14.29%	271	19	0	0.00%
237	12	0	0.00%	272	21	0	0.00%
238	7	0	0.00%	273	35	1	2.86%
239	114	1	0.88%	274	9	0	0.00%
240	159	13	8.18%	275	13	1	7.69%
241	15	0	0.00%	276	4	0	0.00%
242	149	2	1.34%	277	19	1	5.26%
243	33	3	9.09%	278	40	1	2.50%
244	71	7	9.86%	279	22	0	0.00%
245	73	0	0.00%	280	14	0	0.00%

Table D21: Number/Percent Use of the Technical Issue ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N ETSIs	N Arrests	Percent
1	1	0	0.00%	36	23	14	60.87%
2	1	0	0.00%	37	1	1	100.00%
3	708	8	1.13%	38	88	6	6.82%
4	44	1	2.27%	39	33	9	27.27%
5	222	13	5.86%	40	3	1	33.33%
6	16	6	37.50%	41	255	15	5.88%
7	19	4	21.05%	42	80	5	6.25%
8	24	0	0.00%	43	33	2	6.06%
9	1	0	0.00%	44	36	14	38.89%
10	14	4	28.57%	45	13	1	7.69%
11	2	1	50.00%	46	3	0	0.00%
12	177	37	20.90%	47	4	4	100.00%
13	8	1	12.50%	48	20	5	25.00%
14	93	15	16.13%	49	7	3	42.86%
15	17	3	17.65%	50	39	7	17.95%
16	538	35	6.51%	51	27	1	3.70%
17	1923	17	0.88%	52	1	0	0.00%
18	12	1	8.33%	53	28	5	17.86%
19	13	1	7.69%	54	6	2	33.33%
20	141	47	33.33%	55	4	1	25.00%
21	1	0	0.00%	56	4	2	50.00%
22	26	4	15.38%	57	9	4	44.44%
23	1	0	0.00%	58	15	2	13.33%
24	2	1	50.00%	59	6	6	100.00%
25	3	3	100.00%	60	59	6	10.17%
26	1	0	0.00%	61	1	0	0.00%
27	12	1	8.33%	62	14	4	28.57%
28	9	0	0.00%	63	18	6	33.33%
29	37	8	21.62%	64	1	0	0.00%
30	15	2	13.33%	65	1	1	100.00%
31	1	0	0.00%	66	26	1	3.85%
32	3	2	66.67%	67	38	10	26.32%
33	20	0	0.00%	68	1	1	100.00%
34	1	0	0.00%	69	65	9	13.85%
35	58	14	24.14%	70	1051	72	6.85%

Table D22: Number/Percent Use of the Technical Issue ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	5	12.50%	106	95	8	8.42%
72	117	22	18.80%	107	6	0	0.00%
73	44	4	9.09%	108	307	22	7.17%
74	53	7	13.21%	109	172	14	8.14%
75	14	5	35.71%	110	981	15	1.53%
76	3	2	66.67%	111	32	1	3.13%
77	3	1	33.33%	112	398	47	11.81%
78	11	2	18.18%	113	37	0	0.00%
79	205	12	5.85%	114	61	0	0.00%
80	79	14	17.72%	115	15	7	46.67%
81	22	8	36.36%	116	2	0	0.00%
82	34	7	20.59%	117	23	1	4.35%
83	34	3	8.82%	118	32	2	6.25%
84	81	11	13.58%	119	132	19	14.39%
85	77	9	11.69%	120	3	0	0.00%
86	27	0	0.00%	121	8	3	37.50%
87	1	1	100.00%	122	66	6	9.09%
88	41	6	14.63%	123	60	3	5.00%
89	1	0	0.00%	124	125	7	5.60%
90	1	0	0.00%	125	6	1	16.67%
91	7	3	42.86%	126	70	9	12.86%
92	2	0	0.00%	127	104	8	7.69%
93	133	43	32.33%	128	3	2	66.67%
94	173	13	7.51%	129	607	25	4.12%
95	57	7	12.28%	130	65	8	12.31%
96	9	1	11.11%	131	17	1	5.88%
97	21	2	9.52%	132	674	5	0.74%
98	4	2	50.00%	133	24	7	29.17%
99	110	48	43.64%	134	123	7	5.69%
100	10	1	10.00%	135	1	0	0.00%
101	143	37	25.87%	136	24	6	25.00%
102	114	24	21.05%	137	6	0	0.00%
103	7	1	14.29%	138	86	24	27.91%
104	21	3	14.29%	139	82	17	20.73%
105	3	0	0.00%	140	226	9	3.98%

