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UNITED STATES DISTRICT COURT
DISTRICT OF ARIZONA

Manuel De Jesus Ortega Melendres,
on behalf of himself and all others
similarly situated; et. al,

No. CV-07-2513-PHX-GMS

INDEX

Plaintiffs,

and

United States of America,

Plaintiff-Intervenor,

v.

Paul Penzone, in his official capacity
as Sheriff of Maricopa County,
Arizona, et. al.,

Defendants.

Exhibit(s):

- A. Yearly Report for the Maricopa County Sheriff's Office
Years 2015-2016.

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EXHIBIT A

Yearly Report for the Maricopa County Sheriff's Office
Years 2015-2016



**Yearly Report for the Maricopa County Sheriff's Office,
Years 2015-2016**

Prepared for the Maricopa County Sheriff's Office

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July 28, 2017

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About the Center for Violence Prevention & Community Safety

Arizona State University, in order to deepen its commitment to the communities of Arizona and to society as a whole, has set a new standard for research universities, as modeled by the New American University. Accordingly, ASU is measured not by whom we exclude, but by whom we include.

The University is pursuing research that considers the public good and is assuming a greater responsibility to our communities for economic, social, and cultural vitality. Social embeddedness – university-wide, interactive, and mutually-supportive partnerships with Arizona communities – is at the core of our development as a New American University.

Toward the goal of social embeddedness, in response to the growing need of our communities to improve the public's safety and well-being, in July 2005 ASU established the Center for Violence Prevention and Community Safety. The Center's mission is to generate, share, and apply quality research and knowledge to create "best practice" standards.

Specifically, the Center evaluates policies and programs; analyzes and evaluates patterns and causes of violence; develops strategies and programs; develops a clearinghouse of research reports and "best practice" models; educates, trains, and provides technical assistance; and facilitates the development and construction of databases.

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1. Executive Summary

1.1 Overview

In 2013, the Maricopa County Sheriff's Office (MCSO) came under a federal court order regarding racially biased policing practices. As part of meeting the requirements of the court order, MCSO contracted with the Center for Violence Prevention and Community Safety (CVPCS) to receive technical assistance on increasing the data and analytical infrastructure surrounding MCSO's traffic stop data analysis work group and enhancing their capacity to collect, maintain, analyze, and disseminate traffic stop data.

This executive summary provides a review of the data audit of the second year of data collection with the TraCs system—the data collection system implemented to gather information on traffic stops—a brief description of the data employed in the coming analyses, and the major descriptive and inferential findings included within the report. Note that the analyses presented here are limited to the analysis of deputy-initiated traffic stops from deputies within MCSO; in short, this is a within-MCSO analysis of traffic stops.

Following the review of findings is a summary of the CVPCS research team's recommendations related to data collection, supervisory oversight, and further understanding of racial/ethnic disparities, for consideration by MCSO administrators.

1.2 Data

This report documents the findings from statistical analyses of data collected from all deputy-initiated traffic stops conducted by MCSO deputies from July 1, 2015 to June 30, 2016. The data was primarily obtained through the TraCs system, which is the data collection system implemented by MCSO to gather information on traffic stops. The primary unit of analysis is a traffic stop, which contains only one outcome of the stop (some stops have multiple outcomes associated with them, like a citation coupled with an arrest and search). The findings in this report focus on traffic stop data collected during MCSO's second year of implementation of the TraCs system. Inferential analysis also draws on additional data such as deputy characteristics, geocoding information, and sunrise and sunset data collected from timeanddate.com.

1.3 Data Audit

Analysis showed that the TRaCs system occasionally produces duplicate event numbers. We found, however, that MCSO's Sql-based data management system produces an event identifier, the PrdKey variable, which can be connected with TraCs and used as a traffic stop identifier. Thus, rather than using Event Number from the TraCs system to identify unique traffic stops, we suggest using the PrdKey variable to identify unique traffic stops as there are no duplicate ID numbers produced through it. Event Number is still important in the data though, as it can be used to link the CAD/RMS data to the TraCs data.

Additionally, during time period associated with this data, deputies and sergeants have limited abilities to correct vehicle stop contact forms once they have been entered into the TraCs system. In some cases, deputies and sergeants corrected data by re-entering the form. This created a handful of

duplicate traffic stop entries. To account for this, one entry from each traffic stop was randomly selected to be retained in the data.

Next, of the 31,060 traffic stops in the yearly data, 11,349, or approximately 36%, had missing GPS coordinates that originated from the TraCs system. MCSO has determined that using the geographic coordinate system coming from CAD or dispatch is more appropriate and results in lower levels of missing data on the geographic coordinates. We also found that TraCs contained other missing data. When looking at all deputy-initiated traffic stops within MCSO during the second year, more than 5% of cases each month had missing data; this is consistent across all months. There was a wide range of cases with missing variables across months. In February, for instance, 81% of stops had some piece of missing information. In contrast, in April, May and June, each stop had at least one piece of missing data. Note though, that all of the variables are not mandatory reporting. When looking only at those variables that deputies are required to enter themselves, the range of missing data was much lower and often within the 5% threshold. The percent of cases missing required deputy-entered variables ranged from as low as 2.3% of cases in December 2015, and as high as 7.5% in July of 2015. Importantly, our analysis showed that missing data was problematic for all deputies, not just a select few. Recommendations from the data audit included:

1. Addressing technological issues (such as auto-population of forms) that are generating missing data in traffic stops,
2. Providing officers with additional training on reporting the location of stop and other information that would be useful in addressing missing data, and
3. Suggesting MCSO consider a broad range of strategies and tactics to address problems of quality of data, such as maintaining thorough records detailing the methods and frequency of interventions so that MCSO can assess which strategies are most effective in improving data quality.

1.4 Descriptive Results

The descriptive statistics presented below are typically ratios of deputy behavior in the numerator over the average behavior at a higher administrative boundary, such as a beat, district, or the entire traffic enforcement section of MCSO.

1.4.1 Distribution of Stops by Race

In general, there is a small percentage of deputies who stop minority drivers at rates that are twice as high as the administrative boundaries (such as a beat or district) they are making the stop in. These findings suggest that there are deputies acting outside of the norm established by the unit. However, this is not conclusive so in order to more clearly determine whether deputies are acting outside of the norms of the unit, we ran additional inferential models.

1.4.2 Type of Stop

Within the traffic enforcement portion of MCSO, the race/ethnicity of drivers were related, though not strongly, to the type of traffic stop (see Table 11). Descriptive statistics indicate that some deputies and geographic areas differ in the types of stops they make by the race/ethnicity of the driver. For example, some deputies generate specific types of stops by race at a greater frequency than other deputies working in the same beat or district. Additionally, some beats and districts generate specific combinations of stop type by race at a greater frequency than other beats or districts. Thus, while there

is a weak overall relationship between driver race/ethnicity and type of stop, there seem to be some “problem deputies” and “problem zones” within MCSO and its administrative boundaries that require further examination and may need to be addressed.

1.4.3 Arrest

There is evidence that certain deputies and units are not performing according to what is “average” in MCSO. These deputies generate arrests by race/ethnicity at a greater frequency than other deputies working in the same beat or district.

1.4.4 Search

There is evidence that certain deputies and units are not performing according to what is “average” in MCSO. These deputies engage in searches by race/ethnicity at a greater frequency than other deputies working in the same beat or district.

1.4.5 Seizure

There is evidence that certain deputies, beats, and districts engage in seizures by race/ethnicity with greater frequency than others. These deputies engage in seizures by race/ethnicity at a greater frequency than other deputies working in the same beat or district.

1.4.6 Length of Stop

The length of stop analysis showed that racial minorities experienced longer lengths of stops than white drivers. Furthermore, minority drivers experienced a greater variability in the length of stop, suggesting that there is a lack of consistency in the length of traffic stops across deputies (see results for Native Americans, Hispanics, Blacks, and Asians). Both of these findings indicate potential issues with racial/ethnic bias.

1.5 Inferential Results

All inferential models are hierarchal linear or hierarchal generalized linear models where stops are nested within deputies. We employ the family of hierarchical models since stop outcomes, like arrest or citations, are likely correlated with other stops’ outcomes when performed by the same deputy. Hierarchal models account for this, thus allowing for proper estimation of statistical effects (Raudenbush and Bryk 2002). Moreover, hierarchical models account for this clustering in a unique way: rather than simply controlling for the relatedness of cases, which in our models would be stops, hierarchical models allow for the exploration of variability across level two units, or here, deputies.

It is important to note that for this data collection period, there is no distinction between mandatory and discretionary stop outcomes for arrest and search. As such, the results should be interpreted with this kept in mind.

1.5.1 Examining the Effect of Driver Race on Several Post-Stop Outcomes

Models consistently demonstrate that the race of the driver is a stable, large and positive predictor of the likelihood of arrest and search, as well as the length of stop. For example, the odds of Hispanic drivers being arrested was 64.8% higher than white drivers (Table 26). None of the race indicators showed an effect on contraband, suggesting that while certain races are more likely to be searched, no one race is more likely to have items seized after the search. This denotes a disjuncture between search and hit rates. Hispanics are less like to receive a citation relative to other stops when

compared to white. Additionally, Hispanics are also less likely to receive warning relative to other stops when compared to whites.

1.5.1.1. Deputy v. Systemic Effects

One question that comes from the above models is the “bad apples” question: is it a handful of deputies or is the racial bias shown above a systemic issue? Results demonstrate that the problem of racialized policing is spread systemically across deputy-initiated traffic stops. While there may be some deputies that are engaged in possibly problematic behavior at a higher rate than others, the inferential analyses conducted above suggest that when presented with the “average stop,” all deputies are performing similarly. Thus, setting alerts on specific deputies may be less fruitful for ending or even tamping down racially biased policing within MCSO than a more holistic, system wide approach.

1.5.2 Exploring Other Explanations for Racial Disparities in Stops

There are two potential explanations for why driver race remains a significant predictor of stop outcomes: first, the stop occurs under the cover of darkness and second, the deputy initiates a high number of traffic stops. The veil of darkness analysis assumes that race is more difficult to observe at night. As such, assuming racially biased policing is not occurring, the likelihood of an outcome based on the race of the driver observed during the day should not be different from the likelihood of a particular outcome at night, when the deputy is operating under a “veil of darkness.” The results suggest that this is not the case: individuals are more likely to experience certain stop outcomes during the day than during the night, suggesting racially biased policing is occurring.

Next, we examine whether the higher likelihood of some races experiencing certain stop outcomes may be related to whether the deputy conducts more traffic stops. When the stop involves Hispanics and is conducted by a high stop volume deputy, the stop time is increased. There are few effects on other stop outcomes.

1.5.3 A Closer Examination of Differences in the Length of a Stop

We examined the determinants of longer traffic stop times for deputy-initiated traffic stops, and found that stops involving arrests, searches, DUIs, tows, language barriers, technical difficulties, or deputy training were generally longer than their counterparts.

1.5.4 Examining Racial Disparities across the Fiscal Years of 2014-2015 and 2015-2016

Looking across two years of data, we find both positive and negative patterns. The likelihood of Hispanics being arrested or searched over time has not decreased, or even changed. Conversely, the length of stop for Hispanic drivers, while still longer than whites, decreased across years. Finally, there are no changes in the likelihood of Hispanics receiving citations or warnings relative to other stops over the years.

1.6. Conclusion

Collectively, the results from the descriptive and inferential analyses portray two general findings: that there are deputies potentially engaged in racially biased policing and that within the traffic enforcement portion of MCSO, minorities are subjected to additional legal contact and intervention for several stop outcomes. As such, the issue of racially biased policing within MCSO appears to be both a deputy and systemic problem. The descriptive statistics provide a detailed examination of how deputies are performing on certain stop outcomes – like arrest and search – relative to their peers. This analysis identified several deputies who were flagged because certain enforcement patterns were significantly different from what their peers were doing in specific contexts of stops, type of stop, arrest, search and seizure for all minorities. The inferential statistics, on the other hand, can look at deputy behavior within the total context of the traffic enforcement portion of MCSO and control for characteristics of the stop,

driver, deputy, and place of the stop. The findings from these models demonstrate that, net of controls, minorities are more likely to be arrested and searched relative to their counterparts. Additionally, seizure rates are not reflective of differences in search by race. Prevailing explanations of why minority drivers are more likely to experience arrests and searches – the veil of darkness and deputies making large numbers of stops – do not account for the differences. Hispanic and Black drivers, on average, had longer stop times than white drivers. However, net of controls, Hispanics are less likely to receive citations and warnings than white drivers. Finally, the inferential models examining changes across years show progress in some places, but no change in others. For example, lengths of stops for Hispanics are shorter in the 2015 to 2016 fiscal year than they were in 2014-2015. However, there are no differences in the likelihood of arrest and search across the two fiscal years.

2. Data Audit

The purpose of the data audit was to assist the Maricopa County Sheriff's Office in assessing the quality of their TraCs data and to develop and maintain high data quality. Regular examination of data quality enables any future policy and training recommendations to be based on the best quality data that is possible. Without indicators of high data quality, results from analyses are seen as questionable.

The data employed in the audit encapsulates one year of deputy initiated traffic stops by Maricopa County Sheriff's Office (MCSO) deputies ranging from July 1, 2015 to June 30, 2016. While MCSO had other calls for service during this period, this data includes only deputy initiated stops, which is the proper unit of analysis for discerning any racial bias or profiling involved in traffic stops.

There are two data sources employed in the data audit. The first is CAD data – or data about the traffic stops coming from the dispatch center. Geographic coordinates for each stop are pulled from the CAD data and matched to the TraCs data (discussed next) through the Event Number identifier. The second data source is the TraCs data, which includes the data coming from the vehicle stop contact form that was established as a part of the court order. A vehicle stop contact form is used by deputies to collect information about each traffic stop beyond what is collected in each citation, long form, incidental contact report, or warning. Here, individual traffic stops are identified by the Prdkey. The TraCs data contains information on the incident, driver, passenger(s) if there are any, and location of the traffic stop. For ease of reporting, this report will refer to the above datasets collectively as the "TraCs" data for the remainder of the report.

2.1 General Issues with the Data

Many of the same problems from the previous fiscal year (2014-2015) remained during this fiscal year of data (2015-2016). The first problem is related to the Event Number variable, which is meant to be an identifying variable for each traffic stop. Typically, identifying variables enables each case, or here, each traffic stop, to be uniquely identified. While duplicate event numbers are problematic, fortunately, there is an alternative means of identifying traffic stops as unique. The PrdKey variable, which is a variable created in MCSO's data management system, can be used as an alternative traffic stop identifier. Thus, as noted above, rather than using the Event Number, we suggest using the PrdKey variable to identify unique traffic stops.

Next, approximately 35.9% stops (11,149) had missing GPS coordinates that originated from the TraCs system. This is significantly worse than last year, when the missing GPS coordinates from TRaCs had a rate of 12%. With limited connectivity in some areas, the TraCs software system was unable to reliably provide GPS location coordinates. The solution from last year, which was continued this year was importing the GPS coordinates from the CAD/RMS system or dispatch, which has no missing data for this year. Note though that the CAD data are not matched to the PrdKey identifier, but rather the Event Number variable.

Lastly, as was the case in the last data audit, deputies and their supervisors have limited ability to correct problems once a form is entered into the TraCs system. This has to do with the "status" of the form once it is entered – specifically it immediately becomes "validated". Once validated, the form is pushed into TraCs and is seen as complete and free of errors; these are known as status 90 stops. When data entry mistakes are made, because the default entry status is "validated," this does not allow

deputies and sergeants to make post-entry corrections to a form or take the form out of its validated status. Some sergeants will void a form then have the deputy re-enter the form.^{1,2} In some cases, new TraCs forms were simply re-entered without deleting the original form, thus creating a duplicate stop given that the PrdKey across the two stops is different. This occurs regularly over the 12 months in the second year of data (see Table 1 below). Fortunately, these duplicates are rare at 461 cases or 1.2% of the total data before cleaning. MCSO has worked to correct this issue for the future through a process of supervisory review of data.

Table 1. Duplicate and Non-Duplicate data by Month

	Month traffic stop occurred												Total
	15-Jul	15-Aug	15-Sep	15-Oct	15-Nov	15-Dec	16-Jan	16-Feb	16-Mar	16-Apr	16-May	16-Jun	
Not Duplicate	2874	2665	2855	2930	3174	2375	4140	4564	3420	2813	2757	3209	37776
Duplicate	36	13	15	17	10	131	69	37	34	30	39	30	461
	2910	2678	2870	2947	3184	2506	4209	4601	3464	2843	2796	3239	38237

2.2 Missing Data

It is generally accepted that for data to be regarded as high quality, only 5% of the data can be missing (Engel et al. 2009; Engel, Cherkauskas and Smith 2008; Fridell 2004). There are 345 variables included in analyses of missing data, but of these, only 29 are required for deputies to fill out during each stop. As such, we approach calculating missing data in two ways: the amount of missing data for all variables and the amount of missing data for variables that deputies are required to fill out, or in other words, variables that are not auto-populated by TRaCs or other software. Percentages of missing data are constructed using indicators of whether or not any data were missing (either for the full set of variables or the deputy-required variables) for each stop.

To begin with, we considered whether any variables relevant to the stop were missing data. There are up to 345 variables included in this analysis of missing data, but for each stop we excluded variables not relevant to the stop. For example, if only the driver was present in the stop, none of the passenger variables were included for analysis of missing data in that stop. Second, we considered those variables that deputies are required to report for each stop. For purposes of the data audit, in order to isolate data issues occurring exclusively through human error, the 29 variables considered as required

¹ Voided forms can be found through the “status” variable; here, their code is 3 or Void. The “rejection_reason” variable shows why the sergeant voided the form. More information on this code can be found in section 2.4 and Appendix B.

² MCSO has since implemented technical solutions that have been able to rectify the limitations of correcting data in this data collection year. Those solutions and their impact will be explored in subsequent data collection years. During the data year analyzed here, only some sergeants knew how to void a form. Sergeants were trained to make corrections prior to midnight of the same day of the stop for citations and warnings so that the court system could have the correct forms. However, if the error was caught after that window, they often did not make any changes.

data do not include information supplied by TRaCs or other software. A stop was considered to be missing required data if any of these required variables were left blank. Separate percentages of missing data were constructed based on whether any relevant data was missing, and whether any data required for all stops was missing.

During the second year of data collection, there were no months where MCSO was beneath a 5% missing data threshold for the full set of variables, and only three months where MCSO was beneath the threshold for deputy-required variables. There was a wide range of cases with missing variables across months. In February, for instance, 81% of stops had some piece of missing information. In contrast, in April, May and June, each stop had at least one piece of missing data. Note though, that all of the variables are not mandatory reporting. For deputy-required variables, the range of missing data was as low as 2.3% of cases in December 2015, and as high as 7.5% in July of 2015. Thus, missing data is much less of a problem for fields which required data entry on behalf of the deputies.

Additionally, missing data seems to be a problem for all deputies, not a select few. All deputies exceeded the 5% benchmark when all variables were considered in the missing analysis, but only 19% of deputies exceeded this benchmark for deputy-required variables. While some of the missing data for the full set of variables is due to deputy error, a large portion of cases are missing data that should be supplied by the TRaCs system or through later geocoding. For example, 73% of cases are missing a zip code.

2.3 Invalid Data

All variables in which deputies did not choose from a range of pre-selected options were subject to invalid data. Common variables to have invalid data include the address of the stop, the birth date of the driver, and the license plate information of the vehicle. Invalid data for deputy names and call signs is particularly troublesome, although relatively rare.

2.4 How the Data is Created

Below, in a step-wise fashion, we describe the process of building the 2015-2016 year of deputy initiated traffic stop data. First, traffic stops in the final dataset should be limited to those stops that have been completed in the TraCs system and were not involved in training activities. Thus, we began to construct the final data by eliminating stops that were tagged as training activities or did not have a completed and validated status in the data. To capture only stops that were completed and validated in the TraCs system, we kept only stops where the "status" variable was equal to 90. To identify training stops that should be eliminated, we used both the Low Organization variable and deputy serial number. If the Low Organization number was labeled as -9 or missing then the stop was considered a training stop. Next, if the deputy serial number variable started with "ST," the stop was also considered a training stop. Both of these types of stops were eliminated from the final data set. Appendix A contains the original analysis of the cases that were dropped.

Second, we extracted the duplicate cases created by deputies and sergeants re-entering traffic stops when the first entry into the TraCs system was problematic or had errors.³ To deal with this issue,

³ In the spring 2016 quarterly monitor visit, ASU, MCSO, the Monitor team, DOJ and the plaintiffs discussed various methods of dealing with the duplicate cases. At issue here is whether or not duplicate stops were created at random or are systematically over-represented in some of the elements of concern in the court order. As an example, it may be possible that there are more Hispanics in duplicate cases than in non-duplicate cases. If this is

we randomly selected a case from the duplicate set to keep. Randomly selecting which cases to keep and which ones to discard involved several steps. We begin by creating a variable that randomly assigned numbers to each case. Next, we created a within-duplicate set count variable. This means that when there are two cases in the duplicate set, the first case receives a “1” on the variable while the second case receives a “2.” Lastly, we sorted the cases within each duplicate set by the random number. Whatever case had the highest random number, we kept for the yearly analysis.

The next step in creating the data is cleaning the variables. Without going into excessive detail, we recoded variables where needed, assigned missing values, and created variables for dates and times that are easily used in statistical analyses.

The final step in creating the yearly data was to shape the data set as wide. A wide data set is one where for each row in the data, there is only one traffic stop and that row contains all the information about the traffic stop. The structure of the MCSO data in TraCs, however, is not wide, but long. Here, there is one row per stop and an additional row for every passenger associated with the stop. The goal in reshaping the data was to put all information regarding a traffic stop on one row for ease of analysis. In the long dataset, there were 37,967 cases and these cases included rows for both the traffic stop information and the passenger information. Because both passengers and stops had rows, we did not have an accurate portrayal of the total number of stops. Once transformed into a wide dataset, the data set had 30,242 unique stops prior to data cleaning in the 2015-2016 yearly data.

2.5 Suggestions for Increasing Data Quality

There are several recommendations that would assist MCSO in obtaining lower rates of missing or invalid data and increasing data quality. First, when examining both missing data and invalid data, missing data is by far the larger problem. The level of missing data in MCSO is in large part due to deputies, though deputies failing to enter required data is not a severe problem. In addition, some of these issues are technology related. We recommend providing deputies with feedback and training on TraCs that is more intensive and that assistance be made available to deputies on the use of the TraCs system. Another technological issue includes how deputies and sergeant address data entry problems or mistakes. In some circumstances, sergeants and deputies are not able to alter the data to correct issues or delete previous stops that were entered incorrectly, resulting in a small amount of duplicate data discussed above. Currently, MCSO is working on creating a supervisory data review process within its early intervention (EI) system that provides an additional step of data quality control prior to the traffic stop being fully released and validated in TraCs. This will greatly add to the quality of MCSO’s TraCs data and will assist in both of the above problems.

the case, then deleting all the duplicate cases – both the original and the duplicate – would eliminate some traffic stops involving Hispanics. Naturally, this is a problem given that analyzing traffic stops involving Hispanics is at the core of the court order. ASU conducted analyses to ascertain whether the number of duplicate stops differed across core points of analyses in the court order, specifically, driver post-stop perceived race, district, whether the stop was extended, whether a search was conducted, and the conclusion of the stop. The results demonstrated that there is non-random distribution of duplicates (see Appendix A for the analysis) and ultimately, the group collectively felt the safest route to take was to randomly select a one case from the duplicate set to retain.

2.6 Data Audit Overview

When compared to other agencies like Arizona Department of Public Safety (DPS) that are using the TraCs software, MCSO is performing well regarding data quality (missing and invalid data) in their second year of internal implementation and use. That said, the data audit found that there were several problematic areas of missing data. However, the vast majority of that problem lay with deputies and problems with the TraCs system's means of capturing geographic coordinates.

3. Characteristics of the Traffic Stop Data

The data employed in the yearly data analysis is the same as the data employed in the data audit. More specifically, this data encapsulates one year of deputy initiated traffic stops by Maricopa County Sheriff's Office (MCSO) deputies ranging from July 1, 2015 to June 30, 2016. While MCSO had other calls for service during this period, this data includes only deputy initiated stops, which is the proper unit of analysis for discerning any racial bias or profiling involved in traffic stops. The data source employed in this report comes from both the TraCs system, which includes the vehicle stop contact form data established as a part of the court order, and the CAD/RMS data, which is information from emergency dispatch. A vehicle stop contact form is used by deputies to collect information about each traffic stop beyond what is collected for each citation, long form, incidental contact report, or warning. In the TraCs data, information is collected about the incident, driver, passenger(s) (if there are any with whom contact was made), and location of the traffic stop. For ease of reporting, the data will be referred to as the "TraCs" data for the remainder of the report. CAD/RMS data were used for geographic coordinates to locate the traffic stop in a census tract or zip code. Traffic stops in the final dataset were limited to those stops that had been assigned a status of validated in the TraCs system and were not involved in training activities. There are other means for identifying these cases. The final number of stops is 30,158.

We begin with a brief description of the dataset. Before moving on, it is important to note how race/ethnicity is measured in the TraCs data. The state of Arizona does not collect race/ethnicity information when issuing driver's licenses; consequently, the TraCs data does not contain an objective measure of race/ethnicity (that is, a driver's self-reported race or ethnicity). As an alternative, deputies are obligated to report their perceived race/ethnicity of drivers and passengers. While this is not an objective measure, this obligation results in little to no missing data on this variable. In some circumstances, we also examine the race/ethnicity of the drivers as Hispanic v. Non-Hispanic (encompassing all drivers perceived by deputies to be white, Black, Asian, or Native American); this is due to the focus of the court order.

Between July 1, 2015 and June 30, 2016, there were 30,158 geo-located, non-duplicative deputy-initiated traffic stops.⁴ By geo-located, we mean that all stops included here have geographic point coordinates, specifically, latitude and longitude, attached to them. This enables each traffic stop to be located within Maricopa County, but also census tracts and MCSO beats and districts. Moreover, each of these stops represent one outcome from the stop: in some instances, stops are complex and have multiple outcomes (like a citation that corresponds with an arrest and tow). In these instances, we analyze only the first outcome present in the data.

⁴ Though uncommon, some of the stops represented here may be calls for service stops.

Table 2 shows descriptive statistics for all traffic stops during this time. To begin with, whites have the largest percentage of traffic stops amongst drivers stopped by MCSO at (66.8%), followed by Hispanics (22.0%). Citations are the most common type of stop (53.2%) with warnings following second (45.6%). Incidental contact stops are those where the deputy stops a vehicle because there is reasonable suspicion to do so, however no crime is committed (for example, an amber alert). These are uncommon stops, constituting only 0.9% of stops in the data.

Table 2. Descriptive Statistics of Traffic Stops

	Frequency	Percent
<i>Race of Driver -- All Race/Ethnicity</i>		
White	20149	66.8
Unknown	68	0.2
Native American	407	1.3
Hispanic	6623	22.0
Black	2279	7.6
Asian	632	2.1
<i>Race of Driver -- Hispanics v. Non-Hispanics^a</i>		
Hispanic	6623	22.0
Non-Hispanic	23535	78.0
<i>Type of Stop</i>		
Warning	13756	45.6
No Contact	283	.9
Long Form	74	.2
Field Incident	3	.0
Citation	16042	53.2
<i>Arrested</i>		
No	28136	93.2
Yes	2022	6.7
<i>Searched</i>		
No	29283	97.1
Yes	875	2.9
<i>Seizure</i>		
No	29344	97.3
Yes	814	2.7
<i>Length of Stop</i>		
0-20 min.	25598	84.9
60+ min.	823	2.7
N = 30158		

^a This category excludes drivers in the Unknown racial category.

Several other outcomes associated with traffic stops are also rare. With respect to arrest, 6.7% of stops result in arrest. In 2.9% of cases, drivers experience a probable cause, Terry, or consensual search by officers. We omit searches incident to arrest in this calculation. Finally, items are seized from drivers in 2.7% of cases. Tables 3, 4, and 5 provide more information for all stops; the trends in these descriptive findings are summarized below.

The majority of traffic stops had the following characteristics:

- Occurred on a weekday (68.2%)
- Lasted between 0 and 20 minutes (0 through 10 minutes 30.1%; 11 through 20 minutes 54.8%)

- August 2015 accounted for the largest percentage of traffic stops (11.5%); overall, stop activity within the traffic enforcement portion of MCSO was fairly consistent across months, with a difference of 5.2% between the busiest and slowest months
- Stops appear to follow a seasonal trend, with more stops occurring in the late summer and early fall months (July through September).
- Some seasonal variation in the prevalence of traffic stops can be expected. This may be due to changes in driving patterns in the summer or the population change in the winter associated with migratory patterned into Arizona from colder states, or variation associated with student activity.

When looking at the overall traffic enforcement portion of MCSO, drivers involved in traffic stops were:

- On average, approximately 38 years of age
- Predominantly male (63.4%)
- Predominantly white (66.8%) or Hispanic (22.0%)
- Carried a driver's license issued by the State of Arizona (87.7%)

Table 3. 2014-2015 Traffic Stops by Month – Organization and District

	% July '15	% Aug '15	% Sept '15	% Oct '15	% Nov '15	% Dec '15	% Jan '16	% Feb '16	% Mar '16	% Apr '16	% May '16	% June '16	Total Stops in a Year
Organization	10.2	11.5	9.0	7.9	7.5	8.7	8.0	7.2	7.6	7.9	8.3	6.3	30158
District													
1	10.9	10.7	8.7	8.2	7.8	10.6	7.7	7.0	8.5	7.4	7.2	5.2	6752
2	11.2	10.0	8.2	7.3	7.5	8.9	7.4	6.2	6.5	8.6	10.3	7.8	6152
3	7.1	11.3	9.2	8.6	6.7	7.1	8.2	7.1	9.7	7.7	9.8	7.8	5383
4	9.5	12.5	9.4	8.1	9.7	10.6	8.6	8.1	6.7	8.2	5.0	3.7	4315
5	19.7	24.0	12.4	3.8	4.7	3.0	2.3	3.2	4.6	6.6	9.5	6.3	1923
6	8.2	9.6	8.5	9.6	5.5	7.5	11.7	10.0	6.9	9.1	7.5	5.8	3717
7	8.7	9.1	8.0	6.1	10.0	8.8	7.8	8.5	8.0	7.2	9.8	8.2	1916
Total Stops in a Month	3069	3479	2698	2363	2254	2608	2417	2178	2285	2396	2504	1907	30158

Note: District row percentages are in relation to monthly total stops

Table 4. 2014-2015 Driver Characteristics in Traffic Stops – Organization and District

	Avg. Citizen Age	% Male	% White	% Unknown	% Native Am.	% Hispanic	% Black	% Asian	% AZ DL	Total Stops in a Year
Organization	38.00	63.4	66.8	.2	1.3	22.0	7.6	2.1	87.7	30158
District										
1	36.68	62.1	62.9	.2	2.4	22.1	10.2	2.2	89.8	6752
2	36.04	65.4	46.9	.2	1.3	37.7	11.2	2.7	82.7	6152
3	40.46	62.7	67.2	.2	.6	23.0	7.3	1.7	88.6	5383
4	38.53	64.5	83.3	.4	.7	10.2	3.4	2.0	88.1	4315
5	36.49	73.3	73.1	.2	1.4	20.3	3.2	1.8	85.1	1923
6	37.20	56.7	76.5	.1	.8	15.1	5.9	1.5	92.6	3717
7	44.01	63.5	81.4	.2	2.7	9.3	4.2	2.2	86.9	1916
#	123	13	0	0	0	0	0	0	686	
Missing									(2.3%)	

Note: Information on whether the driver carries an AZ driver's license is missing in 2.3% of total cases

Table 5. 2014-2015 Traffic Stop Characteristics – Organization and District

	Total # of Stops	% Weekday	% 0-10	% 11-20	% 21-30	% 31-40	% 41-50	% 51-60	% 60+	% Missing
Organization	30158	68.2	30.1	54.8	7.6	2.3	1.3	1.1	2.7	.02
District										
1	6752	69.8	35.9	47.7	7.9	2.7	1.7	1.3	2.8	.01
2	6152	65.4	29.6	55.7	7.0	2.3	1.2	1.0	3.2	.03
3	5383	71.5	25.4	57.0	9.1	2.7	1.5	1.1	3.1	.04
4	4315	70.5	30.5	55.5	7.6	2.4	1.1	.8	2.0	.02
5	1923	35.9	34.3	51.4	6.4	1.9	.7	.8	4.3	.05
6	3717	77.7	29.5	58.1	6.9	1.2	1.3	1.2	1.9	.00
7	1916	71.0	21.0	65.3	7.5	2.5	1.4	.7	1.7	.00
Missing	7									

At the district level, characteristics of drivers were more varied:

- Drivers involved in traffic stops were consistently male and Arizona drivers.
- The average age of drivers ranged from early 30s to early 40s
- Some variation in racial or ethnic backgrounds of drivers stopped across districts can be expected. This is due to the demographic composition of residents and travelers in these districts, along with differences in the driving population in these areas.

4. Descriptive Analysis of Traffic Stops

In this section, racial or ethnic based differences in traffic stop outcomes are examined, both in the distribution of stops and post-stop outcomes. Descriptive statistics – primarily ratios – are employed in these analyses; simple inferential statistics are reported where appropriate. The ratios employed here are a form of *internal benchmarking*, which is aimed at comparing the stop decisions of one officer to the stop decisions of other officers working around that officer (Walker 2001). Internal benchmarking provides law enforcement agencies some means of self-assessment that do not rely on difficult to use and compute external benchmarks, such as number of drivers by race in an area (Ridgeway and MacDonald 2010; Ridgeway and MacDonald 2014).

There are several limitations associated with internal benchmarking. First, if all officers within a specific unit are biased, there will be few officers that will look unusual relative to their peers. This is most problematic when bias is endemic across all officers and divisions within a department. The concern here is that when problems are endemic to an organization, internal benchmarking is not sufficient to fully understand the internal dynamics of the organization and determining the presence of biased policing. Second, officers who are outliers may have legitimate reasons for being so. Ridgeway and MacDonald (2010) provide a good example of such a circumstance: “a Spanish-speaking officer may appear to have an excessive number of stops of Hispanic suspects, when, in fact, the Spanish-speaking officer gets called in to handle and document those stops” (p. 189). Finally, descriptive statistics are generally “raw” in the sense that they do not control for other aspects of the stop that may be related to differential outcomes by deputy and race of the driver. As such, when using high ratios (what constitutes a high ratio will be described shortly) to set alerts on potentially biased law enforcement behavior by deputies, sergeants and other commanding officers will have to take into consideration the context of the stops by a particular deputy prior to formally setting an alert.

These limitations notwithstanding, without the ability to use external benchmarking and other forms of increasingly sophisticated statistical analyses to determine racial bias, internal benchmarking is a commonly used alternative among law enforcement agencies (Ridgeway and MacDonald 2010; Walker 2001). Like many other studies of traffic stops and law enforcement behavior, this report primarily employs internal benchmarking given the difficulty of external benchmarking. External benchmarking is the ability to compare traffic stops by race, for example, to the underlying population of drivers who violate the law by race, that are “external to the organization.” One of the thrusts of the *Arpaio v. Melendres* case concerns MCSO’s targeting of Hispanics for traffic stops. In order to assess this, though, external benchmarking is needed. External benchmarking is not limited to traffic stop data, but is applicable to many other police activities, such as post-stop outcomes. Departments should strive for similar proportions of traffic stops by race to that of the wider population. Thus, external benchmarking is seen as a gold standard of sorts for understanding if minorities are overrepresented in traffic stops relative to the driving population. Unfortunately, external benchmarks are extremely difficult to employ: there is little publically available data that approximate driving patterns by race to enable the estimation of the underlying population. In the past, studies have had to resort to estimating driving patterns and law abiding behavior via observations (Engel et al. 2006; Engel et al. 2004; Lamberth 1996; Lange, Johnson and Voas 2005), with various levels of success (see also (Lundman and Kowalski 2009; Meehan and Ponder 2002a; Meehan and Ponder 2002b). As such, external benchmarking, while the preferred method of determining whether certain races are being targeted for law enforcement intervention, is not commonly used.

Before moving on, it is important to define comparable peers and the unit of analysis for the ratio analyses. The comparative ratios that are used here have the deputy behavior of interest in the

numerator over the average behavior at the higher unit, such as a beat or district. Put more simply, we compare deputy's stop rates in a district (or beat) to the stop rates of other deputies who make traffic stops in the same district. There are several ways to define "comparable peers" when conducting ratio analyses. Peers can be deputies that share the same assignment daily, those that are assigned to the same patrol car, those that make stops in the same area, or, as we use here, deputies who make stops within the same administrative boundaries. The data employed here restricts who deputies can be compared to, because currently the data do not capture a means of comparing deputies to peers, whether based on assignment or other comparative characteristics. In future analyses, the goal is to expand upon how information on peers is collected.

Once the ratio is calculated, if it is sufficiently high (typically over 2.0), then it demonstrates that the deputy is potentially engaging in racially biased policing. The ratio can be interpreted in the following way: 0 to 1.5 suggests little to no evidence of bias, 1.5 to 1.99 suggests that the deputy is starting to stop a certain race at a higher rate than the average for the beat, district, or the full traffic enforcement portion of MCSO, and 2.0 or higher shows that the deputy is stopping a certain race at least two times the rate of the average at the beat, district, or full traffic enforcement portion of MCSO (Lamberth 1996). In this sense the unit of analysis for the ratio analysis is the deputy-unit combination. The use of a specific ratio, in this case 2, for a benchmark is consistent with prior research on racial profiling or racially-biased policing by law enforcement (Lamberth 1996).

We present condensed versions of the ratio benchmarks and other statistics used to determine racial/ethnically biased policing. These statistics are available in their uncondensed form in appendices as noted. Also used are means, percentiles, and standard deviations of variables where appropriate or necessary. Note that the statistics employed here do not control for underlying circumstances that may make certain rates and ratios seem high; an example would be a stop of a Hispanic is more likely to take place in a Hispanic neighborhood. As such, these findings show descriptive relationships only.

4.1 Distribution of Stops by Race/Ethnicity

One means of determining whether deputies are excessively stopping individuals of a certain race or ethnicity is to compare their rates of stop to the average stop rates for a particular race/ethnicity at the beat, district, or the entirety of the traffic enforcement portion of MCSO. If the ratio is high enough (greater than, or equal to, 2), then it demonstrates that the deputy is potentially engaging in racially biased policing.

Table 6 shows both the average percentage of stops by race across beats, and percentage of deputies who have a ratio of over two by race/ethnicity of the driver. The beat average for stops for all Hispanics is 23.5% compared to 76.3% for Non-Hispanics. However, there are 13.4% of deputies stopping Hispanics at a rate two times higher than the beat average. The beat average for stops by race for whites is 65.4%, showing that whites are the predominate stop in beats. Hispanics are the second most common stop within beats at 23.5%. These percentages are similar to the overall percent of whites and Hispanics for all stops (see Table 2). For each race/ethnicity, there are deputies who are stopping at a rate at least two times higher than the beat average. For traffic stops involving whites, 3.2% of deputies stop whites at twice the rate of the beat average. For stops involving Hispanics 13.4% of deputies are stopping these drivers at a higher rate than the beat average, and 14.1% of deputies are stopping Black drivers at a higher rate than the beat average. The percentage of deputies stopping

Native Americans and Asians at a rate at least two times higher than the beat average is slightly lower, at 6.4% and 9.3%, respectively.⁵

Table 6. Descriptive Statistics Regarding Beat Level Percentages of Distribution of Stops by Race and Deputies' Performance Compared to Beat Level Statistics

	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N ^b
<i>By Hispanic</i>			
Hispanic	23.48	13.4	370
Non-Hispanic ^a	76.30	0.5	15
<i>Full Race Breakdown</i>			
White	65.40	3.2	88
Native American	1.27	6.4	176
Hispanic	23.48	13.4	370
Black	7.67	14.1	387
Asian	1.97	9.3	255
Unknown	0.22	2.0	56

N = 2,754

^aThis category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^bNote that this number represents the number of deputy-beat combinations.

Table 7. Descriptive Statistics Regarding District Level Percentages of Distribution of Stops by Race and Deputies' Performance Compared to District Level Statistics

	District Average for % of Stops by Race	% of Deputies above Ratio of 2	N ^b
<i>By Hispanic</i>			
Hispanic	22.44	9.27	77
Non-Hispanic ^a	77.33	0.0	0
<i>Full Race Breakdown</i>			
White	66.24	3.13	26
Native American	1.36	10.35	86
Hispanic	22.44	9.27	77
Black	7.61	11.79	98
Asian	2.11	12.15	101
Unknown	0.23	5.66	47

N = 831

^aThis category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^bNote that this number represents the number of deputy-beat combinations.

⁵ For the next annual report (year 2016-2017), in addition to showing ratios, we intend to provide information on the percentage of deputies who have ratios, and the breakdown of those ratios by race/ethnicity. This will facilitate an overall understanding of deputies' performance in regards to whether their ratios are over 2.