Table D23: Number/Percent Use of the Technical Issue ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	9	14.06%	176	98	8	8.16%
142	7	0	0.00%	177	16	2	12.50%
143	31	5	16.13%	178	7	0	0.00%
144	16	2	12.50%	179	13	2	15.38%
145	3	2	66.67%	180	14	0	0.00%
146	28	22	78.57%	181	17	7	41.18%
147	17	2	11.76%	182	81	1	1.23%
148	11	0	0.00%	183	41	6	14.63%
149	1	0	0.00%	184	225	41	18.22%
150	11	2	18.18%	185	8	1	12.50%
151	134	10	7.46%	186	55	14	25.45%
152	15	0	0.00%	187	13	2	15.38%
153	9	0	0.00%	188	2	0	0.00%
154	6	1	16.67%	189	26	7	26.92%
155	277	6	2.17%	190	2	0	0.00%
156	149	4	2.68%	191	15	4	26.67%
157	12	0	0.00%	192	31	3	9.68%
158	11	2	18.18%	193	44	2	4.55%
159	6	0	0.00%	194	61	9	14.75%
160	2	2	100.00%	195	32	5	15.63%
161	5	1	20.00%	196	41	5	12.20%
162	3	0	0.00%	197	50	22	44.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	1	14.29%	199	33	6	18.18%
165	2	0	0.00%	200	191	19	9.95%
166	18	1	5.56%	201	401	7	1.75%
167	11	7	63.64%	202	32	7	21.88%
168	73	0	0.00%	203	3	3	100.00%
169	115	21	18.26%	204	67	4	5.97%
170	8	1	12.50%	205	13	0	0.00%
171	13	2	15.38%	206	45	5	11.11%
172	60	8	13.33%	207	189	27	14.29%
173	160	1	0.63%	208	21	6	28.57%
174	56	5	8.93%	209	49	8	16.33%
175	9	3	33.33%	210	33	3	9.09%

Table D24: Number/Percent Use of the Technical Issue ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	2	50.00%	246	26	9	34.62%
212	163	15	9.20%	247	48	1	2.08%
213	5	0	0.00%	248	135	20	14.81%
214	9	0	0.00%	249	32	7	21.88%
215	93	20	21.51%	250	14	4	28.57%
216	114	16	14.04%	251	195	44	22.56%
217	32	8	25.00%	252	60	9	15.00%
218	100	38	38.00%	253	143	64	44.76%
219	151	18	11.92%	254	24	6	25.00%
220	31	5	16.13%	255	134	30	22.39%
221	70	8	11.43%	256	25	4	16.00%
222	8	0	0.00%	257	46	6	13.04%
223	185	15	8.11%	258	15	1	6.67%
224	2	0	0.00%	259	61	3	4.92%
225	4	0	0.00%	260	33	9	27.27%
226	231	48	20.78%	261	16	3	18.75%
227	7	3	42.86%	262	63	9	14.29%
228	112	18	16.07%	263	12	5	41.67%
229	39	16	41.03%	264	39	12	30.77%
230	129	3	2.33%	265	15	7	46.67%
231	32	10	31.25%	266	7	5	71.43%
232	2	1	50.00%	267	8	1	12.50%
233	2	0	0.00%	268	21	1	4.76%
234	776	54	6.96%	269	10	1	10.00%
235	10	1	10.00%	270	19	4	21.05%
236	14	3	21.43%	271	19	6	31.58%
237	12	1	8.33%	272	21	4	19.05%
238	7	2	28.57%	273	35	1	2.86%
239	114	53	46.49%	274	9	6	66.67%
240	159	13	8.18%	275	13	0	0.00%
241	15	3	20.00%	276	4	0	0.00%
242	149	12	8.05%	277	19	2	10.53%
243	33	3	9.09%	278	40	10	25.00%
244	71	18	25.35%	279	22	2	9.09%
245	73	16	21.92%	280	14	4	28.57%

Table D25: Number/Percent Use of the Vehicle Tow ETSI, by Deputy

Deputy	N stops	N ETSI	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	0	0.00%
2	1	0	0.00%	37	1	0	0.00%
3	708	3	0.42%	38	88	5	5.68%
4	44	0	0.00%	39	33	1	3.03%
5	222	3	1.35%	40	3	0	0.00%
6	16	0	0.00%	41	255	0	0.00%
7	19	0	0.00%	42	80	1	1.25%
8	24	0	0.00%	43	33	0	0.00%
9	1	0	0.00%	44	36	1	2.78%
10	14	0	0.00%	45	13	0	0.00%
11	2	0	0.00%	46	3	0	0.00%
12	177	3	1.69%	47	4	0	0.00%
13	8	0	0.00%	48	20	0	0.00%
14	93	2	2.15%	49	7	0	0.00%
15	17	0	0.00%	50	39	1	2.56%
16	538	14	2.60%	51	27	0	0.00%
17	1923	27	1.40%	52	1	0	0.00%
18	12	0	0.00%	53	28	0	0.00%
19	13	0	0.00%	54	6	0	0.00%
20	141	0	0.00%	55	4	0	0.00%
21	1	0	0.00%	56	4	1	25.00%
22	26	0	0.00%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	0	0.00%
25	3	0	0.00%	60	59	0	0.00%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	0	0.00%
28	9	0	0.00%	63	18	0	0.00%
29	37	0	0.00%	64	1	0	0.00%
30	15	1	6.67%	65	1	0	0.00%
31	1	1	100.00%	66	26	4	15.38%
32	3	1	33.33%	67	38	3	7.89%
33	20	0	0.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	0	0.00%
35	58	1	1.72%	70	1051	7	0.67%

Table D26: Number/Percent Use of the Vehicle Tow ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	1	2.50%	106	95	0	0.00%
72	117	2	1.71%	107	6	0	0.00%
73	44	1	2.27%	108	307	3	0.98%
74	53	0	0.00%	109	172	8	4.65%
75	14	1	7.14%	110	981	16	1.63%
76	3	2	66.67%	111	32	0	0.00%
77	3	0	0.00%	112	398	10	2.51%
78	11	0	0.00%	113	37	0	0.00%
79	205	3	1.46%	114	61	1	1.64%
80	79	3	3.80%	115	15	1	6.67%
81	22	3	13.64%	116	2	0	0.00%
82	34	1	2.94%	117	23	0	0.00%
83	34	1	2.94%	118	32	0	0.00%
84	81	0	0.00%	119	132	1	0.76%
85	77	0	0.00%	120	3	0	0.00%
86	27	0	0.00%	121	8	0	0.00%
87	1	0	0.00%	122	66	0	0.00%
88	41	1	2.44%	123	60	1	1.67%
89	1	0	0.00%	124	125	3	2.40%
90	1	0	0.00%	125	6	0	0.00%
91	7	1	14.29%	126	70	2	2.86%
92	2	1	50.00%	127	104	1	0.96%
93	133	4	3.01%	128	3	0	0.00%
94	173	2	1.16%	129	607	5	0.82%
95	57	2	3.51%	130	65	8	12.31%
96	9	0	0.00%	131	17	1	5.88%
97	21	0	0.00%	132	674	3	0.45%
98	4	2	50.00%	133	24	0	0.00%
99	110	0	0.00%	134	123	0	0.00%
100	10	0	0.00%	135	1	1	100.00%
101	143	4	2.80%	136	24	0	0.00%
102	114	1	0.88%	137	6	0	0.00%
103	7	0	0.00%	138	86	3	3.49%
104	21	0	0.00%	139	82	0	0.00%
105	3	0	0.00%	140	226	5	2.21%

Table D27: Number/Percent Use of the Vehicle Tow ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	2	3.13%	176	98	3	3.06%
142	7	0	0.00%	177	16	1	6.25%
143	31	1	3.23%	178	7	1	14.29%
144	16	0	0.00%	179	13	1	7.69%
145	3	1	33.33%	180	14	0	0.00%
146	28	0	0.00%	181	17	0	0.00%
147	17	0	0.00%	182	81	2	2.47%
148	11	0	0.00%	183	41	1	2.44%
149	1	0	0.00%	184	225	7	3.11%
150	11	0	0.00%	185	8	0	0.00%
151	134	3	2.24%	186	55	5	9.09%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	0	0.00%	189	26	1	3.85%
155	277	3	1.08%	190	2	0	0.00%
156	149	2	1.34%	191	15	0	0.00%
157	12	0	0.00%	192	31	0	0.00%
158	11	0	0.00%	193	44	3	6.82%
159	6	0	0.00%	194	61	0	0.00%
160	2	0	0.00%	195	32	1	3.13%
161	5	1	20.00%	196	41	1	2.44%
162	3	0	0.00%	197	50	3	6.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	2	6.06%
165	2	0	0.00%	200	191	1	0.52%
166	18	0	0.00%	201	401	6	1.50%
167	11	0	0.00%	202	32	1	3.13%
168	73	1	1.37%	203	3	0	0.00%
169	115	0	0.00%	204	67	0	0.00%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	2	4.44%
172	60	1	1.67%	207	189	10	5.29%
173	160	0	0.00%	208	21	0	0.00%
174	56	1	1.79%	209	49	1	2.04%
175	9	0	0.00%	210	33	0	0.00%