Table 7 shows both the average percentage of stops by race/ethnicity across districts, and percentage of deputies that have a ratio of over two by race/ethnicity. The interpretation of the ratio remains the same: a deputy having a ratio of two or higher means that they are stopping a particular race/ethnicity at a rate two times higher than the unit average. The district average for stops for all Hispanics is 22.4% compared to 77.3% for Non-Hispanics. The district average for stops by race for whites is 66.2%, showing that whites are the predominant traffic stop in districts. Hispanics are the second most common stop within districts at 22.4%. For each race/ethnicity, there are deputies who are stopping those drivers at a rate two times higher than the district average. For traffic stops involving white drivers, 3.1% of deputies are stopping whites at a rate two times what is considered average in the district. The percentages of deputies with stop rates over twice the district average are higher for minority drivers, with 9.3% of deputies stopping Hispanic drivers above this limit, 11.8% of deputies stopping black drivers above this limit, and 12.2% of deputies stopping Asian drivers above this limit. For traffic stops involving Native American drivers, 10.4% deputies are stopping this race at a higher rate than the district average. For traffic stops involving drivers of an unknown⁶ race/ethnicity, 5.7% of deputies stop Unknowns at a higher rate than the beat average. The interpretation for this can signal that some officers are failing to identify a driver's race at a rate that is two times what is considered average in that district. Appendix C contains each deputy's ratio by race for the comparison between deputy and district for type of stop.

4.1.1 Distribution of Stops by Race Summary

In general, white and Hispanic drivers constitute the majority of drivers involved in traffic stops. A small percentage of deputies stop minority drivers at rates that are twice as high as is typical in the administrative boundaries (beat or district) in which they make the stop. This suggests that there are deputies acting outside of the norm established within the administrative boundary, and may be indicative of racially biased policing.

4.2 Type of Stop

Racially biased policing among deputies can also be assessed by examining deputies' rates of different types of stops across driver's race/ethnicity. For a particular deputy, are they more likely to give whites warnings? Are Hispanics more likely to receive citations? To answer these questions, we compare deputies' rates of different types of stop by race/ethnicity of the driver to the average stop rates by type and race/ethnicity at the beat, district, and the entirety of the traffic enforcement portion of MCSO. If the ratio is high enough, then it demonstrates that the deputy is potentially engaging in racially biased policing. An important caveat to the type of stop data is statistical power. When certain types of stops by race are low, an example being incidental contact stops of Asians, ratios can become skewed. As such, for infrequently occurring types of stops like Asians, Unknowns, or incidental contacts, these results should be interpreted cautiously.

Starting with Table 8, the average percent of incidental contact stops for whites across beats is 61.6%, for Unknown race it is 0.5%, Native Americans is 0.6%, 22.6% for Hispanics, 5.3% for Blacks and 0.4% for Asians, respectively. Very few deputies have a ratio of over two for incidental contacts by race/ethnicity. Indeed, the highest percentage lies with Hispanics: 1.4% of deputies have ratios of over two when compared to the beat level average. In comparison to incidental contacts, there are much

⁶ This is when the deputy cannot determine the race of the driver after having contact with the driver.

higher rates of deputies who have ratios of higher than two for stops resulting in warnings. Specifically, 12.6% of deputies are giving Hispanics warnings at two times the beat average, and 10.1% of deputies give Blacks warnings at twice the beat average. Finally, stops resulting in citations are similar to those involving warnings: 12.3% and 11.2% of deputies are giving Hispanics and Blacks citations at two times the beat average.

Table 8. Descriptive Statistics Regarding Beat Level Percentages of Type of Stop by Race and Deputy Performance Compared to Beat Level Statistics

<i>Incidental Contact</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	61.63	0.51	14
Unknown	0.46	0.11	3
Native American	0.59	0.07	2
Hispanic	22.57	1.42	39
Black	5.26	0.54	15
Asian	0.38	0.04	1
<i>Warning</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	67.37	1.82	50
Unknown	0.28	1.02	28
Native American	1.09	4.14	114
Hispanic	21.91	12.64	348
Black	7.31	10.06	277
Asian	2.03	6.28	173
<i>Citation</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	63.75	3.63	100
Unknown	0.19	1.05	29
Native American	1.42	3.89	107
Hispanic	24.63	12.31	339
Black	8.09	11.22	309
Asian	2.93	5.77	159

N = 2,754

Table 9. Descriptive Statistics Regarding District Level Percentages of Type of Stop by Race and Deputy Performance Compared to District Level Statistics

<i>Incidental Contact</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	69.46	1.32	11
Unknown	0.75	0.36	3
Native American	0.51	0.24	2
Hispanic	22.71	4.33	36
Black	6.30	1.68	14
Asian	0.27	0.12	1
<i>Warning</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	68.20	3.01	25
Unknown	0.27	3.13	26
Native American	1.20	8.18	68
Hispanic	21.06	8.78	73
Black	7.24	10.11	84
Asian	2.02	8.54	71
<i>Citation</i>			
	Beat Average for % of Stops by Race	% of Deputies above Ratio of 2	N
White	64.96	2.17	18
Unknown	0.19	3.01	25
Native American	1.49	7.94	66
Hispanic	23.27	9.51	79
Black	7.96	11.31	94
Asian	2.13	10.59	88

N = 831

Table 9 shows the descriptive statistics regarding district level percentages of type of stop by race/ethnicity of the driver compared with deputy performance. The districts used here are 1-7, which includes Lake Patrol. Beginning with incidental contact stops, when comparing deputies to district level statistics, there are several deputies who have ratios that are equal to or higher than two. We point out notable percentages. Approximately 4.3% of deputies have rates of incidental contact stops of Hispanics that are two times higher than the district average. Moreover, for stops that result in a warning, 8.2% of deputies have warning stop rates for Native Americans that are at least two times higher than the district average; over 8.5% of deputies have rates that are at least two times higher than the district average for warning stops involving Hispanic and Asian drivers. This percentage is even higher for Black drivers, at 10.1%. Finally, for citations, we see that 9.5%, 10.6%, and 11.3% of deputies have rates of

giving citations to Hispanics, Asians, and Blacks that are at least two times higher than the district average. Additionally, Appendix C, D, and E contain each deputy's ratio by race for the comparison between deputy and district for each type of stop: citation, incidental contact, and warning.

Table 10. Descriptive Statistics Regarding District Level Percentages of Type of Stop by Race and Beat Performance Compared to District Level Statistics

<i>Incidental Contact</i>			
	Beat Average for % of Stops by Race	% of Beats above Ratio of 2	N
White	71.40	1.96	1
Unknown	0.63	3.92	2
Native American	0.46	3.92	2
Hispanic	21.37	9.80	5
Black	5.86	13.73	7
Asian	0.29	1.96	1
<i>Warning</i>			
	Beat Average for % of Stops by Race	% of Beats above Ratio of 2	N
White	69.42	0.00	0
Unknown	0.28	17.65	9
Native American	1.18	17.65	9
Hispanic	20.33	1.96	1
Black	6.80	3.92	2
Asian	1.98	5.88	3
<i>Citation</i>			
	Beat Average for % of Stops by Race	% of Beats above Ratio of 2	N
White	65.82	0.00	0
Unknown	0.19	13.73	7
Native American	1.47	17.65	9
Hispanic	22.82	0.00	0
Black	7.60	1.96	1
Asian	2.10	0.00	0

In addition to examining deputies, we examine the performance of beats and districts in relation to the larger units in which they are nested: districts. The primary reason for understanding patterns of types of stops and race/ethnicity by higher units of aggregation is to understand what is considered average in these larger units. Thus, units that are drastically different (i.e., above 2) may signal a unit-level (i.e., beat or district) problem for that type of stop.

Table 10 shows the district average for type of stop by race and how beats perform in relation to those averages. Beats tend to have higher rates of all types of stops than districts, however, that varies by the race of the driver. For incidental contact stops, which happen relatively infrequently (283 total

stops of 30,158 are incidental contact stops), a small proportion of beats have ratios that are over two for any race. For instance, 9.8% of beats are over the district average of incident contact stops being for Hispanic drivers, and 13.7% for Black drivers. For stops that result in warnings, none of the beats have an average that is higher (i.e., a ratio over 2) than their corresponding district for whites. At least 3.9% of beats are over a ratio of 2 for giving warnings to Black drivers, and at least 1.96% of beats are over that benchmark for Hispanic drivers. Additionally, 17.7% of beats are over a ratio of 2 for giving warnings to Native American drivers and drivers of unknown ethnicity. Finally, for stops that result in citations, we see similar deviations of beats from the district averages. For instance, the average rate of citations for Blacks at the district level is 7.6%, which is generally on par with the percentage of drivers who are Black. However, 1.96% of beats have a rate that is nearly two times this.

Table 11. Relationship between Type of Stop and Hispanic v. Non-Hispanics

	Type of Stop				Total
	Warning	Citation	Incidental Contact	Other	
Non-Hispanic	11160	12685	211	49	24105
Hispanic	2800	3862	74	27	6763
Total	13960	16547	285	76	30868
Chi-Square	58.75**				
Cramer's V	0.044**				

** $p < 0.01$

N = 30,090

Note: Stops with an "unknown" race/ethnicity were not included in the above analysis.

To test the relationship between the type of stop (i.e., stop conclusion) and the driver post-stop perceived race/ethnicity within the traffic enforcement portion of MCSO, we conducted a chi-square test coupled with a Cramer's V statistic. The chi-square statistic determines whether type of stop and the driver's perceived race/ethnicity are independent from one another; put more simply, a chi-square statistics assesses whether there is a relationship between the two variables. Note that a chi-square test does not determine the strength, direction, or particulars (i.e., which category of race is more likely to be arrested) of that relationship. It is a simple test to determine if there is a relationship. The inferential statistics employed later in this report can determine those details. The Cramer's V statistic shows how strong that relationship is. As shown in Table 11, within the traffic enforcement section of MCSO, there is a relationship between the ethnicity (Hispanic) of the driver and the conclusion of the stop (i.e., warning, citation, incidental contact, or other type of stop such as a field report). The chi-square test is significant ($p < 0.01$). The Cramer's V, on the other hand, shows that although the relationship is statistically significant, the strength of that relationship is small: only 0.044. Typically, Cramer's V is interpreted as follows: a Cramer's V between 0 and 0.29 demonstrates a weak relationship between the two variables, 0.3 to 0.59 shows a moderate relationship, while 0.6 to 1.0 shows a strong relationship. The Cramer's V here lies in the weak relationship range. Thus, when interpreted together, the significant chi-square suggests that while a relationship between the ethnicity of the driver and stop outcomes does exist, that relationship is a weak one. As shown in Table 12, the relationship between the race of the driver and the conclusion of the stop is slightly stronger. The chi-square test is significant ($p < 0.01$) and the Cramer's V exhibits a weaker relationship between the two variables at 0.036. This suggests that while there is a significant relationship between the race of the driver and stop outcomes, the relationship is weak at best.

Table 12. Relationship between Type of Stop and the Driver Post-Stop Perceived Race/Ethnicity

	Type of Stop				Total
	Warning	Citation	Incidental Contact	Other	
White	9694	10800	189	33	20716
Unknown	36	30	3	0	69
Native American	162	244	1	6	413
Hispanic	2800	3862	74	27	6763
Black	1016	1287	20	7	2330
Asian	288	354	1	3	646
Total	13996	16577	288	76	30937
Chi-Square	123.429**				
Cramer's V	0.036**				
** p < 0.01					
N = 30,158					

4.2.1 Summary of Types of Stop

While the type of stop and race/ethnicity within the traffic enforcement portion of MCSO are not strongly related to one another (see Tables 11 and 12), there is evidence that certain deputies and units are not performing according to what is “average” in MCSO. Here, these deputies tend to generate types of stops by race at a greater frequency than other deputies working in the same beat or district. Additionally, beats and districts as a unit also generate specific types of stops by race at a greater frequency than beats or districts (depending on the comparison).

4.3 Post-Stop Outcomes: Arrest by Race/Ethnicity

4.3.1 Descriptive Statistics

One concern about racially biased policing is that individuals of minority race/ethnicities differentially experience certain outcomes of traffic stops. Here we examine if this holds true for arrests in the second year of traffic stop data. One important caveat regarding the coming analyses is that arrests do not occur frequently. Moreover, these analyses do not include a distinction between discretionary and non-discretionary arrests; as such, caution should be used when interpreting the descriptive statistics presented in Tables 13 and 14.

Table 13 compares deputies’ rates of arrest by race/ethnicity to the beat average rate of arrest by race/ethnicity. Of the 6.7% of traffic stops that result in arrest (see Table 2), 30.7% of those arrests are of Hispanics, compared to 68.2% for Non-Hispanics. When comparing deputies’ rates of arrest to the beat rates of arrest, 4.8% of deputies arrest Hispanics at a higher rate than the beat average, compared to 4.8% for Non-Hispanics. When examining the beat average rate of arrest by race, 52.98% of those arrests are of whites, while 30.7% of arrests are of Hispanics. These numbers are in discordance with the summary statistics of race in traffic stops (see Table 2). For instance, where whites constitute 66.8% of stops, on average they make up 52.98% of arrests within a beat. On the other hand, Hispanics make up 22% of all traffic stops yet are 30.71% of arrests. This disparity is smaller when comparing deputies’ rates of arrest to the beat rates of arrest: 3.5% of deputies arrest whites at a higher rate than the beat

average, though 4.8% and 3.7% of deputies arrest Hispanics and Blacks, respectively, at a higher rate than the beat average.

Table 13. Descriptive Statistics Regarding Beat Level Percentages of Arrests by Race and Deputies' Performance Compared to Beat Level Statistics

	% of Arrests by Race	% of Deputies above Ratio of 2	N
<i>By Hispanic</i>			
Hispanic	30.71	4.76	131
Non-Hispanic ^a	68.19	4.76	131
<i>Full Race Breakdown</i>			
White	52.98	3.52	97
Unknown	0.01	0.04	1
Native American	2.91	1.13	31
Hispanic	30.71	4.76	131
Black	11.16	3.70	102
Asian	1.13	0.84	23

N = 2,754^b

^a This category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^b Note that this number represents the number of deputy-beat combinations.

Table 14. Descriptive Statistics Regarding District Level Percentages of Arrests by Race and Deputies' Performance Compared to District Level Statistics

	% of Arrests by Race	% of Deputies above Ratio of 2	N
<i>By Hispanic</i>			
Hispanic	30.96	6.62	55
Non-Hispanic ^a	69.00	0.00	0
<i>Full Race Breakdown</i>			
White	52.97	5.54	46
Unknown	0.04	0.12	1
Native American	2.76	3.25	27
Hispanic	30.96	6.62	55
Black	11.94	6.98	58
Asian	1.32	2.53	21

N = 831^b

^a This category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^b Note that this number represents the number of deputy-beat combinations.

When deputies' performance on arrests by race/ethnicity is compared to district level statistics (Table 14), a similar pattern emerges. First, at the district level, there are slightly different averages for arrests by ethnicity. At the district level, Hispanics represent 30.96% of arrests (versus 30.7% at the beat level and make up 22% of all stops). In contrast, Non-Hispanics comprise 69% of arrests (versus 68.2% at

the beat level and make up 78% of all stops). When compared to the district level, deputies do not appear to arrest Non-Hispanics at a higher rate compared to the district rate, but exhibit elevated levels (6.6%) for Hispanics. For race, whites constitute 52.97% of arrests (versus 52.98% at the beat level and make up 66.8% of all stops). Conversely, Hispanics constitute 30.96% of arrests across districts and 30.7% at the beat level, however they make up only 22% of all stops. Appendix F contains all deputies' ratios by race for the comparison between deputy and district for arrest.

4.3.2 Is There a Relationship between Arrests and Driver's Post-Stop Race/Ethnicity?

To test the relationship between whether the driver was arrested and the driver's post-stop perceived race/ethnicity within the traffic enforcement section of MCSO, we conducted a chi-square test coupled with a Cramer's V statistic. As shown in Table 15, there is a statistically significant relationship ($p < .01$) between whether the driver was arrested and the post-stop perceived ethnicity (Hispanic) of that driver. The Cramer's V statistic is small at 0.06. This suggests that while there is a relationship between arrest and the driver's post-stop perceived ethnicity, it is a weak relationship.

Table 15. Relationship between Arrest and the Driver Post-Stop Perceived Hispanic v. Non-Hispanic

	Not Arrested	Arrested	Total
Non-Hispanic	22079	1388	23467
Hispanic	5990	633	6623
Total	28069	2021	30090
Chi-Square	109.405**		
Cramer's V	0.060**		
**p<0.01			
N=30090			

Note: Stops with an "unknown" race/ethnicity were not included in the above analysis.

Table 16. Relationship between Arrest and the Driver Post-Stop Perceived Race/Ethnicity

	White	Unknown	Native American	Hispanic	Black	Asian	Total
Not Arrested	19091	67	349	5990	2036	603	28136
Arrested	1058	1	58	633	243	29	2022
Total	20149	68	407	6623	2279	632	30158
Chi-Square	255.88**						
Cramer's V	0.092**						
**p<0.01							
N=30158							

Table 16 shows a significant chi-square statistic ($p < .01$), suggesting that there is a relationship between whether the driver was arrested and the post-stop perceived race of the driver. That said, the Cramer's V statistic is low, at 0.092. This suggests that while there is a relationship between arrest and the driver's post-stop perceived race, it is a weak relationship.

4.3.3 Summary of Stops with Arrests

The chi-square statistics in the above analyses demonstrate that, within the traffic enforcement portion of MCSO, there is a relationship between race and arrest when deputies conduct traffic stops; the Cramer's V shows a weak relationship between the two. This is likely due to the idea of officer discretion, where deputies can make a multitude of stop related decisions that impact the likelihood of arrest. A more effective and powerful means of testing the relationship between driver race and arrest will be through hierarchal logistic modeling in the forthcoming inferential statistics section. While arrest and race/ethnicity within the traffic enforcement portion of MCSO are not strongly related to one another (see Table 15 and 16), there is evidence that certain deputies and units are not performing per what is "average" within the traffic enforcement section of MCSO, its beats or its districts. Here, these deputies tend to generate arrests by race at a greater frequency than other deputies working in the same beat or district.

4.4 Post-Stop Outcomes: Search by Race/Ethnicity

4.4.1 Descriptive Statistics

Similar to how we examined arrests, here we examine searches differentially performed on individuals of minority race/ethnicities in the second year of traffic stop data. Here, we combine three different types of searches: probable cause (PC) searches, consensual searches, and Terry searches. Searches incident to an arrest have been omitted.⁷ One important limitation regarding the coming analyses is that searches do not occur frequently. Indeed, of the 30,158 traffic stops conducted by MCSO, only 2.9% of stops involved either a probable cause, consensual, or Terry search. Thus, descriptive statistics presented in Table 17 should be considered with caution.

Table 17. Descriptive Statistics Regarding Deputy Level Percentages of Searches by Driver Race Compared to Beat Percentages

	% of Searches by Race	% of Deputies above Ratio of 2	N
<i>By Hispanic</i>			
Hispanic	32.04	1.16	32
Non-Hispanic ^a	63.38	1.16	32
<i>Full Race Breakdown</i>			
White	47.28	1.05	29
Unknown	0	0.00	0
Native American	1.97	0.29	8
Hispanic	32.05	1.16	32
Black	13.77	0.80	22
Asian	0.35	0.04	1

N = 2,754^b

⁷ It is important to note that the search categories listed above do not account for all non-discretionary types of searches. It is a limitation of this data collection year that the data does not fully distinguish between these types of searches. In future data collection years, this distinction will be made, enabling for a more precise estimation of deputies' search rates.

^aThis category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^bNote that this number represents the number of deputy-beat combinations.

Table 17 compares deputies' rates of search by race/ethnicity to the beat average rate of search by race/ethnicity. Of the 2.9% of traffic stops that result in a PC, consensual, or Terry search, 32% of those searches are of Hispanics compared to 63.4% of Non-Hispanics. This is inconsistent with the summary statistics of ethnicity in traffic stops (see Table 2). When comparing the deputies' rates of searches to the beat rates of searches, 1.2% of deputies search Hispanics at a higher rate than the beat average, compared to 1.2% of Non-Hispanics. When examining the rate of search by race, 47.3% of those searches are of whites while 32% of searches are of Hispanics. These numbers are in discordance with the summary statistics of race in traffic stops (see Table 2). While whites constitute 66.8% of stops, they make up only 47.3% of searches. On the other hand, Hispanics have 22% of the traffic stops yet make up 32% of the searches. This disparity is not strictly reflected when comparing deputies' rates of searches to the beat rates of searches: 1.2% of deputies search whites and Hispanics at a higher rate than the beat average, and 0.8% of deputies search Blacks at a higher rate than the beat average.

Table 18. Descriptive Statistics Regarding Deputy Level Percentages of Searches by Driver Race Compared to District Percentages

	% of Searches by Race	% of Deputies above Ratio of 2	N
<i>By Hispanic</i>			
Hispanic	29.39	0.00	0
Non-Hispanic ^a	70.61	2.89	24
<i>Full Race Breakdown</i>			
White	49.56	2.65	22
Unknown	0.00	0.00	0
Native American	0.36	0.96	8
Hispanic	29.39	2.89	24
Black	17.16	2.77	23
Asian	0.33	0.12	1

N = 831^b

^aThis category excludes drivers in the Unknown category. Note that the Unknown category is displayed below.

^bNote that this number represents the number of deputy-beat combinations.

When looking at deputies' performance on searches by race/ethnicity compared to district level statistics, a different pattern emerges (Table 18). First, at the district level, there are slightly different averages for searches by ethnicity (Hispanic). At the district level, for traffic stops resulting in searches, Hispanics constitute 29.4% of all searches; this is in comparison to the average percentage of searches of Hispanics at the beat level (32%) and in MCSO overall (32.2%). Non-Hispanics make up 70.6% of all searches across districts (versus an average of 63.4% at the beat level and 67.8% in MCSO overall). By race, whites constitute 49.6% of all searches; this is in comparison to the average percentage of searches of whites at the beat level (47.3%) and in MCSO overall (49.5%). Conversely, Hispanics constitute an average of 29.4% of searches across districts (versus an average of 32% at the beat level and 32.2% in MCSO overall). Appendix G contains each deputy's ratio by race/ethnicity for the comparison between deputy and district for searches.

4.4.2 Is there a Relationship between Searches and Driver's Post-Stop Race/Ethnicity?

To test the relationship between whether the driver was searched and the driver's post-stop perceived race/ethnicity within the traffic enforcement sector of MCSO, we conducted a chi-square test coupled with a Cramer's V statistic. As the significant chi-square statistic in Table 19 shows, there is a relationship between whether the driver was searched and the post-stop perceived ethnicity (Hispanic) of the driver. That said, the Cramer's V statistic is low at 0.043. This suggests that while there is a relationship between the driver's post-stop perceived ethnicity and search, it is a weak relationship.

Table 19. Relationship between Searches of Drivers and Hispanic v. Non-Hispanic at the Organizational Level

	Not Searched	Searched	Total
Non-Hispanic	22874	593	23467
Hispanic	6341	282	6623
Total	29215	875	30090
Chi-Square	54.813**		
Cramer's V	0.043**		
**p<0.01			
N=30090			

Note: Stops with an "unknown" race/ethnicity were not included in the above analysis.

Table 20 examines this relationship across race. The significant chi-square statistic shows that there is a relationship between whether the driver was searched and the post-stop perceived race of the driver within the traffic enforcement sector of MCSO. However, the Cramer's V statistic is low at 0.078, suggesting that the relationship between being searched and the driver's post-stop perceived race is a weak one.

Table 20. Relationship between Searches of Drivers and Driver Race/Ethnicity at the Organizational Level

	Native						Total
	White	Unknown	American	Hispanic	Black	Asian	
Not Searched	19716	68	371	6341	2163	624	29283
Searched	433	0	36	282	116	8	875
Total	20149	68	407	6623	2279	632	30158
Chi-Square	181.568**						
Cramer's V	0.078**						
**p<0.01							
N=30158							

4.4.3 Summary of Stops with Searches

Like arrest, the chi-square statistic here demonstrates that, within the traffic enforcement sector of MCSO, there is systemic racial bias during searches; the Cramer's V shows a weak relationship between the two. This is likely due to the idea of officer discretion, where deputies can make a

multitude of stop related decisions that impact the likelihood of arrest and subsequent search. A more effective and powerful means of testing the relationship between driver race and search will be through hierarchical logistic modeling (forthcoming section). While searches and driver race/ethnicity at the systemic level (i.e., within the traffic enforcement section of MCSO) are not strongly related to one another (see Tables 19 and 20), there is evidence that certain deputies and units are not performing per what is “average” in MCSO. Here, these deputies tend to generate searches by race at a greater frequency than other deputies working in the same beat or district.

4.5 Post-Stop Outcomes: Seizures by Race/Ethnicity

4.5.1 Descriptive Statistics

Here we examine if seizures of items from drivers are differentially felt by minority drivers in the second year of traffic stop data. Note that in the coming analyses, seizures do not occur frequently. Indeed, of the 30,158 traffic stops conducted by MCSO, only 2.7% of stops involve a seizure. Thus, descriptive statistics presented in Tables 21 and 22 should be considered with caution.

Table 21 compares deputies’ rates of seizures by race/ethnicity to the beat average rate of seizures by race. Of the 2.7% of traffic stops that result in a seizure, 72.5% of those seizures involve Non-Hispanic drivers, and 27.5% involve Hispanics. These numbers are a departure from the summary statistics of ethnicity in traffic stops (see Table 2). Non-Hispanics represent 78% of traffic stops, but make up 72.5% of seizures, while Hispanics represent 22% of traffic stops, but 27.5% of seizures. When examining the 2.7% of traffic stops that result in seizure by race, 55.8% of those seizures involve white drivers while 27.5% of seizures involve Hispanics. These numbers are in discordance with the summary statistics of race in traffic stops (see Table 2). Where whites constitute 67% of stops, they make up only 55.8% of seizures. On the other hand, Hispanics make up 22% of all traffic stops yet make up 27.5% of the seizures. This disparity is reflected when comparing deputies’ rates of seizures to the beat rates of seizures: 1.1% of deputies seize items from white drivers at a higher rate than the beat average, but 2.8% and 2.1% of deputies seize items from Hispanic and Black drivers at a higher rate than the beat average.

Table 21. Descriptive Statistics Regarding Deputy Level Percentages of Seizures by Driver Race Compared to Beat Percentages

	Beat Average for % of Seizures by Race	% of Deputies above Ratio of 2*	N
<i>By Hispanic</i>			
Non-Hispanic ^a	72.50	.4	10
Hispanic	27.50	2.8	76
<i>Full Racial Breakdown</i>			
White	55.76	1.1	31
Unknown	0	0	0
Native American	2.43	.7	19
Hispanic	27.50	2.8	76
Black	12.97	2.1	59
Asian	1.34	.4	12

N = 2754^b ***this is % of all deputies, not just deputies who seized an item/s from driver

^a This category excludes drivers in the Unknown category.

^b Note that this number represents the number of deputy-beat combinations.

When looking at deputies' performance on seizures by race/ethnicity compared to district level statistics, as shown in Table 22, a different pattern emerges. First, at the district level, there are slightly different averages for seizures by ethnicity (Hispanic). At the district level, Non-Hispanics represent 71.4% of seizures compared to 72.5 % at the beat level and 78% of all MCSO stops (see Table 2). Hispanics comprise 28.6% of seizures across districts (versus 27.5% at the beat level and make up only 22% of all stops). For race, whites constitute 53.3% of seizures (versus 55.8% at the beat level and make up 67% of all stops). Conversely, Hispanics constitute 28.6% of seizures across districts (versus 27.5% at the beat level and make up only 22% of all stops). When comparing deputies' rates of seizures to the district rates of seizures: 4.1% of deputies seize items from white drivers at a higher rate than the district average, while 5.3% and 4.1% of deputies seize items from Hispanic and Black drivers at a higher rate than the district average. Appendix H contains each deputy's ratio by race/ethnicity for the comparison between deputy and district for seizures.

Table 22. Descriptive Statistics Regarding Deputy Level Percentages of Seizures by Driver Race Compared to District Percentages

	District Average for % of Seizures by Race	% of Deputies above Ratio of 2	N
<i>By Hispanic</i>			
Non-Hispanic ^a	71.41	0.0	0
Hispanic	28.59	5.29	56
<i>Full Racial Breakdown</i>			
White	53.30	4.09	34
Unknown	0	0	0
Native American	3.21	1.93	16
Hispanic	27.26	5.29	44
Black	13.85	4.09	34
Asian	1.39	1.32	11

N = 2754^b (831 incidents of seizures)

^aThis category excludes drivers in the Unknown category.

4.5.2 Is there a Relationship between Seizures and Driver's Post-Stop Race/Ethnicity?

To test the relationship between whether items were seized from the driver and the driver's post-stop perceived race/ethnicity within the traffic enforcement portion of MCSO, we conducted a chi-square test coupled with a Cramer's V statistic. Table 23 shows the significant chi-square statistic, indicating there is a relationship between whether contraband was seized from the driver and the post-stop perceived ethnicity (Hispanic) of the driver within the traffic enforcement portion of MCSO. That said, the Cramer's V statistic is low at 0.024. This suggests that while there is a relationship between items being seized from the driver and the driver's post-stop perceived ethnicity, it is a weak relationship.

Table 23. Relationship between Seizures and Hispanic v. Non-Hispanics at the Organizational level

	No Seizure	Seizure	Total
Non-Hispanic	22880	587	23467
Hispanic	6396	227	6623
Total	29276	814	30090
Chi-Square	16.830**		
Cramer's V	0.024**		

**p<0.01

N=30090

Note: Stops with an “unknown” race/ethnicity were not included in the above analysis and is why the total in this table is 30,090 rather than the total number of stops (N = 30,158).

Table 24 shows there is a statistically significant relationship ($p < .01$) between whether contraband was seized from the driver and the post-stop perceived race of the driver within the traffic enforcement portion of MCSO. The Cramer’s V statistic is low at 0.053. This suggests that while there is a relationship between seizure and the driver’s post-stop perceived race, it is a weak relationship.

Table 24. Relationship between Seizures Race/Ethnicity at the Organizational level

	White	Unknown	Native American	Hispanic	Black	Asian	Total
No Seizure	19704	68	382	6396	2174	620	29344
Seizure	445	0	25	227	105	12	814
Total	20149	68	407	6623	2279	632	30158
Chi-Square	85.241**						
Cramer's V	0.053**						
**p<0.01							
N=30158							

4.5.3 Summary of Stops with Seizures

While seizures and driver race/ethnicity within the traffic enforcement portion of MCSO are not strongly related to one another (see Table 24), there is evidence that certain deputies and units are not performing according to what is “average” in MCSO. Here, these deputies tend to engage in seizures of driver items by race at a greater frequency than other deputies working in the same beat or district.

4.6 Length of Stop

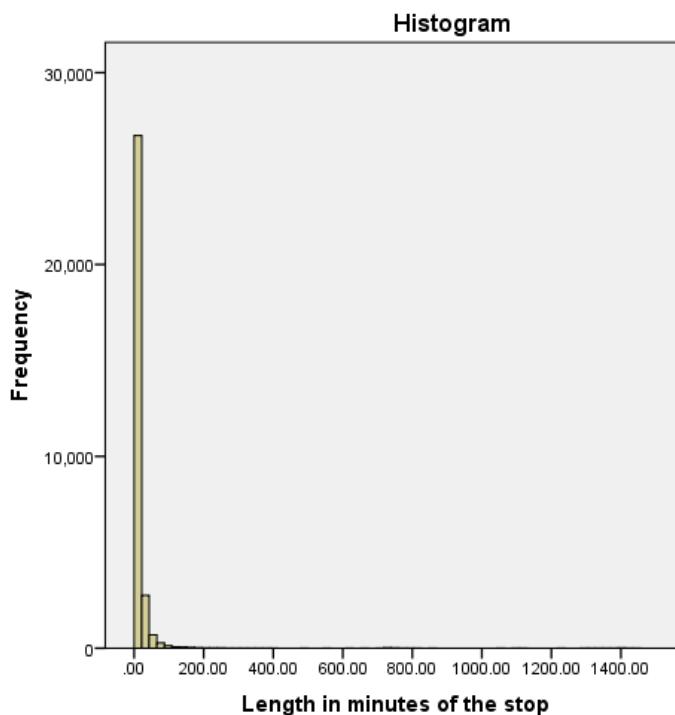
4.6.1 Descriptive Statistics – Overall Length of Stop

The mean length of stop within the traffic enforcement portion of MCSO is approximately 20.1 minutes, with a standard deviation of about 64 minutes. The standard deviation is rather large, but that is to be expected given that some types of traffic stops, like those involving arrests and such, can be rather lengthy. The range of length of stop is 1439 minutes. Additionally, the

distribution of length of stop is strongly positively skewed; in other words, there are a few stops that are very long, which drives up the average length of stop. A more appropriate way of characterizing the average length of stop would be the median length of stop, which is 13 minutes.

Next, we examine the length of stop by race across various units of aggregation. Here we employ percentiles since length of stop is a continuous variable. The average length of stop is just over 20 minutes. Table 25 below shows the average length of stop by race and the length of stop at the 95th percentile by race. We also conducted t-tests to determine if the average length of stop for a particular race is significantly different for other stops. When a * symbol is near the length of stop, it indicates that this average is significantly different compared to whites.

Figure 1. Overall Distribution Length of Stop



For stops involving drivers who are white, the average length of stop is approximately 19 minutes. Generally, Hispanics have a longer average length of stop than non-Hispanics. Blacks are like Hispanics in that their length of stop average is significantly different than non-Blacks. Native Americans also experience a significantly longer average length of stop than non-Native Americans. Finally, Asians experience shorter length of stops, though this difference is not statistically significant. Another relevant finding from this analysis is variability in length of stop by race. The 95th percentile – or the score that marks where 95% of all scores fall beneath – varies greatly (more than half an hour) across races. This suggests inconsistent stop lengths by race.

Table 25. Descriptive Statistics for Length of Stop by Race and Extended Detention with T-Tests for the Difference in Means between Whites and other Race/Ethnicities

	Driver Race						
	Overall	Whites	Unknown	Native American	Hispanic	Black	Asian
N of Race Specific Stops	30151	20247	68	407	6620	2278	632
Mean	20.12	18.92	35.87*	28.39*	21.97*	23.89*	20.78
Std. Deviation	64.36	62.87	169.68	88.89	61	68.82	85.13
Minimum	0	0	2	0	0	0	0
Maximum	1439	1439	1412	1320	1438	1408	1438
95th Percentile	41	33	32	65	55	57	32

* $p < 0.05$

4.6.2 Summary of Length of Stop

The length of stop analysis shows that certain races experience significantly longer lengths of stops (Hispanics and Blacks) than drivers not in that racial category. Furthermore, minority drivers (see the results for Native Americans, Hispanics, Blacks, and Asians) seem to experience a great variety in the length of stop, suggesting that there is not consistency in treatment regarding length of stop across deputies.

5. Inferential Analysis of Traffic Stops

In this section, differences in traffic stop outcomes by driver's race/ethnicity are examined using inferential statistics. These inferential statistics employ techniques used by several policing scholars to determine the presence of racially biased policing (Fagan et al. 2009; Gelman, Fagan and Kiss 2012; Gelman, Kiss and Fagan 2006; Tillyer and Engel 2013; Tillyer, Klahm and Engel 2012). Unlike descriptive statistics, inferential statistics can account for various aspects of the stop related to the stop outcome and enable us to ascertain if race of the driver is a dominant factor in the outcome of the stop.

Inferential statistics, too, have their limitations. To begin with, what the models can control for is limited to the information at hand. Known as omitted variable bias, there are several important considerations that impact the outcome of stops that could not be measured here, such as driver/suspect demeanor or aggressiveness, deputy assignment, and other situational aspects of the stop. One particularly important omitted variable related to the arrest models is whether the suspect had a suspended license or an existing warrant. When detailing the variables in the coming section below, we also include a discussion of what variables would ideally be included in the models.

Next, like the descriptive statistical analyses, these models are not able to address whether minorities were targeted for stops by MCSO without external benchmarks. Relatedly, these inferential models are also limited to being informative about the traffic enforcement portion of MCSO and its deputies, and are unable to generalize to the driving population at large that are at risk for a traffic stop. While external comparisons cannot be made with these models, they are appropriate for understanding stop dynamics related to deputies and MCSO.

5.1 Methods

5.1.1 Data

As mentioned earlier, the primary source of data in this report is the TraCs data, which is one year of deputy initiated traffic stops by Maricopa County Sheriff's Office (MCSO) deputies ranging from July 1, 2015 to June 30, 2016. This data includes only deputy initiated stops. For the analyses that are conducted across the first two years of TraCs data collection, we also use last year's TraCs data, which is also one year of deputy initiated traffic stops ranging from July 1, 2015 to June 30, 2016. As mentioned before, this is a within-MCSO analysis. These statistics do not compare MCSO to other law enforcement agencies, and are not meant to be used in that fashion.

We employ other sources of data exclusively for the coming inferential analyses. First, we include information on each deputy who appears in the TraCs data. After providing MCSO with a list of deputy serial numbers appearing in the data, MCSO returned that list attached with details on each deputy. Information on deputies include personal demographic characteristics (race, sex) and employment at MCSO variables (hire date, rank). This data was attached to the TraCs data via the deputy's serial number.

Second, we use sunrise and sunset information to determine whether stops occurred under the cover of darkness. Darkness can be used to determine racially biased policing by using the assumption that officers cannot observe race/ethnicity of drivers at night and officers can observe race during the day (Grogger and Ridgeway 2006; Worden, McLean and Wheeler 2012); if racially biased policing is not occurring, daytime rates of stops or stop outcomes should be consistent with nighttime rates. Note though that we employ deputies' post-stop perceptions of race to determine driver's race. We will use this approach in the "veil of darkness" analyses in the coming sections. Using the website [timeanddate.com](https://www.timeanddate.com/sun/usa/phoenix) (see <https://www.timeanddate.com/sun/usa/phoenix>), for each day in the year of data collection (i.e., the 2015-16 fiscal year), we captured the time of sunrise and sunset. This enabled us to compare the start time of the stop to the hours that would be dark.

Third, all stops were geocoded using the 1993 Arizona State Plane coordinate system. Here, latitude and longitude coordinates were geocoded and subsequently matched to census blocks, block groups, and tracts.

Finally, the unit of analysis in the inferential statistics models is the stop. While we do have deputy and driver variables in the model, ultimately, we are modeling stop outcomes.

5.1.2 Dependent Variables

To determine if racially biased policing is occurring within MCSO as a whole, one begins by examining if race of the driver is related to their post-stop outcomes independent of other stop, driver, deputy, and contextual factors. To do this, we examine several dependent variables that are post-stop outcomes.

The first dependent variable – arrest – indicates that the driver was arrested during the traffic stop. This variable includes all types of arrest, specifically booked or cite and release. If a person is cited and released, they are issued a citation with a court date, and must sign the citation promising to appear on the date and time provided on the citation. If the person is booked, they are physically arrested, transported, and processed into a secure jail facility until they appear before the initial appearance judge.

Next, we examine whether the driver was searched, specifically traffic stops in which the driver is searched before the deputy makes a determination to arrest the driver. After the deputy makes an

arrest, they are required to search the arrestee and often the vehicle. As such, when modeling search, we also control for arrest.

For arrest and search, it is important to note that we do not differentiate between arrests or searches that are discretionary and non-discretionary arrests. For instance, if a driver has a warrant, they are to be arrested. In the 2015-2016, the means of identifying non-discretionary arrests is through an open entry text field. While deputies fill out the field, being able to code an arrest as non-discretionary is wholly dependent on what the deputy writes. In future data collection years and reports, this distinction of discretionary v. non-discretionary arrests and searches will be able to be made. However, in this data collection year, it is important to interpret the results presented below with this mind as it likely impacts the results.

Another means of determining racial bias in traffic stops is by examining whether searches produce contraband, such as drugs, drug paraphernalia, or stolen goods, for example. If racially biased policing is present, one should see lower percentages, or in this case, lower likelihood of minorities having contraband. This would suggest that they are unfairly targeted for searches.

Lastly, we examine the outcome of the stop. Here, we predict whether the stop resulted in a warning, citation, or some other outcome, such as release.⁸ Should racially biased policing be present, minorities will be more associated with citations than warnings.

5.1.3 Situational Variables

We controlled for several situational variables related to the likelihood of any of the above outcomes occurring. In this section, we discuss the situational variables which are likely to impact the outcome or be associated with the driver's race. First, included in the analyses is the *Number of Passengers* in the vehicle. *Number of Passengers* is measured linearly, with 0 showing that there were no passengers. Each one unit increase in the variable shows how many additional occupants there were in the vehicle. Second, traffic stops, like crime in general, are related to season (Hipp et al. 2004). Here, we included dummy variables for *Fall*, *Winter*, and *Spring*, with the reference season being summer. Third, we used the variable *Night Time During Stop*, a dummy variable designating that the stop occurred under the cover of darkness, to examine racially biased policing. To create this variable, we first used meteorological data to determine the time of sunset and sunrise for the day of the stop; stops occurring during this period would be dark. If the stop occurred during this period, it was given a 1 on *Night Time During Stop*. Finally, if the vehicle had an Arizona license plate, it was given a 1 on the variable *AZ License Plate*.