Table D28: Number/Percent Use of the Vehicle Tow ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	0	0.00%	246	26	2	7.69%
212	163	16	9.82%	247	48	1	2.08%
213	5	0	0.00%	248	135	2	1.48%
214	9	0	0.00%	249	32	0	0.00%
215	93	5	5.38%	250	14	1	7.14%
216	114	7	6.14%	251	195	3	1.54%
217	32	0	0.00%	252	60	2	3.33%
218	100	1	1.00%	253	143	1	0.70%
219	151	3	1.99%	254	24	0	0.00%
220	31	2	6.45%	255	134	0	0.00%
221	70	0	0.00%	256	25	1	4.00%
222	8	0	0.00%	257	46	1	2.17%
223	185	1	0.54%	258	15	0	0.00%
224	2	1	50.00%	259	61	0	0.00%
225	4	0	0.00%	260	33	1	3.03%
226	231	1	0.43%	261	16	0	0.00%
227	7	0	0.00%	262	63	3	4.76%
228	112	2	1.79%	263	12	1	8.33%
229	39	1	2.56%	264	39	1	2.56%
230	129	6	4.65%	265	15	1	6.67%
231	32	0	0.00%	266	7	0	0.00%
232	2	1	50.00%	267	8	0	0.00%
233	2	1	50.00%	268	21	1	4.76%
234	776	8	1.03%	269	10	1	10.00%
235	10	0	0.00%	270	19	1	5.26%
236	14	0	0.00%	271	19	0	0.00%
237	12	0	0.00%	272	21	0	0.00%
238	7	0	0.00%	273	35	0	0.00%
239	114	0	0.00%	274	9	0	0.00%
240	159	6	3.77%	275	13	1	7.69%
241	15	0	0.00%	276	4	0	0.00%
242	149	0	0.00%	277	19	1	5.26%
243	33	3	9.09%	278	40	1	2.50%
244	71	8	11.27%	279	22	0	0.00%
245	73	1	1.37%	280	14	0	0.00%

Table D29: Number/Percent Use of the Training ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	5	21.74%
2	1	0	0.00%	37	1	1	100.00%
3	708	19	2.68%	38	88	1	1.14%
4	44	0	0.00%	39	33	2	6.06%
5	222	0	0.00%	40	3	0	0.00%
6	16	0	0.00%	41	255	0	0.00%
7	19	8	42.11%	42	80	1	1.25%
8	24	0	0.00%	43	33	1	3.03%
9	1	0	0.00%	44	36	5	13.89%
10	14	3	21.43%	45	13	0	0.00%
11	2	0	0.00%	46	3	0	0.00%
12	177	2	1.13%	47	4	0	0.00%
13	8	1	12.50%	48	20	0	0.00%
14	93	0	0.00%	49	7	0	0.00%
15	17	0	0.00%	50	39	0	0.00%
16	538	4	0.74%	51	27	2	7.41%
17	1923	0	0.00%	52	1	0	0.00%
18	12	0	0.00%	53	28	1	3.57%
19	13	0	0.00%	54	6	0	0.00%
20	141	3	2.13%	55	4	0	0.00%
21	1	0	0.00%	56	4	0	0.00%
22	26	0	0.00%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	0	0.00%
25	3	0	0.00%	60	59	0	0.00%
26	1	0	0.00%	61	1	0	0.00%
27	12	0	0.00%	62	14	1	7.14%
28	9	0	0.00%	63	18	0	0.00%
29	37	0	0.00%	64	1	0	0.00%
30	15	0	0.00%	65	1	0	0.00%
31	1	1	100.00%	66	26	0	0.00%
32	3	0	0.00%	67	38	0	0.00%
33	20	0	0.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	6	9.23%
35	58	0	0.00%	70	1051	0	0.00%

Table D30: Number/Percent Use of the Training ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	0	0.00%	106	95	4	4.21%
72	117	19	16.24%	107	6	0	0.00%
73	44	0	0.00%	108	307	32	10.42%
74	53	1	1.89%	109	172	2	1.16%
75	14	0	0.00%	110	981	2	0.20%
76	3	1	33.33%	111	32	4	12.50%
77	3	0	0.00%	112	398	1	0.25%
78	11	0	0.00%	113	37	7	18.92%
79	205	7	3.41%	114	61	1	1.64%
80	79	2	2.53%	115	15	0	0.00%
81	22	0	0.00%	116	2	0	0.00%
82	34	0	0.00%	117	23	5	21.74%
83	34	0	0.00%	118	32	0	0.00%
84	81	0	0.00%	119	132	0	0.00%
85	77	6	7.79%	120	3	0	0.00%
86	27	0	0.00%	121	8	0	0.00%
87	1	0	0.00%	122	66	0	0.00%
88	41	0	0.00%	123	60	2	3.33%
89	1	0	0.00%	124	125	0	0.00%
90	1	0	0.00%	125	6	0	0.00%
91	7	0	0.00%	126	70	1	1.43%
92	2	0	0.00%	127	104	0	0.00%
93	133	2	1.50%	128	3	0	0.00%
94	173	0	0.00%	129	607	0	0.00%
95	57	1	1.75%	130	65	0	0.00%
96	9	0	0.00%	131	17	0	0.00%
97	21	0	0.00%	132	674	0	0.00%
98	4	0	0.00%	133	24	0	0.00%
99	110	0	0.00%	134	123	0	0.00%
100	10	1	10.00%	135	1	0	0.00%
101	143	2	1.40%	136	24	0	0.00%
102	114	1	0.88%	137	6	0	0.00%
103	7	0	0.00%	138	86	0	0.00%
104	21	0	0.00%	139	82	0	0.00%
105	3	1	33.33%	140	226	0	0.00%

Table D31: Number/Percent Use of the Training ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	0	0.00%	176	98	0	0.00%
142	7	0	0.00%	177	16	0	0.00%
143	31	0	0.00%	178	7	0	0.00%
144	16	0	0.00%	179	13	0	0.00%
145	3	0	0.00%	180	14	0	0.00%
146	28	11	39.29%	181	17	0	0.00%
147	17	0	0.00%	182	81	0	0.00%
148	11	0	0.00%	183	41	0	0.00%
149	1	0	0.00%	184	225	3	1.33%
150	11	0	0.00%	185	8	0	0.00%
151	134	2	1.49%	186	55	1	1.82%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	0	0.00%	189	26	0	0.00%
155	277	0	0.00%	190	2	0	0.00%
156	149	1	0.67%	191	15	0	0.00%
157	12	0	0.00%	192	31	1	3.23%
158	11	0	0.00%	193	44	0	0.00%
159	6	0	0.00%	194	61	59	96.72%
160	2	0	0.00%	195	32	0	0.00%
161	5	0	0.00%	196	41	0	0.00%
162	3	0	0.00%	197	50	2	4.00%
163	38	0	0.00%	198	2	0	0.00%
164	7	0	0.00%	199	33	2	6.06%
165	2	0	0.00%	200	191	0	0.00%
166	18	0	0.00%	201	401	24	5.99%
167	11	0	0.00%	202	32	0	0.00%
168	73	0	0.00%	203	3	0	0.00%
169	115	0	0.00%	204	67	0	0.00%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	0	0.00%
172	60	1	1.67%	207	189	2	1.06%
173	160	0	0.00%	208	21	0	0.00%
174	56	0	0.00%	209	49	3	6.12%
175	9	0	0.00%	210	33	0	0.00%

Table D32: Number/Percent Use of the Training ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	0	0.00%	246	26	19	73.08%
212	163	1	0.61%	247	48	27	56.25%
213	5	0	0.00%	248	135	8	5.93%
214	9	0	0.00%	249	32	12	37.50%
215	93	0	0.00%	250	14	14	100.00%
216	114	4	3.51%	251	195	21	10.77%
217	32	0	0.00%	252	60	26	43.33%
218	100	0	0.00%	253	143	54	37.76%
219	151	0	0.00%	254	24	14	58.33%
220	31	0	0.00%	255	134	27	20.15%
221	70	0	0.00%	256	25	7	28.00%
222	8	0	0.00%	257	46	43	93.48%
223	185	0	0.00%	258	15	15	100.00%
224	2	0	0.00%	259	61	46	75.41%
225	4	0	0.00%	260	33	31	93.94%
226	231	0	0.00%	261	16	15	93.75%
227	7	0	0.00%	262	63	54	85.71%
228	112	0	0.00%	263	12	12	100.00%
229	39	0	0.00%	264	39	39	100.00%
230	129	0	0.00%	265	15	15	100.00%
231	32	0	0.00%	266	7	7	100.00%
232	2	0	0.00%	267	8	8	100.00%
233	2	0	0.00%	268	21	21	100.00%
234	776	7	0.90%	269	10	10	100.00%
235	10	4	40.00%	270	19	19	100.00%
236	14	0	0.00%	271	19	19	100.00%
237	12	0	0.00%	272	21	21	100.00%
238	7	7	100.00%	273	35	35	100.00%
239	114	14	12.28%	274	9	9	100.00%
240	159	17	10.69%	275	13	13	100.00%
241	15	12	80.00%	276	4	4	100.00%
242	149	25	16.78%	277	19	18	94.74%
243	33	21	63.64%	278	40	40	100.00%
244	71	33	46.48%	279	22	22	100.00%
245	73	13	17.81%	280	14	14	100.00%