There are several situational variables important to stop outcomes that are not measured here. For instance, the reason(s) for the stop – whether a registration problem, moving violation, or equipment violation – impacts the likelihood of certain stop outcomes. For instance, one study finds that stops related to outdated registrations and moving violations are less likely to evolve into arrests

⁸ This is when the stop ends in something besides a citation, warning, or long form submission and the driver is released immediately after contact. This occasionally occurs under certain contexts, such as Amber Alerts. Here, for example, the deputy would stop a vehicle matching the description of the wanted vehicle. After contact, however, the deputy determines that this is not the vehicle in question and releases the driver. Additional circumstances include other situations when the deputy determines during the course of the stop that the alleged violation which was the basis for the stop did not occur. For example, a deputy only sees one driver in a vehicle driving in the HOV lane of the highway during the restricted hours. The deputy initiates a traffic stop and upon walking up to the vehicle now sees a child in the back seat. There is no HOV lane violation and the deputy would complete the incidental contact form and release the driver without a warning/citation/long form.

and searches (Schafer et al. 2006). Another study from the Midwest shows that moving violations, equipment violations and registration problems are more likely to result in a warning than a citation, but only moving violations increased the likelihood of arrest (Tillyer and Engel 2013). While information on these types of situational variables are captured in the data, how they are captured precludes them from being taken into consideration here. Deputies write down this information in an open field; there is no systematic way for them to capture this information. As such, it was excluded from the analysis.

5.1.4 Driver Variables

Several driver characteristics were also included in the analysis. Pertinent to this analysis is the driver's race. To account for this, we included a battery of dummy variables showing the driver was *Native American*, *Asian*, *Black*, *Hispanic* or *Other*. The reference category is *White*. Next we included the driver's age in years. *Age* is measured as a linear variable. Age is included in this analysis given research showing that some drivers are less likely to receive certain stop outcomes – like citations – when they are younger (Rosenfeld, Rojek and Decker 2011; Tillyer and Engel 2013). Lastly, we included a dummy variable showing that the driver was *Male*. Here, men are more likely to be pulled over and are more likely to commit crime (Lundman and Kaufman 2003; Weitzer and Tuch 2004; Weitzer and Tuch 2002).

There are several driver characteristics that are not included in the forthcoming models which could potentially impact the results. First, we were unable to control for suspect/driver demeanor. Scholars have demonstrated that drivers/suspects who are aggressive or disrespectful have a negative impact on their stop outcomes (i.e., increased likelihood of a citation, arrest, and use of force) (Engel 2003; Engel, Sobol and Worden 2000; Garner, Maxwell and Heraux 2002; Worden, McLean and Wheeler 2012). Next, information on the driver's primary language may also be useful in understanding deputy-driver interactions (Herbst and Walker 2001; Reitzel, Rice and Piquero 2004; Skogan 2009); indeed, the length of stop analyses in forthcoming sections demonstrate that when deputies experience a language barrier, the traffic stop is longer than in stops without language barriers. One particularly important omitted variable related to the arrest models is whether the driver had a suspended license or an existing warrant. These are instances where the deputy is required to make an arrest. This information is captured in TRaCs, but is captured in the written language by the deputy which can vary greatly. Future reports will explore how best to account for the how this information impacts the analysis outcomes.

5.1.5 Deputy Variables

Deputy-specific variables begin with the deputy's length of employment at MCSO. Here, tenure is the number of years having served at MCSO since the date of the stop. To calculate MCSO tenure, we subtracted the hire date of the deputy from the date of the stop, then rounded the difference to the nearest year. Next, there is ample evidence that officers of different races police differently (Anwar and Fang 2006; Brown and Frank 2006; Close and Mason 2006; Close and Mason 2007; see Kochel, Wilson and Mastrofski 2011 for a summary of these effects for arrest). For instance, one study shows that while minority officers (e.g., Black and Latino officers) were less likely to search drivers, they typically had higher "hit" rates than white officers (Close and Mason 2007). As such, we include a series of dummy variables signaling the race of the deputy as *Black*, *Hispanic*, and *Asian*. White is the reference category. Gender of the officer has also been shown to have a differentiating impact on police behavior (for example, see Paoline and Terrill 2005; Rabe-Hemp 2008). However, in this data, female deputies make up 3.6% of all deputies in this data. Thus, controlling for male-female difference in the outcomes is difficult given the lack of statistical power and is excluded. Lastly, we categorize deputies who conduct a high volume of deputy-initiated stops. To do this, we first calculated the total number of stops a deputy made in a month. Next, we examined the distribution of stops that deputies make within a month. On the low end, there are deputies who conduct as low as one deputy-initiated traffic stop a month. Conversely, there are deputies who conduct over 100 deputy-initiated traffic stops a month. At the 75%

percentile is an average of 16 deputy-initiated stops per month. Any deputy who conducted 16 or more deputy-initiated stops in each month was designated as a *High-Volume Deputy*.

There are other deputy characteristics that are omitted from these analyses due to data restrictions. First, the deputies' assignment – traffic, patrol, etc.—likely impacts the types of stops they are conducting and the speed at which they conduct them (Tillyer and Engel 2013; Tillyer, Klahm and Engel 2012). For example, the Lakes District does a significant number of traffic stop violations: deputies assigned to the Lakes District have shorter stop times than their peers. While district is accounted for, there are likely other aspects of assignment not captured here that impact stop outcomes. Additionally, officers' level of education, in past research, has shown to be predictive of certain outcomes, like use of force (Rydberg and Terrill 2010). Next, driver's native language, and whether the officer is bilingual may also explain differences in certain outcomes, like length of stop (Herbst and Walker 2001; Reitzel, Rice and Piquero 2004; Skogan 2009).

5.1.6 Contextual Variables

Policing varies across context (Fagan and Davies 2000; Kane 2002; Klinger 1997), and MCSO is no exception. Given the variability in the terrain and types of areas where MCSO engages in law enforcement activities, it is imperative to control for contextual factors of stops. Here, we include dummy variable controls for each district the stop occurs in: Districts 1 through 4, Lakes, 6 and 7.

5.2 General Analysis Plan

Traffic stops are not completely independent events – meaning that any handful of traffic stops may share characteristics like a deputy. Put another way, traffic stops in Beat A are more similar to each other than they are to Beat B. This is especially salient with the data analyzed here: each deputy has their own unique reasons for conducting a deputy-initiated stop, and these stops are likely to be very similar to each other. More similar to each other, in fact, than they are similar to other deputy-initiated stops conducted by other deputies. This issue is aptly named “dependence in the data,” and needs to be accommodated for in some way (Bryk and Raudenbush 2002; Snijder and Bosker 2012). Due to their dependence, traffic stop analyses face the challenge that any analysis must adjust for interdependence between stops conducted by the same deputy. Fortunately, this can be done through multiple statistical modeling techniques. By using hierarchal linear or hierarchal generalized linear models to account for the dependence between stops, we can also conduct statistical tests surrounding the variability in the outcome associated with deputies, and test hypotheses about similar or heterogeneous behavior.⁹

⁹ Another potential issue of dependence in the data is related to geography. While this does not occur often, there are a number of deputies (31) who conduct stops in multiple districts. Sometimes, this is due to reassignment, but other times it is due to deputies making stops on the edge of their assigned district. The concern here is whether those deputies with just a few stops in a neighboring district should be compared to their peers in each respective district or, given that they are making stops just over the boundary of their assigned district, they should be compared to their assigned district only. ASU and MCSO have taken several steps to begin to understand and address this issue. First, the stops of each deputy who has conducted stops in multiple districts have been mapped to analyze their stop patterns. Initial results showed one area where deputies consistently make stops just outside of their district: the Queen Creek area or District 6. Next, for this area, a new boundary was drawn around district 6 to incorporate the areas in which most deputies who were making stops both in and just outside of District 6 conducted their traffic stops. From here, we geocoded the stops using this new boundary. Currently we are analyzing whether this boundary significantly impacts the construction and value of deputies' ratios. For the next annual report, we will know whether this new boundary needs to be taken into account.

All the coming analyses are hierarchal linear or hierarchal generalized linear models where stops are nested within deputies. We employ the family of hierarchical models since stop outcomes, like arrest or citations, are likely correlated with other stops' outcomes when performed by the same deputy. Hierarchal models account for this, thus allowing for proper estimation of statistical effects (Raudenbush and Bryk 2002). Moreover, hierarchical models account for this clustering in a unique way: rather than controlling for the relatedness of cases, which in our models would be stops, hierarchical models allow for the exploration of variability across level two units, or here, deputies.¹⁰ For instance, we are curious about whether there are deputies who are more likely to arrest Hispanics. Other models, like fixed effects modeling or cluster corrected standard errors, do not facilitate answering these questions. As such, hierarchical models are our best approach. We discuss each model more specifically in the sections that detail the coming analyses. Appendix B includes a discussion of why deputies were chosen as the most appropriate level of nesting for these analyses.

5.3 Results

5.3.1 Examining the Effect of Driver Race on Several Post-Stop Outcomes

Building off the same models as used above, we now include situational, driver, deputy, and contextual controls. For simplicity, we group the models by outcome type – binary, multinomial, and linear. Also, we examine whether these models can be used to determine if the results are due to possibly problematic deputies or are consistent within the traffic enforcement portion of MCSO.

5.3.1.1 Hierarchical Logistic Regression Models

Before we turn to the first set of results, we examine the equation and modeling structure we use for the hierarchal logistic regression models. The level one equation is represented as:

$$\Lambda(\Pr Y_{ij} = 1) = \beta_0 + \beta_1 S_j + \beta_2 D_j + \beta_3 Dep_j + \beta_4 T_j$$

Where Λ is the logit function, Y_{ij} is the outcome (e.g., arrest or search) for stop i nested in unit j , β_0 represents the random intercept across time, S_j is a matrix of the stop characteristics with effects captured in a β_1 vector, D_j is a matrix of the driver-specific variables with effects captured in a β_2 vector, Dep_j is a matrix of the deputy characteristics with effects captured in a β_3 vector, and T_j is the matrix of the time and seasonal variables with their effects captured in β_4 . The level two equation for the length of stop outcome is shown as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

Where β_{0j} is the mean length of stop for the j^{th} unit, γ_{00} represents the grand mean length of stop for the traffic enforcement portion of MCSO, and u_{0j} is the random effect associated with unit j , which has a mean of zero and a variance of τ_{00} . Additionally, β_{2j} is the average regression slope for Hispanic drivers for length of stop, γ_{20} is the grand mean for Hispanic drivers on length of stop for the within the

¹⁰ The traffic stops data is unique in that there are multiple ways dependency in the data can occur. A stop done by Deputy A, for example, is going to be more like other stops by Deputy A than stops by Deputy B. The same applies to beats and districts: one stop in a beat or district is going to be more similar to other stops in that beat or district than stops outside of that geographic boundary. These types of nesting – deputies and geographic boundaries (beats or districts) – can be modeled simultaneously. In the next annual report, these types of models, called “cross classified” models will be run on a select group of outcomes.

traffic enforcement portion of MCSO, and u_{2j} is the random effect associated with Hispanic drivers across deputies.

We begin with the results for the arrest model shown in Table 26. Of the situational characteristics, two of the seasonal variables were statistically significant. The results indicate that odds of arrest were 21.3% higher in the winter and 18.1% higher in the spring, compared to in the summer. Next, most of the driver characteristics were statistically significant in predicting arrest. Using white drivers as the reference category, the odds of Native American drivers being arrested were 284.7% higher than whites, the odds of Black drivers being arrested were 81.2% higher than whites, and the odds of Hispanic drivers being arrested were 64.8% higher than whites. The odds of males being arrested were 45% higher than females. Additionally, for each additional year of age, drivers are significantly less likely to be arrested. Among the deputy characteristics, only high volume deputies predicted arrest, with the odds of stops by those deputies resulting in arrest being 87.7% higher than those of deputies with fewer stops. Finally, for the contextual characteristics, stops in the Lakes District had 96.8% higher odds of arrest than the reference district.

The results for the search outcome (also Table 26) are similar, but it is important to note that since arrest was included in the model, the results for the other variables are net of arrest. Arrest itself increased the odds of search by over thirteen hundred percent. Stops occurring in the winter had an increase in odds of search of 35%, but in this model, spring stops were not significant. The same driver characteristics that were significant for arrest were significant for searches as well. Native American drivers had a 290.5% higher odds of search than whites, Black drivers had a 45.5% higher odds of search. Hispanic drivers had 22.2% higher odds of search than whites, but this was only significant at the $p < 0.10$ level. The odds of males being searched were 94.3% higher than those for females and with each year of age, drivers were significantly less likely to be searched. None of the deputy characteristics were statistically significant. Of the contextual characteristics, the Lakes District had odds of search 36.7% higher than the reference district, and District 6 had odds of search 21.9% higher than the reference district.

Finally, we examine the likelihood of finding contraband during a stop (also Table 26). The results for this model are somewhat different from the previous two. Predictably, arrest increased the odds of finding contraband 31.2%. Additional passengers in the vehicle corresponded with an 80.2% increase in the odds of finding contraband. Time of year in this model was only significant for spring, which corresponded with a 65.1% increase in the odds of contraband. Unlike the other models, the presence of an Arizona license plate on the vehicle was significant, resulting in a 72.8% increase in the odds of contraband. The driver characteristics were also different in the contraband model. None of the race variables were significant. Male drivers had 62.2% lower odds than female drivers of having contraband. Drivers' age again decreased likelihood of the outcome, but was only marginally significant for contraband. Only one of the deputy variables was significant at the $p < 0.05$ level. Black deputies had odds over two thousand times higher than white deputies of finding contraband. For the district variables, only District 4 had a statistically significant result, corresponding to odds of finding contraband 273.4% more likely than the reference district.

Table 26. Hierarchical Logistic Models for Arrest, Search, and Contraband

Table 26. Hierarchical Logistic Models for Arrest, Search and Contraband

	Arrest		Search		Contraband	
	B	Odds	B	Odds	B	Odds
Situational Characteristics:						
Driver was Arrested	-	-	4.892** (0.117)	133.210**	-1.165** (0.158)	0.312**
Number of passengers in vehicle	0.009 (0.033)	1.009	0.059 (0.062)	1.061	-0.220* (0.095)	0.802*
Stop occurs in the fall	-0.051 (0.070)	0.950	0.096 (0.130)	1.100	0.078 (0.200)	1.081
Stop occurs in the winter	0.193** (0.068)	1.213**	0.300* (0.129)	1.350*	0.262 (0.196)	1.299
Stop occurs in the spring	0.167* (0.070)	1.181*	0.128 (0.134)	1.137	0.501* (0.200)	1.651*
Vehicle has AZ license plate	0.033 (0.091)	1.034	-0.137 (0.161)	0.872	0.547* (0.271)	1.728*
Driver Characteristics:						
Driver is Native American	1.046** (0.158)	2.847**	1.066** (0.274)	2.905**	-0.329 (0.363)	0.720
Driver is Asian	-0.176 (0.197)	0.838	-0.649 (0.424)	0.522	1.041 (0.670)	2.833
Driver is Black	0.598** (0.080)	1.819**	0.375* (0.147)	1.455*	0.054 (0.212)	1.055
Driver is Hispanic	0.499** (0.057)	1.648**	0.200+ (0.107)	1.222+	-0.051 (0.160)	0.950
Driver is male	0.371** (0.054)	1.450**	0.664** (0.106)	1.943**	-0.475** (0.160)	0.622**
Driver's age in years	-0.019** (0.002)	0.982**	-0.018** (0.004)	0.982**	-0.010+ (0.006)	0.990+
Deputy Characteristics:						
Length of employment at MCSO	-0.001 (0.010)	0.999	-0.003 (0.016)	0.997	-0.008 (0.019)	0.992
Deputy is Black	-1.060+ (0.566)	0.347+	-0.269 (0.787)	0.764	3.024** (1.123)	20.564**
Deputy is Hispanic	-0.148 (0.199)	0.862	-0.130 (0.289)	0.878	0.352 (0.318)	1.422
Deputy is Asian	-0.764 (0.579)	0.466	-1.094 (0.923)	0.335	1.675 (1.357)	5.339
Deputy is Native American	0.013 (0.829)	1.013	-0.065 (1.173)	0.937	0.505 (1.111)	1.657
High stop volume deputy	0.630* (0.305)	1.877*	-0.003 (0.409)	0.997	-0.694+ (0.388)	0.500+
Rank is Deputy	0.010 (0.163)	1.010	0.056 (0.240)	1.057	-0.262 (0.268)	0.769
Contextual Characteristics:						
District 2	-0.426+ (0.232)	0.653+	-0.531 (0.332)	0.588	-0.057 (0.375)	0.945
District 3	-0.045 (0.222)	0.956	-0.386 (0.322)	0.680	0.136 (0.350)	1.146
District 4	-0.065 (0.242)	0.937	-0.224 (0.364)	0.800	1.006* (0.415)	2.734*
District 5	-0.190 (0.260)	0.827	-1.517** (0.424)	0.219**	0.394 (0.445)	1.483
District 7	-0.298 (0.272)	0.742	-0.723+ (0.421)	0.485+	0.261 (0.483)	1.298
Lake District	0.677** (0.246)	1.968**	-1.003** (0.361)	0.367**	-0.380 (0.403)	0.684
Constant	-3.294** (0.085)	0.018	-6.064** (0.151)	0.002**	1.148** (0.160)	3.152**
Observations	30,586	30,586	30,586	30,586	1,411	30,586
Number of groups	390	390	390	390	221	390

Standard errors in parentheses **p<0.01, *p<0.05, +p<0.10

Table 27. Hierarchical Multinomial Logit Model for Stop Outcome

	Warnings		Citations	
	B	Odds	B	Odds
Situational Characteristics:				
Number of passengers in vehicle	-0.016 (0.088)	0.984	-0.030 (0.088)	0.971
Stop occurs in the fall	-0.211 (0.166)	0.810	-0.299+ (0.166)	0.742+
Stop occurs in the winter	0.083 (0.181)	1.087	0.018 (0.180)	1.018
Stop occurs in the spring	0.121 (0.187)	1.128	0.236 (0.187)	1.266
Vehicle has AZ licence plate	0.380* (0.192)	1.463*	0.453* (0.191)	1.573*
Driver Characteristics:				
Driver is Native American	-0.713 (0.470)	0.490	-0.357 (0.468)	0.700
Driver is Asian	0.161 (0.513)	1.175	0.208 (0.513)	1.231
Driver is Black	-0.218 (0.240)	0.804	-0.087 (0.239)	0.917
Driver is Hispanic	-0.487** (0.148)	0.614**	-0.331* (0.148)	0.718*
Driver is male	-0.419** (0.139)	0.657**	-0.348* (0.139)	0.706*
Driver's age in years	0.001 (0.004)	1.001	-0.010* (0.004)	0.990*
Deputy Characteristics:				
Length of employment at MCSO	-0.029* (0.013)	0.972*	0.011 (0.013)	1.011
Deputy is Black	-0.041 (0.617)	0.960	0.197 (0.615)	1.218
Deputy is Hispanic	0.293 (0.239)	1.340	0.032 (0.239)	1.033
Deputy is Asian	0.846 (0.754)	2.330	0.731 (0.753)	2.078
Deputy is Native American	0.286 (0.972)	1.331	-1.005 (0.987)	0.366
High stop volume deputy	0.109 (0.292)	1.116	0.792** (0.291)	2.209**
Rank is Deputy	-0.064 (0.201)	0.938	0.222 (0.201)	1.249
Contextual Characteristics:				
District 2	-0.300 (0.291)	0.741	0.513+ (0.291)	1.670+
District 3	-0.342 (0.276)	0.710	-0.242 (0.277)	0.785
District 4	-0.190 (0.325)	0.827	-0.224 (0.326)	0.799
District 5	0.230 (0.362)	1.259	0.654+ (0.362)	1.924+
District 7	0.364 (0.441)	1.439	1.046* (0.441)	2.847*
Lake District	-0.705* (0.331)	0.494*	0.517 (0.330)	1.676
Constant	4.261** (0.117)	70.862**	4.475** (0.117)	87.774**
Observations	30,586	30,586	30,586	30,586
Number of groups	390	390	390	390
Standard errors in parentheses	**p<0.01, *p<0.05, +p<0.10			

5.3.1.2 Hierarchical Multinomial Logistic Regression Models

We next turn to models predicting the warning and citation outcomes. The results are presented in Table 27. These are the most common stop outcomes, with warnings accounting for 45.6% of stops and citations accounting for 53.2% of stops. These models are hierarchical multinomial logit models, as described above. The outcome is structured as such: 0 represents stops that are “No contact,” “Long form,” or “Field Interview,” 1 represents Warnings, and 2 represents Citations. These models utilize the same variables as the models predicting arrest, search, and contraband, including situational characteristics, driver characteristics, deputy characteristics, and contextual characteristic, but omitting arrest as it is not relevant to the outcome.

First, we examine the results for the warnings model. Among the situational variables, only the license plate variable was statistically significant, with vehicles with Arizona license plates having odds or receiving a warning 46.3% than those with other license plates. Two variables were significant among the driver characteristics. Odds of Hispanic drivers receiving a warning were 61.4% lower than those of whites, and odds of male drivers receiving a warning were 65.7% lower than those of females. Length of employment at MCSO significance decreased the likelihood of a warning as the stop outcome. Of the district variables, only the Lakes District was significantly different from the comparison district, with odds of issuing a warning 49.4% lower than in District 1.

The second section of Table 27 includes the results for citations. Similar to the results for warnings, vehicles with Arizona license plates were more likely to receive a citation than those without, with odds 57.3% higher for Arizona vehicles. There were no statistically significant seasonal effects at the $p < .05$ level, but stops occurring in fall approached significance. For the driver characteristics, Hispanic drivers were again less likely than whites to receive a citation, with odds of doing so 71.8% lower than that of whites. Males were again less likely than females to receive a citation, with odds of citation 70.6% lower for males. Drivers' likelihood of citation also decreased significantly with each additional year of age. Among the deputy characteristics, deputies with high volumes of traffic stops had odds of citation 220.9% higher than deputies involved in fewer stops. Finally, District 7 had odds of issuing citations 284.7% higher than the reference district, with Districts 2 and 6 also approaching significance.

5.3.1.3 Hierarchical Linear Regression Models

We next turn to a hierarchical linear regression of length of stop. This model includes variables for situational characteristics, driver characteristics, deputy characteristics, and contextual characteristics. The situational characteristics include the number of passengers in the vehicle, the season in which the stop occurred, whether the vehicle had an Arizona license plate, whether the driver was arrested, whether the vehicle was searched, if technical problems were encountered during the stop, if the stop involved a DUI, if the stop involved towing, if the stop was a training stop, and if there was a language barrier between the deputies and drivers or passengers. The driver characteristics include the race, sex, and age of the driver. The deputy characteristics include length of employment at MCSO, race of the deputy, whether the deputy had a high stop volume, and the rank of the deputy. The contextual characteristics include the district in which the stop occurred, including Districts 1 through 7, with District 1 as the reference category.

Table 28. Hierarchical Linear Model for Length of Stop

	B	SE
Situational Characteristics:		
Number of passengers in vehicle	0.012**	(0.004)
Stop occurs in the fall	-0.065**	(0.009)
Stop occurs in the winter	-0.065**	(0.009)
Stop occurs in the spring	-0.061**	(0.009)
Vehicle has AZ license plate	-0.136**	(0.011)
Driver was arrested	0.363**	(0.015)
Vehicle was searched	0.363**	(0.021)
Technical problems encountered during stop	0.473**	(0.017)
Stop involves DUI	0.799**	(0.028)
Stop involves tow	0.920**	(0.026)
Stop involves deputy training	0.089	(0.058)
Language barrier	0.574**	(0.056)
Driver Characteristics:		
Driver is Native American	0.003	(0.026)
Driver is Asian	-0.008	(0.021)
Driver is Black	0.067**	(0.012)
Driver is Hispanic	0.049**	(0.008)
Driver is male	0.021**	(0.006)
Driver's age in years	-0.002**	(0.000)
Deputy Characteristics:		
Length of employment at MCSO	0.003*	(0.001)
Deputy is Black	0.095	(0.063)
Deputy is Hispanic	0.058*	(0.027)
Deputy is Asian	-0.042	(0.069)
Deputy is Native American	-0.036	(0.121)
High stop volume deputy	-0.151**	(0.048)
Rank is Deputy	-0.061**	(0.023)
Contextual Characteristics:		
District 2	-0.066*	(0.030)
District 3	-0.011	(0.030)
District 4	-0.046	(0.032)
District 6	-0.061+	(0.036)
District 7	-0.035	(0.035)
Lakes District	-0.117**	(0.035)
Constant	2.939**	(0.035)
Observations	30,580	
Number of groups	390	

Standard errors in parentheses

**p < 0.01, *p < 0.05, +p < 0.10

Most of the situational characteristics were statistically significant, with the lone exception of the stop being a training stop. Each additional passenger increases length of stop. Stops in fall, winter, and spring were significantly shorter than those in summer. Vehicles with Arizona license plates had

shorter stop durations than vehicles from other places. Arrests and searches both increased the length of stop significantly. Technical problems increased length of stop, as did stops involving towing, DUI, and language barriers. For the driver characteristics, Black and Hispanic drivers had longer lengths of stop than whites. Lengths of stop for male drivers were longer than for female drivers, and each additional year in driver age resulted in a decrease in stop length. Among the deputy characteristics, Hispanic deputies had stops that were significantly longer than those of whites. Those with a high volume of stops had stop lengths that were shorter than other deputies. Two districts, District 2 and the Lakes District, had lengths of stop significantly shorter than the reference district.

5.3.1.4 Deputy v. Systemic Effects

The concern regarding differential and problematic behavior on the part of law enforcement agents has been long standing. One question that comes from the above models is the “bad apples” question: is it a handful of deputies or is the racial bias shown above a systemic issue within the traffic enforcement portion of MCSO? Lawrence Sherman (1974) coined the phrase “bad apples” in conjunction with police corruption, though the analogy applies here (Sherman 1974), and has been applied to a wide variety of work behavior outside of policing (for example see Hoxby and Weingarth 2005; O’Boyle, Forsyth and O’Boyle 2011). Here, the idea of “bad apples” suggests that racially biased policing is occurring, though only a small number of deputies are engaging in this behavior. A significant benefit of using hierarchical models is the ability to determine whether racially biased policing is occurring across the totality of the traffic enforcement portion of MCSO or is limited to a few deputies. To get at this, though, we need to walk through the logic of a hierarchical model. We will use the outcome of arrest as an example shown in Table 30.

When we nest traffic stops into deputies, we are ultimately examining whether – net of the control variables – or not different deputies have a different likelihood of arresting a driver. To put this another way, given the same stimulus (i.e., the “average stop”), are certain deputies more likely to arrest than others? The answer should be obvious: yes, given that all deputies have discretion. To examine this, we nest stops within deputies, include a number of situational, driver, deputy, and contextual controls, as well as allowing the intercept to randomly vary.¹¹ Should the intercept randomly vary – which it does – it would show there is significant variation in the likelihood of arrest across deputies (McCulloch and Neuhaus 2001). In Table 30, the variance component for the random intercept is significant, demonstrating there is significant variation in the likelihood of arrest across deputies.

The discretion of the deputy also means that only certain conditions of the stop should impact the likelihood of arrest across deputies. In other words, for discretion to be used fairly, only aspects of the stop that impact deputies’ discretionary decision making processes, namely the situational (i.e., time or season of stop) aspects of the stop, or personal characteristics of the deputy, such as rank of deputy

¹¹ The level one equation is represented as:

$$\Lambda(\Pr Y_{ij} = 1) = \beta_0 + \beta_1 S_j + \beta_2 D_j + \beta_3 Dep_j + \beta_4 T_j$$

Where Λ is the logit function (i.e., $\Lambda(p) = \ln\left(\frac{p}{1-p}\right)$), Y_{ij} is the likelihood of arrest for stop i nested in unit j , β_0 represents the random intercept across time, S_j is a matrix of the stop characteristics with effects captured in a β_1 vector, D_j is a matrix of the driver-specific variables with effects captured in a β_2 vector, Dep_j is a matrix of the deputy characteristics with effects captured in a β_3 vector, and T_j is the matrix of the time and seasonal variables with their effects captured in β_4 . The level two equation for the length of stop outcome is shown as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

Where β_{0j} is the mean length of stop for the j^{th} unit, γ_{00} represents the grand mean length of stop for the total organization of MCSO, and u_{0j} is the random effect associated with unit j , with a mean of 0 and a variance of τ_{00} .

or time on the force, should impact deputies’ likelihood of arrest during the “average stop”. What should not impact deputies’ differential likelihood of arrest is the specific characteristics of the driver. Should this be the case, it suggests that there is a system-wide (i.e. the traffic enforcement portion of MCSO) bias towards arresting a particular race. In Table 30, we see that for the fixed effects, Native Americans, Blacks, and Hispanics are more likely to be arrested than whites, controlling for a variety of situational, driver, deputy, and contextual characteristics. Thus, when presented with a “Hispanic” driver in a stop, for instance, that driver is more likely to be arrested regardless of which deputy is doing the arresting. As such, this suggests that there is a systemic issue with racially biased policing related to not just Hispanics, but also Native Americans and Blacks.

Table 29. Hierarchical Logistic Model for Arrest with Random Intercept

	B	SE	Odds Ratio
Situational Characteristics:			
Number of passengers in vehicle	0.009	(0.033)	1.009
Stop occurs in the fall	-0.051	(0.070)	0.950
Stop occurs in the winter	0.193**	(0.068)	1.213**
Stop occurs in the spring	0.167*	(0.070)	1.181*
Vehicle has AZ licence plate	0.033	(0.091)	1.034
Driver Characteristics:			
Driver is Native American	1.046**	(0.158)	2.847**
Driver is Asian	-0.176	(0.197)	0.838
Driver is Black	0.598**	(0.080)	1.819**
Driver is Hispanic	0.499**	(0.057)	1.648**
Driver is male	0.371**	(0.054)	1.450**
Driver's age in years	-0.019**	(0.002)	0.982**
Deputy Characteristics:			
Length of employment at MCSO	-0.001	(0.010)	0.999
Deputy is Black	-1.060+	(0.566)	0.347+
Deputy is Hispanic	-0.148	(0.199)	0.862
Deputy is Asian	-0.764	(0.579)	0.466
Deputy is Native American	0.013	(0.829)	1.013
High stop volume deputy	0.630*	(0.305)	1.877*
Rank is Deputy	0.010	(0.163)	1.010
Contextual Characteristics:			
District 2	-0.426+	(0.232)	0.653+
District 3	-0.045	(0.222)	0.956
District 4	-0.065	(0.242)	0.937
District 5	-0.190	(0.260)	0.827
District 7	-0.298	(0.272)	0.742
Lakes District	0.677**	(0.246)	1.968**
Constant	-3.294**	(0.085)	0.037**
Variance of the Intercept (Variance Component)	1.049091		
χ^2 for the Variance Component	1035.08		
Observations	30,586		
Number of groups	390		

Standard errors in parentheses

**p < 0.01, *p < 0.05, +p < 0.10

The fixed effects of race, and in this context, Hispanics, in the previous model (Table 29), show that Hispanics are more likely to be arrested holding all other variables constant. Is it possible that this effect is limited to a few “bad apples” (Sherman 1974)? To examine this, we next determine if the likelihood of arrest of a particular race also randomly varies across deputies. To focus in on what is specifically of concern to MCSO – the targeting of Hispanics – we allow the effect of Hispanic drivers on the likelihood of arrest to randomly vary across deputies.¹² By doing this, we can see if specific deputies are targeting Hispanics. Table 30 shows the results of this model; here we particularly focused on the significance of the variance components surrounding the random intercept (variability across deputies) and the random coefficient (variability of Hispanic arrest across deputies). We find that the random coefficient is not significant, suggesting that there is not variability in the likelihood of Hispanic arrest across deputies. Put in simple terms, there does not seem to be deputies who are outliers in targeting Hispanics for arrest. This result further confirms that this is a systemic issue within the traffic enforcement portion of MCSO. Lastly, as a final test of this assertion, we conducted a likelihood-ratio to determine if the additional parameters of the random coefficient for Hispanic drivers (i.e., the model from Table 30) is a better model for predicting arrest than is the more simplistic model (i.e., the model from Table 29) which includes only the random intercept. The likelihood-ratio test is not significant, showing that adding the random coefficient for Hispanic drivers does not significantly add to model fit.

It is important to link these findings back to the descriptive findings in section 4. The descriptive findings show that there are deputies that are engaged in certain types of police behavior at a higher rate than other deputies in their same unit, be it a beat or district. The results show, though, that the problem of racialized policing is spread systemically within the traffic enforcement portion of MCSO. While there may be some deputies that are engaged in possibly problematic behavior at a higher rate than others, the inferential analyses conducted above suggest that when presented with the “average stop”, all deputies are performing similarly. Thus, setting alerts on specific deputies may be less fruitful for ending or even tamping down racially biased policing within MCSO than a more holistic, systemic-based approach.

¹² This model is the same as the models run previously. The equation for this model can be found on page 42.

Table 30: Hierarchical Logistic Model for Arrest with Random Intercept for Deputies and Random Coefficient for Hispanic Drivers

	B	SE	Odds Ratio
Situational Characteristics:			
Number of passengers in vehicle	0.009	(0.033)	1.009
Stop occurs in the fall	-0.051	(0.070)	0.950
Stop occurs in the winter	0.193**	(0.068)	1.213**
Stop occurs in the spring	0.167*	(0.070)	1.181*
Vehicle has AZ license plate	0.033	(0.091)	1.034
Driver Characteristics:			
Driver is Native American	1.046**	(0.158)	2.847**
Driver is Asian	-0.176	(0.197)	0.838
Driver is Black	0.598**	(0.080)	1.819**
Driver is Hispanic	0.499**	(0.057)	1.648**
Driver is male	0.371**	(0.054)	1.450**
Driver's age in years	-0.019**	(0.002)	0.982**
Deputy Characteristics:			
Length of employment at MCSO	-0.001	(0.010)	0.999
Deputy is Black	-1.060+	(0.566)	0.347+
Deputy is Hispanic	-0.148	(0.199)	0.862
Deputy is Asian	-0.763	(0.579)	0.466
Deputy is Native American	0.013	(0.829)	1.013
High stop volume deputy	0.630*	(0.305)	1.877*
Rank is Deputy	0.010	(0.163)	1.010
Contextual Characteristics:			
District 2	-0.426+	(0.232)	0.653+
District 3	-0.045	(0.222)	0.956
District 4	-0.065	(0.242)	0.937
District 5	-0.190	(0.260)	0.827
District 7	-0.298	(0.272)	0.742
Lakes District	0.677**	(0.246)	1.968**
Constant	-3.294**	(0.085)	0.037**
<hr/>			
Variance of the Coefficient (Variance Component for Hispanic Drivers)	3.17E-33		
Variance of the Intercept (Variance Component)	1.049094		
χ^2 for the Variance Component	1035.078		
Observations	30,586		
Number of groups	390		
<hr/>			
Standard Errors in parentheses			
**p < 0.01, *p < 0.05, +p < 0.10			

5.3.2 Exploring Other Explanations for Racial Disparities in Stops

In this section we examine two potential explanations – that the stop occurs under the cover of darkness and the deputy is a high call volume deputy – for why driver race remains a significant predictor of stop outcomes, arrests, searches, finding contraband and length of stop.

5.3.2.1 Veil of Darkness Analysis

The first potential explanation is related to the time of day that the stop took place. Here, we invoke the “veil of darkness” hypothesis as an additional test of racial bias. One means of testing racially biased policing is by testing the “veil of darkness”. Here the assumption is that, at night, police officers have “greater difficulty observing the race of a suspect before they actually make a stop” (Grogger and

Ridgeway 2006; p. 878). Thus, the race of the driver during the nighttime – or under darkness – should not impact the likelihood of a particular outcome if racially biased policing is not occurring (Grogger and Ridgeway 2006; Worden, McLean and Wheeler 2012). The main criticisms of this approach is the means through which officers perceive driver race/ethnicity: do officers exclusively use skin tone and/or facial features, or do officers use a combination of personal (e.g., skin tone), situational (e.g, type of vehicle, bumper stickers), and environmental (e.g., neighborhood) cues to determine the race of the driver? As such, we do an analysis where we interact the *Night Time During Stop* variable with the driver's race variables while predicting arrests, searches, contraband, and length of stop.

We begin with the outcome of length of stop. The linear outcome of length of stop is tested using a hierarchical linear model where stops are nested within deputies. The level one equation is shown as:

$$Y_{ij} = \beta_0 + \beta_1 S_j + \beta_2 D_j + \beta_3 Dep_j + \beta_4 T_j + \beta_4 T_j * D_j + r_{ij}$$

Where Y_{ij} is the length of stop i conducted by deputy j , β_0 represents the random intercept across time, S_j is a matrix of the stop characteristics with effects captured in a β_1 vector, D_j is a matrix of the driver-specific variables with effects captured in a β_2 vector, Dep_j is a matrix of the deputy characteristics with effects captured in a β_3 vector, T_j is the matrix of the time and seasonal variables – which includes the variable *Night Time During Stop* – with their effects captured in β_4 , $T_j * D_j$ represents the matrix of interaction terms between the *Night Time During Stop* variable and the driver race variables, and r_{ij} is the error. The level two equation for the length of stop outcome is shown as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

Where β_{0j} is the mean length of stop for the j^{th} unit, γ_{00} represents the grand mean length of stop for the total traffic enforcement section of MCSO, and u_{0j} is the random effect associated with unit j , which has a mean of zero and a variance of τ_{00} . Additionally, β_{2j} is the average regression slope for Hispanic drivers for length of stop, γ_{20} is the grand mean for Hispanic drivers on length of stop for the traffic enforcement section of MCSO, and u_{2j} is the random effect associated with Hispanic drivers across deputies.

Table 31. Veil of Darkness Analysis for Length of Stop Outcome

	Model1		Model2		Model3		Model4	
	B	SE	B	SE	B	SE	B	SE
Interactions:								
Dark*DriverIsNativeAmerican	-0.170**	(0.052)						
Dark*DriverIsAsian			-0.005	(0.042)				
Dark*DriverIsBlack					0.034	(0.023)		
Dark*DriverIsHispanic							0.018	(0.015)
Situational Characteristics:								
NumberofpassengersinVehicle	0.012**	(0.004)	0.012**	(0.004)	0.012**	(0.004)	0.012**	(0.004)
StopoccursintheFall	-0.067**	(0.009)	-0.067**	(0.009)	-0.067**	(0.009)	-0.067**	(0.009)
StopoccursintheWinter	-0.070**	(0.009)	-0.070**	(0.009)	-0.070**	(0.009)	-0.070**	(0.009)
StopoccursintheSpring	-0.062**	(0.009)	-0.062**	(0.009)	-0.062**	(0.009)	-0.062**	(0.009)
VehiclehasAZlicenceplate	-0.135**	(0.011)	-0.135**	(0.011)	-0.135**	(0.011)	-0.135**	(0.011)
Driverwasarrested	0.363**	(0.015)	0.363**	(0.015)	0.363**	(0.015)	0.363**	(0.015)
VehiclewasSearched	0.361**	(0.021)	0.361**	(0.021)	0.361**	(0.021)	0.361**	(0.021)
Technicalproblemsencounteredduringstop	0.473**	(0.017)	0.473**	(0.017)	0.473**	(0.017)	0.473**	(0.017)
StopinvolvesDUI	0.793**	(0.028)	0.792**	(0.028)	0.792**	(0.028)	0.792**	(0.028)
StopinvolvesTow	0.920**	(0.026)	0.920**	(0.026)	0.920**	(0.026)	0.920**	(0.026)
StopinvolvesDeputyTraining	0.091	(0.058)	0.092	(0.058)	0.091	(0.058)	0.092	(0.058)
Languagebarrier	0.575**	(0.056)	0.576**	(0.056)	0.576**	(0.056)	0.577**	(0.056)
Stopoccurredinthedark	0.032**	(0.008)	0.030**	(0.008)	0.027**	(0.008)	0.026**	(0.009)
Driver Characteristics:								
DriverIsNativeAmerican	0.087*	(0.037)	0.003	(0.026)	0.003	(0.026)	0.004	(0.026)
DriverIsAsian	-0.010	(0.021)	-0.007	(0.030)	-0.009	(0.021)	-0.009	(0.021)
DriverIsBlack	0.066**	(0.012)	0.066**	(0.012)	0.049**	(0.017)	0.066**	(0.012)
DriverIsHispanic	0.048**	(0.008)	0.048**	(0.008)	0.048**	(0.008)	0.039**	(0.010)
DriverIsMale	0.020**	(0.006)	0.020**	(0.006)	0.020**	(0.006)	0.020**	(0.006)
Driver'sageinyears	-0.002**	(0.000)	-0.002**	(0.000)	-0.002**	(0.000)	-0.002**	(0.000)
Deputy Characteristics:								
LengthofemploymentatMCSD	0.003*	(0.001)	0.003*	(0.001)	0.003*	(0.001)	0.003*	(0.001)
DeputyIsBlack	0.094	(0.062)	0.094	(0.062)	0.094	(0.062)	0.094	(0.062)
DeputyIsHispanic	0.054*	(0.027)	0.054*	(0.027)	0.054*	(0.027)	0.054*	(0.027)
DeputyIsAsian	-0.048	(0.069)	-0.050	(0.069)	-0.050	(0.068)	-0.050	(0.068)
DeputyIsNativeAmerican	-0.045	(0.120)	-0.045	(0.120)	-0.045	(0.120)	-0.045	(0.120)
HighStopVolumeDeputy	-0.149**	(0.048)	-0.149**	(0.048)	-0.150**	(0.048)	-0.150**	(0.048)
RankIsDeputy	-0.059**	(0.023)	-0.059**	(0.023)	-0.059**	(0.023)	-0.059**	(0.023)
Contextual Characteristics:								
District2	-0.064*	(0.030)	-0.063*	(0.030)	-0.063*	(0.030)	-0.063*	(0.030)
District3	-0.011	(0.030)	-0.010	(0.030)	-0.010	(0.030)	-0.010	(0.030)
District4	-0.045	(0.031)	-0.044	(0.031)	-0.043	(0.031)	-0.043	(0.031)
District5	-0.058	(0.036)	-0.057	(0.036)	-0.057	(0.036)	-0.057	(0.036)
District7	-0.035	(0.035)	-0.034	(0.035)	-0.034	(0.035)	-0.034	(0.035)
LakesDistrict	-0.112**	(0.035)	-0.111**	(0.035)	-0.111**	(0.035)	-0.111**	(0.035)
Constant	2.917**	(0.035)	2.918**	(0.035)	2.919**	(0.035)	2.920**	(0.035)
Observations	30,580		30,580		30,580		30,580	
Numberofgroups	390		390		390		390	

Standard errors in parentheses
 **p<0.01, *p<0.05, †p<0.10

Table 31 shows the models for the interactions between darkness and race. In each of the four models presented below, the significant predictors of length of stop are similar. We begin by interpreting the core aspects of this model: the race variables, darkness, and the interactions between race and darkness. First, most races, with the exception of Asians in all models and Native Americans in models two through four, had longer length of stops when compared to whites. If a stop occurred under the cover of darkness, it too had a longer stop time. Next, we turn to the interactions between race and darkness. Remember that the “veil of darkness” hypothesis suggests that if racial bias in stops is not occurring, the outcome would be equally likely to occur during both darkness and day light for specific races. Here, we do not see that this is the case: with the exception of Native Americans, there is no significant interaction between darkness and minority ethnicities. In other words, under the cover of darkness, stops involving Black, Hispanic, and Asian drivers are not significantly longer than stops involving white drivers occurring while it is dark. When it is day time however (i.e., the effect of the race dummies without the interaction since daytime is the reference category), there are significant

differences across race. The interaction between Native Americans and dark is significant and negative, showing that for Native Americans, their length of stop decreases when it is dark; this reinforces the above interpretation.