Table D33: Number/Percent Use of the Other Delay ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
1	1	0	0.00%	36	23	10	43.48%
2	1	0	0.00%	37	1	0	0.00%
3	708	35	4.94%	38	88	9	10.23%
4	44	3	6.82%	39	33	4	12.12%
5	222	19	8.56%	40	3	0	0.00%
6	16	4	25.00%	41	255	9	3.53%
7	19	1	5.26%	42	80	0	0.00%
8	24	3	12.50%	43	33	4	12.12%
9	1	0	0.00%	44	36	16	44.44%
10	14	3	21.43%	45	13	1	7.69%
11	2	0	0.00%	46	3	0	0.00%
12	177	63	35.59%	47	4	0	0.00%
13	8	1	12.50%	48	20	5	25.00%
14	93	10	10.75%	49	7	0	0.00%
15	17	10	58.82%	50	39	3	7.69%
16	538	166	30.86%	51	27	1	3.70%
17	1923	114	5.93%	52	1	1	100.00%
18	12	3	25.00%	53	28	2	7.14%
19	13	0	0.00%	54	6	0	0.00%
20	141	7	4.96%	55	4	1	25.00%
21	1	0	0.00%	56	4	0	0.00%
22	26	1	3.85%	57	9	1	11.11%
23	1	0	0.00%	58	15	0	0.00%
24	2	0	0.00%	59	6	1	16.67%
25	3	0	0.00%	60	59	2	3.39%
26	1	0	0.00%	61	1	0	0.00%
27	12	3	25.00%	62	14	6	42.86%
28	9	4	44.44%	63	18	3	16.67%
29	37	1	2.70%	64	1	1	100.00%
30	15	3	20.00%	65	1	0	0.00%
31	1	0	0.00%	66	26	1	3.85%
32	3	1	33.33%	67	38	4	10.53%
33	20	5	25.00%	68	1	0	0.00%
34	1	0	0.00%	69	65	10	15.38%
35	58	26	44.83%	70	1051	98	9.32%

Table D34: Number/Percent Use of the Other Delay ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
71	40	3	7.50%	106	95	0	0.00%
72	117	60	51.28%	107	6	0	0.00%
73	44	10	22.73%	108	307	28	9.12%
74	53	11	20.75%	109	172	4	2.33%
75	14	2	14.29%	110	981	31	3.16%
76	3	0	0.00%	111	32	2	6.25%
77	3	1	33.33%	112	398	138	34.67%
78	11	3	27.27%	113	37	0	0.00%
79	205	18	8.78%	114	61	2	3.28%
80	79	7	8.86%	115	15	8	53.33%
81	22	5	22.73%	116	2	0	0.00%
82	34	0	0.00%	117	23	2	8.70%
83	34	3	8.82%	118	32	2	6.25%
84	81	13	16.05%	119	132	25	18.94%
85	77	12	15.58%	120	3	0	0.00%
86	27	1	3.70%	121	8	0	0.00%
87	1	1	100.00%	122	66	7	10.61%
88	41	6	14.63%	123	60	0	0.00%
89	1	0	0.00%	124	125	31	24.80%
90	1	0	0.00%	125	6	1	16.67%
91	7	2	28.57%	126	70	3	4.29%
92	2	1	50.00%	127	104	21	20.19%
93	133	36	27.07%	128	3	1	33.33%
94	173	6	3.47%	129	607	27	4.45%
95	57	3	5.26%	130	65	3	4.62%
96	9	0	0.00%	131	17	1	5.88%
97	21	1	4.76%	132	674	37	5.49%
98	4	3	75.00%	133	24	2	8.33%
99	110	1	0.91%	134	123	8	6.50%
100	10	1	10.00%	135	1	0	0.00%
101	143	9	6.29%	136	24	2	8.33%
102	114	4	3.51%	137	6	1	16.67%
103	7	0	0.00%	138	86	36	41.86%
104	21	0	0.00%	139	82	6	7.32%
105	3	1	33.33%	140	226	11	4.87%

Table D35: Number/Percent Use of the Other Delay ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
141	64	13	20.31%	176	98	2	2.04%
142	7	1	14.29%	177	16	2	12.50%
143	31	1	3.23%	178	7	2	28.57%
144	16	4	25.00%	179	13	1	7.69%
145	3	1	33.33%	180	14	0	0.00%
146	28	10	35.71%	181	17	4	23.53%
147	17	0	0.00%	182	81	2	2.47%
148	11	0	0.00%	183	41	7	17.07%
149	1	1	100.00%	184	225	61	27.11%
150	11	0	0.00%	185	8	1	12.50%
151	134	17	12.69%	186	55	2	3.64%
152	15	0	0.00%	187	13	0	0.00%
153	9	0	0.00%	188	2	0	0.00%
154	6	0	0.00%	189	26	3	11.54%
155	277	28	10.11%	190	2	0	0.00%
156	149	3	2.01%	191	15	4	26.67%
157	12	1	8.33%	192	31	0	0.00%
158	11	0	0.00%	193	44	12	27.27%
159	6	0	0.00%	194	61	15	24.59%
160	2	0	0.00%	195	32	0	0.00%
161	5	0	0.00%	196	41	1	2.44%
162	3	0	0.00%	197	50	14	28.00%
163	38	0	0.00%	198	2	2	100.00%
164	7	0	0.00%	199	33	11	33.33%
165	2	0	0.00%	200	191	3	1.57%
166	18	3	16.67%	201	401	11	2.74%
167	11	1	9.09%	202	32	3	9.38%
168	73	6	8.22%	203	3	0	0.00%
169	115	61	53.04%	204	67	4	5.97%
170	8	0	0.00%	205	13	0	0.00%
171	13	0	0.00%	206	45	16	35.56%
172	60	1	1.67%	207	189	22	11.64%
173	160	2	1.25%	208	21	0	0.00%
174	56	9	16.07%	209	49	9	18.37%
175	9	1	11.11%	210	33	4	12.12%