As for the remainder of the model, significant situational characteristics include stops made in the fall, winter, and spring; these stops were likely to have shorter lengths. Stops involving an arrest or a search, those that experienced technical problems, involved a DUI or a tow, or experienced a language barrier between the deputy and the driver all had longer stop times. Next, males had longer lengths of stops than women and older individuals had shorter lengths of stops. Deputies that have been at MCSO longer have longer lengths of stops, while high volume deputies have shorter lengths of stops. Hispanic deputies had longer lengths of stops than white deputies. Finally, in Districts 2 and Lakes, stops tend to be shorter than in the reference district, District 1.

Next we turn to the hierarchical logistic models for the outcomes of arrest, search, and contraband. The logistic outcomes are tested using the following level 1 equation:

$$\Lambda(\Pr Y_{ij} = 1) = \beta_0 + \beta_1 S_j + \beta_2 D_j + \beta_3 Dep_j + \beta_4 T_j + \beta_5 T_j \times D_j$$

Where Λ is the logit function, Y_{ij} is the outcome (e.g., arrest, search, or contraband) of stop i conducted by deputy j , β_0 represents the random intercept across time, S_j is a matrix of the stop characteristics with effects captured in a β_1 vector, D_j is a matrix of the driver-specific variables with effects captured in a β_2 vector, Dep_j is a matrix of the deputy characteristics with effects captured in a β_3 vector, T_j is the matrix of the time and seasonal variables – which includes the variable *Night Time During Stop* – with their effects captured in β_4 , and $T_j \times D_j$ represents the matrix of interaction term effects between the *Night Time During Stop* variable and the driver race variables.

Level 2 of these models include a random intercept, as well as a random coefficient. In more model specific terms, the effect of arrest can randomly vary across deputies, but also, the effect of being a Hispanic driver on the likelihood of being arrested can also randomly vary across deputies. The level two equation for the binary outcomes of arrest, search, and contraband is shown as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

Where β_{0j} is the mean likelihood of arrest for the j^{th} unit, γ_{00} represents the grand mean likelihood of the outcome for the traffic enforcement section of MCSO, and u_{0j} is the random effect associated with unit j , which has a mean of zero and a variance of τ_{00} . Additionally, β_{2j} is the average regression slope for Hispanic drivers on the outcome, γ_{20} is the grand mean likelihood of the outcome for the total traffic enforcement section of MCSO, and u_{2j} is the random effect associated with Hispanic drivers across deputies.

We begin with the interpretation of arrest. In each of the four models presented in Table 32, the significant predictors of arrest were largely the same. Situational characteristics that are significant in predicting arrest include stops in the winter, stops in the spring, and if the stop was made in the dark. In all models, if the stop occurred in the dark the odds of an arrest occurring were 1.2 times higher than if a stop occurred during the day. Like before, the “veil of darkness” hypothesis suggests that if racial bias in stops is not occurring, the outcome would be equally likely to occur during both darkness and day light for specific races. In these models, none of the interactions between race and darkness were significant. The driver characteristics proved to be especially meaningful. The odds of being arrested during a traffic stop are 1.4 times higher for males than females, and the odds of arrest decreased with

age. Native Americans are 3.3 times more likely to be arrested in model one, and 2.8 times more likely to be arrested in models two, three and four when compared to white drivers. When the driver is Black the odds of being arrested when compared to white drivers are 1.8 times higher in models one, two, and four, and 1.9 times higher in model three. If the driver is Hispanic the odds of being arrested when compared to white drivers are 1.6 times higher in models one, two, and three, and 1.7 times higher in model four. Significant Deputy Characteristics predicting arrest include the deputy being Black and the deputy having a high stop record, where an officer that conducts a high volume of stops is 1.9 times more likely to make an arrest when compared to an officer that does not conduct high volumes of stops. Finally, significant contextual variables include Lakes District and District 2 where it is two times more likely that a driver will be arrested following a stop in Lakes District.

Table 32. Veil of Darkness Analysis for Arrest Outcome

	Model 1		Model 2		Model 3		Model 4	
	B	Odds	B	Odds	B	Odds	B	Odds
Interactions:								
Dark is Native American	-0.288 (0.312)	0.750						
Dark is Asian			-0.711+ (0.399)	0.491+				
Dark is Black					-0.077 (0.154)	0.926		
Dark is Hispanic							-0.130 (0.107)	0.878
Situational Characteristics:								
Number of passengers in vehicle	0.009 (0.033)	1.009	0.008 (0.033)	1.008	0.009 (0.033)	1.009	0.008 (0.033)	1.008
Stop occurs in the fall	-0.075 (0.070)	0.928	-0.074 (0.070)	0.928	-0.075 (0.070)	0.928	-0.075 (0.070)	0.927
Stop occurs in the winter	0.150* (0.069)	1.162*	0.152* (0.069)	1.164*	0.151* (0.069)	1.163*	0.149* (0.069)	1.161*
Stop occurs in the spring	0.158* (0.070)	1.171*	0.157* (0.070)	1.170*	0.158* (0.070)	1.171*	0.159* (0.070)	1.172*
Vehicle has AZ license plate	0.035 (0.091)	1.035	0.036 (0.091)	1.037	0.035 (0.091)	1.035	0.033 (0.091)	1.034
Stop occurred in the dark	0.203** (0.061)	1.225**	0.196** (0.061)	1.217**	0.202** (0.061)	1.224**	0.210** (0.061)	1.234**
Driver Characteristics:								
Driver is Native American	1.186** (0.216)	3.275**	1.045** (0.158)	2.844**	1.046** (0.158)	2.846**	1.046** (0.158)	2.846**
Driver is Asian	-0.191 (0.197)	0.826	0.154 (0.259)	1.167	-0.191 (0.197)	0.826	-0.194 (0.197)	0.824
Driver is Black	0.588** (0.081)	1.800**	0.587** (0.081)	1.799**	0.629** (0.115)	1.877**	0.586** (0.081)	1.797**
Driver is Hispanic	0.496** (0.057)	1.642**	0.496** (0.058)	1.641**	0.496** (0.058)	1.642**	0.559** (0.077)	1.748**
Driver is male	0.367** (0.054)	1.443**	0.367** (0.054)	1.443**	0.366** (0.054)	1.442**	0.366** (0.054)	1.442**
Driver's age in years	-0.018** (0.002)	0.982**	-0.018** (0.002)	0.982**	-0.018** (0.002)	0.982**	-0.018** (0.002)	0.982**
Deputy Characteristics:								
Length of employment at MCSO	0.001 (0.010)	1.001	0.001 (0.010)	1.001	0.001 (0.010)	1.001	0.001 (0.010)	1.001
Deputy is Black	-1.059+ (0.568)	0.347+	-1.061+ (0.568)	0.346+	-1.061+ (0.568)	0.346+	-1.063+ (0.568)	0.345+
Deputy is Hispanic	-0.171 (0.199)	0.843	-0.170 (0.199)	0.843	-0.170 (0.199)	0.843	-0.170 (0.199)	0.844
Deputy is Asian	-0.802 (0.579)	0.448	-0.809 (0.579)	0.445	-0.809 (0.579)	0.445	-0.810 (0.579)	0.445
Deputy is Native American	-0.047 (0.828)	0.954	-0.042 (0.828)	0.959	-0.044 (0.828)	0.957	-0.046 (0.827)	0.955
High stop volume deputy	0.636* (0.305)	1.888*	0.636* (0.305)	1.889*	0.635* (0.305)	1.887*	0.636* (0.305)	1.889*
Rank is Deputy	0.025 (0.164)	1.026	0.025 (0.164)	1.026	0.026 (0.164)	1.026	0.024 (0.163)	1.025
Contextual Characteristics:								
District 2	-0.408+ (0.232)	0.665+	-0.405+ (0.232)	0.667+	-0.405+ (0.232)	0.667+	-0.402+ (0.232)	0.669+
District 3	-0.040 (0.222)	0.961	-0.036 (0.222)	0.965	-0.037 (0.222)	0.963	-0.038 (0.222)	0.963
District 4	-0.062 (0.242)	0.940	-0.059 (0.242)	0.943	-0.059 (0.242)	0.942	-0.062 (0.242)	0.940
District 5	-0.170 (0.260)	0.844	-0.169 (0.260)	0.845	-0.169 (0.261)	0.845	-0.168 (0.260)	0.845
District 7	-0.293 (0.273)	0.746	-0.286 (0.273)	0.752	-0.291 (0.273)	0.747	-0.293 (0.273)	0.746
Lake District	0.710** (0.246)	2.034**	0.715** (0.246)	2.044**	0.715** (0.246)	2.043**	0.715** (0.246)	2.045**
Constant	-3.386** (0.090)	0.034**	-3.383** (0.090)	0.034**	-3.385** (0.090)	0.034**	-3.388** (0.090)	0.034**
Observations	30,586	30,586	30,586	30,586	30,586	30,586	30,586	30,586
Number of groups	390	390	390	390	390	390	390	390
Standard errors in parentheses **p<0.01, *p<0.05, +p<0.10								

Table 33. Veil of Darkness Analysis for Search Outcome

	Model1		Model2		Model3		Model4	
	B	Odds	B	Odds	B	Odds	B	Odds
Interactions:								
Dark ¹ NativeAmerican	-0.254 (0.531)	0.776						
Dark ¹ Asian			2.106+ (1.162)	8.219+				
Dark ¹ Black					-0.230 (0.282)	0.795		
Dark ¹ Hispanic							-0.210 (0.198)	0.810
Situational Characteristics:								
DriverWasArrested	4.896** (0.118)	133.814**	4.901** (0.118)	134.445**	4.897** (0.118)	133.876**	4.897** (0.118)	133.909**
NumberOfPassengersInVehicle	0.063 (0.062)	1.065	0.066 (0.062)	1.068	0.062 (0.062)	1.064	0.060 (0.062)	1.062
StopOccursInTheFall	0.021 (0.131)	1.021	0.017 (0.131)	1.017	0.020 (0.131)	1.020	0.017 (0.131)	1.017
StopOccursInTheWinter	0.170 (0.131)	1.186	0.169 (0.131)	1.184	0.170 (0.131)	1.185	0.166 (0.131)	1.181
StopOccursInTheSpring	0.103 (0.134)	1.108	0.110 (0.134)	1.117	0.106 (0.134)	1.112	0.101 (0.134)	1.106
VehicleHasAZLicensePlate	-0.136 (0.162)	0.873	-0.143 (0.162)	0.867	-0.139 (0.162)	0.870	-0.137 (0.162)	0.872
StopOccurredInTheDark	0.585** (0.109)	1.795**	0.605** (0.111)	1.831**	0.590** (0.110)	1.803**	0.599** (0.111)	1.821**
Driver Characteristics:								
DriverIsNativeAmerican	1.213** (0.382)	3.363**	1.081** (0.274)	2.947**	1.086** (0.273)	2.963**	1.087** (0.273)	2.967**
DriverIsAsian	-0.657 (0.426)	0.518	-2.100* (1.052)	0.123*	-0.656 (0.426)	0.519	-0.657 (0.427)	0.519
DriverIsBlack	0.356* (0.147)	1.428*	0.353* (0.147)	1.424*	0.487* (0.217)	1.628*	0.352* (0.147)	1.422*
DriverIsHispanic	0.199+ (0.107)	1.220+	0.197+ (0.107)	1.218+	0.200+ (0.107)	1.221+	0.311* (0.150)	1.364*
DriverIsMale	0.642** (0.106)	1.900**	0.639** (0.106)	1.894**	0.643** (0.106)	1.902**	0.643** (0.106)	1.902**
Driver'sAgeInYears	-0.016** (0.004)	0.984**	-0.016** (0.004)	0.984**	-0.016** (0.004)	0.984**	-0.016** (0.004)	0.984**
Deputy Characteristics:								
LengthOfEmploymentAtMCSO	0.005 (0.015)	1.005	0.004 (0.015)	1.004	0.005 (0.015)	1.005	0.005 (0.016)	1.005
DeputyIsBlack	-0.304 (0.786)	0.738	-0.313 (0.787)	0.731	-0.316 (0.787)	0.729	-0.303 (0.785)	0.739
DeputyIsHispanic	-0.185 (0.286)	0.831	-0.185 (0.286)	0.831	-0.183 (0.286)	0.833	-0.183 (0.286)	0.833
DeputyIsAsian	-1.178 (0.906)	0.308	-1.196 (0.906)	0.302	-1.191 (0.907)	0.304	-1.197 (0.907)	0.302
DeputyIsNativeAmerican	-0.182 (1.148)	0.834	-0.215 (1.150)	0.807	-0.179 (1.149)	0.836	-0.181 (1.148)	0.835
HighStopVolumeDeputy	0.014 (0.402)	1.015	0.014 (0.402)	1.014	0.014 (0.403)	1.014	0.019 (0.403)	1.019
RankIsDeputy	0.099 (0.237)	1.104	0.102 (0.237)	1.107	0.100 (0.238)	1.105	0.094 (0.238)	1.099
Contextual Characteristics:								
District2	-0.507 (0.329)	0.603	-0.504 (0.329)	0.604	-0.501 (0.329)	0.606	-0.497 (0.329)	0.608
District3	-0.327 (0.317)	0.721	-0.330 (0.317)	0.719	-0.325 (0.317)	0.722	-0.322 (0.317)	0.724
District4	-0.248 (0.361)	0.780	-0.253 (0.361)	0.776	-0.243 (0.361)	0.784	-0.251 (0.361)	0.778
District5	-1.474** (0.420)	0.229**	-1.472** (0.420)	0.230**	-1.467** (0.420)	0.231**	-1.465** (0.420)	0.231**
District7	-0.676 (0.419)	0.509	-0.686 (0.419)	0.504	-0.673 (0.419)	0.510	-0.680 (0.419)	0.506
LakeDistrict	-0.908* (0.358)	0.403*	-0.909* (0.358)	0.403*	-0.897* (0.358)	0.408*	-0.902* (0.358)	0.406*
Constant	-6.362** (0.163)	0.002**	-6.382** (0.164)	0.002**	-6.364** (0.164)	0.002**	-6.370** (0.164)	0.002**
Observations	30,586	30,586	30,586	30,586	30,586	30,586	30,586	30,586
NumberofGroups	390	390	390	390	390	390	390	390

Standard errors in parentheses
 **p<0.01, *p<0.05, +p<0.10

Table 34. Veil of Darkness Analysis for Contraband Outcome

	Model 1		Model 2		Model 3		Model 4	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
Interactions:								
Dark Native American	1.545*	4.689*						
	(0.712)							
Dark Asian			0.533	1.704				
			(1.448)					
Dark Black					0.202	1.224		
					(0.404)			
Dark Hispanic							-0.149	0.862
							(0.294)	
Situational Characteristics:								
Driver was arrested	-1.152**	0.316**	-1.142**	0.319**	-1.141**	0.319**	-1.139**	0.320**
	(0.160)		(0.159)		(0.159)		(0.159)	
Number of passengers in vehicle	-0.229*	0.796*	-0.217*	0.805*	-0.219*	0.803*	-0.220*	0.803*
	(0.096)		(0.096)		(0.095)		(0.096)	
Stop occurs in the fall	0.120	1.127	0.129	1.138	0.128	1.136	0.127	1.135
	(0.203)		(0.202)		(0.202)		(0.202)	
Stop occurs in the winter	0.316	1.371	0.313	1.367	0.310	1.364	0.307	1.359
	(0.200)		(0.199)		(0.199)		(0.199)	
Stop occurs in the spring	0.519*	1.680*	0.514*	1.672*	0.509*	1.664*	0.508*	1.662*
	(0.202)		(0.201)		(0.201)		(0.201)	
Vehicle has AZ licence plate	0.519+	1.680+	0.523+	1.688+	0.525+	1.690+	0.527+	1.693+
	(0.273)		(0.272)		(0.272)		(0.272)	
Stop occurred in the dark	-0.383*	0.682*	-0.334*	0.716*	-0.350*	0.705*	-0.325*	0.723*
	(0.160)		(0.158)		(0.159)		(0.160)	
Driver Characteristics:								
Driver is Native American	-1.066*	0.344*	-0.360	0.698	-0.363	0.696	-0.352	0.703
	(0.489)		(0.367)		(0.368)		(0.367)	
Driver is Asian	1.110	3.033	0.703	2.021	1.090	2.975	1.078	2.940
	(0.683)		(1.206)		(0.681)		(0.679)	
Driver is Black	0.044	1.045	0.043	1.044	-0.070	0.933	0.044	1.045
	(0.215)		(0.214)		(0.311)		(0.214)	
Driver is Hispanic	-0.059	0.942	-0.059	0.943	-0.060	0.941	0.022	1.022
	(0.162)		(0.161)		(0.161)		(0.227)	
Driver is male	-0.481**	0.618**	-0.481**	0.618**	-0.484**	0.616**	-0.479**	0.620**
	(0.161)		(0.161)		(0.161)		(0.161)	
Driver's age in years	-0.011*	0.989*	-0.011+	0.989+	-0.011+	0.989+	-0.011+	0.989+
	(0.006)		(0.006)		(0.006)		(0.006)	
Deputy Characteristics:								
Length of employment at MCSO	-0.015	0.985	-0.013	0.987	-0.013	0.987	-0.013	0.987
	(0.019)		(0.019)		(0.019)		(0.019)	
Deputy is Black	3.031*	20.719*	3.015**	20.384**	3.028**	20.657**	3.035**	20.809**
	(1.180)		(1.161)		(1.160)		(1.162)	
Deputy is Hispanic	0.378	1.459	0.375	1.455	0.375	1.456	0.378	1.460
	(0.332)		(0.326)		(0.326)		(0.326)	
Deputy is Asian	1.811	6.116	1.703	5.489	1.691	5.426	1.690	5.419
	(1.370)		(1.365)		(1.366)		(1.365)	
Deputy is Native American	0.575	1.776	0.592	1.808	0.600	1.823	0.601	1.823
	(1.158)		(1.140)		(1.138)		(1.141)	
High stop volume deputy	-0.707+	0.493+	-0.704+	0.495+	-0.700+	0.497+	-0.702+	0.495+
	(0.412)		(0.404)		(0.403)		(0.404)	
Rank is Deputy	-0.286	0.751	-0.277	0.758	-0.283	0.754	-0.284	0.752
	(0.280)		(0.276)		(0.275)		(0.276)	
Contextual Characteristics:								
District 2	-0.052	0.950	-0.062	0.940	-0.061	0.941	-0.050	0.951
	(0.391)		(0.385)		(0.385)		(0.386)	
District 3	0.188	1.207	0.158	1.172	0.155	1.167	0.164	1.179
	(0.365)		(0.359)		(0.359)		(0.360)	
District 4	1.059*	2.883*	1.036*	2.817*	1.033*	2.810*	1.034*	2.812*
	(0.433)		(0.426)		(0.426)		(0.426)	
District 6	0.388	1.474	0.363	1.438	0.355	1.426	0.368	1.445
	(0.467)		(0.458)		(0.458)		(0.459)	
District 7	0.259	1.295	0.275	1.316	0.272	1.313	0.272	1.313
	(0.501)		(0.495)		(0.494)		(0.495)	
Lake District	-0.381	0.683	-0.394	0.674	-0.405	0.667	-0.394	0.674
	(0.421)		(0.415)		(0.415)		(0.415)	
Constant	1.358**	3.890**	1.318**	3.735**	1.328**	3.775**	1.312**	3.713**
	(0.187)		(0.184)		(0.185)		(0.185)	
Observations	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411
Number of groups	221	221	221	221	221	221	221	221

Standard errors in parentheses
 **p<0.01, *p<0.05, +p<0.10

Next we examine the effect of darkness and race on the search outcomes (Table 33). As before, most of the interactions between race and darkness were not significant, but Asian drivers were marginally significantly more likely to be searched than white drivers at night. Situational characteristics of significance include a driver arrest and if the stop occurred in the dark for all models. As one might expect, the likelihood of a search was substantially increased if the driver was arrested. Drivers who were arrested were more than 132 times more likely to be searched than drivers who were not. Stops occurring at night were 83% more likely to result in a search compared to stops during the day. All driver race characteristics increased the likelihood of search when compared to white drivers, with the exception of “age” and “driver race is Asian”. Across all four models, drivers age is associated with a 1.6% reduction in the likelihood of arrest for each year older an individual is. While controlling for the interaction under a veil of darkness, Asian drivers were 87.7% less likely to be searched compared to white drivers. In all other models, there was no statistical difference in the rates of searches between Asian and white drivers. Across all four models, Native American drivers (194.7%), black drivers (42.4%), and male drivers (89.4%) all had a significantly higher likelihood of being searched when compared to the reference categories. None of the deputy characteristics were significant. Finally, when compared to District 1, District 6 and the Lake District both had significantly lower likelihoods of searches for all drivers.

Finally, we examine the effect of darkness and race on the contraband outcome (Table 34). Results indicate Native American drivers are more likely to be arrested under a veil of darkness, compared to the reference groups. A number of situational characteristics were associated with an increased likelihood of finding contraband, such as if the stop occurred in the spring or if the vehicle had an Arizona license plate. There were also a couple situational characteristics that were associated with a decreased likelihood of finding contraband, and if the stop occurred in the spring. Stops occurring in the spring were 68% more likely and vehicles with AZ license plates were 68% more likely to result in a contraband seizure, although the relationship observed for vehicles registered in Arizona is significant only at the 0.1 level. In general, stops at night are less likely to result in contraband seizures, except for Native American drivers, which was discussed above. Across all models, stops where the driver was arrested and stops with multiple people in the car are both associated with reductions in the likelihood of contraband being seized. Across all models, stops involving male drivers tended to have a lower likelihood of resulting in seized contraband, and the likelihood of this result decreased about 1.1% for every year of drivers age. Model 1, which looked at the interaction between Native American drivers and driving at night, found that, while controlling for the interaction, Native Americans were 75.6% less likely to have contraband seized as a result of a stop. Significant deputy characteristics include a high-volume deputy and if the deputy is Black. The likelihood of contraband being seized as the result of a stop for Black deputies was more than 19 times that of white deputies. The likelihood of contraband seizure decrease if the stop was made by a high-volume officer, although this relationship is significant at only the 0.1 level. With regard to contextual variables, across all four models, stops in District 4 were approximately 180% more likely to result in seized contraband when compared to District 1.

5.3.2.2 High Volume Deputies

The analysis in Table 35 considers the interaction between race and deputies with a high volume of stops for determining length of stop. Significant situational variables lengthening the duration of traffic stops include the number of passengers in the vehicle, driver arrest, vehicle search, technical problems, DUI, towing, and language barriers. Stops involving vehicles with Arizona license plates and stops occurring in fall, winter, and spring were shorter as compared to stops of vehicles without AZ license plates or stops made in summer. Significant driver characteristics include Black, Hispanic, and male drivers, which lengthen stops, and driver age, which decreases length of stop as driver age increases. Hispanic deputies had significantly longer stops, and length of employment at MCSO also

increased length of stops. High stop volume deputies had significantly shorter stops, as did those with a rank of Deputy. Districts 2, 6, and the Lakes District had significantly shorter stops than District 1. These effects were consistent across all four interaction models. The interactions themselves showed that only the interaction between high volume deputies and Hispanic drivers was significant, with significantly longer stops occurring in these circumstances. Thus, even though high volume deputies have shorter lengths of stop than their counterparts, their own stops of Hispanics are significantly longer than their stops of other races.

Table 35. High Stop Volume Analysis for Length of Stop Outcome

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
High Stop Volume Deputy * Driver is Native American	0.061	(0.076)						
High Stop Volume Deputy * Driver is Asian			-0.052	(0.052)				
High Stop Volume Deputy * Driver is Black					0.013	(0.031)		
High Stop Volume Deputy * Driver is Hispanic							0.058**	(0.020)
Situational Characteristics:								
Number of passengers in vehicle	0.012**	(0.004)	0.012**	(0.004)	0.012**	(0.004)	0.012**	(0.004)
Stop occurs in the fall	-0.065**	(0.009)	-0.065**	(0.009)	-0.065**	(0.009)	-0.065**	(0.009)
Stop occurs in the winter	-0.065**	(0.009)	-0.065**	(0.009)	-0.065**	(0.009)	-0.065**	(0.009)
Stop occurs in the spring	-0.061**	(0.009)	-0.061**	(0.009)	-0.061**	(0.009)	-0.061**	(0.009)
Vehicle has AZ licence plate	-0.136**	(0.011)	-0.136**	(0.011)	-0.136**	(0.011)	-0.136**	(0.011)
Driver was arrested	0.363**	(0.015)	0.363**	(0.015)	0.363**	(0.015)	0.362**	(0.015)
Vehicle was searched	0.363**	(0.021)	0.363**	(0.021)	0.363**	(0.021)	0.363**	(0.021)
Technical problems encountered during stop	0.473**	(0.017)	0.473**	(0.017)	0.473**	(0.017)	0.473**	(0.017)
Stop involved DUI	0.798**	(0.028)	0.798**	(0.028)	0.799**	(0.028)	0.798**	(0.028)
Stop involved tow	0.920**	(0.026)	0.920**	(0.026)	0.920**	(0.026)	0.920**	(0.026)
Stop involved deputy training	0.088	(0.058)	0.089	(0.058)	0.089	(0.058)	0.088	(0.058)
Language barrier	0.575**	(0.056)	0.574**	(0.056)	0.574**	(0.056)	0.575**	(0.056)
Driver Characteristics:								
Driver is Native American	-0.005	(0.028)	0.004	(0.026)	0.003	(0.026)	0.002	(0.026)
Driver is Asian	-0.008	(0.021)	0.002	(0.024)	-0.008	(0.021)	-0.008	(0.021)
Driver is Black	0.067**	(0.012)	0.067**	(0.012)	0.065**	(0.013)	0.067**	(0.012)
Driver is Hispanic	0.048**	(0.008)	0.049**	(0.008)	0.048**	(0.008)	0.038**	(0.009)
Driver is male	0.021**	(0.006)	0.021**	(0.006)	0.021**	(0.006)	0.021**	(0.006)
Driver's age in years	-0.002**	(0.000)	-0.002**	(0.000)	-0.002**	(0.000)	-0.002**	(0.000)
Deputy Characteristics:								
Length of employment at MCSO	0.003*	(0.001)	0.003*	(0.001)	0.003*	(0.001)	0.003*	(0.001)
Deputy is Black	0.095	(0.063)	0.095	(0.063)	0.095	(0.063)	0.095	(0.063)
Deputy is Hispanic	0.058*	(0.027)	0.058*	(0.027)	0.058*	(0.027)	0.058*	(0.027)
Deputy is Asian	-0.042	(0.069)	-0.042	(0.069)	-0.042	(0.069)	-0.042	(0.069)
Deputy is Native American	-0.036	(0.121)	-0.036	(0.121)	-0.036	(0.121)	-0.036	(0.121)
High Stop Volume Deputy	-0.151**	(0.048)	-0.150**	(0.048)	-0.152**	(0.048)	-0.162**	(0.048)
Rank is Deputy	-0.061**	(0.023)	-0.061**	(0.023)	-0.061**	(0.023)	-0.061**	(0.023)
Contextual Characteristics:								
District 2	-0.066*	(0.030)	-0.066*	(0.030)	-0.066*	(0.030)	-0.065*	(0.030)
District 3	-0.012	(0.030)	-0.011	(0.030)	-0.011	(0.030)	-0.012	(0.030)
District 4	-0.046	(0.032)	-0.046	(0.032)	-0.046	(0.032)	-0.047	(0.032)
District 5	-0.061+	(0.036)	-0.061+	(0.036)	-0.061+	(0.036)	-0.062+	(0.036)
District 7	-0.035	(0.035)	-0.035	(0.035)	-0.035	(0.035)	-0.036	(0.035)
Lakes District	-0.117**	(0.035)	-0.116**	(0.035)	-0.117**	(0.035)	-0.116**	(0.035)
Constant	2.939**	(0.035)	2.939**	(0.035)	2.939**	(0.035)	2.941**	(0.035)
Observations	30,580		30,580		30,580		30,580	
Number of groups	390		390		390		390	

Standard errors in parentheses
 **p<0.01, *p<0.05, +p<0.10

Table 36. High Stop Volume Analysis for Arrest Outcome

	Model 1		Model 2		Model 3		Model 4	
	B	Odds	B	Odds	B	Odds	B	Odds
High Stop Volume Deputy Driver is Native American	-0.889*	0.411*						
	(0.431)							
High Stop Volume Deputy Driver is Asian			-0.456	0.634				
			(0.440)					
High Stop Volume Deputy Driver is Black					0.037	1.038		
					(0.179)			
High Stop Volume Deputy Driver is Hispanic							0.047	1.048
							(0.124)	
Situational Characteristics:								
Number of passengers in vehicle	0.007	1.007	0.008	1.008	0.009	1.009	0.009	1.009
	(0.033)		(0.033)		(0.033)		(0.033)	
Stop occurs in the fall	-0.051	0.950	-0.051	0.951	-0.051	0.950	-0.052	0.950
	(0.070)		(0.070)		(0.070)		(0.070)	
Stop occurs in the winter	0.194**	1.214**	0.194**	1.214**	0.193**	1.213**	0.193**	1.213**
	(0.068)		(0.068)		(0.068)		(0.068)	
Stop occurs in the spring	0.166*	1.180*	0.166*	1.181*	0.167*	1.182*	0.167*	1.181*
	(0.070)		(0.070)		(0.070)		(0.070)	
Vehicle has AZ license plate	0.032	1.033	0.033	1.033	0.033	1.034	0.033	1.033
	(0.091)		(0.091)		(0.091)		(0.091)	
Driver Characteristics:								
Driver is Native American	1.054**	2.868**	1.048**	2.851**	1.046**	2.847**	1.045**	2.844**
	(0.159)		(0.158)		(0.158)		(0.158)	
Driver is Asian	-0.176	0.838	-0.120	0.887	-0.176	0.839	-0.176	0.839
	(0.197)		(0.201)		(0.197)		(0.197)	
Driver is Black	0.600**	1.822**	0.599**	1.820**	0.596**	1.815**	0.597**	1.817**
	(0.081)		(0.081)		(0.081)		(0.081)	
Driver is Hispanic	0.502**	1.652**	0.500**	1.649**	0.499**	1.648**	0.496**	1.642**
	(0.058)		(0.057)		(0.058)		(0.058)	
Driver is male	0.372**	1.451**	0.371**	1.450**	0.372**	1.450**	0.372**	1.450**
	(0.054)		(0.054)		(0.054)		(0.054)	
Driver's age in years	-0.019**	0.982**	-0.019**	0.982**	-0.019**	0.982**	-0.019**	0.982**
	(0.002)		(0.002)		(0.002)		(0.002)	
Deputy Characteristics:								
Length of employment at MCSO	-0.001	0.999	-0.001	0.999	-0.001	0.999	-0.001	0.999
	(0.010)		(0.010)		(0.010)		(0.010)	
Deputy is Black	-1.065+	0.345+	-1.066+	0.344+	-1.066+	0.345+	-1.065+	0.345+
	(0.572)		(0.572)		(0.572)		(0.572)	
Deputy is Hispanic	-0.148	0.862	-0.148	0.863	-0.147	0.863	-0.147	0.864
	(0.200)		(0.200)		(0.200)		(0.200)	
Deputy is Asian	-0.770	0.463	-0.765	0.466	-0.762	0.467	-0.763	0.466
	(0.582)		(0.581)		(0.581)		(0.581)	
Deputy is Native American	0.013	1.013	0.009	1.009	0.011	1.011	0.010	1.010
	(0.832)		(0.832)		(0.831)		(0.831)	
High Stop Volume Deputy	0.629*	1.876*	0.625*	1.868*	0.627*	1.871*	0.625*	1.869*
	(0.307)		(0.307)		(0.306)		(0.306)	
Rank is Deputy	0.010	1.010	0.010	1.010	0.010	1.010	0.010	1.010
	(0.164)		(0.164)		(0.164)		(0.164)	
Contextual Characteristics:								
District 2	-0.422+	0.655+	-0.426+	0.653+	-0.426+	0.653+	-0.424+	0.654+
	(0.233)		(0.233)		(0.233)		(0.233)	
District 3	-0.039	0.962	-0.044	0.957	-0.045	0.956	-0.045	0.956
	(0.223)		(0.223)		(0.223)		(0.223)	
District 4	-0.058	0.944	-0.063	0.939	-0.064	0.938	-0.064	0.938
	(0.243)		(0.243)		(0.243)		(0.243)	
District 5	-0.183	0.832	-0.189	0.828	-0.190	0.827	-0.191	0.827
	(0.261)		(0.261)		(0.261)		(0.261)	
District 7	-0.300	0.741	-0.297	0.743	-0.298	0.743	-0.298	0.742
	(0.273)		(0.273)		(0.273)		(0.273)	
Lakes District	0.680**	1.974**	0.676**	1.966**	0.676**	1.966**	0.676**	1.966**
	(0.247)		(0.247)		(0.247)		(0.247)	
Constant	-3.295**	0.037**	-3.292**	0.037**	-3.292**	0.037**	-3.292**	0.037**
	(0.085)	(0.003)	(0.085)	(0.003)	(0.085)	(0.003)	(0.085)	(0.003)
Observations	30,586	30,586	30,586	30,586	30,586	30,586	30,586	30,586
Number of groups	390	390	390	390	390	390	390	390

Standard Errors in parentheses *p<0.01, **p<0.05, +p<0.10

Table 37. High Stop Volume Analysis for Search Outcome

Interactions	Model 1		Model 2		Model 3		Model 4	
	B	Odds	B	Odds	B	Odds	B	Odds
High Stop Volume Deputy Driver Native American	-0.263 (0.770)	0.769						
High Stop Volume Deputy Driver Asian			-0.224 (0.954)	0.800				
High Stop Volume Deputy Driver Black					0.110 (0.326)	1.117		
High Stop Volume Deputy Driver Hispanic							-0.192 (0.232)	0.826
Situational Characteristics								
Driver was arrested	4.895** (0.118)	133.655**	4.895** (0.118)	133.687**	4.896** (0.118)	133.736**	4.896** (0.118)	133.693**
Number of passengers in vehicle	0.060 (0.062)	1.062	0.060 (0.062)	1.062	0.059 (0.062)	1.061	0.058 (0.062)	1.060
Stop occurs in the fall	0.096 (0.130)	1.101	0.097 (0.130)	1.101	0.097 (0.130)	1.101	0.100 (0.130)	1.105
Stop occurs in the winter	0.301* (0.129)	1.351*	0.301* (0.129)	1.351*	0.300* (0.129)	1.351*	0.302* (0.129)	1.353*
Stop occurs in the spring	0.128 (0.134)	1.137	0.129 (0.134)	1.137	0.129 (0.134)	1.138	0.131 (0.134)	1.140
Vehicle has AZ license plate	-0.137 (0.161)	0.872	-0.137 (0.161)	0.872	-0.138 (0.161)	0.871	-0.134 (0.161)	0.874
Driver Characteristics								
Driver Native American	1.051** (0.275)	2.861**	1.063** (0.273)	2.896**	1.061** (0.273)	2.888**	1.073** (0.274)	2.923**
Driver Asian	-0.650 (0.424)	0.522	-0.630 (0.430)	0.533	-0.650 (0.424)	0.522	-0.648 (0.424)	0.523
Driver Black	0.374* (0.147)	1.453*	0.373* (0.147)	1.453*	0.366* (0.148)	1.443*	0.377* (0.147)	1.458*
Driver Hispanic	0.200+ (0.107)	1.222+	0.200+ (0.107)	1.222+	0.199+ (0.107)	1.220+	0.213* (0.108)	1.237*
Driver male	0.662** (0.106)	1.938**	0.662** (0.106)	1.938**	0.662** (0.106)	1.939**	0.661** (0.106)	1.937**
Driver's age in years	-0.018** (0.004)	0.982**	-0.018** (0.004)	0.982**	-0.018** (0.004)	0.982**	-0.018** (0.004)	0.982**
Deputy Characteristics								
Length of employment at MCSO	-0.003 (0.015)	0.997	-0.003 (0.015)	0.997	-0.003 (0.015)	0.997	-0.003 (0.015)	0.997
Deputy Black	-0.293 (0.791)	0.746	-0.294 (0.791)	0.745	-0.292 (0.791)	0.746	-0.292 (0.792)	0.747
Deputy Hispanic	-0.129 (0.287)	0.879	-0.128 (0.287)	0.879	-0.128 (0.286)	0.880	-0.131 (0.287)	0.877
Deputy Asian	-1.099 (0.913)	0.333	-1.095 (0.912)	0.334	-1.095 (0.912)	0.334	-1.101 (0.913)	0.333
Deputy Native American	-0.052 (1.160)	0.950	-0.056 (1.161)	0.946	-0.052 (1.160)	0.949	-0.050 (1.161)	0.951
High Stop Volume Deputy	-0.005 (0.405)	0.995	-0.008 (0.405)	0.992	-0.008 (0.405)	0.992	0.005 (0.405)	1.005
Rank Deputy	0.057 (0.238)	1.059	0.058 (0.238)	1.059	0.058 (0.238)	1.059	0.058 (0.238)	1.060
Contextual Characteristics								
District 2	-0.523 (0.330)	0.593	-0.525 (0.330)	0.592	-0.524 (0.330)	0.592	-0.532 (0.330)	0.588
District 3	-0.374 (0.319)	0.688	-0.376 (0.319)	0.687	-0.375 (0.319)	0.687	-0.376 (0.319)	0.687
District 4	-0.220 (0.361)	0.803	-0.221 (0.361)	0.802	-0.222 (0.361)	0.801	-0.218 (0.362)	0.804
District 6	-1.506** (0.421)	0.222**	-1.507** (0.421)	0.222**	-1.507** (0.421)	0.222**	-1.505** (0.422)	0.222**
District 7	-0.708+ (0.419)	0.493+	-0.707+ (0.418)	0.493+	-0.709+ (0.418)	0.492+	-0.703+ (0.419)	0.495+
Lakes District	-0.990** (0.358)	0.372**	-0.990** (0.358)	0.372**	-0.991** (0.358)	0.371**	-0.990** (0.358)	0.371**
Constant	-6.060** (0.150)	0.002**	-6.059** (0.150)	0.002**	-6.059** (0.150)	0.002**	-6.062** (0.150)	0.002**
Observations	30,586	30,586	30,586	30,586	30,586	30,586	30,586	30,586
Number of groups	390	390	390	390	390	390	390	390

Standard errors in parentheses

**p < 0.01, *p < 0.05, +p < 0.10

In this section, we examine the interaction between high call volume deputies, race, and arrest (See Table 36.). Significant situational characteristics include stops occurring in the winter and stops occurring in the spring when compared to stops that occur in the summer. It is 1.4 times more likely that a stop will result in an arrest during winter and spring for all models. Driver characteristics significantly related to arrest are Native American, Black, Hispanic, and male drivers as well as age in years. In all models, when compared to white drivers, the odds of an arrest increase by approximately 2.9 when the driver is Native American. Additionally, the interaction variable between high stop and Native American driver is significant but negative, meaning that when a high volume officer stops a Native American there is a decrease in the odds that an arrest will be made. When compared to white drivers, stops that involve Black drivers have increased odds of arrest about 1.4 for all models. When the driver is Hispanic the odds of an arrest increase by approximately 1.6 for all models; note though that this effect is only significant at $p < 0.1$ with the exception of Model 4. A stop with a male driver increases the odds of arrest by 1.4 for all models when compared to stops with female drivers, while older drivers are significantly related to a decrease in the odds of arrest. Moreover, the only deputy characteristic that significantly affects the odds of arrest at the $p < 0.5$ level is the high stop variable, which increases the odds of an arrest by 1.9 in all models. Finally, if a stop is made in the Lakes district there is a significant increase in the odds of arrest, by approximately two for all models when compared to stops made in District 1.