Table D36: Number/Percent Use of the Other Delay ETSI, by Deputy

Deputy	N stops	N ETSIs	Percent	Deputy	N stops	N ETSIs	Percent
211	4	1	25.00%	246	26	3	11.54%
212	163	34	20.86%	247	48	0	0.00%
213	5	1	20.00%	248	135	20	14.81%
214	9	5	55.56%	249	32	5	15.63%
215	93	23	24.73%	250	14	1	7.14%
216	114	7	6.14%	251	195	7	3.59%
217	32	2	6.25%	252	60	18	30.00%
218	100	28	28.00%	253	143	42	29.37%
219	151	57	37.75%	254	24	4	16.67%
220	31	8	25.81%	255	134	37	27.61%
221	70	41	58.57%	256	25	1	4.00%
222	8	2	25.00%	257	46	3	6.52%
223	185	32	17.30%	258	15	1	6.67%
224	2	1	50.00%	259	61	2	3.28%
225	4	1	25.00%	260	33	4	12.12%
226	231	81	35.06%	261	16	1	6.25%
227	7	1	14.29%	262	63	7	11.11%
228	112	20	17.86%	263	12	0	0.00%
229	39	1	2.56%	264	39	20	51.28%
230	129	11	8.53%	265	15	5	33.33%
231	32	17	53.13%	266	7	1	14.29%
232	2	0	0.00%	267	8	3	37.50%
233	2	0	0.00%	268	21	2	9.52%
234	776	124	15.98%	269	10	1	10.00%
235	10	3	30.00%	270	19	1	5.26%
236	14	3	21.43%	271	19	3	15.79%
237	12	4	33.33%	272	21	2	9.52%
238	7	0	0.00%	273	35	1	2.86%
239	114	19	16.67%	274	9	1	11.11%
240	159	18	11.32%	275	13	0	0.00%
241	15	0	0.00%	276	4	0	0.00%
242	149	32	21.48%	277	19	1	5.26%
243	33	4	12.12%	278	40	0	0.00%
244	71	29	40.85%	279	22	1	4.55%
245	73	1	1.37%	280	14	1	7.14%

Appendix E: Technical ETSI Use by Vehicle

Table E1: Number and Percentage Use of ETSI Technical by Vehicle

Vehicle	N Stops	N ETSI	Percent	Vehicle	N Stops	N ETSI	Percent	Vehicle	N Stops	N ETSI	Percent
311354	15	6	40.00%	312039	25	4	16.00%	312284	187	6	3.21%
311419	7	3	42.86%	312040	238	31	13.03%	312285	416	27	6.49%
311427	4	1	25.00%	312041	184	37	20.11%	312286	166	19	11.45%
311605	3	1	33.33%	312042	134	11	8.21%	312287	93	15	16.13%
311625	1	0	0.00%	312043	39	3	7.69%	312288	8	1	12.50%
311626	60	0	0.00%	312053	7	6	85.71%	312289	71	9	12.68%
311642	159	11	6.92%	312055	17	4	23.53%	312290	155	27	17.42%
311645	12	1	8.33%	312057	1	1	100.00%	312292	50	4	8.00%
311649	4	2	50.00%	312060	57	19	33.33%	312294	2	1	50.00%
311651	129	3	2.33%	312065	1	0	0.00%	312295	89	8	8.99%
311652	3	2	66.67%	312071	130	41	31.54%	312296	4	0	0.00%
311656	54	4	7.41%	312072	113	11	9.73%	312322	12	1	8.33%
311701	99	15	15.15%	312126	2	0	0.00%	312327	7	3	42.86%
311702	40	12	30.00%	312132	3	3	100.00%	312352	15	2	13.33%
311706	67	8	11.94%	312136	153	20	13.07%	321214	2	1	50.00%
311722	33	3	9.09%	312138	59	11	18.64%	321401	8	2	25.00%
311723	229	4	1.75%	312143	30	3	10.00%	321415	1	0	0.00%
311725	3	3	100.00%	312144	57	10	17.54%	321430	26	3	11.54%
311743	147	17	11.56%	312145	44	4	9.09%	321444	47	5	10.64%
311789	110	17	15.45%	312146	18	4	22.22%	321507	2	2	100.00%
311790	173	2	1.16%	312151	30	4	13.33%	321516	17	4	23.53%
311791	67	7	10.45%	312152	9	3	33.33%	321534	29	4	13.79%
311792	49	10	20.41%	312192	3	0	0.00%	321707	1	0	0.00%
311840	2	0	0.00%	312209	17	6	35.29%	321779	1	1	100.00%
311841	3	0	0.00%	3122125	21	13	61.90%	321817	19	0	0.00%
311890	3	2	66.67%	3122131	16	6	37.50%	321825	924	61	6.60%
311909	44	1	2.27%	3122138	62	33	53.23%	321836	87	17	19.54%
311914	1	1	100.00%	3122157	7	2	28.57%	321837	37	2	5.41%
311921	2	0	0.00%	3122172	1	1	100.00%	321838	33	4	12.12%
311960	23	3	13.04%	3122210	2	1	50.00%	321839	78	15	19.23%
312013	256	16	6.25%	312228	2	1	50.00%	321840	73	8	10.96%
312014	35	9	25.71%	312271	37	17	45.95%	321841	125	21	16.80%
312019	141	19	13.48%	312272	27	1	3.70%	321843	167	31	18.56%
312021	45	10	22.22%	312274	6	3	50.00%	321848	53	8	15.09%
312024	3	0	0.00%	312278	188	17	9.04%	321852	154	17	11.04%
312025	36	7	19.44%	312279	7	1	14.29%	321860	43	5	11.63%
312027	21	3	14.29%	312280	83	10	12.05%	321862	105	25	23.81%
312029	53	7	13.21%	312281	1	0	0.00%	321863	26	1	3.85%
312037	62	2	3.23%	312282	59	6	10.17%	321866	34	3	8.82%
312038	31	2	6.45%	312283	218	58	26.61%	321867	253	19	7.51%

Table E2: Number and Percentage Use of ETSI Technical by Vehicle

Vehicle	N Stops	N ETSI	Percent	Vehicle	N Stops	N ETSI	Percent	Vehicle	N Stops	N ETSI	Percent
321868	39	5	12.82%	322116	94	12	12.77%	322318	203	10	4.93%
321872	4	1	25.00%	322117	41	3	7.32%	322319	118	15	12.71%
321873	34	1	2.94%	322118	130	23	17.69%	322320	220	18	8.18%
321906	75	14	18.67%	322119	82	9	10.98%	322321	170	16	9.41%
321908	122	20	16.39%	322120	44	11	25.00%	322325	187	41	21.93%
321909	43	18	41.86%	322132	3	1	33.33%	322326	83	10	12.05%
321912	87	19	21.84%	322133	1	0	0.00%	322327	140	18	12.86%
321913	50	13	26.00%	322134	60	8	13.33%	322328	101	21	20.79%
321921	581	38	6.54%	322135	82	7	8.54%	322329	94	15	15.96%
321928	22	4	18.18%	322136	86	12	13.95%	322330	99	17	17.17%
321929	52	7	13.46%	322137	50	2	4.00%	322316	143	35	24.48%
321930	333	3	0.90%	322139	44	2	4.55%	322331	78	20	25.64%
321933	15	4	26.67%	322140	150	52	34.67%	322332	99	18	18.18%
321934	14	2	14.29%	322141	52	13	25.00%	322333	29	3	10.34%
321935	107	14	13.08%	322142	12	0	0.00%	322337	5	1	20.00%
321936	1	0	0.00%	322143	100	9	9.00%	322338	3	2	66.67%
321937	4	1	25.00%	322144	17	6	35.29%	322339	172	46	26.74%
321938	113	19	16.81%	322145	49	3	6.12%	322342	675	14	2.07%
321940	235	28	11.91%	322153	165	36	21.82%	322343	12	3	25.00%
321941	160	24	15.00%	322154	79	11	13.92%	322927	1	0	0.00%
321943	711	8	1.13%	322156	1	0	0.00%	323213	1	0	0.00%
321944	16	4	25.00%	322158	14	4	28.57%	332107	92	1	1.09%
321947	226	7	3.10%	322305	6	3	50.00%	332108	60	4	6.67%
322007	16	3	18.75%	322306	32	5	15.63%	332421	6	1	16.67%
322008	30	3	10.00%	322307	17	3	17.65%	512101	1276	11	0.86%
322009	52	4	7.69%	322308	112	13	11.61%	512102	14	1	7.14%
322010	65	6	9.23%	322309	133	40	30.08%	771001	3	0	0.00%
322106	122	19	15.57%	322310	140	8	5.71%	LEASE	1	0	0.00%
322108	17	2	11.76%	322311	84	9	10.71%	PM2301	10	3	30.00%
322109	32	1	3.13%	322312	10	3	30.00%	PM2302	126	4	3.17%
322110	31	0	0.00%	322313	38	4	10.53%	PM2303	242	18	7.44%
322111	1155	11	0.95%	322314	65	23	35.38%	PM2304	504	23	4.56%
322112	207	18	8.70%	322315	80	12	15.00%	PM2305	205	3	1.46%
322114	148	35	23.65%	322316	143	35	24.48%				
322115	61	10	16.39%	322317	84	9	10.71%				