Next we examine the interaction between high call volume deputies, race and search, with the results shown in Table 37. First, for all models, deputies who are considered high stop deputies are not significant. Indeed, none of the high-stop interaction models are significant. This suggests that while high stop volume has been previously shown to have an impact on stop outcomes (see Tables 26-28, 36), the inclusion of the race and high stop interactions account for this variability. Significant situational characteristics for all models include whether the driver was arrested and if the stop occurred in the winter. If the driver was arrested during a stop the odd of search increase by approximately 133.6 for all models when compared to stops that did not result in a driver arrest. If the stopped occurred in the winter the odds of a search increase by 1.3 for all models when compared to stops made in the summer. All driver characteristics were significant in all models with the exception of the driver being Asian. If the driver was Native American the odds of search increase by 2.9 for all models when compared to white drivers. If the driver was Black the odds of a search increase by 1.4 in all models when compared to a white driver. Hispanic drivers also saw higher odds of being searched than whites – approximately 1.2 times the odds – however this effect is only significant at $p < 0.1$, with the exception of Model 4. The odds of a search increase by 1.9 in all models for male drivers compared to female drivers. The odds of a search decrease slightly as the driver gets older. There are no deputy characteristics that are significant in these models. Contextual characteristics of significance are District 6, District 7, and Lakes District where the odds of search, when compared to District 1, decrease.

Turning to Table 38, we examine the interaction between high call volume deputies, race, and contraband. Unlike the models for search (Table 37), there is a significant race-high stop deputy interaction for contraband. Hispanics who are stopped by a high-stop deputy are 2.5 times more likely to have contraband found. Significant situational characteristics include a driver arrest, number of passengers in the vehicle, if the stop occurs in spring, and when vehicles with an Arizona license plate is stopped. When compared to stops that do not result in an arrest, the odds of a search and seizure decrease when the driver is arrested. As the number of passengers in the vehicle increases, the odds of a search and seizure decrease when compared to a vehicle with only one passenger. If the stop occurred in the spring the odds of a search and seizure increase by 1.7 in all models compared to stops made in the summer, and if the vehicle had an Arizona license plate the odds of a search and seizure increase by 1.7 in all models in comparison to stops with where vehicles did not have an Arizona license plate.

Significant driver characteristics include stops involving male drivers: here, male drivers are less likely to have contraband. Significant deputy characteristics include whether the deputy is Black and if the stop is made by a high stop volume deputy. When compared to white deputies, Black deputies have much higher odds of a search and seizure. For instance, odds increase by 20 in models 1 and 2, and 21 in models 3 and 4 (when compared to a white deputy). The odds of a search and seizure decrease if the stop is made by a high-volume deputy in all models, though this effect is only significant at $p < 0.1$. Finally, for District 4 there is a significant increase in the odds of a search and seizure when compared to District 1. For instance, across all models, the odds of a search and seizure are about 2.6 to 2.7 times greater in District 4 than that of stops occurring in District 1.

Table 38. High Stop Volume Analysis for Contraband Outcome

Interactions:	Model 1		Model 2		Model 3		Model 4	
	B	Odds	B	Odds	B	Odds	B	Odds
High Stop Volume Deputy Native American Driver	1.503 (1.011)	4.495						
High Stop Volume Deputy Asian Driver			-1.973 (1.639)	0.139				
High Stop Volume Deputy Black Driver					-0.450 (0.488)	0.638		
High Stop Volume Deputy Hispanic Driver							0.915* (0.355)	2.497*
Situational Characteristics:								
Driver Was Arrested	-1.159** (0.159)	0.314** (0.050)	-1.160** (0.159)	0.314** (0.050)	-1.161** (0.159)	0.313** (0.050)	-1.172** (0.159)	0.310** (0.049)
Number of Passengers in Vehicle	-0.222* (0.095)	0.801* (0.076)	-0.225* (0.095)	0.799* (0.076)	-0.222* (0.095)	0.801* (0.076)	-0.213* (0.096)	0.808* (0.077)
Stop Occurs in the Fall	0.077 (0.201)	1.081 (0.217)	0.091 (0.201)	1.095 (0.220)	0.076 (0.201)	1.079 (0.217)	0.065 (0.202)	1.067 (0.216)
Stop Occurs in the Winter	0.250 (0.198)	1.284 (0.254)	0.269 (0.197)	1.308 (0.258)	0.254 (0.198)	1.289 (0.255)	0.229 (0.199)	1.257 (0.250)
Stop Occurs in the Spring	0.506* (0.201)	1.658* (0.333)	0.510* (0.201)	1.666* (0.334)	0.497* (0.201)	1.644* (0.330)	0.483* (0.202)	1.621* (0.327)
Vehicle has AZ Licence Plate	0.549* (0.272)	1.731* (0.471)	0.546* (0.272)	1.726* (0.470)	0.551* (0.272)	1.735* (0.473)	0.543* (0.273)	1.721* (0.470)
Driver Characteristics:								
Driver is Native American	-0.302 (0.373)	0.739 (0.276)	-0.323 (0.365)	0.724 (0.264)	-0.318 (0.365)	0.727 (0.265)	-0.355 (0.366)	0.701 (0.256)
Driver is Asian	1.041 (0.675)	2.833 (1.912)	1.214 (0.757)	3.366 (2.548)	1.046 (0.673)	2.847 (1.916)	1.072 (0.683)	2.920 (1.995)
Driver is Black	0.047 (0.213)	1.048 (0.223)	0.051 (0.213)	1.052 (0.224)	0.070 (0.215)	1.073 (0.231)	0.039 (0.215)	1.039 (0.223)
Driver is Hispanic	-0.053 (0.161)	0.948 (0.152)	-0.051 (0.161)	0.950 (0.153)	-0.046 (0.161)	0.955 (0.153)	-0.097 (0.162)	0.908 (0.147)
Driver is Male	-0.478** (0.161)	0.620** (0.100)	-0.480** (0.161)	0.619** (0.100)	-0.478** (0.161)	0.620** (0.100)	-0.469** (0.161)	0.626** (0.101)
Driver's Age in Years	-0.010+ (0.006)	0.990+ (0.006)	-0.010+ (0.006)	0.990+ (0.006)	-0.010+ (0.006)	0.990+ (0.006)	-0.010+ (0.006)	0.990+ (0.006)
Deputy Characteristics:								
Length of Employment at MCSO	-0.009 (0.019)	0.992 (0.019)	-0.008 (0.019)	0.992 (0.019)	-0.009 (0.019)	0.991 (0.019)	-0.008 (0.019)	0.992 (0.019)
Deputy is Black	3.038** (1.159)	20.869** (24.192)	3.067** (1.164)	20.869** (24.192)	3.048** (1.160)	21.073** (24.450)	3.059** (1.163)	21.314** (24.798)
Deputy is Hispanic	0.365 (0.327)	1.440 (0.470)	0.361 (0.328)	1.440 (0.470)	0.354 (0.326)	1.425 (0.465)	0.370 (0.328)	1.448 (0.475)
Deputy is Asian	1.721 (1.379)	5.590 (7.711)	1.704 (1.384)	5.590 (7.711)	1.696 (1.383)	5.454 (7.545)	1.725 (1.397)	5.614 (7.845)
Deputy is Native American	0.567 (1.144)	1.764 (2.017)	0.522 (1.149)	1.764 (2.017)	0.548 (1.142)	1.729 (1.975)	0.518 (1.149)	1.678 (1.927)
High Stop Volume Deputy	-0.711+ (0.404)	0.491+ (0.199)	-0.725+ (0.406)	0.491+ (0.199)	-0.683+ (0.404)	0.505+ (0.204)	-0.753+ (0.407)	0.471+ (0.192)
Rank is Deputy	-0.261 (0.276)	0.771 (0.213)	-0.258 (0.277)	0.771 (0.213)	-0.269 (0.276)	0.764 (0.211)	-0.272 (0.277)	0.762 (0.211)
Contextual Characteristics:								
District 2	-0.064 (0.385)	0.938 (0.361)	-0.058 (0.387)	0.944 (0.365)	-0.063 (0.385)	0.939 (0.361)	-0.021 (0.387)	0.979 (0.379)
District 3	0.151 (0.360)	1.163 (0.419)	0.159 (0.362)	1.172 (0.424)	0.158 (0.360)	1.172 (0.422)	0.166 (0.362)	1.181 (0.427)
District 4	0.982* (0.426)	2.671* (1.138)	0.988* (0.428)	2.687* (1.149)	0.993* (0.426)	2.699* (1.149)	1.011* (0.428)	2.748* (1.176)
District 5	0.405 (0.458)	1.500 (0.687)	0.400 (0.460)	1.492 (0.686)	0.401 (0.457)	1.493 (0.683)	0.415 (0.460)	1.514 (0.696)
District 7	0.268 (0.495)	1.307 (0.646)	0.272 (0.496)	1.313 (0.651)	0.269 (0.494)	1.309 (0.647)	0.255 (0.496)	1.291 (0.640)
Lakes District	-0.366 (0.415)	0.693 (0.288)	-0.368 (0.416)	0.692 (0.288)	-0.366 (0.414)	0.693 (0.287)	-0.367 (0.416)	0.693 (0.288)
Constant	1.146** (0.164)	3.146** (0.515)	1.143** (0.164)	3.138** (0.515)	1.143** (0.163)	3.137** (0.513)	1.160** (0.164)	3.189** (0.524)
Observations	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411
Number of Groups	221	221	221	221	221	221	221	221

Standard Errors in parentheses *p<0.01, †p<0.05, ‡p<0.10

5.3.3 A Closer Examination of Differences in the Length of a Stop

Here, we examined the determinants of longer traffic stop times for deputy-initiated traffic stops, with the goal of developing a set of stop characteristics that enable MCSO, ASU, and the monitors to examine variability in the length of stop in a more sensible way. More specifically, rather than compare stops involving only citations to say, stops involving arrests and searches, we wanted to

approach examining “extended” stops from a more apples-to-apples perspective. We conducted this analysis using the 2015-2016 annual data. Our approach was twofold. First, we began by conducting analysis of variance (ANOVA) statistical tests on variables related to the stop, driver, and passengers that are most likely to add additional time to a traffic stop. Next, we examined the “reason for extended stop” variable, which is an open comment variable that allows the deputies to detail the reasons for an overly long stop. This variable enables us to understand when deputies believe the stop has been extended beyond what is reasonable for a stop of that type. Finally, we examined cases in which the length of stop was two or more standard deviations above the mean, to predict them using stop characteristics.

Table 39. Summary of ANOVA results from Length of Stop Analysis

Variable	Alone	Arrest	Warning	No Contact	Long Form	Field Interview	Citation
Any driver search	+		+	ns*	+	ns*	+
Driver terry search	ns	+	ns*	ns*	(+)*	ns*	+
Driver consent search	-	+	ns	ns*	(+)*	ns*	+
Driver items seized	ns	+	(+)*	ns*	+	ns*	+
Driver currency seized	ns*	(+)*	ig	ns*	ig	ig	(+)*
Driver other contraband seized	ns	+	(+)*	ig	(+)*	ig	+
Driver other drugs	+	+	(+)*	ns*	+	ns*	+
Driver was armed	ns*	(+)*	(+)*	ig	(+)*	ns*	(+)*
AZ driver's license	ns	-	+	ns	-	ns*	-
Driver INS violation	ns*	ig	ig	ig	ig	ig	ns*
Number of passengers	ns	+	+	ns	+	ns*	(+)& -
Any passengers present	ns	+	+	ns	+	ns*	+
Any passenger contact	+	+	ns	ns*	(+)*	ig	+
Total number of passengers contacted	+	+	ns	ns*	(+)*	ig	+
Any passengers searched	+	+	(+)*	ig	(+)*	ig	+
Total number of passengers searched	+	+	(+)*	ig	(+)*	ig	+
Any passenger property seizure	+	+	(+)*	ig	(+)*	ig	+
Total number of passengers from whom property was seized	ns	+	(+)*	ig	(+)*	ig	+
Any armed passengers	ns*	(+)*	(+)*	ig	ig	ns*	ns*
Total number of armed passengers	ns*	(+)*	(+)*	ig	ig	ig	ns*
All passengers same sex as driver	+	+	-	ns	+	ns*	+
Driver and all passengers same race	-	+	-	ns	(+)*	ns*	+
First passenger white	ns	+	-	ns	(+)*	ns*	+
First passenger ethnic unknown	ns	+	ns	ns	(+)*	ig	ns
First passenger Native American	ns	(+)*	ns	ns*	ns*	ig	ns
First passenger Hispanic	+	+	+	ns*	(+)*	ig	+
First passenger Black	ns	+	ns	ns*	(+)*	ig	+
First passenger Asian	ns	ns*	ns	ig	ig	ig	ns
Vehicle registered in AZ	ns	-	+	ns	-	ns*	-

NOTES:

* = less than 30 cases had this feature

+ = longer length of stop if this characteristic was present

ig = insufficient groups for analysis

- = shorter length of stop if this characteristic was present

ns = not significant

5.3.3.1 All stops

We examined whether the following stop characteristics impacted the length of a stop: searches (any, Terry, consent), seizures (items, currency, other contraband, other drugs), and vehicle registered in

Arizona. Next we examined the following driver characteristics for whether or not they impact the length of stop: weapon presence, driver licensed in Arizona, driver detained for an INS violation, and ICE contacted for driver. Similar tests were conducted for the following passenger variables: any passenger presence, number of passengers, any passenger contact, number of passenger contacts, any passenger searches, number of passenger searches, any property seized from passengers, number of passengers from who property was seized, any passenger armed, number of passengers armed, all passengers same sex as driver, all passengers same race as driver, passenger race for first passenger, and ICE involvement with passenger.

For each of these variables, we ran one-way ANOVA tests on the length of stop itself, as well as the length stop for each variable by the following stop outcomes: arrest, warning, no contact, long form, field incident, and citation. In brief, an ANOVA is similar to a chi-square test in that it assesses whether two variables – for example search and length of stop – are dependent on each other. See Table 39 above.

The following variables were associated with significantly longer stops, regardless of stop outcome: any driver search, driver Terry search, Arizona driver's license, any passenger contact, total number of passengers contacted, any passenger searched, total number of passengers searched, any passenger property seizure, all passengers were the same sex as the driver, the driver and passengers were all the same race, and the first passenger was Hispanic. No variables were associated with significantly shorter lengths of stop, regardless of stop outcome.

For arrest outcomes, there were some differences in significant variables. Those associated with significantly longer stops included: driver Terry search, driver consent search, driver items seized, driver other contraband seized, driver other drugs, Arizona driver's license, number of passengers, any passenger present, any passenger contact, total number of passengers contacted, any passengers searched, total number of passengers searched, all passengers same sex as driver, driver and all passengers same race, passenger races of white, Native American, Hispanic, or Black, and vehicle registered in Arizona.

For stops resulting in a warning, any driver search, Arizona driver's license, number of passengers, any passengers present, all passengers same sex as driver, driver and all passengers same race, first passenger white or Hispanic, and vehicle registered in Arizona were associated with significantly longer lengths of stops.

Analysis of stops resulting in no contact and field interviews returned outcomes that were either not significant, or not able to be analyzed due to insufficient groups or number of cases. This is not surprising considering, for example, the low likelihood of searches in no contact stops.

Insufficient groups and number of cases was also prevalent for stops with a long form outcome, but any driver search, driver items seized, driver other drugs, Arizona driver's license, number of passengers, any passengers present, all passengers same sex as driver, and vehicle registered in Arizona resulted in significantly longer lengths of stops.

Finally, most variables were associated with long length of stops for those resulting in a citation. These included: all driver search variables; driver items seized, driver other contraband seized, and driver other drugs seized; Arizona driver's license; all passenger presence, contact, search, and seizure variables; all passengers same sex as driver, driver and all passengers same race, first passenger white, first passenger Hispanic, and first passenger Black; and vehicle registered in Arizona.

The overall picture that emerges is that stops involving searches and seizures, those with more passengers, and those with Hispanic first passengers take longer across stop outcomes when there are sufficient cases for analysis.

To further understand length of stop from a deputy perspective that would not be captured in the TRaCs vehicle stop contact forms, we examined whether or not the reason for the deputy defined extended stop contained certain key words. We group these key words into six substantively meaningful categories which are likely to make stops longer. Table 40 describes each of these categories and details the key words associated with them. While deputies considered training stops and those with multiple vehicles to take longer, there were not statistically significant differences for these categories. Stops that deputies flagged as having technical issues, those involving towing, DUIs, or drivers or passengers that have questions, are talkative, or upset were significantly longer than those that did not have these characteristics. As such, the vehicle stop contact form should be able to designate these particular types of stops as potentially longer than other stops. A drop down menu, for instance, would be an option for classifying stops. Additionally, for stops where the deputy's subjective perception of the search is related to longer stops, like talkative or questioning drivers or passengers, it is important to retain an open field variable where the deputies can elaborate on the stop.

Table 40. Categories in Text Analysis of Extended Stop Reasons

Concept	Definition	Example Keywords
Technology problems	Problems associated with technology in the vehicle, like the TRaCs system, printer and internet.	printer not working, frozen, paper out, manually type
Tow Needed	Stops where a tow truck was called	tow
DUI	Stops that involve DUIs or DUI investigations	DUI
Training	Stops involving training procedures of some kind	train, training, trainee
Language	Stops where the deputy reported a language barrier between themselves and individuals involved in the stop.	Spanish, language

5.3.3.2 Stops two standard deviations above the mean

We utilized twenty-five variables when predicting which cases had length of stops at least two standard deviations longer than the average (see Table 41.) These included the reasons for extended stop considered above; whether the driver was arrested; if the vehicle was searched; number of passengers in the vehicle; the season of the stop (with other seasons compared to summer); whether the vehicle had an Arizona license plate; if the driver was Hispanic, "other" race, or nonwhite; the driver's sex and age in years; the primary deputy's length of employment at MCSO and rank; and the district in which the stop occurred. The sets of variables used here are different than those that were used previously due to the number of cases: given that it is highly unlikely for a length of stop to be two standard deviations above the mean, some variables needed to be excluded from the analysis because there was no variability in the outcome for that category. Also, due to low variability in the outcome, we were not able to run these models as hierarchical logistic models. Here, models are one level logistic regression models where we adjust the standard errors of the coefficients for clustering. Finally, note that due to the extremeness of the outcome – i.e., when the outcome is 1, that means the stop is considered far above average – there is lower variability in the outcome. As such, a number of variables drop out of the analyses simply because there is no variability in the outcome across those values. The results from this section should be interpreted with caution and an eye for what was and was not included in the model.

To begin with, Model 1 in Table 41 predicts the length of a stop being two standard deviations above the mean. Of the variables that deputies associated with extended stops, technical difficulties, DUIs, and towing significantly predicted these extra-long stops. Both searches and arrests also positively predicted these stops, as did the number of passengers in the vehicle. Compared to each of the other seasons, long stops were significantly more likely to occur in summer. The driver's age was inversely related to long stops, such that the younger a driver is the more likely a long stop will occur. Both of the driver race variables were significant and positive, meaning that long stops are more likely to include Hispanic drivers and drivers of "other" races than white drivers (note that Native American, Black and Asian drivers are not included in the analysis). Non-white deputies were more likely to have extremely long stops – 1.4 higher odds than deputies who are white. Lastly, the only district variable that was statistically significant was the Lakes District, which had a lower likelihood of long stops.

Model 2 in Table 41 shows the results predicting the length of a stop with arrest being two standard deviations longer in length than other stops with an arrest. Here, due to low variability in the outcome we are unable to include all relevant predictors (i.e., they were dropped due to collinearity and a lack of variability). We do find the longer a deputy has been working at MCSO, the less likely they are to conduct an arrest stop that is two standard deviations above the mean in length.

Model 3 in Table 41 shows the likelihood of a stop with a DUI being two standard deviations longer in length than other stops with a DUI. Like arrest, we find very few significant outcomes. First stops in the winter and spring are more likely to be two standard deviations above the mean; note though that the standard errors on these two effects are very large, suggesting caution when interpreting this result. Next, drivers of "other race" are more likely to be involved in DUI stops that are two standard deviations above the mean. Finally, the longer a deputy has been working at MCSO, the less likely they are to have made stops with DUIs that are excessively long.

Table 41: Stops Two Standard Deviations above the Mean on Certain Length of Stop Indicators

	Length of Stops for All Stops 2SD above Mean		Length of Stop for Arrests 2SD above Mean		Length of Stop for DUIs 2SD above Mean	
	B	OR	B	OR	B	OR
Situational Characteristics:						
Driver was arrested	2.328** (0.132)	10.261** (1.358)	-	-	-	-
Vehicle was searched	1.141** (0.187)	3.130** (0.586)	-	-	-	-
Number of passengers in vehicle	0.165** (0.054)	1.179** (0.064)	-0.042 (0.319)	0.958 (0.306)	-1.369+ (0.719)	0.254+ (0.183)
Stop occurs in the fall	-0.408** (0.125)	0.665** (0.083)	-0.181 (0.700)	0.835 (0.585)	-	-
Stop occurs in the winter	-0.704** (0.150)	0.494** (0.074)	-0.954 (0.777)	0.385 (0.300)	15.348** (3.461)	4631920.486** (16030262.749)
Stop occurs in the spring	-0.399** (0.130)	0.671** (0.087)	0.002 (0.668)	1.002 (0.669)	16.366** (2.403)	2807108.683** (30774808.841)
Vehicle has AZ license plate	-0.179 (0.118)	0.836 (0.099)	0.182 (1.019)	1.199 (1.222)	-1.729 (2.124)	0.178 (0.377)
Technical problems encountered during stop	0.722** (0.188)	2.058** (0.386)	-	-	-	-
Stop involves DUI	1.877** (0.220)	6.531** (1.439)	-	-	-	-
Stop involves tow	2.747** (0.227)	15.592** (3.536)	-	-	-	-
Stop involves deputy training	0.451 (0.431)	1.570 (0.678)	-	-	-	-
Language barrier	0.670 (0.464)	1.955 (0.906)	-	-	-	-
Driver Characteristics:						
Driver is Hispanic	0.305** (0.089)	1.356** (0.121)	-1.000 (0.635)	0.368 (0.234)	-	-
Driver is Other	0.269* (0.108)	1.308* (0.142)	-0.432 (0.648)	0.649 (0.421)	2.248* (1.064)	9.471* (10.076)
Driver is Male	0.122+ (0.070)	1.130+ (0.080)	-0.091 (0.424)	0.913 (0.387)	0.405 (1.195)	1.500 (1.793)
Driver's age in years	-0.009** (0.003)	0.991** (0.003)	-0.026 (0.022)	0.974 (0.021)	-0.051 (0.037)	0.950 (0.035)
Deputy Characteristics:						
Length of employment at MCSO	-0.002 (0.008)	0.998 (0.008)	-0.170** (0.052)	0.843** (0.044)	-0.174* (0.068)	0.840* (0.057)
Deputy is Non-White	0.317** (0.100)	1.373** (0.138)	0.027 (0.824)	1.027 (0.846)	0.900 (1.224)	2.460 (3.012)
Rank is Deputy	0.061 (0.135)	1.063 (0.143)	-	-	-	-
Contextual Characteristics:						
District 2	-0.149 (0.176)	0.861 (0.151)	-	-	-	-
District 3	0.280+ (0.163)	1.324+ (0.216)	-	-	-	-
District 4	0.165 (0.190)	1.180 (0.225)	-	-	-	-
District 5	-0.095 (0.160)	0.909 (0.145)	-	-	-	-
District 7	-0.246 (0.178)	0.782 (0.140)	-	-	-	-
Lakes District	-0.561** (0.208)	0.571** (0.118)	-	-	-	-
Constant	-3.759** (0.243)	0.023** (0.006)	-2.226 (1.449)	0.108 (0.156)	-14.935** (2.472)	0.000** (0.000)
Observations	30,586	30,586	2,103	2,103	232	232

Standard errors in parentheses. *p<0.01, +p<0.05, #p<0.10

5.3.4 Examining Racial Disparities across the Fiscal Years of 2014-2015 and 2015-2016

The last section of this report deals with how the outcomes of interest have changed over time, especially in conjunction with the propensity for Hispanics to be subject to that outcome. Not to ignore stops involving drivers of other races, we focus on Hispanics due to the topic of the court order. To do this we employ the same hierarchical linear, logistics, and multinomial logistic models used in previous analyses, where there is a random intercept allowing for the likelihood of an outcome to vary across deputies.

Table 42: Examining Differences in the Likelihood of Arrest and Search across Fiscal Years

	Arrest				Search			
	Model 1		Model 2		Model 3		Model 4	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
Fiscal Year 15-16	0.192** (0.041)	1.212** (0.050)	0.200** (0.042)	1.222** (0.051)	-0.207** (0.073)	0.813** (0.059)	-0.219** (0.074)	0.803** (0.059)
Fiscal Year 15-16*Driver is Hispanic			-0.287 (0.213)	0.751 (0.160)			0.368 (0.360)	1.445 (0.520)
Situational Characteristics:								
Number of passengers in vehicle	0.041+ (0.024)	1.042+ (0.025)	0.042+ (0.024)	1.042+ (0.025)	0.008 (0.044)	1.008 (0.044)	0.007 (0.044)	1.007 (0.044)
Stop occurs in the fall	-0.012 (0.052)	0.988 (0.051)	-0.012 (0.052)	0.988 (0.051)	-0.077 (0.095)	0.926 (0.088)	-0.077 (0.096)	0.926 (0.088)
Stop occurs in the winter	0.141** (0.050)	1.151** (0.058)	0.141** (0.050)	1.151** (0.058)	0.122 (0.091)	1.130 (0.103)	0.123 (0.091)	1.131 (0.103)
Stop occurs in the spring	0.038 (0.051)	1.038 (0.053)	0.037 (0.051)	1.038 (0.053)	0.010 (0.092)	1.010 (0.093)	0.008 (0.092)	1.008 (0.093)
Vehicle has Arizona licence plate	-0.005 (0.066)	0.995 (0.066)	-0.006 (0.066)	0.994 (0.066)	0.005 (0.119)	1.005 (0.120)	0.005 (0.119)	1.005 (0.120)
Driver Characteristics:								
Driver was arrested	-	-	-	-	4.721** (0.079)	112.269** (8.873)	4.722** (0.079)	112.412** (8.887)
Driver is Native American	-0.420 (0.348)	0.657 (0.229)	-0.418 (0.348)	0.658 (0.229)	-1.668 (1.049)	0.189 (0.198)	-1.675 (1.049)	0.187 (0.197)
Driver is Asian	0.566** (0.061)	1.761** (0.108)	0.566** (0.061)	1.761** (0.108)	0.414** (0.108)	1.513** (0.163)	0.415** (0.108)	1.514** (0.164)
Driver is Black	0.509** (0.042)	1.664** (0.070)	0.509** (0.042)	1.664** (0.070)	0.285** (0.076)	1.330** (0.101)	0.285** (0.076)	1.330** (0.101)
Driver is Hispanic	1.147** (0.109)	3.149** (0.342)	1.291** (0.150)	3.636** (0.545)	0.914** (0.187)	2.494** (0.466)	0.733** (0.259)	2.081** (0.540)
Driver is male	0.441** (0.040)	1.554** (0.062)	0.441** (0.040)	1.555** (0.062)	0.601** (0.076)	1.823** (0.138)	0.599** (0.076)	1.820** (0.138)
Driver's age in years	-0.021** (0.001)	0.980** (0.001)	-0.021** (0.001)	0.980** (0.001)	-0.018** (0.003)	0.982** (0.003)	-0.018** (0.003)	0.982** (0.003)
Deputy Characteristics:								
Length of employment at MCSO	-0.015 (0.012)	0.986 (0.012)	-0.014 (0.012)	0.986 (0.012)	-0.030+ (0.017)	0.970+ (0.016)	-0.030+ (0.017)	0.970+ (0.016)
Deputy was hired before Court Order	0.208 (0.186)	1.231 (0.229)	0.207 (0.186)	1.230 (0.229)	0.493* (0.249)	1.637* (0.408)	0.493* (0.249)	1.637* (0.408)
Deputy is Black	-1.363** (0.505)	0.256** (0.129)	-1.363** (0.505)	0.256** (0.129)	0.215 (0.608)	1.240 (0.753)	0.217 (0.607)	1.242 (0.755)
Deputy is Hispanic	-0.329* (0.164)	0.720* (0.118)	-0.328* (0.164)	0.720* (0.118)	-0.090 (0.220)	0.914 (0.201)	-0.093 (0.219)	0.911 (0.200)
Deputy is Asian	-0.552 (0.443)	0.576 (0.255)	-0.551 (0.443)	0.577 (0.256)	0.025 (0.573)	1.025 (0.588)	0.024 (0.573)	1.024 (0.587)
Deputy is Native American	-0.213 (0.740)	0.808 (0.598)	-0.214 (0.740)	0.807 (0.598)	0.001 (0.963)	1.001 (0.964)	0.002 (0.963)	1.002 (0.964)
High stop volume deputy	0.690* (0.282)	1.993* (0.561)	0.689* (0.282)	1.991* (0.561)	0.239 (0.345)	1.270 (0.439)	0.243 (0.345)	1.275 (0.440)
Rank is Deputy	-0.092 (0.137)	0.912 (0.125)	-0.092 (0.137)	0.912 (0.125)	0.003 (0.190)	1.003 (0.191)	0.003 (0.190)	1.003 (0.191)
Contextual Characteristics:								
District 2	-0.488** (0.172)	0.614** (0.105)	-0.489** (0.172)	0.613** (0.105)	-0.385 (0.234)	0.680 (0.159)	-0.385 (0.234)	0.680 (0.159)
District 3	-0.022 (0.171)	0.978 (0.167)	-0.022 (0.171)	0.978 (0.167)	-0.293 (0.234)	0.746 (0.174)	-0.294 (0.234)	0.745 (0.174)
District 4	-0.211 (0.177)	0.810 (0.144)	-0.211 (0.177)	0.809 (0.144)	0.018 (0.250)	1.018 (0.255)	0.016 (0.250)	1.017 (0.254)
District 6	-0.537** (0.193)	0.584** (0.113)	-0.537** (0.193)	0.584** (0.113)	-1.404** (0.297)	0.246** (0.073)	-1.405** (0.297)	0.245** (0.073)
District 7	-0.471* (0.206)	0.624* (0.128)	-0.471* (0.206)	0.624* (0.128)	-0.408 (0.292)	0.665 (0.194)	-0.409 (0.292)	0.665 (0.194)
Lakes District	0.463* (0.182)	1.589* (0.289)	0.464* (0.182)	1.591* (0.290)	-1.139** (0.257)	0.320** (0.082)	-1.143** (0.257)	0.319** (0.082)
Constant	-2.912** (0.206)	0.054** (0.011)	-2.918** (0.206)	0.054** (0.011)	-4.989** (0.315)	0.007** (0.002)	-4.977** (0.315)	0.007** (0.002)
Observations	55,824	55,824	55,824	55,824	55,824	55,824	55,824	55,824
Number of groups	447	447	447	447	447	447	447	447

Standard errors in parentheses
**p<0.01, *p<0.05, +p<0.10

In all the models shown in this section, many of the same predictors are significant, and will not be re-examined here (though the totality of the models is shown). Instead we focus two coefficients (or odds ratios where appropriate): the dummy variable for the fiscal year 2015-2016 and the interaction between the fiscal year 2015-2016 dummy variable and the driver race of Hispanic. The significance, size and direction of the fiscal year variable will show if there have been changes in the outcome over time. Additionally, the interaction between the fiscal year dummy variable and Hispanic will show if there have been changes in the outcome overtime for Hispanics. Lastly, note that both coefficients are displayed towards the top of each table.

We begin by examining the logistic outcomes of arrest and search in Table 42. Here we conduct two analyses: Model 1 includes the fiscal year dummy variable and Model 2 includes the interaction between the fiscal year variable and Hispanic. Each of these two models is conducted for arrest and search. To begin with, for arrest, we see that overall, there is a higher likelihood of arrest in the fiscal year of 2015-2016 (i.e., this current data year). This is not of concern now given that an increase in the likelihood of arrest could be related to larger crime trends or other confounding issues.¹³ Next, the interaction between Hispanic drivers and the dummy for the fiscal year of 2015-2016 is not significant. In conjunction with the significant Hispanic driver main effect – Hispanics are over 3 times more likely to be arrested than whites – this tells an important story. First, that Hispanics are more likely to be arrested than whites in general and second, that the differential likelihood of Hispanics being arrested has not changed over time. Put more simply, the differential likelihood of Hispanics being arrested has not decreased or increased over time. Examining search outcome and beginning with Model 1, we see that overall, there is a lower likelihood of being searched in the fiscal year of 2015-2016. Next, when predicting searches, in Model 2, the interaction between Hispanic drivers and the dummy for the fiscal year of 2015-2016 is not significant. Like what was found with arrest, the differential likelihood of Hispanics being searched has not changed over time. Put more simply, Hispanics are over 2.5 times more likely to be searched than whites, however, that differential likelihood of Hispanics being searched has not changed over time.

In Table 43, we turn to examining length of stop across time. For the fiscal year of 2015-2016, overall length of stop lowered. Net of controls, the average length of stop in 2015-2016 was 17.9 minutes,¹⁴ where the average length of stop in the year 2014-2015 was 19.8 minutes (i.e., $\exp(2.986)$). Note that these are also the length of stops for white, net of controls, due to white being the reference category for the race of the driver dummies. Thus, in the year 2015-2016, there was a reduction in the average length of stop.

In Model 2, we examine the effect of the interaction between the fiscal year variable and Hispanic on logged length of stop. First, the main effect of Hispanic is significant and positive, showing that Hispanics on average have significantly longer stops than whites: 20.78 for Hispanics v. 19.8 for whites during the 2014 to 2015 fiscal year. The main effect of the fiscal year variable is similar to the last model, showing a decrease in the length of stop. When looking at the interaction, we see that in the year 2015-2016, Hispanics, overall, had a reduction in length of stop from 22.6 for fiscal year 2014-2015

¹³ To disentangle if this effect is related to the court order, many more years of data would be needed to ascertain this, as well as information on overall crime rates across Maricopa County.

¹⁴ Remember that the length of stop outcome is logged due to its skewed nature; thus 17.9 minutes was derived by exponentiating the constant of $2.986 - 0.101$, which is the coefficient for the fiscal year.

to 15.92 in 2015-2016.¹⁵ This suggests a statistically significant improvement for the length of stop for Hispanic drivers over the years.

Table 43: Examining Differences in the Length of Stops across Fiscal Years

	B	SE	B	SE
Fiscal Year 15-16	-0.101**	(0.005)	-0.099**	(0.005)
Fiscal Year 15-16*Driver is Hispanic			-0.165**	(0.038)
Situational Characteristics:				
Number of passengers in vehicle	0.013**	(0.003)	0.013**	(0.003)
Stop occurs in the fall	-0.026**	(0.007)	-0.027**	(0.007)
Stop occurs in the winter	-0.031**	(0.006)	-0.031**	(0.006)
Stop occurs in the spring	-0.051**	(0.006)	-0.051**	(0.006)
Vehicle has AZ license plate	-0.124**	(0.008)	-0.124**	(0.008)
Driver was arrested	0.596**	-0.011	0.596**	-0.011
Vehicle was searched	0.556**	-0.016	0.557**	-0.016
Technical problems encountered during stop	0.470**	(0.012)	0.470**	(0.012)
Stop involves DUI	0.875**	(0.020)	0.875**	(0.020)
Stop involves tow	0.842**	(0.020)	0.842**	(0.020)
Stop involves deputy training	0.027	(0.040)	0.028	(0.040)
Language barrier	0.542**	(0.047)	0.542**	(0.047)
Driver Characteristics:				
Driver is Native American	0.011	(0.032)	0.012	(0.032)
Driver is Asian	0.068**	(0.009)	0.068**	(0.009)
Driver is Black	0.052**	(0.006)	0.052**	(0.006)
Driver is Hispanic	0.048*	(0.019)	0.133**	(0.027)
Driver is male	0.020**	(0.005)	0.020**	(0.005)
Driver's age in years	-0.002**	(0.000)	-0.002**	(0.000)
Deputy Characteristics:				
Length of employment at MCSO	0.000	(0.001)	0.000	(0.001)
Deputy is Black	0.125*	(0.056)	0.125*	(0.056)
Deputy is Hispanic	0.077**	(0.025)	0.077**	(0.025)
Deputy is Asian	0.024	(0.061)	0.025	(0.061)
Deputy is Native American	-0.077	(0.118)	-0.077	(0.118)
High stop volume deputy	-0.126**	(0.049)	-0.126**	(0.049)
Rank is deputy	-0.047*	(0.019)	-0.046*	(0.019)
Contextual Characteristics:				
District 2	-0.059*	(0.023)	-0.059*	(0.023)
District 3	0.018	(0.024)	0.019	(0.024)
District 4	-0.048*	(0.024)	-0.049*	(0.024)
District 6	-0.129**	(0.026)	-0.129**	(0.026)
District 7	-0.031	(0.027)	-0.031	(0.027)
Lakes District	-0.072**	(0.026)	-0.072**	(0.026)
Constant	2.986**	(0.028)	2.984**	(0.028)
Observations	55,817		55,817	
Number of groups	447		447	

Standard errors in parentheses

**p<0.01, *p<0.05, †p<0.10

¹⁵ To obtain this number we exponentiated the constant, the coefficient for the fiscal year, the coefficient for the interaction, and finally the coefficient for Hispanic (i.e., $\exp(2.986-0.101-0.165+0.048)$).

In Table 44, we examine the likelihood of citations or warnings relative to other outcomes across time using a hierarchical multinomial logit regression. Like before, the outcome is structured as: 0 represents stops that are “No contact,” “Long form,” or “Field Interview,” 1 represents Warnings, and 2 represents Citations. Like the models before we included a dummy variable for the fiscal year 2015-2016 and an interaction between that dummy variable and Hispanics. Model 1 includes the fiscal year dummy variable and Model 2 includes the interaction between the fiscal year variable and Hispanic.

To begin with, in Model 1, for warnings, there is an increase in the likelihood of stops culminating in a warning relative to other stops in the fiscal year of 2015-2016. Here, the odds of a stop resulting in a warning were approximately 1.2 times higher in 2015-2016 than in 2014-2015 and relative to other stop outcomes. Next, there is an increased likelihood of citations relative to other stop outcomes in 2015-2016. Citations are 1.2 times more likely to occur than other types of stops in 2015-2016 than in 2014-2015 net of controls. These same effects appear in Model 2, but are only significant at $p < 0.1$ for citations. Also in Model 2, we see that the main effects for Hispanic drivers are significant. Hispanic drivers are nearly 69% less likely (i.e., $1 - 0.316$) to receive a warning than whites compared to other stop outcomes. Hispanic drivers are also nearly 52% less likely (i.e., $1 - 0.477$) to receive a citation than whites compared to other stop outcomes. However, when looking at the interaction between the fiscal year and Hispanic drivers, there is not a significant effect for either citations or warnings. Thus, the impact of a stop involving a Hispanic driver on the likelihood of the stop concluding in a citation or warning does not change across the two fiscal years studied here.

Table 44: Examining Differences in the Likelihood of Citations and Warnings across Fiscal Years

	Model 1				Model 2			
	Warning		Citation		Warnings		Citations	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
Fiscal Year 15-16	0.211*	1.235*	0.196*	1.217*	0.190*	1.209*	0.179+	1.196+
	(0.095)	(0.117)	(0.095)	(0.115)	(0.096)	(0.116)	(0.096)	(0.115)
Fiscal Year 15-16*Driver is Hispanic					0.862	2.368	0.598	1.818
					(0.567)	(1.343)	(0.561)	(1.020)
Situational Characteristics								
Number of passengers in vehicle	-0.032	0.968	-0.042	0.959	-0.033	0.968	-0.043	0.958
	(0.061)	(0.059)	(0.061)	(0.058)	(0.061)	(0.059)	(0.061)	(0.058)
Stop occurs in the fall	-0.083	0.921	-0.064	0.938	-0.081	0.922	-0.063	0.939
	(0.121)	(0.112)	(0.121)	(0.114)	(0.121)	(0.112)	(0.121)	(0.114)
Stop occurs in the winter	0.131	1.140	0.094	1.098	0.132	1.141	0.095	1.099
	(0.126)	(0.144)	(0.126)	(0.138)	(0.126)	(0.144)	(0.126)	(0.138)
Stop occurs in the spring	0.080	1.083	0.145	1.157	0.081	1.085	0.147	1.158
	(0.124)	(0.134)	(0.123)	(0.143)	(0.124)	(0.134)	(0.123)	(0.143)
Vehicle has a license plate	0.254+	1.290+	0.281*	1.325*	0.255+	1.290+	0.281*	1.325*
	(0.143)	(0.184)	(0.143)	(0.189)	(0.143)	(0.185)	(0.143)	(0.189)
Driver Characteristics								
Driver is Native American	0.515	1.673	0.288	1.334	0.510	1.666	0.285	1.329
	(0.719)	(1.203)	(0.719)	(0.959)	(0.719)	(1.198)	(0.719)	(0.956)
Driver is Asian	-0.258	0.773	-0.239	0.788	-0.257	0.773	-0.238	0.788
	(0.163)	(0.126)	(0.162)	(0.128)	(0.163)	(0.126)	(0.162)	(0.128)
Driver is Black	-0.474**	0.623**	-0.363**	0.695**	-0.473**	0.623**	-0.362**	0.696**
	(0.105)	(0.065)	(0.104)	(0.073)	(0.105)	(0.065)	(0.104)	(0.073)
Driver is Hispanic	-1.153**	0.316**	-0.740**	0.477**	-1.523**	0.218**	-0.966**	0.381**
	(0.270)	(0.085)	(0.267)	(0.127)	(0.333)	(0.073)	(0.325)	(0.124)
Driver is male	-0.279**	0.756**	-0.233*	0.792*	-0.280**	0.755**	-0.234*	0.792*
	(0.095)	(0.072)	(0.095)	(0.075)	(0.095)	(0.072)	(0.095)	(0.075)
Driver's age in years	0.006+	1.006+	-0.005+	0.995+	0.006+	1.006+	-0.005+	0.995+
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Deputy Characteristics								
Length of employment at MCSO	-0.031**	0.969**	0.002	1.002	-0.031**	0.969**	0.002	1.002
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.009)	(0.010)	(0.010)
Deputy is Black	0.068	1.070	0.501	1.651	0.069	1.072	0.502	1.653
	(0.534)	(0.572)	(0.532)	(0.879)	(0.534)	(0.573)	(0.532)	(0.880)
Deputy is Hispanic	0.327+	1.387+	0.083	1.086	0.324+	1.383+	0.081	1.084
	(0.186)	(0.258)	(0.186)	(0.202)	(0.186)	(0.257)	(0.186)	(0.202)
Deputy is Asian	0.762	2.142	0.561	1.752	0.759	2.136	0.558	1.747
	(0.593)	(1.271)	(0.593)	(1.039)	(0.593)	(1.267)	(0.593)	(1.036)
Deputy is Native American	0.518	1.678	-0.694	0.500	0.517	1.677	-0.695	0.499
	(0.867)	(1.455)	(0.875)	(0.437)	(0.867)	(1.454)	(0.875)	(0.437)
High stop volume deputy	-0.350	0.705	0.427+	1.533+	-0.349	0.706	0.428+	1.535+
	(0.244)	(0.172)	(0.243)	(0.373)	(0.244)	(0.172)	(0.243)	(0.373)
Rank is Deputy	-0.021	0.980	0.210	1.234	-0.022	0.979	0.209	1.233
	(0.168)	(0.165)	(0.168)	(0.207)	(0.168)	(0.165)	(0.168)	(0.207)
Contextual Characteristics								
District 2	-0.189	0.827	0.305	1.356	-0.189	0.828	0.305	1.357
	(0.218)	(0.180)	(0.218)	(0.296)	(0.218)	(0.180)	(0.218)	(0.296)
District 3	-0.365+	0.694+	-0.349+	0.705+	-0.365+	0.694+	-0.350+	0.705+
	(0.205)	(0.142)	(0.205)	(0.144)	(0.205)	(0.142)	(0.205)	(0.144)
District 4	0.052	1.053	-0.263	0.769	0.053	1.055	-0.261	0.770
	(0.243)	(0.255)	(0.243)	(0.187)	(0.241)	(0.254)	(0.241)	(0.185)
District 5	0.411	1.508	0.469+	1.598+	0.409	1.506	0.468+	1.596+
	(0.267)	(0.402)	(0.267)	(0.426)	(0.266)	(0.401)	(0.266)	(0.425)
District 7	0.086	1.090	0.477	1.611	0.086	1.089	0.476	1.610
	(0.294)	(0.320)	(0.294)	(0.473)	(0.295)	(0.321)	(0.295)	(0.474)
Lakes District	-0.321	0.725	0.541*	1.718*	-0.325	0.723	0.539*	1.714*
	(0.246)	(0.178)	(0.245)	(0.421)	(0.245)	(0.177)	(0.245)	(0.419)
Constant	4.190**	66.039**	3.982**	53.650**	4.204**	66.951**	3.994**	54.269**
	(0.335)	(22.147)	(0.335)	(17.966)	(0.335)	(22.445)	(0.335)	(18.168)
Observations	55,806	55,806	55,806	55,806	55,806	55,806	55,806	55,806

Standard errors in parentheses

**p<0.01, *p<0.05, +p<0.10

5.4 Model Fit

When examining inferential statistics, model fit statistics, like the R^2 or Pseudo R^2 , are helpful in determining well the model “fits” the data. Put another way, model fit statistics tell us the proportion of variance the model explains, helping us to understand how well the outcome is predicted. High model fit statistics (close to 1), show that the model explains large portions of the variance in the outcome and that the predictive model is the effective at estimating the outcome. Conversely, low model fit statistics show that the model explains smaller portions of the variance, suggesting that there may be omitted variables that could be used to better fit the model.

Unfortunately, there currently is no analog for the R^2 or Pseudo R^2 that can be used in the models estimated here.¹⁶ As an example, the Pseudo R^2 for several models is reported below (see Table 45). The Pseudo R^2 denotes how much better the fully specified model (full model) is over the unconditional model. It does not tell us the percent of the variation explained, which is what a Pearson's R would do. On the face of it, the Pseudo R^2 's for the models – with the exception of search – seem low and suggest that these models do not adequately fit the models. Thus, given the low Pseudo R^2 's and the unsuitability of Pseudo R^2 as a means of model fit, we need to assess model fit differently.

Table 45: The Pseudo R^2 for Arrest, Search, Contraband, Length of Stop, and Stop Outcome Models

	Pseudo R^2
Arrest (Table 26)	0.122
Search (Table 26)	0.036
Contraband (Table 26)	0.10
Length of Stop (Table 27)	0.13
Stop Outcome (Table 28)	0.09

Given that the models employed in this report are meant to test whether there are deputies that are potentially engaging in problematic policing, as well as if the issue of biased policing is a systemic issue within the traffic enforcement section of MCSO, it is useful to look at the random effects and the 95% confidence interval around each random effect for the deputies. The random effect for the deputies will tell us if any deputies are outliers, given that the random effect can be seen as the deputy-specific addition to the likelihood of an outcome. This is an effective way of determining if there are deputies that are outliers who are targeting Hispanics.¹⁷

For most models, regardless of the outcome, one would expect to see some variability in the random effects, with perhaps a few outliers. For these models (shown in Figures 2-4), there are no outliers; this suggests that differences in outcomes for Hispanics are happening uniformly across

¹⁶ For the next annual report, the issue of model fit will be addressed slightly differently. In the next annual report, we will conduct a series of nested models. Then we will conduct likelihood ratio tests – a type of statistical test that assesses whether one model with more parameters fits the data better than a model with fewer parameters – across these models to determine model fit. While this does not correct of the overlying issue of not having a suitable R^2 for the models, it will provide valuable information on how the models perform relative to one another.

¹⁷ Remember that these models include a random effect for the intercept and a random slope for Hispanic to test whether deputies are contributing to the likelihood of an outcome for Hispanics in a way that is significantly different than their peers.

deputies, and is not due to outlier deputies, but is more likely to be a systemic issue within traffic enforcement section of MCSO. Figure 2 displays the distribution of deputy specific random slope for the Hispanic effect on arrest surrounded by a 95% confidence interval (see Model 1 in Table 26 for the full model). Each deputy's random effect score is represented by the dark red dot, the dark blue vertical lines show the 95% confidence interval around the deputy's score, while the horizontal red line is the overall average score. As you can see there is little to no variability in the deputy specific random slope. The other outcomes of search (Figure 3; see Model 2 in Table 26) and contraband (Figure 4; see Model 3 in Table 26) are very similar.

Figure 2. Distribution of Random Effects for Deputies for the Arrest Outcome

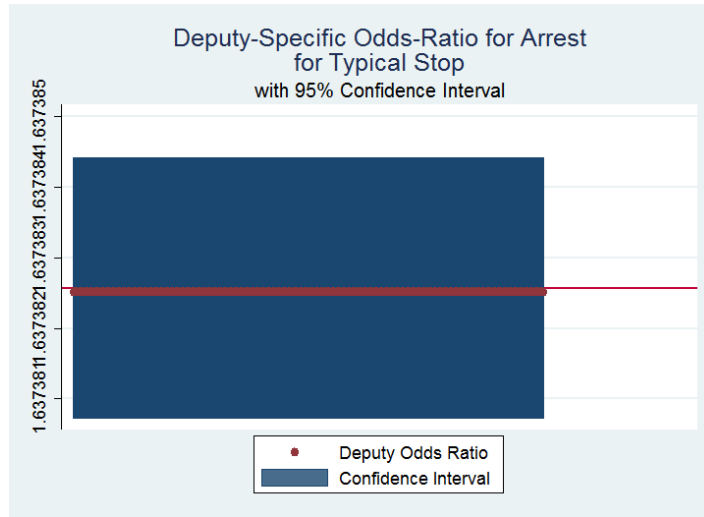
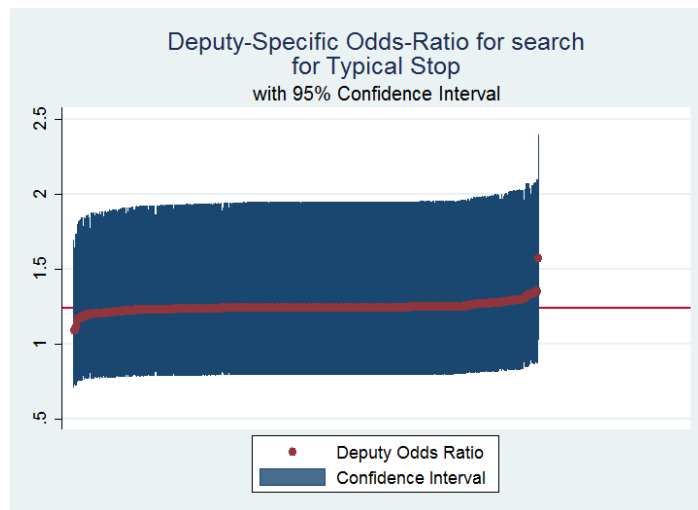
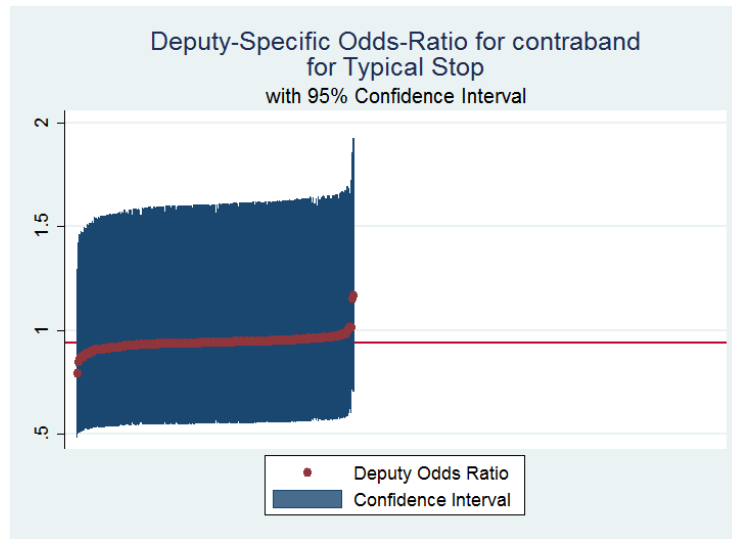


Figure 3. Distribution of Random Effects for Deputies for the Search Outcome



There is greater variability in deputies' random effects for the outcomes of search and contraband (Figures 3 and 4). This variability, does not however, results in significant differences across the random effects for deputies. In essence, the 95% confidence interval always contains the overall mean, suggesting that all deputies are working near the overall mean.

Figure 4. Distribution of Random Effects for Deputies for the Contraband Outcome

6. Conclusion

Collectively, the results from the descriptive and inferential analyses portray two overarching findings: that there are deputies potentially engaged in racially biased policing and that from a systemic perspective within the traffic enforcement portion of MCSO, minorities are subjected to additional legal contact and intervention for several outcomes. As such, the issue of racially biased policing within MCSO appears to be both a problem among deputies and is systemic.

The descriptive statistics provide a detailed examination into how deputies are performing on certain stop outcomes – like arrest and search – relative to their peers. The evidence shows that there are several deputies who were flagged for performing significantly above their peers on type of stop, arrest, search and seizure for all minorities. While this finding is important, note that descriptive ratios only provide information on what the deputies are doing relative to what is considered “average” in a beat, district, or the enforcement section. They do not control for other elements of traffic stops that would influence deputies’ behavior, such as place, conditions of the stop, or driver characteristics nor do they make the distinction between discretionary and non-discretionary arrests and searches. Indeed, before commanding officers can create alerts related to these numbers, they must first examine the contexts of the stops for the deputies who have been flagged.

Inferential statistics, on the other hand, can look at deputy behavior within the total context of the organization, which in this case, is the traffic enforcement section of MCSO. The inferential statistics control for characteristics of the stop, driver, deputy, and place of the stop, and also take into consideration the interrelated nature of traffic stops (see *General Analysis Plan*, section 5.2, for a full discussion). The findings from these models demonstrate that, net of controls, minorities are more likely to be arrested and searched relative to their counterparts. Additionally, seizure rates are not reflective of differences in search by race. Prevailing explanations of why minority drivers are more likely to experience arrests and searches – the veil of darkness and deputies making large numbers of stops – do not account for the differences. Blacks and Hispanics had longer stops times than whites. However, Hispanics are less likely to receive citations and warnings, net of controls, than white drivers.

The inferential models examining changes across years show progress in some places. For example, length of stops for Hispanics are shorter in the 2015 to 2016 fiscal year than they were in 2014-2015. There are no differences in the likelihood of arrest and search across the two fiscal years.

To address the issue of racially biased policing systemically and for specific deputies, we include several suggestions. Some of the next steps that should be considered to address these problems include:

- (1) Collect data that is important for understanding deputy behavior, such as whether the driver has a suspended license or a warrant for their arrest. Relatedly, make open field variables, like stop reason, more automated to allow for easy coding and data cleaning. Facilitate the easy distinction between discretionary and non-discretionary stop outcomes, like arrests, searches, and seizures. Also, enable the investigation of multiple stop outcomes when present in a single stop.
- (2) Provide direct feedback to individual officers with incidental contact, warnings, citations, and length of stop ratios over two, so they know their performance is out of compliance with acceptable ratios/norms in their administrative unit.
- (3) Review, and where necessary revamp, and deliver officer-level training aimed at reducing unacceptable ratios by targeting officers and administrative units with persistent high ratios.
- (4) Train supervisors in mentoring strategies that can be used to remediate unacceptable stop-related behaviors/practices of high ratio officers.
- (5) Give supervisors the appropriate tool kit and training to discuss law enforcement behavior and problems with their employees.
- (6) Integrate deputy level quarterly traffic stop feedback report findings into the MCSO early Identification (EI) system.
- (7) Build policies at the organizational level that will reduce the occurrence of racially biased policing.
- (8) Organizational shift to a learning organization that values information coming from data collection and analysis coupled with policy, training, supervision, and review (Walker 2014).
- (9) Continue to pursue the use of external benchmarking where possible.

7. References

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Appendix A. Case Drop-Out Analysis for the July 2015 to June 2016 Data

When first cleaning the dataset, MCSO provided all deputy initiated traffic stops for the year, including those entered into the TRaCs system, which should not be included in the final analyses. Below we detail the cases that are dropped from the final dataset.

1. Incomplete forms

The status variable deals with cases that have been entered into the TraCs system, and for some reason, are incomplete. Below is a table of all the potential values the Status variable could have; the table below was provided by MCSO.

TraCs Form Status Codes	
0	Open
1	Validated
2	Rejected
3	Void
4	Issued
5	Accepted
6	Located
7	Transmitted
8	Deleted
9	Locked
10	Non-Reported
11	Office Printed
50	ADOT Accepted
51	Pending Test Results
90	Contact Completed (MCSO only)
91	Pending Intox

The only cases that should remain in the dataset are those with a status of 90, meaning that they have been completed and reviewed by the supervising officer. The table below show the status variable as it appears in the long dataset (i.e., the data that includes multiple rows for passengers).

	Frequency	Percent
Open	20	.1
Validated	44	.1
Rejected	6	.0
Void	82	.2
Contact Completed (MCSO only)	38031	99.4
Pending Intox	59	.2
Total	38242	100.0

According to MCSO's Early Intervention Unit, the "open" designation shows that the traffic stop is currently open in the TraCs system and in the process of being completed. In other words, these are forms that have not been finalized. Next, the "validated" designation shows that the traffic stops have gone through the TraCS validation process but have not been submitted by the user. When status is labeled as "void", this shows that the forms have been voided by a supervisor due to entry error, mistake, or some other reason. Why the cases were voided can be found in the string variable

“rejection_reason.” Finally, “contact completed” shows that the form for the traffic stop has been fully completed and verified. Rejection reasons that supervisory officers noted include correcting an MC or event number, end time, adding missing information on the secondary unit, incorrect statement of a warning when citation was issued, or missing the race/ethnicity of a passenger. In these cases, a new form was generated for the deputy to complete. In sum, open, validated and voided cases were dropped, resulting in 211 cases being dropped, with 38,031 cases remaining in the dataset.

2. Training

Traffic stops that are entered due to training, can be identified by either the Agency variable or the Deputy serial number. When conducting training on the TraCs cases, MCSO has mock citations, driver’s license numbers, and deputy serial numbers. Below I discuss how each variable signals for a traffic stop to be deleted.

2a. Agency

Training cases show up as missing, or -9 on the agency variable as well as being documented as “TRAINING.” Below is the uncleaned frequency distribution of the Agency variable which shows that 87 cases are designated as “TRAINING.”

		Agency			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5007	1	.0	.0	.0
	5040	2	.0	.0	.0
	5041	6178	16.2	16.2	16.2
	5042	7036	18.4	18.4	34.6
	5043	5808	15.2	15.2	49.7
	5044	4020	10.5	10.5	60.3
	5045	2409	6.3	6.3	66.6
	5046	7844	20.5	20.5	87.1
	5048	83	.2	.2	87.3
	5055	81	.2	.2	87.5
	5056	4510	11.8	11.8	99.3
	5062	1	.0	.0	99.3
	5062CE	12	.0	.0	99.3
	5062IN	4	.0	.0	99.3
	5063HO	16	.0	.0	99.4
	5063VC	1	.0	.0	99.4
	5070	1	.0	.0	99.4
	5073	123	.3	.3	99.7
	5081	25	.1	.1	99.8
	TRAINING	87	.2	.2	100.0
Total	38242	100.0	100.0		

2b. Deputy Serial Number

Additionally, any time a training for TraCs occurred, the deputy being trained entered in a deputy serial number that began with the letters “ST”. Below is a table showing the frequency with which deputy serial numbers beginning with “ST” occur in the data. In the current data, 87 cases will be dropped due to them being designated as training through the deputy serial number.

2c. Overlap

All of the cases from the training and deputy serial number variables overlap. As shown in the table below, all of the cases that are dropped due to the deputy serial number (the rows) are captured by dropping the cases without an agency variable (the columns).

		<u>Dropped by Agency</u>		
		NO	YES	Total
Dropped by Deputy Serial	NO	38155	0	38155
Number	YES	0	87	87
Total		38155	87	38242

4. Conclusion

Overall, once overlap among variables is taken into account, 87 cases out of 38242 are dropped. This amounts to approximately 0.22% of the total data.

Appendix B. Variability in Outcomes across Units of Analysis

The TraCs data is potentially nested in many ways. Each deputy initiated stop is partially a function of the deputy that made the stop and the beat, neighborhood, or district in which the stop took place. Without introducing undue complexity into the coming analyses, we examine which higher level unit – deputies, beats, neighborhoods (in the form of census tracks), or districts – account for the highest level of variability in the chosen outcomes. To do this, we examined the variability in each outcome hierarchically through unconditional ANOVA models, or models without any covariates, which have a random intercept. This is represented by two equations. For the linear outcome of length of stop, the level one equation is as follows:

$$Y_{ij} = \beta_{0j} + r_{ij}$$

Where Y_{ij} is the length of stop for stop i nested within unit j , β_{0j} represents the mean for unit j and r_{ij} is the level one error which is normally distributed, with a mean of zero and a variance of σ^2 . The level two equation – where stops are nested within deputies, beats, neighborhoods (in the form of census tracks), or districts – can be represented as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

Where β_{0j} is the mean outcome for the j^{th} unit, γ_{00} represent the grand mean of the outcome in the population, and u_{0j} is the random effect associated with unit j , which has a mean of zero and a variance of τ_{00} .

For the logistic outcomes of arrest and search, the equation is very similar and includes the log link function¹⁸ for logistic regressions:

$$\Lambda(\Pr Y_{ij} = 1) = \beta_{0j}$$

Where Λ is the logit function, Y_{ij} is the outcome (e.g., arrest or search) for stop i nested in unit j and β_{0j} represents the random intercept across unit j . The level two equation – where stops are nested within deputies, beats, neighborhoods (in the form of census tracks), or districts – can be represented as:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$

Where β_{0j} is the mean log odds for the j^{th} unit, γ_{00} represents the grand mean of the logit in the population, and u_{0j} is the random effect associated with unit j , which has a mean of zero and a variance of τ_{00} .

Finally, we also conduct a hierarchical multinomial logistic regression on the categorical outcome of stop conclusion, where the stop can result in either a citation, warning, or other outcome. The hierarchical multinomial logit is displayed as:

$$Y_{mij} = 1 \text{ if } R_{ij} = m, \text{ other wise } Y_{mij} = 0$$

Where $Y_{mij} = 1 \text{ if } R_{ij} = m. \text{ Otherwise } Y_{mij} = 0$ is the log link function for the multinomial logit showing that for the outcome of Y_{mij} , where it is the outcome for the stop i nested within unit j for categorical outcome m , $R_{ij} = m$ signals that Y_{mij} is 1 only for category m , or otherwise, Y_{mij} is equal to 0. Then for each category, the level 1 model proceeds as:

¹⁸ Where $\Lambda(p) = \ln\left(\frac{p}{1-p}\right)$.

$$Y_{mij} = \beta_{0j(m)}$$

Where Y_{mij} is the outcome for the stop i nested within unit j for categorical outcome m and $\beta_{0j(m)}$ is the mean log odds for the stops in category m nested in unit j . The level two model then becomes:

$$\beta_{0j(m)} = \gamma_{00(m)} + u_{00j(m)}$$

Where $\beta_{0j(m)}$ is the mean log odds for the j^{th} unit for the m^{th} category, $\gamma_{00(m)}$ represents the grand mean of the outcome in the population, and $u_{00j(m)}$ is the random effect associated with unit j .

Next, we calculated the intraclass correlation (ICC), which is the proportion of the variance in the outcome that is between groups (Raudenbush and Bryk 2002). Another way to think of the ICC is it represent the proportion of the variation in the outcome that is due to the level two unit. The ICC for linear outcomes is calculated as:

$$\rho = \tau_{00} / (\sigma^2 + \tau_{00})$$

Where ρ is the ICC, τ_{00} is the variation at level two, and $(\sigma^2 + \tau_{00})$ is the total variation between level one (i.e., σ^2) and level two (i.e., τ_{00}).

Table 1. Intraclass Correlations from Unconditional Models using Various Outcomes

	Intraclass Correlation	Intraclass Correlation as a Percent
<i>Length of Stop</i>		
Nested in Deputies	0.01	0.66
Nested in Beats	0.00	0.14
Nested in Districts	0.00	0.03
Nested in Census Tracts	0.00	0.19
<i>Arrests</i>		
Nested in Deputies	0.28	28.45
Nested in Beats	0.11	10.84
Nested in Districts	0.05	5.08
Nested in Census Tracts	0.13	12.93
<i>Search</i>		
Nested in Deputies	0.36	36.18
Nested in Beats	0.13	13.23
Nested in Districts	0.13	13.50
Nested in Census Tracts	0.21	20.69

As a case in point, let us turn to the linear outcome of length of stop nested within deputies.¹⁹ Here, we see that the ICC is 0.01. Currently the ICC is a proportion. To interpret the ICCs, it is easiest to

¹⁹ An important caveat of these models is the significance of their variance components. While not shown here, the variance components of each of these models are significant. Variance components effectively test the heterogeneity of means. Put more simply, they determine if the variation of cluster means (for example, the average length of stop *across* deputies) is large relative to within cluster variations. ANOVA models, also known as the unconditional models used here, are designed to do this, and the results can be rescaled into an ICC, which

turn it into a percent, as is shown in the next column. Thus, for length of stop when stops are nested within deputies, deputies account for less than 1% of the total variation in the outcome. This suggests that – without controls in the model – deputies do not account for much of the variability in length of stop. Indeed, all levels of nesting – whether beats, districts or census tracts – account for less than 1% of the total variation in length of a stop across stops. This is not surprising given the amount of stop contexts that can influence the length of a stop; this will be discussed at length in the coming section “A Closer Examination of Differences in the Length of a Stop.”

ICCs are calculated differently for non-linear outcomes, though their interpretation remains the same. Here, for logistic outcomes, the intraclass correlation is calculated as:

$$\rho = \frac{\sigma_2^2}{\pi^2/3 + \sigma_2^2}$$

Where σ_2^2 is the variance at level 2, and $\pi^2/3$ is the variance associated with level 1.

Turning to the arrest models, we see a different pattern in regards to the ICCs. Here, when arrests are nested within deputies, the ICC is 0.28; put another way, deputies account for 28.45% of variability in the likelihood of arrest. Compared to beats (ICC = 0.11), districts (ICC=0.05), and census tracts (ICC = 0.13). Thus, for these models, we will nest arrests within deputies. Moreover, the ICCs for search show a similar pattern to those for arrest. Here, when arrests are nested within deputies, the ICC is 0.36, which means that deputies account for 36.18% of variability in the likelihood of search. Compared to beats (ICC = 0.13), districts (ICC=0.13), and census tracts (ICC = 0.21), deputies account for the largest proportion of variation among the search outcome. Thus, for these models, we will nest searches within deputies.

Note that the deputy ICC is related to the other units that the stops take place in, like beats and district. While deputies appear to account for a large proportion of variation in these models, be aware that other levels of nesting contribute to the large deputy ICC. That said, the forthcoming models will account for some of this nesting through the use of fixed effects.

In sum, though for some outcomes the amount of variation accounted for is low (as is the case with length of stop), in all outcomes shown in Table 26, nesting stops within deputies accounts for the largest amount of variation in the three outcomes examined here.

provides an interpretable metric to determine the amount of variation within and between clusters. When a variance component is significant, it shows that there is significant variability across clusters; however, the ICC tells us the amount of the variation in the outcome that is due to variation across level two clusters. All models shown here have significant variance components. Below we discuss the remainder of the results.

Appendix C. Type of Stop – Citation: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.870	0.000	0.000	1.241	1.768	0.000	0.934
220	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
371	1	1.299	0.000	1.441	0.506	0.360	0.000	1.142
376	1	0.000	0.000	0.000	4.551	0.000	0.000	0.000
483	1	0.797	0.000	0.000	0.000	0.000	21.849	1.284
537	1	1.014	0.000	0.000	1.241	0.884	0.000	0.934
692	1	1.196	0.000	9.726	0.000	0.000	0.000	1.284
1104	1	0.797	0.000	0.000	2.275	0.000	0.000	0.642
1980	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	1	0.870	0.000	0.000	1.655	0.884	0.000	0.817
2571	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
2604	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
2618	1	0.957	0.000	7.780	0.910	0.000	0.000	1.027
2969	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	1	0.957	0.000	1.297	0.910	1.297	1.457	1.027
3074	1	1.128	0.000	1.795	0.490	1.347	0.000	1.146
3076	1	1.189	0.000	0.000	0.733	0.577	1.481	1.077
3248	1	1.063	0.000	0.000	1.517	0.000	0.000	0.856
3439	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
3604	1	0.874	0.000	3.765	0.881	1.569	0.000	1.036
3727	1	1.366	0.000	0.000	0.000	1.389	0.000	1.284
3832	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
3911	1	0.725	6.444	0.786	1.241	1.670	3.090	0.921
3976	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
3983	1	1.329	0.000	0.000	0.000	1.621	0.000	1.284
4038	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	4.551	0.000	0.000	0.000
4401	1	1.275	0.000	0.000	0.910	0.000	0.000	1.027
4542	1	0.797	0.000	0.000	2.275	0.000	0.000	0.642
4926	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	1	0.592	0.000	3.334	1.170	2.084	3.121	0.954
5669	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
5947	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
6062	1	1.063	0.000	0.000	1.517	0.000	0.000	0.856
6170	1	0.974	0.000	0.000	1.264	0.540	2.428	0.927
6233	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6325	1	0.911	91.143	0.000	1.300	0.000	0.000	0.734
6951	1	0.000	0.000	0.000	2.275	4.863	0.000	0.642
7060	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
7274	1	1.275	0.000	0.000	0.910	0.000	0.000	1.027
7309	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
7323	1	0.531	0.000	1.852	1.950	0.926	4.162	0.734
7337	1	0.911	0.000	5.557	0.650	0.000	6.243	1.101
7696	1	1.063	0.000	0.000	0.000	3.242	0.000	1.284
7872	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
7994	1	1.196	0.000	0.000	1.138	0.000	0.000	0.963
8126	1	0.797	0.000	0.000	0.000	4.863	0.000	1.284
8189	1	0.736	0.000	11.970	0.700	0.748	0.000	1.087
8257	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
8729	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
8757	1	1.329	0.000	0.000	0.000	1.621	0.000	1.284
8758	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8874	1	0.957	0.000	0.000	0.000	3.890	0.000	1.284
8898	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
8960	1	1.299	0.000	0.000	0.169	1.441	0.000	1.237
9058	1	0.952	0.000	1.010	0.946	1.389	1.135	1.017
9132	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
9316	1	0.560	0.000	2.629	1.537	1.971	1.772	0.850
9360	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	1	0.797	0.000	0.000	1.138	2.431	0.000	0.963
9827	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	1	1.139	0.000	0.000	1.300	0.000	0.000	0.917
10318	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
10821	1	1.202	0.000	0.000	0.821	0.638	0.000	1.053
11010	1	0.950	0.000	0.828	1.065	1.448	0.000	0.984
11088	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
11234	1	1.295	0.000	0.810	0.379	0.810	0.000	1.177
11511	1	1.149	0.000	0.000	0.937	0.572	0.643	1.020
11707	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
11714	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
11753	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
12042	1	1.096	0.000	2.431	1.138	0.000	0.000	0.963
12153	1	1.014	0.000	0.000	0.827	1.768	0.000	1.051

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12495	1	1.291	0.000	0.000	0.867	0.000	0.000	1.040
12735	1	1.159	0.000	0.000	0.000	1.768	3.973	1.284
12991	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
13159	1	0.990	0.000	0.000	1.098	1.006	1.507	0.974
13243	1	0.399	0.000	0.000	2.275	2.431	0.000	0.642
13603	1	1.196	0.000	0.000	1.138	0.000	0.000	0.963
13722	1	1.417	0.000	0.000	0.000	1.081	0.000	1.284
14711	1	1.366	0.000	0.000	0.650	0.000	0.000	1.101
14730	1	1.162	0.000	0.000	0.758	0.608	1.821	1.070
14772	1	0.797	0.000	0.000	0.000	4.863	0.000	1.284
14960	1	1.310	0.000	0.000	0.488	0.695	0.000	1.147
15124	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
15760	1	1.139	0.000	0.000	1.300	0.000	0.000	0.917
15761	1	0.858	0.000	1.496	1.400	0.374	3.361	0.889
15899	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
16001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16431	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16667	1	1.159	0.000	1.768	0.621	0.442	1.986	1.109
16672	1	0.000	0.000	0.000	0.000	0.000	43.699	1.284
16996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
17295	1	1.084	0.000	0.000	0.728	1.556	0.000	1.079
17433	1	0.870	0.000	0.000	1.241	0.000	7.945	0.934
17456	1	0.638	0.000	0.000	0.910	3.890	0.000	1.027
17464	1	0.923	0.000	8.190	0.719	0.512	0.000	1.081
17534	1	1.063	0.000	4.322	0.506	0.000	4.855	1.142
17599	1	1.461	0.000	0.000	0.379	0.000	0.000	1.177
17619	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
17629	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
17800	1	0.850	0.000	0.000	1.517	1.297	0.000	0.856
17842	1	1.091	0.000	0.000	0.878	1.024	0.767	1.036
17997	1	1.196	0.000	0.000	1.138	0.000	0.000	0.963
18247	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
18268	1	1.329	0.000	0.000	0.758	0.000	0.000	1.070
18340	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18563	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
18630	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
18930	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
18996	1	1.275	0.000	0.000	0.910	0.000	0.000	1.027
19140	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	1	0.957	0.000	0.000	0.910	1.945	0.000	1.027
19310	1	0.797	0.000	1.621	1.612	1.013	0.000	0.829
19529	1	0.911	0.000	2.779	0.975	1.389	0.000	1.009
19640	1	0.000	638.000	0.000	0.000	0.000	0.000	0.000
19780	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	1	0.797	0.000	0.000	0.000	4.863	0.000	1.284
20064	1	1.319	0.000	0.000	0.785	0.000	0.000	1.063
20277	1	0.908	0.000	1.357	1.164	0.961	1.778	0.956
20401	1	0.000	0.000	0.000	4.551	0.000	0.000	0.000
20692	1	1.533	0.000	0.000	0.175	0.000	0.000	1.235
21467	1	1.063	0.000	3.705	0.650	0.463	2.081	1.101
21750	1	1.063	212.667	0.000	0.000	0.000	0.000	0.856
21881	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
22162	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	1	1.221	0.000	0.000	0.581	0.621	1.860	1.120
22445	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
22533	1	1.123	0.000	0.000	1.138	0.442	0.000	0.963
22587	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
22741	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22962	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
23047	1	0.797	0.000	0.000	1.138	2.431	0.000	0.963
23361	1	1.157	0.000	0.000	1.122	0.266	0.000	0.968
23436	1	1.196	0.000	0.000	1.138	0.000	0.000	0.963
23493	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
23641	1	1.176	0.000	0.378	0.795	0.567	0.849	1.060
23710	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23902	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	1	1.089	0.000	0.822	0.929	0.548	1.539	1.022
24525	1	1.417	0.000	0.000	0.506	0.000	0.000	1.142
24742	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24947	1	0.319	0.000	0.000	2.730	1.945	0.000	0.514
24963	1	0.858	0.000	2.992	0.700	0.748	6.723	1.087
25046	1	1.096	39.875	0.000	0.569	1.216	0.000	1.043
25234	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
25248	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
25618	1	1.196	0.000	0.000	0.000	0.000	10.925	1.284
25628	1	0.757	0.000	1.945	1.138	0.973	5.462	0.963
25899	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
26947	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
27173	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27188	1	1.259	0.000	0.000	0.479	1.024	0.000	1.149
27236	1	1.184	0.000	0.000	0.910	0.556	0.000	1.027
27294	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
27394	1	1.196	0.000	0.000	0.000	2.431	0.000	1.284
27537	1	1.096	0.000	2.431	0.569	0.608	2.731	1.124
27671	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	1	0.327	0.000	3.281	2.412	1.640	0.526	0.603
27866	1	0.754	0.000	0.707	1.241	2.299	0.000	0.934
28176	1	0.804	0.000	1.402	1.250	1.665	0.591	0.931
28219	1	1.196	0.000	0.000	1.138	0.000	0.000	0.963
28286	1	0.925	0.000	0.184	1.266	1.239	0.412	0.927
28603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	1	1.304	0.000	0.000	0.414	0.884	0.000	1.167
28820	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
28868	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	1	1.275	0.000	0.000	0.910	0.000	0.000	1.027
29165	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
29301	1	0.960	0.000	2.092	1.076	1.046	0.000	0.980
29783	1	1.063	0.000	0.000	1.011	0.000	4.855	0.999
29834	1	1.329	0.000	0.000	0.758	0.000	0.000	1.070
29849	1	1.594	0.000	0.000	0.000	0.000	0.000	1.284
30147	1	0.744	0.000	0.000	1.820	1.297	0.000	0.771
371	2	1.106	0.000	0.000	1.279	0.000	0.000	0.823
376	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
537	2	0.316	0.000	0.000	1.096	3.826	0.000	0.941
996	2	1.597	0.000	0.000	0.540	0.397	0.772	1.299
1561	2	1.071	0.000	1.096	0.879	0.698	2.715	1.081
1750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1907	2	0.402	0.000	6.375	1.628	0.812	0.000	0.599
2539	2	1.327	0.000	2.004	0.512	0.510	3.971	1.318
2553	2	1.935	0.000	0.000	0.000	1.116	0.000	1.647
2928	2	0.553	0.000	0.000	1.279	1.116	4.343	0.823
2977	2	0.911	0.000	0.000	0.903	1.576	2.044	1.066
3074	2	0.737	0.000	0.000	1.137	0.992	3.861	0.915
3076	2	1.106	0.000	0.000	0.853	1.488	0.000	1.098
3439	2	1.074	0.000	0.501	1.005	0.765	0.993	1.000
3466	2	1.058	0.000	0.000	1.112	0.776	0.000	0.931
3487	2	0.962	0.000	0.000	0.945	1.165	2.266	1.038
3506	2	1.191	0.000	0.000	0.984	0.687	0.000	1.013
3604	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	2	0.921	0.000	0.000	0.974	1.701	0.414	1.019
3911	2	0.000	0.000	0.000	0.000	8.928	0.000	1.647
3937	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3959	2	1.032	36.733	0.000	0.512	0.595	6.950	1.208
3983	2	1.474	0.000	0.000	0.000	2.976	0.000	1.647
4014	2	1.106	0.000	0.000	1.279	0.000	0.000	0.823
4037	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	2	1.182	0.000	2.882	0.666	0.489	3.808	1.218
4299	2	0.813	0.000	1.887	1.124	1.081	1.558	0.923
4401	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
4497	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
4700	2	0.948	0.000	0.000	1.096	0.000	4.964	0.941
4780	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
5082	2	1.474	0.000	0.000	0.853	0.000	0.000	1.098
5166	2	0.260	0.000	0.000	1.655	2.101	0.000	0.581
5266	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
5502	2	0.691	0.000	0.000	1.119	1.674	2.172	0.926
5529	2	0.921	0.000	0.000	0.746	1.860	2.896	1.167
5624	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5714	2	0.184	0.000	5.844	1.279	2.232	2.896	0.823
5721	2	0.737	0.000	0.000	1.137	1.984	0.000	0.915
5947	2	0.885	0.000	0.000	0.512	3.571	0.000	1.318
5989	2	1.361	0.000	0.000	0.787	0.687	0.000	1.140
6244	2	1.164	0.000	3.691	0.673	1.410	0.000	1.213
6308	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
6327	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6328	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
6951	2	0.000	0.000	0.000	0.000	0.000	34.748	1.647
7060	2	1.106	0.000	0.000	0.426	2.976	0.000	1.372
7070	2	0.953	0.000	3.237	1.023	0.962	0.535	0.988
7309	2	1.339	0.000	0.000	0.639	1.292	0.000	1.235
7337	2	0.931	0.000	0.000	0.942	1.880	0.000	1.040
7559	2	0.491	0.000	0.000	1.137	2.976	0.000	0.915
7682	2	1.066	19.679	0.000	0.731	1.754	0.000	1.118
7754	2	0.000	0.000	0.000	0.853	5.952	0.000	1.098
7872	2	0.815	0.000	0.000	1.404	0.604	0.523	0.743
7918	2	0.506	0.000	0.000	1.388	1.786	0.993	0.753
7984	2	0.737	0.000	0.000	0.853	2.976	0.000	1.098
8161	2	1.474	0.000	0.000	0.853	0.000	0.000	1.098
8265	2	1.144	0.000	0.000	0.794	1.539	0.000	1.136
8270	2	1.264	0.000	0.000	1.096	0.000	0.000	0.941
8598	2	1.144	0.000	0.000	0.706	1.231	2.396	1.193
8729	2	1.058	0.000	0.000	0.890	1.165	1.511	1.074
8750	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
8757	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8921	2	1.407	0.000	0.000	0.698	0.812	0.000	1.198
8936	2	0.948	0.000	0.000	0.731	1.275	4.964	1.176
8997	2	0.316	0.000	0.000	1.462	1.275	4.964	0.706
9239	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
9316	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9360	2	0.991	0.000	0.000	0.882	1.539	1.198	1.079
9585	2	1.014	0.000	0.000	0.959	1.116	1.448	1.029
10080	2	0.369	0.000	0.000	1.705	1.488	0.000	0.549
10088	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
10318	2	0.221	0.000	0.000	2.046	0.893	0.000	0.329
10809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	2	1.106	0.000	0.000	0.000	4.464	0.000	1.647
11019	2	0.737	0.000	0.000	0.853	2.976	0.000	1.098
11234	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
11511	2	1.106	0.000	0.000	0.639	2.232	0.000	1.235
11714	2	0.553	0.000	0.000	0.959	2.232	4.343	1.029
11753	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
11849	2	0.839	3.800	1.935	1.358	0.246	0.959	0.761

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12044	2	0.000	0.000	0.000	0.000	8.928	0.000	1.647
12069	2	0.000	0.000	0.000	1.918	2.232	0.000	0.412
12138	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
12375	2	1.248	0.000	0.000	0.619	1.152	2.242	1.248
12418	2	1.144	19.000	4.836	0.794	0.308	1.198	1.079
12514	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	2	1.738	0.000	0.000	0.365	0.000	2.482	1.412
13160	2	1.659	0.000	0.000	0.639	0.000	0.000	1.235
13558	2	1.364	0.000	0.000	0.853	0.149	1.158	1.098
13636	2	0.246	0.000	0.000	1.137	3.968	0.000	0.915
13722	2	1.150	0.000	0.000	0.930	0.812	0.877	1.048
13914	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14200	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14241	2	1.034	0.000	0.269	1.166	0.616	0.133	0.896
14730	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
14772	2	0.553	0.000	0.000	1.279	2.232	0.000	0.823
14941	2	0.962	0.000	4.574	0.890	1.165	0.755	1.074
15139	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
15144	2	0.000	0.000	0.000	0.000	8.928	0.000	1.647
15221	2	1.691	0.000	0.000	0.451	0.525	0.000	1.356
15899	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
16078	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16293	2	1.361	0.000	2.697	0.787	0.000	1.336	1.140
16563	2	0.737	0.000	0.000	1.279	1.488	0.000	0.823
16667	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16696	2	1.171	16.206	0.000	0.602	1.576	1.022	1.211
16905	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	2	1.463	0.000	1.104	0.685	0.422	0.274	1.206
17031	2	0.603	0.000	3.188	1.511	0.812	0.000	0.674
17534	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
17599	2	1.106	0.000	0.000	1.279	0.000	0.000	0.823
17800	2	0.737	0.000	0.000	1.301	1.410	0.000	0.809
17809	2	1.531	0.000	0.000	0.393	1.374	0.000	1.394
17842	2	1.106	0.000	0.000	0.639	2.232	0.000	1.235
18131	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	2	0.737	0.000	0.000	1.705	0.000	0.000	0.549
18530	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	2	0.885	0.000	0.000	1.023	1.786	0.000	0.988
19310	2	1.106	0.000	0.000	1.279	0.000	0.000	0.823
19858	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	2	1.086	0.000	2.550	0.977	0.812	0.000	1.018
20086	2	0.000	0.000	0.000	0.853	2.976	11.583	1.098
20277	2	0.442	0.000	0.000	1.023	3.571	0.000	0.988
20399	2	0.925	0.000	2.773	1.012	0.908	1.571	0.996
20401	2	0.956	0.000	1.895	0.726	1.930	1.409	1.180
20415	2	1.474	0.000	0.000	0.853	0.000	0.000	1.098
20560	2	0.698	0.000	0.000	1.346	1.410	0.000	0.780
20784	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
20806	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21035	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	2	0.590	0.000	0.000	0.938	2.976	1.158	1.043
21749	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
21750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21976	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
22228	2	1.106	0.000	0.000	0.959	1.116	0.000	1.029
22297	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	2	0.369	0.000	0.000	1.918	0.000	2.896	0.412
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	0.983	0.000	0.000	1.421	0.000	0.000	0.732
22598	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	8.928	0.000	1.647
23105	2	0.553	0.000	0.000	1.279	2.232	0.000	0.823
23386	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
23641	2	1.216	0.000	0.000	0.703	1.116	1.737	1.194
23775	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
23853	2	1.106	0.000	0.000	1.279	0.000	0.000	0.823
24056	2	0.000	0.000	0.000	1.918	2.232	0.000	0.412
24361	2	1.290	0.000	0.000	1.066	0.000	0.000	0.961
24525	2	0.829	0.000	4.383	0.799	1.674	2.172	1.132
24661	2	0.000	0.000	0.000	0.000	0.000	34.748	1.647
24674	2	1.025	0.000	0.000	1.248	0.436	0.000	0.844
24978	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
25046	2	0.737	45.917	0.000	0.426	3.720	0.000	1.235
25471	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
25628	2	0.000	0.000	0.000	1.279	4.464	0.000	0.823
26121	2	0.498	0.000	3.159	1.475	1.287	0.313	0.697
26165	2	0.000	0.000	0.000	2.558	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27198	2	0.632	0.000	0.000	1.462	1.275	0.000	0.706
27327	2	0.813	0.000	1.031	1.241	1.050	0.511	0.848
27690	2	0.737	0.000	0.000	1.705	0.000	0.000	0.549
27866	2	0.000	0.000	0.000	1.279	4.464	0.000	0.823
27876	2	1.011	0.000	0.929	0.982	1.005	1.151	1.014
28000	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
28176	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
28219	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
28404	2	0.691	0.000	4.383	1.119	1.116	2.172	0.926
28460	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	2	0.000	0.000	0.000	1.279	4.464	0.000	0.823
28761	2	0.000	0.000	7.792	1.705	1.984	0.000	0.549
28854	2	1.106	0.000	0.000	1.096	0.638	0.000	0.941
28919	2	0.737	0.000	0.000	1.279	1.488	0.000	0.823
28959	2	0.369	0.000	0.000	1.705	1.488	0.000	0.549
29112	2	1.327	0.000	0.000	1.023	0.000	0.000	0.988
29834	2	2.212	0.000	0.000	0.000	0.000	0.000	1.647
30015	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	2	0.737	0.000	0.000	0.853	1.984	3.861	1.098
30053	2	1.264	0.000	0.000	0.731	0.000	4.964	1.176
28	3	1.240	17.803	0.000	0.582	0.000	0.000	1.072
39	3	0.303	0.000	0.000	2.559	2.362	0.000	0.524
371	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
376	3	0.000	391.667	0.000	0.000	0.000	0.000	0.000
996	3	0.877	0.000	0.000	1.122	0.000	11.595	0.966
2306	3	1.299	0.000	0.000	0.609	0.000	0.000	1.123
2539	3	1.010	0.000	0.000	1.422	0.000	0.000	0.874
2553	3	1.052	0.000	0.000	0.829	1.312	0.000	1.056
2949	3	0.667	0.000	0.000	1.535	2.362	0.000	0.839
2953	3	0.758	0.000	0.000	0.305	5.061	0.000	1.217
2977	3	0.000	0.000	0.000	0.000	0.000	73.438	1.311
3054	3	0.649	0.000	0.000	1.828	1.687	0.000	0.749

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	3	0.000	0.000	0.000	0.000	11.809	0.000	1.311
3466	3	1.010	0.000	0.000	1.422	0.000	0.000	0.874
3746	3	0.921	0.000	0.000	1.338	0.926	0.000	0.899
3832	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
3937	3	1.178	0.000	0.000	0.474	1.312	0.000	1.165
4189	3	0.874	0.000	0.000	1.148	1.363	2.825	0.958
4277	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
4299	3	0.758	0.000	0.000	2.132	0.000	0.000	0.655
4700	3	0.950	7.121	0.000	1.124	0.966	0.668	0.941
5266	3	1.054	0.000	9.289	1.113	0.000	0.000	0.969
5502	3	1.178	0.000	0.000	0.656	0.707	0.628	1.109
5529	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
5859	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	3	1.461	0.000	0.000	0.152	0.000	0.000	1.264
6328	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
6619	3	1.042	24.479	0.000	0.533	1.476	0.000	1.065
6951	3	0.909	0.000	0.000	1.706	0.000	0.000	0.786
7060	3	0.000	0.000	0.000	4.265	0.000	0.000	0.000
7096	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	3	1.061	0.000	8.545	0.768	0.472	2.938	1.075
7337	3	1.074	0.000	0.000	0.698	1.503	0.000	1.096
7750	3	0.758	0.000	0.000	1.706	1.181	0.000	0.786
7872	3	0.947	0.000	26.705	0.533	1.476	0.000	1.147
7883	3	0.895	0.000	0.000	1.551	0.537	0.000	0.834
7980	3	1.082	55.952	0.000	0.609	0.000	0.000	0.936
7984	3	1.326	0.000	0.000	0.533	0.000	0.000	1.147
8091	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
8161	3	0.505	0.000	0.000	2.843	0.000	0.000	0.437
8598	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
8599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8694	3	0.909	0.000	0.000	1.279	1.181	0.000	0.917
8729	3	0.808	0.000	0.000	1.137	2.362	0.000	0.961
8750	3	1.102	0.000	0.000	0.775	1.074	0.000	1.072
8757	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
8960	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	3	0.758	0.000	0.000	0.000	5.905	0.000	1.311
9194	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
9453	3	1.178	0.000	0.000	0.711	0.656	0.000	1.092
9585	3	1.010	0.000	0.000	1.422	0.000	0.000	0.874
10088	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
10303	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10567	3	0.758	0.000	0.000	2.132	0.000	0.000	0.655
10809	3	0.673	0.000	0.000	1.896	1.312	0.000	0.728
10996	3	1.111	0.000	0.000	0.853	0.787	0.000	1.049
11205	3	1.116	0.000	0.000	0.898	0.000	3.865	1.035
11511	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11625	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
11714	3	1.049	0.000	0.000	0.656	0.908	5.649	1.109
11753	3	0.691	0.000	3.748	1.422	2.072	1.288	0.874
12044	3	1.115	0.000	0.000	0.805	0.668	1.386	1.063
12138	3	1.075	0.000	0.000	0.688	1.143	2.369	1.099
12327	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
12495	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12609	3	0.000	0.000	0.000	4.265	0.000	0.000	0.000
12991	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
13331	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
13579	3	0.758	0.000	0.000	1.066	2.952	0.000	0.983
13722	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
13946	3	0.838	0.000	4.545	1.543	0.503	1.563	0.837
13988	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
14271	3	0.778	0.000	5.774	1.268	1.915	0.000	0.921
14604	3	0.000	0.000	0.000	0.000	11.809	0.000	1.311
14772	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14965	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
15755	3	1.010	0.000	0.000	1.185	0.328	2.040	0.947
16474	3	1.122	0.000	0.000	0.942	0.460	0.000	1.021
16687	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
16690	3	0.947	0.000	0.000	1.066	0.000	9.180	0.983
16767	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
17071	3	0.758	0.000	0.000	1.422	1.575	2.448	0.874
17217	3	0.606	0.000	0.000	2.559	0.000	0.000	0.524

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17534	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
17599	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
17800	3	0.788	0.000	0.000	0.853	2.362	5.875	1.049
17809	3	1.061	0.000	0.000	0.853	1.181	0.000	1.049
17842	3	0.000	0.000	0.000	0.000	0.000	73.438	1.311
18131	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
18268	3	0.978	0.000	6.891	0.825	1.143	2.369	1.057
18340	3	1.136	0.000	0.000	1.066	0.000	0.000	0.983
18532	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	3	1.136	0.000	0.000	1.066	0.000	0.000	0.983
19042	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19049	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19065	3	1.010	0.000	0.000	0.711	1.968	0.000	1.092
19343	3	0.914	0.000	0.000	1.083	1.500	1.166	0.978
19373	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
19659	3	0.189	0.000	0.000	2.132	4.428	0.000	0.655
20018	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
20059	3	0.000	0.000	0.000	4.265	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	3	0.932	0.000	0.000	1.422	0.606	0.000	0.874
20466	3	1.102	0.000	0.000	0.969	0.537	0.000	1.013
20560	3	0.000	0.000	0.000	0.000	11.809	0.000	1.311
20771	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21045	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	3	1.010	0.000	0.000	1.422	0.000	0.000	0.874
22162	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
22228	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
22297	3	0.568	0.000	0.000	2.666	0.000	0.000	0.491
22304	3	0.954	0.000	0.000	1.343	0.437	1.360	0.898
22492	3	0.978	0.000	0.000	0.825	1.905	0.000	1.057
22533	3	0.758	0.000	0.000	2.132	0.000	0.000	0.655
23049	3	0.861	0.000	0.000	1.212	1.745	0.000	0.938
23338	3	0.000	0.000	0.000	4.265	0.000	0.000	0.000
23386	3	0.965	0.000	0.000	1.057	1.254	0.650	0.986
23533	3	1.136	0.000	0.000	0.533	1.476	0.000	1.147
23641	3	1.288	0.000	0.000	0.426	0.590	0.000	1.180
23687	3	0.802	0.000	0.000	1.505	0.695	4.320	0.848
24085	3	0.941	0.000	0.000	1.077	1.261	1.426	0.980

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24361	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
24525	3	0.985	0.000	10.682	0.640	1.181	3.672	1.114
24917	3	0.957	0.000	5.622	1.459	0.000	0.000	0.862
24978	3	0.964	0.000	19.421	1.163	0.000	0.000	0.953
25046	3	0.758	0.000	0.000	0.000	5.905	0.000	1.311
25471	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
25886	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	3	1.136	0.000	0.000	0.640	1.181	0.000	1.114
26527	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
27173	3	0.758	0.000	0.000	2.132	0.000	0.000	0.655
27199	3	0.920	0.000	0.000	1.523	0.422	0.000	0.843
27259	3	0.758	0.000	0.000	2.132	0.000	0.000	0.655
27671	3	1.212	0.000	0.000	0.569	0.787	0.000	1.136
27704	3	0.964	0.000	0.000	0.388	2.147	6.676	1.192
27996	3	0.842	0.000	0.000	1.422	1.312	0.000	0.874
28010	3	1.054	0.000	0.000	0.927	1.027	0.000	1.026
28214	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
28443	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
28656	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
28875	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
28959	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29330	3	1.515	0.000	0.000	0.000	0.000	0.000	1.311
29407	3	1.166	0.000	0.000	0.656	0.908	0.000	1.109
29834	3	0.909	0.000	0.000	1.706	0.000	0.000	0.786
30050	3	0.758	0.000	0.000	1.523	1.687	0.000	0.843
371	4	0.900	0.000	0.000	1.506	2.408	0.000	0.934
516	4	0.950	7.802	0.000	1.734	0.000	0.000	0.876
941	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	4	0.787	0.000	9.632	1.506	2.408	0.000	0.934
3076	4	0.619	0.000	0.000	1.657	5.297	4.793	0.913
3704	4	1.031	0.000	0.000	0.690	2.207	0.000	1.046
3832	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
4267	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
4277	4	0.000	0.000	105.947	0.000	0.000	0.000	1.141

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4401	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
5669	4	1.031	0.000	0.000	1.381	0.000	0.000	0.951
6133	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	4	1.114	0.000	0.000	0.000	0.000	4.793	1.141
6244	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
6327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	4	1.025	0.000	3.027	0.947	0.000	1.369	1.011
7060	4	1.024	0.000	0.000	1.134	0.473	0.856	0.985
7187	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
7309	4	0.000	0.000	0.000	0.000	26.487	0.000	1.141
7337	4	0.970	0.000	0.000	1.343	0.716	1.295	0.956
7872	4	0.619	0.000	0.000	4.142	0.000	0.000	0.571
8091	4	1.026	0.000	0.000	0.606	0.646	3.507	1.058
8161	4	0.804	0.000	0.000	2.485	1.324	0.000	0.799
8257	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
8729	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
8997	4	0.000	0.000	0.000	0.000	26.487	0.000	1.141
9585	4	0.619	0.000	0.000	4.142	0.000	0.000	0.571
10088	4	1.094	0.000	4.075	0.319	1.019	0.000	1.097
10214	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	4	1.083	0.000	0.000	1.035	0.000	0.000	0.999
10719	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
11234	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
11511	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
11692	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
11714	4	1.012	0.000	0.000	0.753	2.408	0.000	1.037
11753	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
11826	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
12327	4	0.000	0.000	0.000	8.284	0.000	0.000	0.000
12495	4	0.916	12.426	0.000	1.227	1.962	0.000	0.930
12735	4	0.825	0.000	0.000	0.000	0.000	15.976	1.141
12991	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
13054	4	1.142	0.000	0.000	0.000	2.037	0.000	1.141
13159	4	1.130	0.000	0.000	0.360	1.152	0.000	1.092
13331	4	1.060	4.357	0.000	0.968	0.000	0.622	0.993
13988	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
14271	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
14298	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
15758	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
15820	4	1.114	0.000	0.000	0.828	0.000	0.000	1.027
16001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
16553	4	0.825	0.000	7.063	1.105	1.766	3.195	0.989
16690	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
16814	4	1.125	0.000	0.000	0.000	2.408	0.000	1.141
16996	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
17456	4	0.952	0.000	2.717	0.637	2.717	1.229	1.053
17534	4	0.904	0.000	4.075	1.274	2.037	0.000	0.966
17599	4	1.005	0.000	0.000	1.553	0.000	0.000	0.927
17748	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	4	1.083	0.000	0.000	1.035	0.000	0.000	0.999
17842	4	0.619	0.000	0.000	0.000	0.000	23.964	1.141
18131	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	4	0.916	0.000	0.000	1.227	2.943	0.000	0.972
18340	4	1.031	0.000	0.000	1.381	0.000	0.000	0.951
18521	4	1.069	1.039	0.328	0.872	0.328	0.594	1.018
18532	4	0.742	0.000	0.000	1.657	5.297	0.000	0.913
18561	4	1.047	0.000	0.000	0.637	0.000	3.687	1.053
18563	4	1.125	0.000	0.000	0.753	0.000	0.000	1.037
18667	4	1.134	0.000	0.000	0.690	0.000	0.000	1.046
18987	4	0.940	0.000	0.000	0.994	2.119	1.917	1.004
19065	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
19244	4	0.000	0.000	0.000	8.284	0.000	0.000	0.000
19415	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
20064	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20066	4	0.825	0.000	0.000	2.761	0.000	0.000	0.761
20277	4	0.787	0.000	0.000	1.506	4.816	0.000	0.934
20560	4	1.047	0.000	4.075	0.956	0.000	0.000	1.009
20601	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20784	4	0.884	0.000	15.135	1.183	0.000	0.000	0.978
22228	4	0.787	0.000	0.000	0.753	2.408	8.714	1.037

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
22266	4	0.541	41.938	0.000	2.071	1.655	5.991	0.713
22304	4	1.009	0.000	0.000	0.872	1.394	1.261	1.021
22405	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
22533	4	0.919	0.000	3.027	0.947	2.270	1.369	1.011
22623	4	1.031	0.000	0.000	1.381	0.000	0.000	0.951
23641	4	0.962	0.000	1.239	1.066	1.394	1.401	0.994
23775	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	4	0.990	0.000	15.892	0.000	1.324	0.000	1.141
24525	4	0.847	0.000	0.000	1.308	4.182	0.000	0.961
24931	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
25046	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
25234	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
25535	4	0.962	0.000	0.000	1.841	0.000	0.000	0.888
25886	4	0.884	0.000	0.000	1.578	0.000	4.565	0.924
26355	4	0.687	0.000	0.000	2.761	0.000	5.325	0.761
26527	4	1.142	0.000	0.000	0.000	2.037	0.000	1.141
26634	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
26796	4	0.000	0.000	0.000	8.284	0.000	0.000	0.000
27173	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	4	0.557	0.000	10.595	2.485	0.000	7.189	0.799
27996	4	0.990	0.000	0.000	0.552	1.766	3.195	1.065
28286	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28354	4	1.022	0.000	0.000	1.441	0.000	0.000	0.943
28572	4	1.114	0.000	0.000	0.414	1.324	0.000	1.084
28658	4	1.049	0.000	0.000	1.081	0.000	1.042	0.992
28738	4	1.060	0.000	0.000	1.183	0.000	0.000	0.978
28959	4	0.773	0.000	0.000	3.106	0.000	0.000	0.713
28988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29319	4	0.619	0.000	0.000	4.142	0.000	0.000	0.571
29325	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
29834	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
30050	4	1.237	0.000	0.000	0.000	0.000	0.000	1.141
371	5	1.286	0.000	0.000	0.000	2.179	0.000	1.271
537	5	0.722	0.000	0.970	1.878	0.683	2.234	0.766
941	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
3074	5	1.087	0.000	1.611	0.567	1.133	1.855	1.118
3076	5	1.040	0.000	1.202	0.799	1.128	1.384	1.056

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3832	5	0.929	0.000	0.000	0.000	9.444	0.000	1.271
3937	5	1.140	0.000	0.000	0.859	0.000	0.000	1.040
3983	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
4401	5	1.161	0.000	0.000	0.787	0.000	0.000	1.059
6223	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	5	0.610	0.000	0.000	2.361	1.771	0.000	0.635
6308	5	0.697	0.000	0.000	2.361	0.000	0.000	0.635
6714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6739	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
6951	5	0.697	0.000	0.000	0.000	0.000	23.182	1.271
7060	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
7309	5	0.859	0.000	0.000	1.495	1.417	0.773	0.868
7337	5	1.027	0.000	0.000	0.870	1.491	1.220	1.037
8091	5	0.697	0.000	0.000	1.181	0.000	11.591	0.953
8257	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
8729	5	0.929	0.000	0.000	1.574	0.000	0.000	0.847
10088	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
10303	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
11234	5	1.115	0.000	0.000	0.944	0.000	0.000	1.017
11511	5	1.115	0.000	0.000	0.472	2.833	0.000	1.144
11714	5	1.140	0.000	0.000	0.537	1.288	1.054	1.126
12044	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
12495	5	1.184	0.000	0.000	0.708	0.000	0.000	1.080
13159	5	1.091	0.000	1.380	0.675	1.133	0.795	1.089
13227	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
13331	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	5	0.697	0.000	0.000	2.361	0.000	0.000	0.635
15760	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
16553	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16672	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
17456	5	0.887	0.000	0.000	1.288	2.576	0.000	0.924
17534	5	1.161	0.000	0.000	0.787	0.000	0.000	1.059
17619	5	0.984	0.000	0.000	1.250	0.000	1.364	0.934
17800	5	0.953	0.000	2.119	1.118	1.118	0.610	0.970
17842	5	1.286	0.000	0.000	0.363	0.000	0.000	1.173
18268	5	0.541	0.000	0.000	2.396	2.537	0.692	0.626
18340	5	1.145	0.000	0.000	0.843	0.000	0.000	1.044
18561	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18563	5	1.115	0.000	0.000	0.944	0.000	0.000	1.017
20018	5	0.464	0.000	8.947	2.623	0.000	0.000	0.565
20106	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	5	1.172	0.000	2.052	0.361	0.902	1.181	1.174
22533	5	1.045	0.000	0.000	0.787	0.000	3.864	1.059
23386	5	0.000	0.000	0.000	4.722	0.000	0.000	0.000
23493	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	5	1.179	0.000	1.549	0.454	1.090	0.000	1.149
24361	5	1.161	0.000	0.000	0.787	0.000	0.000	1.059
24525	5	0.912	5.504	0.579	1.325	0.815	1.001	0.905
25046	5	0.978	13.421	1.413	1.160	0.497	0.000	0.936
25381	5	0.000	0.000	0.000	4.722	0.000	0.000	0.000
25668	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	5	0.813	0.000	6.711	1.574	0.000	0.000	0.847
27996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28649	5	1.045	0.000	0.000	1.181	0.000	0.000	0.953
28738	5	1.393	0.000	0.000	0.000	0.000	0.000	1.271
29783	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	5	0.929	0.000	0.000	0.944	1.889	3.091	1.017
30050	5	0.929	0.000	0.000	0.000	0.000	15.455	1.271
220	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
376	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	6	0.897	0.000	0.000	2.112	0.000	0.000	0.808
838	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
2041	6	1.142	0.000	0.000	0.845	0.000	0.000	1.028
2618	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
3069	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
3587	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
3604	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	6	0.000	0.000	0.000	6.760	0.000	0.000	0.000
4307	6	1.004	0.000	0.000	0.520	2.502	0.000	1.085
4497	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	6	0.945	0.000	1.197	1.476	0.561	0.825	0.918
4926	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
5293	6	0.870	0.000	0.000	1.690	1.355	0.000	0.881
5669	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
6062	6	1.051	0.000	2.539	0.824	0.793	0.000	1.032

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
7274	6	1.026	0.000	0.000	0.676	1.859	0.000	1.057
7323	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	6	1.165	0.000	0.000	0.312	1.001	0.000	1.121
7994	6	1.187	0.000	0.000	0.000	1.479	0.000	1.175
8757	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	6	0.979	0.000	0.000	0.000	4.066	0.000	1.175
8874	6	0.766	0.000	0.000	1.910	1.768	1.561	0.843
8960	6	0.653	173.500	0.000	1.127	2.711	0.000	0.783
9058	6	0.000	0.000	0.000	6.760	0.000	0.000	0.000
9132	6	1.119	0.000	0.000	0.290	1.394	1.026	1.125
9316	6	0.000	0.000	0.000	6.760	0.000	0.000	0.000
11010	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
11088	6	1.187	0.000	0.000	0.000	1.479	0.000	1.175
11234	6	0.979	0.000	0.000	0.000	0.000	17.948	1.175
11869	6	1.044	0.000	0.000	1.352	0.000	0.000	0.940
12042	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	6	0.746	0.000	0.000	2.124	1.859	0.000	0.806
13270	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	6	0.965	0.000	1.382	1.286	0.720	0.953	0.951
14960	6	0.971	26.692	0.000	1.040	1.251	0.000	0.964
15124	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
15326	6	1.049	0.000	3.718	0.724	0.871	0.000	1.049
15760	6	1.031	0.000	2.739	1.067	0.428	0.000	0.989
15980	6	0.653	0.000	0.000	3.380	0.000	0.000	0.587
16001	6	0.218	0.000	0.000	5.633	0.000	0.000	0.196
17160	6	0.979	0.000	0.000	0.000	4.066	0.000	1.175
17433	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	6	0.888	0.000	8.328	1.622	0.000	0.000	0.893
17629	6	0.435	0.000	34.700	2.253	0.000	0.000	0.783
17748	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	6	0.870	0.000	0.000	2.253	0.000	0.000	0.783
17997	6	0.914	0.000	0.000	1.352	1.627	0.000	0.940
18617	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	6	0.000	0.000	0.000	2.253	10.844	0.000	0.783
20277	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
21750	6	1.157	0.000	0.000	0.307	0.739	1.632	1.122
21881	6	1.232	0.000	0.000	0.000	0.760	0.671	1.175

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
22228	6	1.160	0.000	0.000	0.751	0.000	0.000	1.044
22298	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
22445	6	1.044	0.000	0.000	0.676	1.627	0.000	1.057
22587	6	0.932	0.000	0.000	0.966	0.000	10.256	1.007
23047	6	1.088	0.000	0.000	0.000	0.000	11.966	1.175
23710	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24742	6	0.559	0.000	0.000	1.931	2.324	10.256	0.839
24917	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	6	1.061	0.000	0.000	1.056	0.508	0.000	0.991
25397	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
26947	6	1.119	0.000	0.000	0.966	0.000	0.000	1.007
27236	6	0.868	0.000	2.206	1.117	2.068	1.521	0.981
27394	6	0.962	0.000	0.000	1.423	0.856	0.000	0.928
27537	6	0.000	0.000	0.000	6.760	0.000	0.000	0.000
28219	6	0.922	0.000	1.388	1.172	1.518	0.957	0.971
28286	6	1.305	0.000	0.000	0.000	0.000	0.000	1.175
28820	6	0.653	0.000	0.000	2.253	2.711	0.000	0.783
28868	6	0.653	0.000	0.000	3.380	0.000	0.000	0.587
29165	6	1.101	0.000	0.000	0.739	0.356	1.795	1.046
371	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
483	7	0.932	0.000	0.000	2.299	0.000	0.000	0.826
941	7	1.007	0.000	0.000	0.602	1.584	3.168	1.055
1431	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
1714	7	0.000	0.000	0.000	8.430	0.000	0.000	0.000
3069	7	0.641	0.000	0.000	0.000	11.087	0.000	1.136
3074	7	1.098	0.000	0.000	1.204	0.000	0.000	0.974
3326	7	1.048	0.000	0.000	1.533	0.000	0.000	0.929
4082	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
4277	7	0.000	0.000	0.000	8.430	0.000	0.000	0.000
4497	7	1.087	0.000	0.000	0.766	1.344	0.000	1.033
6951	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
7309	7	0.000	0.000	0.000	8.430	0.000	0.000	0.000
8091	7	0.915	0.000	1.472	0.803	2.112	2.112	1.028
8161	7	0.427	0.000	0.000	3.512	5.543	0.000	0.663
8279	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
9329	7	0.919	0.000	0.583	1.431	0.837	2.510	0.943
10088	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
10280	7	1.014	0.000	1.932	0.351	1.386	1.848	1.089

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11714	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
11869	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
12495	7	0.961	0.000	0.000	2.107	0.000	0.000	0.852
12735	7	1.055	0.000	1.818	0.000	2.609	0.000	1.136
13113	7	0.885	24.286	0.736	1.405	2.112	0.000	0.920
13159	7	0.975	0.000	0.871	1.662	0.312	0.000	0.912
14298	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14505	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
14730	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
15221	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
16369	7	1.226	0.000	0.000	0.367	0.000	0.000	1.086
17456	7	1.002	0.000	1.262	0.975	1.207	0.302	1.004
18340	7	0.641	0.000	0.000	4.215	0.000	0.000	0.568
18561	7	1.080	0.000	1.059	0.346	0.911	1.823	1.089
18987	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
19640	7	1.111	0.000	4.121	0.000	0.000	0.000	1.136
20064	7	1.025	0.000	0.000	1.686	0.000	0.000	0.909
20601	7	0.952	0.000	0.883	1.204	0.634	2.534	0.974
20891	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21213	7	0.769	0.000	4.121	1.686	1.478	0.000	0.909
22533	7	0.641	0.000	0.000	4.215	0.000	0.000	0.568
22587	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	7	1.048	0.000	0.000	1.533	0.000	0.000	0.929
24525	7	0.000	0.000	0.000	8.430	0.000	0.000	0.000
24931	7	1.055	0.000	0.000	1.488	0.000	0.000	0.935
25234	7	1.055	0.000	1.818	0.992	0.000	0.000	1.002
26505	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
26796	7	0.993	0.000	0.871	0.831	0.937	2.498	1.024
27173	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	7	0.952	0.000	1.766	1.204	0.634	1.267	0.974
28868	7	1.281	0.000	0.000	0.000	0.000	0.000	1.136
28959	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	7	0.833	0.000	0.000	2.107	1.109	2.217	0.852
29834	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Appendix D. Type of Stop – Incidental Contact: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
371	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1104	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1980	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
2041	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2571	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
2604	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2969	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	1	0.000	0.000	0.000	0.000	13.286	0.000	1.453
3076	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
3248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3439	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	1	0.000	0.000	0.000	0.000	13.286	0.000	1.453
3727	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3911	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3976	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
4038	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
4926	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6170	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6233	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6325	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
7309	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7323	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7994	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8126	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8189	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8874	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8898	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9058	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
9132	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
9360	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9827	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10821	1	0.554	0.000	0.000	2.296	0.000	0.000	0.484
11010	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	1	1.107	0.000	0.000	1.148	0.000	0.000	0.969
11707	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12042	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
12153	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13243	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	1	0.830	0.000	0.000	0.000	6.643	0.000	1.453
14711	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
14772	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15124	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
15326	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15761	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16431	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16667	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
16672	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17295	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17433	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
17456	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
17534	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
17599	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17629	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
17842	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
17997	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	1	0.000	0.000	93.000	0.000	0.000	0.000	1.453
18340	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
18563	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18630	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19140	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	1	0.830	0.000	0.000	1.722	0.000	0.000	0.727
19310	1	0.623	0.000	0.000	1.292	3.321	0.000	0.908
19529	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19780	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
20277	1	0.830	0.000	0.000	1.722	0.000	0.000	0.727
20401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21467	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
21750	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21881	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22445	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
22533	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22741	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22962	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23361	1	0.830	0.000	0.000	1.722	0.000	0.000	0.727
23436	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
23710	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23902	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
24361	1	1.423	0.000	0.000	0.492	0.000	0.000	1.246

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24525	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24742	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24963	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
25046	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	1	0.830	0.000	0.000	1.722	0.000	0.000	0.727
25899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27188	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27294	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
27671	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	1	0.949	0.000	0.000	0.984	1.898	0.000	1.038
28219	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	1	1.186	6.643	0.000	0.492	0.000	0.000	1.038
28603	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
28738	1	0.000	0.000	0.000	3.444	0.000	0.000	0.000
28820	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29301	1	0.000	46.500	0.000	0.000	0.000	0.000	0.000
29783	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29849	1	1.661	0.000	0.000	0.000	0.000	0.000	1.453
30147	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1561	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1907	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2539	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
2553	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2928	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
2977	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3076	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3439	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
3487	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
3506	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
3911	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3959	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
3983	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4014	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4037	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	2	1.000	0.000	0.000	0.000	4.500	0.000	1.636
4299	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
4401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4780	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5082	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5166	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
5266	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5624	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5714	2	0.000	0.000	0.000	1.286	4.500	0.000	0.818
5721	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5947	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5989	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7070	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7559	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7682	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7754	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	2	1.333	0.000	0.000	0.429	1.500	0.000	1.364
7918	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7984	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8265	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8270	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8921	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
9239	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9360	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
9585	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10080	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11019	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
11714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11753	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11849	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12044	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12069	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12138	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12418	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
12514	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13160	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13558	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13636	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	2	1.143	0.000	0.000	0.735	1.286	0.000	1.169
13914	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14200	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14241	2	0.800	0.000	0.000	1.543	0.000	0.000	0.655
14730	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15144	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
15899	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16293	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
16563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16667	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16696	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16905	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
16996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17031	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
17534	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
17800	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18131	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18530	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19858	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	2	1.000	0.000	0.000	1.286	0.000	0.000	0.818
20086	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20399	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
20415	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20784	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20806	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21035	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21749	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21976	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	2	0.000	0.000	0.000	0.000	9.000	0.000	1.636
22304	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23105	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23775	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23853	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24056	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24661	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24674	2	2.000	0.000	0.000	0.000	0.000	0.000	1.636
24978	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25471	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
26121	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27198	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27327	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27876	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28000	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28404	2	0.000	0.000	0.000	2.571	0.000	0.000	0.000
28460	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28761	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28854	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28919	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29112	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30015	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30053	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	3	0.000	0.000	68.000	0.000	0.000	0.000	1.308
996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2306	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2539	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2949	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2953	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
2977	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3054	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3746	3	0.756	0.000	0.000	2.267	0.000	0.000	0.654
3832	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4189	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
4277	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	3	0.756	17.000	0.000	1.133	0.000	0.000	0.654
5266	3	0.756	0.000	0.000	2.267	0.000	0.000	0.654
5502	3	0.000	0.000	0.000	3.400	3.400	0.000	0.327
5529	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5859	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6619	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
6951	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7096	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
7883	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7980	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7984	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8598	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8694	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
8997	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9194	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9453	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
9585	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
10088	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10567	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11205	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11625	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	3	0.907	0.000	0.000	1.813	0.000	0.000	0.785
12044	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
12138	3	0.756	0.000	0.000	0.000	6.800	0.000	1.308
12327	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	3	0.000	0.000	0.000	0.000	0.000	68.000	1.308
12609	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13579	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13946	3	0.504	0.000	0.000	3.022	0.000	0.000	0.436
13988	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
14604	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14965	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15755	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
16474	3	1.133	0.000	0.000	0.000	3.400	0.000	1.308
16687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16690	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16767	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17071	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17217	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
17599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
18268	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
18340	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18532	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19042	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19049	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19065	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19343	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19373	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19659	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
20018	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
20466	3	0.000	0.000	0.000	4.533	0.000	0.000	0.000
20560	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20771	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21045	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
22228	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
22304	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22492	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	3	0.756	0.000	0.000	2.267	0.000	0.000	0.654
23338	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23533	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
23687	3	0.756	0.000	0.000	0.000	6.800	0.000	1.308
24085	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24978	3	0.000	0.000	0.000	4.533	0.000	0.000	0.000
25046	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25471	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25886	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
26527	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27199	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27671	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27704	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28010	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28214	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28443	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28656	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28875	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	3	0.000	0.000	0.000	0.000	13.600	0.000	1.308
29325	3	1.511	0.000	0.000	0.000	0.000	0.000	1.308
29330	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29407	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	3	0.000	0.000	0.000	4.533	0.000	0.000	0.000
371	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
516	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
941	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3076	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3704	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
3832	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4267	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6133	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
7060	4	0.860	0.000	0.000	1.219	4.875	0.000	0.975
7187	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
7337	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10214	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10719	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11692	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
11753	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11826	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
12991	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13054	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
13331	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
13988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15758	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15820	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16690	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16814	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
16996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
17599	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
18340	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18521	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
18532	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
19065	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19415	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20066	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
20277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
20784	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22266	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
22405	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	4	0.000	0.000	0.000	9.750	0.000	0.000	0.000
23775	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25535	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
25886	4	0.918	0.000	0.000	1.950	0.000	0.000	0.891
26355	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
26527	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
26796	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
27866	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28354	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	4	1.147	0.000	0.000	0.000	0.000	0.000	1.114
28738	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29319	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	4	0.000	0.000	0.000	9.750	0.000	0.000	0.000
29834	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
941	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3076	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6739	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	5	1.000	0.000	0.000	0.000	0.000	0.000	1.000
7309	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12044	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13227	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16672	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18340	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20106	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25381	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25668	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28649	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
838	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4307	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
4926	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5293	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
5669	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	6	0.625	0.000	0.000	3.333	0.000	0.000	0.588
7323	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
7994	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8874	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
8960	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9058	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9132	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12042	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13270	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15124	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	6	0.000	0.000	0.000	0.000	20.000	0.000	1.176
15980	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
17433	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17629	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	6	0.625	0.000	0.000	3.333	0.000	0.000	0.588
18617	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
20277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
21750	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
21881	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22298	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22445	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
22587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23710	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
24742	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
25397	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	6	1.250	0.000	0.000	0.000	0.000	0.000	1.176
27394	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	6	0.000	0.000	0.000	6.667	0.000	0.000	0.000
28286	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
941	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1431	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3326	7	1.143	0.000	0.000	0.000	0.000	0.000	1.143
4082	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	7	0.000	0.000	0.000	8.000	0.000	0.000	0.000
4497	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	7	1.143	0.000	0.000	0.000	0.000	0.000	1.143
8279	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9329	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
10088	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10280	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	7	1.143	0.000	0.000	0.000	0.000	0.000	1.143
13113	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20891	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21213	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	7	1.143	0.000	0.000	0.000	0.000	0.000	1.143
25234	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	7	1.143	0.000	0.000	0.000	0.000	0.000	1.143
29834	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Appendix E. Type of Stop – Warning: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.791	0.000	7.991	1.506	0.000	0.000	0.858
220	1	1.280	0.000	0.000	0.645	0.467	0.000	1.104
371	1	0.988	0.000	0.000	1.694	0.000	0.000	0.805
376	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	1	1.107	0.000	0.000	1.355	0.000	0.000	0.901
537	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
692	1	1.355	0.000	0.000	0.645	0.000	0.000	1.104
1104	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
1980	1	1.325	0.000	0.000	0.122	0.795	2.522	1.253
2041	1	1.054	0.000	0.000	1.004	1.090	0.000	1.001
2571	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
2604	1	1.265	0.000	0.000	0.904	0.000	0.000	1.030
2618	1	0.851	0.000	3.688	0.927	1.509	1.196	1.023
2969	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
3069	1	0.988	0.000	5.993	0.565	1.226	0.000	1.127
3074	1	1.103	0.000	0.000	0.630	1.368	1.085	1.108
3076	1	0.639	0.000	1.020	1.346	1.043	7.940	0.904
3248	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
3439	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	1	1.107	0.000	0.000	0.552	1.417	1.555	1.130
3727	1	1.075	0.000	0.000	0.542	1.961	0.000	1.133
3832	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
3911	1	0.791	0.000	0.000	0.000	4.903	0.000	1.288
3976	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
4038	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
4542	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4926	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
5529	1	0.414	0.000	4.566	1.506	2.101	4.443	0.858
5669	1	0.806	0.000	0.000	1.240	1.538	2.744	0.934
5947	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
6062	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
6170	1	1.310	0.000	0.000	0.645	0.280	0.000	1.104
6233	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
6308	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6325	1	1.054	0.000	0.000	0.753	1.634	0.000	1.073
6951	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
7060	1	0.000	0.000	0.000	2.259	4.903	0.000	0.644
7274	1	1.294	0.000	0.000	0.000	1.783	0.000	1.288
7309	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
7323	1	0.805	0.000	3.365	1.585	0.688	0.000	0.836
7337	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
7696	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
7872	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
7994	1	0.863	0.000	0.000	0.000	4.458	0.000	1.288
8126	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
8189	1	1.438	0.000	0.000	0.411	0.000	0.000	1.171
8257	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
8729	1	0.000	0.000	0.000	0.000	0.000	46.649	1.288
8757	1	0.879	0.000	0.000	0.000	4.359	0.000	1.288
8758	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
8874	1	1.054	0.000	0.000	1.506	0.000	0.000	0.858
8898	1	1.302	0.000	0.000	0.797	0.000	0.000	1.060
8960	1	1.138	12.028	1.754	0.661	0.718	0.000	1.068
9058	1	1.088	0.000	1.547	0.680	1.265	0.000	1.094
9132	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
9316	1	0.610	2.046	0.796	1.819	1.628	1.161	0.764
9360	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
9585	1	0.000	0.000	0.000	1.506	3.269	15.550	0.858
9827	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
10088	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
10318	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10821	1	1.135	0.000	1.844	0.811	0.629	0.000	1.056
11010	1	1.024	0.000	0.545	1.130	0.780	0.530	0.966
11088	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
11234	1	1.054	0.000	0.000	0.753	1.634	0.000	1.073
11511	1	1.130	0.000	0.000	0.861	0.934	0.000	1.042
11707	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	1	0.000	0.000	0.000	0.000	9.807	0.000	1.288
11869	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
12042	1	1.054	0.000	0.000	0.958	0.892	1.414	1.014
12153	1	0.837	0.000	0.000	1.595	1.154	0.000	0.833

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12495	1	1.054	0.000	0.000	1.004	1.090	0.000	1.001
12735	1	1.423	0.000	0.000	0.000	0.981	0.000	1.288
12991	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
13243	1	0.791	0.000	0.000	0.678	2.452	4.665	1.094
13603	1	0.465	0.000	0.000	1.595	2.884	2.744	0.833
13722	1	0.843	0.000	0.000	0.602	1.961	6.220	1.116
14711	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
14730	1	1.150	0.000	0.000	1.232	0.000	0.000	0.936
14772	1	1.130	0.000	0.000	1.291	0.000	0.000	0.920
14960	1	1.285	0.000	0.000	0.000	1.839	0.000	1.288
15124	1	0.791	246.571	0.000	0.000	0.000	0.000	0.644
15326	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
15760	1	1.054	0.000	0.000	0.000	0.000	15.550	1.288
15761	1	0.767	0.000	5.641	1.462	0.577	0.686	0.871
15899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
16431	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
16474	1	1.054	0.000	0.000	0.000	3.269	0.000	1.288
16553	1	0.889	0.000	0.000	0.847	2.452	0.000	1.046
16667	1	1.265	0.000	0.000	0.565	0.736	0.000	1.127
16672	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
16996	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
17160	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17295	1	0.879	0.000	0.000	1.506	1.090	0.000	0.858
17433	1	1.216	0.000	0.000	1.043	0.000	0.000	0.990
17456	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000
17464	1	1.224	0.000	4.640	0.583	0.000	0.000	1.121
17534	1	0.791	0.000	0.000	0.000	4.903	0.000	1.288
17599	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
17619	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
17629	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
17800	1	1.406	0.000	0.000	0.502	0.000	0.000	1.145
17842	1	1.209	0.000	0.000	0.797	0.577	0.000	1.060
17997	1	1.130	0.000	0.000	1.049	0.525	0.000	0.989
18247	1	1.054	0.000	0.000	1.004	1.090	0.000	1.001
18268	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18563	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
18630	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
18667	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
18996	1	1.186	0.000	11.986	0.000	0.000	0.000	1.288
19140	1	0.904	0.000	0.000	0.645	1.401	6.664	1.104
19199	1	1.468	0.000	1.142	0.000	0.233	1.111	1.288
19310	1	1.074	0.000	0.615	0.927	0.754	1.196	1.023
19529	1	0.886	0.000	1.918	1.807	0.000	0.000	0.773
19640	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19780	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
19947	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
20018	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	1	1.023	0.000	2.820	1.063	0.577	0.000	0.985
20277	1	1.097	1.911	0.743	0.823	0.836	0.904	1.048
20401	1	0.791	0.000	11.986	0.000	0.000	11.662	1.288
20692	1	1.468	0.000	0.000	0.000	0.700	0.000	1.288
21467	1	1.139	0.000	0.000	1.265	0.000	0.000	0.927
21750	1	1.406	0.000	0.000	0.502	0.000	0.000	1.145
21881	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22162	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22228	1	1.054	0.000	5.327	0.502	1.090	0.000	1.145
22445	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22533	1	0.703	0.000	0.000	1.883	1.090	1.296	0.751
22587	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22623	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22741	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
22962	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
23047	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
23361	1	1.100	0.000	0.000	0.982	0.000	4.056	1.008
23436	1	0.863	0.000	0.000	0.822	1.783	4.241	1.053
23493	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
23641	1	0.999	0.000	0.000	1.189	1.032	0.000	0.949
23710	1	1.186	0.000	0.000	1.130	0.000	0.000	0.966
23902	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	1	1.214	0.000	0.000	0.736	0.456	1.085	1.078
24525	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
24742	1	0.000	0.000	0.000	4.518	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24947	1	1.294	0.000	0.000	0.822	0.000	0.000	1.053
24963	1	0.988	0.000	4.495	0.847	0.613	1.458	1.046
25046	1	0.791	0.000	0.000	2.259	0.000	0.000	0.644
25234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	1	1.265	0.000	0.000	0.904	0.000	0.000	1.030
25618	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
25628	1	1.004	6.664	0.648	0.733	1.325	1.891	1.061
25899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	1	1.054	0.000	0.000	0.000	3.269	0.000	1.288
27173	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
27188	1	1.076	0.000	0.666	0.816	1.090	0.648	1.055
27236	1	1.134	0.000	3.127	0.393	1.066	1.014	1.176
27294	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	1	1.294	0.000	0.000	0.411	0.892	0.000	1.171
27537	1	1.265	0.000	0.000	0.602	0.654	0.000	1.116
27671	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
27690	1	0.640	0.000	1.169	1.918	1.196	1.138	0.741
27866	1	0.659	0.000	1.998	1.130	2.247	2.916	0.966
28176	1	0.673	0.000	1.020	1.442	2.087	0.993	0.877
28219	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
28286	1	1.081	1.904	0.370	0.959	0.795	0.540	1.009
28603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
28820	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	1	1.054	0.000	0.000	1.506	0.000	0.000	0.858
28959	1	1.054	0.000	0.000	1.506	0.000	0.000	0.858
29165	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29301	1	0.993	0.000	0.000	1.103	1.026	1.085	0.973
29783	1	1.406	0.000	0.000	0.502	0.000	0.000	1.145
29834	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
29849	1	1.581	0.000	0.000	0.000	0.000	0.000	1.288
30147	1	1.205	0.000	0.000	0.430	1.401	0.000	1.165
371	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
376	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
537	2	0.000	0.000	0.000	1.893	2.988	0.000	0.516
996	2	1.124	0.000	1.933	0.738	1.255	0.780	1.146
1561	2	1.350	0.000	0.000	0.874	0.000	0.750	1.072
1750	2	0.000	0.000	0.000	0.000	0.000	39.000	1.548

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1907	2	0.892	0.000	0.000	0.946	1.992	0.000	1.032
2539	2	1.134	0.000	4.202	1.111	0.000	0.000	0.942
2553	2	1.003	0.000	0.000	0.710	2.241	0.000	1.161
2928	2	0.950	0.000	2.543	1.121	0.708	1.026	0.937
2977	2	1.591	0.000	0.000	0.392	0.309	1.345	1.335
3074	2	1.204	0.000	0.000	0.852	0.896	0.000	1.084
3076	2	1.338	0.000	0.000	0.946	0.000	0.000	1.032
3439	2	1.003	0.000	0.000	0.946	1.494	0.000	1.032
3466	2	0.912	0.000	0.000	1.032	1.222	1.773	0.985
3487	2	1.204	0.000	0.000	0.852	0.896	0.000	1.084
3506	2	1.094	0.000	0.000	1.032	0.000	3.545	0.985
3604	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
3832	2	1.043	5.558	0.967	0.937	1.165	0.000	1.022
3911	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
3959	2	1.134	0.000	0.000	0.864	1.169	0.000	1.077
3983	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4014	2	1.433	0.000	0.000	0.811	0.000	0.000	1.106
4037	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
4277	2	1.028	0.000	2.357	0.900	0.875	1.902	1.057
4299	2	0.813	0.000	1.306	0.806	2.423	1.054	1.109
4401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
4780	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5082	2	0.803	0.000	0.000	1.703	0.000	0.000	0.619
5166	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5266	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
5502	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
5529	2	0.926	0.000	0.000	1.529	0.000	0.000	0.714
5624	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
5714	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
5721	2	0.334	0.000	0.000	1.893	0.747	3.250	0.516
5947	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5989	2	1.043	0.000	0.000	1.022	0.359	3.120	0.991
6244	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
6308	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6328	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
7070	2	1.003	0.000	0.000	1.149	0.640	0.929	0.921
7309	2	1.087	0.000	0.000	0.355	2.614	1.625	1.355
7337	2	1.338	0.000	0.000	0.946	0.000	0.000	1.032
7559	2	0.878	0.000	0.000	1.597	0.000	0.000	0.677
7682	2	0.953	0.000	2.416	0.710	1.569	2.925	1.161
7754	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
7872	2	1.003	0.000	0.000	1.161	0.679	0.591	0.915
7918	2	0.522	11.115	0.000	1.363	1.793	1.560	0.774
7984	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	2	1.003	0.000	0.000	0.000	4.482	0.000	1.548
8265	2	0.882	0.000	2.929	1.247	0.407	1.773	0.868
8270	2	1.003	0.000	0.000	0.946	1.494	0.000	1.032
8598	2	1.642	0.000	0.000	0.258	0.815	0.000	1.407
8729	2	0.000	0.000	0.000	0.000	0.000	39.000	1.548
8750	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
8757	2	1.338	0.000	0.000	0.946	0.000	0.000	1.032
8921	2	0.669	0.000	4.027	1.420	1.120	0.000	0.774
8936	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
8997	2	0.730	0.000	0.000	1.549	0.815	0.000	0.704
9239	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
9360	2	1.053	0.000	0.000	0.994	0.896	0.975	1.006
9585	2	1.338	0.000	0.000	0.473	1.494	0.000	1.290
10080	2	1.605	0.000	0.000	0.568	0.000	0.000	1.238
10088	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	2	0.803	0.000	0.000	1.136	1.793	0.000	0.929
10809	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
10996	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
11010	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11019	2	1.146	0.000	0.000	1.217	0.000	0.000	0.885
11234	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
11714	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
11753	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11849	2	0.669	0.000	6.443	1.514	0.598	0.000	0.722

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12044	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
12069	2	0.892	0.000	0.000	1.104	0.996	2.167	0.946
12138	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	2	1.459	0.000	0.000	0.258	1.630	0.000	1.407
12418	2	1.254	0.000	0.000	1.065	0.000	0.000	0.968
12514	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
13135	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
13159	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
13160	2	0.845	0.000	0.000	1.195	1.415	0.000	0.896
13558	2	0.777	0.000	0.000	1.099	1.735	1.258	0.949
13636	2	0.772	0.000	0.000	1.529	0.690	0.000	0.714
13722	2	0.954	0.000	0.000	1.001	1.396	0.639	1.002
13914	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
14200	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
14241	2	1.698	0.000	0.000	0.437	0.000	0.000	1.310
14730	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	2	1.505	0.000	0.000	0.000	2.241	0.000	1.548
14941	2	1.146	0.000	0.000	0.811	0.000	5.571	1.106
15139	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15144	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	2	1.180	0.000	0.000	1.002	0.527	0.000	1.002
15899	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
16078	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
16293	2	1.003	0.000	0.000	0.000	4.482	0.000	1.548
16563	2	0.803	0.000	0.000	1.703	0.000	0.000	0.619
16667	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
16696	2	1.159	0.000	0.000	0.880	0.631	1.648	1.068
16905	2	0.669	0.000	10.739	1.262	0.996	0.000	0.860
16996	2	1.505	0.000	5.370	0.473	0.249	0.000	1.290
17031	2	1.087	0.000	4.027	0.887	0.373	2.438	1.064
17534	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
17599	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
17800	2	1.094	0.000	0.000	0.516	2.445	0.000	1.267
17809	2	1.003	0.000	0.000	0.710	1.120	4.875	1.161
17842	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
18247	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18530	2	0.573	0.000	0.000	1.622	1.281	0.000	0.663
18563	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
19199	2	0.717	0.000	0.000	1.014	1.281	5.571	0.995
19310	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19858	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
20059	2	1.003	0.000	2.416	1.065	0.672	0.975	0.968
20086	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
20277	2	1.003	0.000	0.000	0.946	0.000	6.500	1.032
20399	2	1.062	0.000	0.000	1.169	0.264	1.147	0.911
20401	2	0.889	0.000	0.000	0.898	1.815	1.481	1.058
20415	2	0.669	0.000	0.000	0.946	2.988	0.000	1.032
20560	2	1.062	0.000	0.000	1.002	1.055	0.000	1.002
20784	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20806	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
21035	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
21282	2	0.344	15.879	0.000	1.217	3.329	0.000	0.840
21749	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
21976	2	0.223	0.000	0.000	0.946	3.984	4.333	1.032
22228	2	1.338	0.000	0.000	0.946	0.000	0.000	1.032
22297	2	0.669	0.000	0.000	1.893	0.000	0.000	0.516
22304	2	0.502	0.000	0.000	1.774	1.120	0.000	0.581
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
22598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23105	2	1.146	0.000	13.807	0.406	1.281	0.000	1.327
23386	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	2	0.334	0.000	0.000	1.893	1.494	0.000	0.516
23775	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
23853	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
24056	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
24361	2	1.505	0.000	0.000	0.710	0.000	0.000	1.161
24525	2	0.669	0.000	0.000	0.000	2.988	13.000	1.548
24661	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24674	2	1.154	0.000	0.000	0.994	0.448	0.975	1.006
24978	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
25046	2	1.003	0.000	0.000	1.420	0.000	0.000	0.774
25471	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
25628	2	0.669	185.250	0.000	0.000	2.988	0.000	1.032
26121	2	0.860	0.000	0.000	1.014	1.921	0.000	0.995
26165	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	2.839	0.000	0.000	0.000
27198	2	0.502	0.000	8.054	1.183	2.241	0.000	0.903
27327	2	1.022	0.000	0.000	1.018	0.846	1.472	0.993
27690	2	0.669	0.000	0.000	1.420	1.494	0.000	0.774
27866	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
27876	2	0.838	0.000	2.447	1.258	0.794	0.987	0.862
28000	2	1.605	0.000	0.000	0.568	0.000	0.000	1.238
28176	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28404	2	0.669	0.000	0.000	1.758	0.427	0.000	0.590
28460	2	2.006	0.000	0.000	0.000	0.000	0.000	1.548
28658	2	0.000	0.000	0.000	1.893	2.988	0.000	0.516
28761	2	0.694	0.000	3.717	1.310	1.379	0.000	0.834
28854	2	1.103	0.000	0.000	0.994	0.896	0.000	1.006
28919	2	1.373	0.000	5.087	0.747	0.000	0.000	1.141
28959	2	0.000	0.000	0.000	2.129	2.241	0.000	0.387
29112	2	1.070	0.000	0.000	0.946	0.000	5.200	1.032
29834	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30015	2	0.000	0.000	0.000	0.000	8.964	0.000	1.548
30050	2	1.338	0.000	0.000	0.946	0.000	0.000	1.032
30053	2	1.505	0.000	0.000	0.710	0.000	0.000	1.161
28	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
39	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	3	1.282	0.000	0.000	0.554	0.000	0.000	1.133
2306	3	0.922	18.204	0.000	0.903	1.762	0.910	0.983
2539	3	0.948	0.000	0.000	1.043	0.933	2.891	0.990
2553	3	0.824	0.000	0.000	1.663	0.991	0.000	0.809
2949	3	1.017	0.000	0.000	0.862	0.440	4.096	1.043
2953	3	1.042	0.000	2.985	0.768	1.220	0.945	1.070
2977	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
3054	3	1.127	0.000	0.000	1.023	0.000	0.000	0.996

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
3466	3	0.000	0.000	0.000	0.000	15.855	0.000	1.295
3746	3	0.950	0.000	0.000	1.232	0.881	0.910	0.935
3832	3	0.732	0.000	0.000	0.000	7.927	0.000	1.295
3937	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
4189	3	0.996	13.107	4.139	0.828	0.846	1.311	1.018
4277	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
4299	3	0.732	0.000	0.000	0.000	7.927	0.000	1.295
4700	3	0.926	0.000	0.000	1.224	1.078	1.180	0.937
5266	3	1.125	0.000	0.000	1.028	0.000	0.000	0.994
5502	3	0.977	0.000	0.000	1.130	0.622	1.927	0.965
5529	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5859	3	1.088	0.000	0.000	0.760	1.359	0.000	1.073
6244	3	0.732	0.000	0.000	1.109	3.964	0.000	0.971
6328	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6619	3	0.922	18.204	11.497	0.493	1.174	3.641	1.103
6951	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
7060	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7096	3	1.282	0.000	0.000	0.000	1.982	0.000	1.295
7309	3	1.099	0.000	0.000	0.277	2.973	0.000	1.214
7337	3	1.120	0.000	0.000	0.522	0.000	5.782	1.142
7750	3	0.855	0.000	12.934	1.109	0.000	4.096	0.971
7872	3	1.282	0.000	0.000	0.554	0.000	0.000	1.133
7883	3	1.069	0.000	0.000	0.959	0.857	0.000	1.015
7980	3	1.025	0.000	0.000	1.330	0.000	0.000	0.906
7984	3	0.732	0.000	0.000	2.217	0.000	0.000	0.647
8091	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
8161	3	0.732	0.000	0.000	1.109	3.964	0.000	0.971
8598	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8599	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
8694	3	0.732	0.000	0.000	0.000	7.927	0.000	1.295
8729	3	0.732	0.000	0.000	2.217	0.000	0.000	0.647
8750	3	1.065	0.000	0.000	0.806	0.000	4.468	1.059
8757	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
8936	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	3	0.000	491.500	0.000	0.000	0.000	0.000	0.000
8997	3	0.732	0.000	0.000	2.217	0.000	0.000	0.647
9194	3	0.977	0.000	0.000	1.478	0.000	0.000	0.863

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
9453	3	1.007	0.000	0.000	0.970	1.486	0.000	1.011
9585	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
10303	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
10567	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
10809	3	1.065	0.000	0.000	1.008	0.721	0.000	1.000
10996	3	1.172	0.000	0.000	0.222	0.793	4.915	1.230
11205	3	1.025	0.000	0.000	1.035	1.057	0.000	0.992
11511	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
11625	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	3	1.172	0.000	0.000	0.000	0.000	9.830	1.295
11753	3	0.810	0.000	0.000	1.604	1.349	0.000	0.826
12044	3	0.932	0.000	2.352	0.941	1.441	2.234	1.020
12138	3	1.123	0.000	0.000	0.936	0.352	0.000	1.021
12327	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
12375	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12609	3	1.065	0.000	0.000	0.806	0.721	2.234	1.059
12991	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
13159	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	3	1.172	0.000	0.000	0.000	0.000	9.830	1.295
13579	3	1.107	0.000	0.000	0.690	1.409	0.000	1.093
13722	3	1.172	0.000	0.000	0.887	0.000	0.000	1.036
13946	3	0.758	0.000	0.000	1.376	2.734	0.000	0.893
13988	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
14271	3	0.950	0.000	2.874	0.821	1.762	1.820	1.055
14604	3	1.265	0.000	0.000	0.605	0.000	0.000	1.118
14772	3	0.488	0.000	0.000	0.000	5.285	16.383	1.295
14941	3	0.000	0.000	155.211	0.000	0.000	0.000	1.295
14965	3	0.488	0.000	0.000	2.956	0.000	0.000	0.432
15755	3	0.977	0.000	0.000	1.267	0.604	0.468	0.925
16474	3	0.913	0.000	0.000	1.409	0.746	0.578	0.883
16687	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
16690	3	0.859	0.000	0.000	1.376	0.547	3.390	0.893
16767	3	0.977	0.000	0.000	1.478	0.000	0.000	0.863
16996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17071	3	1.076	0.000	0.000	0.634	1.294	2.006	1.110
17217	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17534	3	0.732	0.000	0.000	2.217	0.000	0.000	0.647
17599	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
17800	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
17809	3	1.172	0.000	0.000	0.000	3.171	0.000	1.295
17842	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
18268	3	0.977	0.000	0.000	1.478	0.000	0.000	0.863
18340	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
18532	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
18563	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
19042	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
19049	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
19065	3	0.942	0.000	3.695	1.161	1.132	0.000	0.956
19343	3	1.199	0.000	0.000	0.484	0.865	0.894	1.153
19373	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19659	3	0.985	0.000	0.000	0.945	1.300	1.611	1.019
20018	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
20059	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
20415	3	0.916	0.000	0.000	1.201	1.321	1.024	0.944
20466	3	1.090	0.000	0.000	0.825	1.106	0.000	1.054
20560	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20771	3	0.977	0.000	0.000	0.000	0.000	16.383	1.295
21045	3	0.000	0.000	0.000	4.435	0.000	0.000	0.000
21282	3	0.732	0.000	0.000	2.217	0.000	0.000	0.647
22162	3	0.586	0.000	0.000	1.774	3.171	0.000	0.777
22228	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	3	1.071	0.000	0.000	1.023	0.610	0.000	0.996
22304	3	0.876	0.000	1.522	1.391	0.622	1.927	0.888
22492	3	0.886	0.000	0.000	1.134	1.106	3.429	0.963
22533	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
23049	3	1.116	0.000	1.848	0.739	0.944	0.000	1.079
23338	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
23386	3	0.988	0.000	0.000	0.947	1.425	1.104	1.018
23533	3	1.221	0.000	0.000	0.616	0.440	0.000	1.115
23641	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
23687	3	0.925	0.000	4.084	0.934	1.669	1.293	1.022
24085	3	1.085	0.000	3.832	0.821	0.587	0.607	1.055

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24361	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
24525	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	3	0.955	0.000	3.374	1.157	1.034	0.000	0.957
24978	3	0.904	0.000	6.605	1.227	0.675	1.046	0.936
25046	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
25471	3	1.099	0.000	0.000	1.109	0.000	0.000	0.971
25886	3	0.488	0.000	0.000	1.478	5.285	0.000	0.863
26165	3	0.902	0.000	0.000	1.535	0.610	0.000	0.846
26527	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
26634	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	3	0.366	0.000	0.000	2.217	0.000	12.288	0.647
27199	3	0.945	0.000	0.000	1.216	1.279	0.000	0.940
27259	3	0.977	0.000	0.000	0.000	5.285	0.000	1.295
27671	3	1.046	0.000	0.000	0.950	1.132	0.000	1.017
27704	3	0.977	0.000	0.000	0.739	2.642	0.000	1.079
27996	3	1.221	0.000	0.000	0.739	0.000	0.000	1.079
28010	3	0.810	0.000	0.000	1.634	0.834	1.293	0.818
28214	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
28443	3	0.000	0.000	0.000	0.000	15.855	0.000	1.295
28572	3	0.977	0.000	0.000	0.739	0.000	8.192	1.079
28656	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
28875	3	1.302	0.000	0.000	0.493	0.000	0.000	1.151
28959	3	1.465	0.000	0.000	0.000	0.000	0.000	1.295
29325	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29330	3	1.181	0.000	0.000	0.429	1.534	0.000	1.169
29407	3	1.360	0.000	0.000	0.000	1.132	0.000	1.295
29834	3	1.099	0.000	0.000	1.109	0.000	0.000	0.971
30050	3	0.781	0.000	10.347	0.887	3.171	0.000	1.036
371	4	0.390	0.000	0.000	0.000	10.724	16.319	1.098
516	4	0.941	3.768	1.256	1.018	1.974	1.201	0.983
941	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
3074	4	0.826	0.000	0.000	2.092	0.000	5.760	0.904
3076	4	0.900	0.000	0.000	1.823	0.000	3.766	0.929
3704	4	1.003	0.000	1.720	0.996	0.541	1.646	1.006
3832	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
3937	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4267	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
4277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4401	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
5502	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
6133	4	0.780	0.000	0.000	0.000	10.724	0.000	1.098
6223	4	1.102	0.000	0.000	0.000	1.892	0.000	1.098
6244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
6951	4	1.040	0.000	0.000	0.000	3.575	0.000	1.098
7060	4	0.969	0.000	1.765	1.022	1.941	0.844	1.003
7187	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	4	0.780	0.000	0.000	0.000	10.724	0.000	1.098
7337	4	0.689	0.000	0.000	2.092	3.785	5.760	0.904
7872	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
8091	4	1.003	0.000	0.000	1.129	1.532	0.000	0.993
8161	4	0.878	0.000	0.000	1.975	2.681	0.000	0.915
8257	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
8997	4	0.585	0.000	0.000	5.926	0.000	0.000	0.549
9585	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
10088	4	0.836	0.000	0.000	1.693	4.596	0.000	0.941
10214	4	1.064	0.000	0.000	1.078	0.000	0.000	0.998
10303	4	0.780	68.242	0.000	0.000	0.000	0.000	0.732
10719	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
11234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11692	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
11714	4	0.702	0.000	0.000	4.741	0.000	0.000	0.659
11753	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
11826	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
12327	4	1.092	0.000	0.000	0.790	0.000	0.000	1.025
12495	4	0.878	25.591	0.000	0.000	4.021	0.000	0.961
12735	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
12991	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13054	4	1.147	0.000	0.000	0.242	0.000	0.000	1.076
13159	4	1.064	0.000	0.000	0.000	0.000	4.451	1.098
13331	4	0.980	0.000	1.587	1.654	0.000	0.759	0.945
13988	4	0.975	0.000	0.000	0.000	5.362	0.000	1.098
14271	4	0.975	0.000	0.000	1.975	0.000	0.000	0.915

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
14298	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
14772	4	1.024	0.000	12.795	0.741	0.000	0.000	1.029
15758	4	1.024	0.000	25.591	0.000	0.000	0.000	1.098
15820	4	1.090	0.000	0.000	0.409	1.109	0.000	1.060
16001	4	0.000	0.000	0.000	11.853	0.000	0.000	0.000
16078	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
16474	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	4	1.039	0.000	0.000	0.593	1.206	1.224	1.043
16690	4	1.014	0.000	0.000	1.054	0.715	1.088	1.000
16814	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
16996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	4	0.936	0.000	0.000	2.371	0.000	0.000	0.878
17534	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
17599	4	1.073	0.000	0.000	0.988	0.000	0.000	1.007
17748	4	0.000	0.000	0.000	11.853	0.000	0.000	0.000
17800	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
17842	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
18268	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
18340	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
18521	4	1.040	0.000	4.549	0.527	1.430	0.000	1.049
18532	4	0.975	0.000	0.000	1.317	1.787	0.000	0.976
18561	4	0.780	0.000	0.000	3.951	0.000	0.000	0.732
18563	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
18667	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
18987	4	0.975	3.412	0.000	1.185	1.072	0.816	0.970
19065	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19244	4	0.936	0.000	0.000	0.000	0.000	9.791	1.098
19415	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
20018	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	4	0.585	0.000	0.000	5.926	0.000	0.000	0.549
20066	4	0.988	2.659	0.000	0.924	0.836	1.907	0.998
20277	4	0.920	0.000	0.000	0.847	2.298	3.497	1.020
20560	4	1.076	0.000	0.000	0.817	0.000	0.563	1.022
20601	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
20784	4	0.975	0.000	34.121	0.000	0.000	0.000	1.098
22228	4	0.334	0.000	0.000	3.386	9.192	6.994	0.784

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
22266	4	1.016	10.775	0.000	0.936	0.000	0.000	0.954
22304	4	0.990	0.000	0.000	1.509	0.585	0.445	0.958
22405	4	0.878	0.000	0.000	2.963	0.000	0.000	0.824
22533	4	0.692	0.000	0.000	4.310	1.462	0.000	0.699
22623	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
23641	4	0.862	0.000	0.000	1.248	1.693	5.153	0.982
23775	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
24361	4	0.702	0.000	0.000	3.556	0.000	4.896	0.769
24525	4	0.000	0.000	0.000	11.853	0.000	0.000	0.000
24931	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
25535	4	1.073	0.000	0.000	0.494	1.340	0.000	1.052
25886	4	0.995	1.612	0.000	1.120	1.013	0.771	0.986
26355	4	1.064	9.306	0.000	0.539	0.000	0.000	0.998
26527	4	1.128	0.000	0.000	0.216	0.585	0.000	1.078
26634	4	1.003	0.000	0.000	0.847	0.000	3.497	1.020
26796	4	0.780	0.000	0.000	3.951	0.000	0.000	0.732
27173	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
27259	4	0.988	0.000	0.000	0.370	3.016	1.530	1.064
27866	4	0.502	0.000	29.247	3.386	0.000	6.994	0.784
27996	4	1.056	0.000	0.000	0.578	1.177	0.597	1.044
28286	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
28354	4	1.040	0.000	0.000	1.317	0.000	0.000	0.976
28572	4	1.013	0.000	0.000	0.723	1.177	1.791	1.031
28658	4	1.035	0.000	0.000	0.952	0.862	0.437	1.010
28738	4	0.975	0.000	34.121	0.000	0.000	0.000	1.098
28959	4	0.910	0.000	0.000	0.000	7.149	0.000	1.098
28988	4	1.080	0.000	0.000	0.456	0.000	1.883	1.056
29319	4	1.064	0.000	0.000	1.078	0.000	0.000	0.998
29325	4	0.780	0.000	68.242	0.000	0.000	0.000	1.098
29834	4	1.170	0.000	0.000	0.000	0.000	0.000	1.098
30050	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	5	0.854	0.000	2.183	1.783	0.000	0.000	0.860
941	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	5	0.982	0.000	0.000	0.995	2.984	0.000	1.007
3076	5	1.051	0.000	1.114	0.910	0.000	0.000	1.023

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3832	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
3983	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	5	0.864	0.000	6.821	1.194	0.000	0.000	0.970
6223	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
6244	5	0.000	0.000	0.000	6.367	0.000	0.000	0.000
6308	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
6714	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
6739	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	5	1.005	0.000	0.000	1.273	0.000	0.000	0.955
7309	5	0.718	54.571	0.000	0.910	0.000	0.000	0.682
7337	5	1.047	0.000	0.000	1.061	0.000	0.000	0.995
8091	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
8257	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
8729	5	1.077	0.000	0.000	0.910	0.000	0.000	1.023
10088	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
10303	5	0.628	0.000	0.000	3.183	0.000	0.000	0.597
11234	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
11511	5	0.942	0.000	0.000	1.592	0.000	0.000	0.895
11714	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
12044	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
13159	5	1.005	0.000	0.000	0.637	4.775	0.000	1.074
13227	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
15139	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
16672	5	1.117	0.000	6.063	0.000	0.000	0.000	1.194
17456	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
17619	5	1.005	0.000	0.000	1.273	0.000	0.000	0.955
17800	5	0.754	0.000	3.638	1.698	3.183	0.000	0.875
17842	5	1.005	0.000	0.000	0.424	6.367	0.000	1.114
18268	5	0.908	0.000	0.000	1.415	2.653	0.000	0.928
18340	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
18561	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18563	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
20018	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
20106	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
22228	5	1.012	0.000	0.000	1.061	0.000	10.611	0.995
22533	5	0.838	0.000	6.063	1.415	0.000	0.000	0.928
23386	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
23641	5	0.942	0.000	0.000	1.592	0.000	0.000	0.895
24361	5	0.838	0.000	0.000	2.122	0.000	0.000	0.796
24525	5	0.977	0.000	0.000	1.415	0.000	0.000	0.928
25046	5	1.117	0.000	0.000	0.707	0.000	0.000	1.061
25381	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25668	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	5	0.628	0.000	0.000	3.183	0.000	0.000	0.597
27996	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
28649	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
28738	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	5	1.257	0.000	0.000	0.000	0.000	0.000	1.194
29834	5	1.047	0.000	0.000	1.061	0.000	0.000	0.995
30050	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	6	0.000	0.000	0.000	0.000	0.000	59.741	1.187
692	6	0.897	0.000	0.000	1.353	1.866	0.000	0.937
838	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	6	1.072	0.000	0.000	0.584	1.611	0.000	1.079
2618	6	0.874	0.000	0.000	2.142	0.000	0.000	0.791
3069	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3587	6	1.065	0.000	0.000	1.205	0.000	0.000	0.964
3604	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
3727	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
4277	6	0.000	0.000	0.000	6.426	0.000	0.000	0.000
4307	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
4542	6	1.136	0.000	0.000	0.428	1.182	0.000	1.108
4926	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
5293	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
5669	6	0.786	0.000	0.000	1.928	1.773	0.000	0.831
6062	6	1.132	0.000	0.000	0.292	1.611	0.000	1.133

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	6	0.437	0.000	53.767	2.142	0.000	0.000	0.791
7274	6	1.086	0.000	0.000	0.643	1.266	0.000	1.068
7323	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
7696	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
7994	6	1.069	0.000	0.000	1.184	0.000	0.000	0.968
8757	6	0.000	0.000	0.000	6.426	0.000	0.000	0.000
8758	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
8874	6	0.939	0.000	0.000	1.091	1.672	1.127	0.985
8960	6	0.965	0.000	0.000	1.015	0.933	3.144	0.999
9058	6	0.000	0.000	0.000	0.000	17.725	0.000	1.187
9132	6	1.140	0.000	0.000	0.238	1.641	0.000	1.143
9316	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
11010	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
11088	6	1.065	0.000	0.000	1.205	0.000	0.000	0.964
11234	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	6	1.101	0.000	0.000	0.771	0.709	0.000	1.044
12042	6	0.000	0.000	0.000	6.426	0.000	0.000	0.000
12153	6	0.771	0.000	0.000	2.268	1.043	0.000	0.768
13270	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
14730	6	0.958	0.000	0.000	0.989	1.500	1.838	1.004
14960	6	1.087	0.000	0.000	0.470	0.865	2.914	1.100
15124	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
15326	6	1.021	0.000	0.000	1.082	0.373	1.887	0.987
15760	6	1.008	20.679	0.000	1.236	0.000	0.000	0.913
15980	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17433	6	0.000	0.000	0.000	6.426	0.000	0.000	0.000
17464	6	0.884	0.000	7.502	1.345	0.824	1.389	0.938
17629	6	0.936	0.000	0.000	1.102	2.026	0.000	0.983
17748	6	0.971	0.000	0.000	0.714	1.313	4.425	1.055
17842	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	6	0.883	0.000	2.390	1.380	1.313	1.328	0.932
18617	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
18930	6	0.897	0.000	0.000	1.691	0.000	3.144	0.875
20277	6	0.983	0.000	0.000	0.000	4.431	0.000	1.187
21750	6	1.212	0.000	0.932	0.186	0.410	1.036	1.153
21881	6	1.156	0.000	0.000	0.000	2.085	0.000	1.187

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
22228	6	0.655	0.000	0.000	0.000	8.863	0.000	1.187
22298	6	1.147	0.000	0.000	0.000	2.216	0.000	1.187
22445	6	0.824	0.000	0.000	2.203	0.506	0.000	0.780
22587	6	0.855	0.000	0.000	1.676	1.541	0.000	0.877
23047	6	1.065	0.000	0.000	0.803	0.554	1.867	1.039
23710	6	1.165	0.000	0.000	0.714	0.000	0.000	1.055
24742	6	0.819	0.000	0.000	1.607	2.216	0.000	0.890
24917	6	0.000	0.000	0.000	6.426	0.000	0.000	0.000
25248	6	0.841	0.000	3.043	1.940	0.334	1.127	0.829
25397	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
27236	6	0.870	4.301	3.871	1.337	1.418	0.956	0.931
27394	6	0.988	0.000	0.000	1.159	0.872	0.979	0.973
27537	6	1.310	0.000	0.000	0.000	0.000	0.000	1.187
28219	6	0.936	0.000	0.000	1.469	1.013	0.000	0.916
28286	6	0.983	33.604	0.000	1.205	0.000	0.000	0.890
28820	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	6	0.874	0.000	0.000	0.000	5.908	0.000	1.187
29165	6	1.238	0.000	0.000	0.000	0.985	0.000	1.187
371	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	7	0.970	0.000	1.069	1.718	0.000	1.924	0.955
941	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
1431	7	0.782	0.000	0.000	0.000	8.676	0.000	1.071
1714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
3074	7	1.027	0.000	3.073	0.000	1.627	0.000	1.071
3326	7	1.056	0.000	0.000	0.790	1.301	0.000	1.018
4082	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
4277	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	7	1.099	0.000	0.000	0.672	0.554	0.000	1.026
6951	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	7	0.972	0.000	0.000	0.741	1.627	2.766	1.021
8161	7	0.880	0.000	0.000	0.000	6.507	0.000	1.071
8279	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
9329	7	0.929	0.000	2.161	1.042	1.430	1.945	1.001
10088	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
10280	7	0.865	0.000	2.588	2.495	0.000	2.329	0.902

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknown	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
12495	7	0.782	98.333	0.000	0.000	0.000	0.000	0.714
12735	7	1.139	0.000	0.000	0.000	0.766	0.000	1.071
13113	7	0.782	0.000	0.000	4.390	0.000	2.458	0.774
13159	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
14298	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
14505	7	0.931	0.000	3.391	1.635	0.898	0.000	0.961
14730	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	7	1.043	0.000	0.000	1.003	0.826	0.702	1.003
17456	7	1.123	0.000	2.138	0.000	0.000	0.000	1.071
18340	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	7	1.046	3.554	0.592	0.762	0.941	0.000	1.007
18987	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	7	0.996	8.939	1.490	0.000	1.578	1.341	1.039
20064	7	1.043	0.000	0.000	1.171	0.964	0.000	0.992
20601	7	0.971	0.000	0.000	1.635	0.898	1.526	0.961
20891	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
21213	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
22533	7	1.027	0.000	0.000	0.000	0.000	5.531	1.071
22587	7	0.978	0.000	8.194	0.000	0.000	0.000	1.071
23641	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	7	1.036	0.000	2.892	0.930	0.000	0.000	1.008
25234	7	0.931	0.000	0.000	1.635	1.795	1.526	0.961
26505	7	0.822	0.000	0.000	4.741	0.000	0.000	0.750
26796	7	0.970	0.000	2.138	0.000	2.263	1.924	1.071
27173	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
27866	7	0.851	0.000	1.229	1.975	1.952	2.213	0.938
28868	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
28959	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071
29325	7	0.988	0.000	5.175	0.832	0.000	0.000	1.015
29834	7	1.174	0.000	0.000	0.000	0.000	0.000	1.071

Appendix F. Post-Stop Outcome – Arrest: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
220	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1104	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
1980	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
2571	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2604	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
2618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2969	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	1	1.367	0.000	0.000	0.000	2.409	0.000	1.435
3074	1	0.971	0.000	1.997	0.347	2.282	0.000	1.284
3076	1	1.082	0.000	0.000	1.008	0.602	4.598	0.997
3248	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
3439	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	1	0.559	0.000	5.173	0.300	1.971	5.017	1.305
3727	1	0.000	0.000	0.000	0.000	7.226	0.000	1.435
3832	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
3911	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
3976	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
3983	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
4038	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4926	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	1	0.410	0.000	3.794	1.979	0.000	0.000	0.574
5669	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
5947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6170	1	1.230	0.000	0.000	0.660	1.445	0.000	1.148

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6233	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6325	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
6951	1	0.000	0.000	0.000	0.000	7.226	0.000	1.435
7060	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	1	1.538	0.000	0.000	0.825	0.000	0.000	1.076
7309	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
7323	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
7337	1	1.025	0.000	4.742	0.000	0.000	13.795	1.435
7696	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
7872	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7994	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8126	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8189	1	0.000	0.000	14.227	0.825	0.000	0.000	1.076
8257	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
8729	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8874	1	0.000	0.000	0.000	0.000	7.226	0.000	1.435
8898	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
8960	1	1.025	0.000	0.000	0.000	3.613	0.000	1.435
9058	1	1.086	0.000	1.116	0.776	1.275	0.000	1.097
9132	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	1	0.171	0.000	3.161	1.924	0.602	4.598	0.598
9360	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9827	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
10318	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
10821	1	1.435	0.000	0.000	0.660	0.723	0.000	1.148
11010	1	1.025	0.000	0.000	0.000	3.613	0.000	1.435
11088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	1	1.595	0.000	0.000	0.367	0.803	0.000	1.276
11511	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
11707	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12042	1	1.367	0.000	0.000	1.100	0.000	0.000	0.957
12153	1	1.641	0.000	0.000	0.000	1.445	0.000	1.435
12495	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	1	1.025	0.000	0.000	0.000	3.613	0.000	1.435
13243	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
14711	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
14772	1	0.000	0.000	0.000	0.000	7.226	0.000	1.435
14960	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
15124	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15761	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
15899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16431	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	1	0.000	0.000	0.000	0.000	7.226	0.000	1.435
16667	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
16672	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17295	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
17433	1	0.000	0.000	0.000	3.299	0.000	0.000	0.000
17456	1	0.000	0.000	0.000	1.649	3.613	0.000	0.717
17464	1	1.119	0.000	3.449	0.600	0.657	0.000	1.174
17534	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
17619	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17629	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	1	0.932	0.000	0.000	1.050	1.642	0.000	0.978
17842	1	1.139	0.000	0.000	0.733	1.606	0.000	1.116
17997	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
18247	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
18630	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
18996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19140	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	1	0.684	0.000	1.581	1.649	0.602	0.000	0.717
19529	1	1.025	0.000	0.000	0.000	3.613	0.000	1.435
19640	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19780	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	1	1.367	0.000	0.000	1.100	0.000	0.000	0.957
20277	1	1.087	0.000	1.150	0.900	0.766	1.672	1.044
20401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20692	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
21467	1	0.000	0.000	9.484	1.649	0.000	0.000	0.717
21750	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
21881	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	1	1.577	0.000	0.000	0.254	0.556	4.245	1.325
22445	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22741	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22962	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23361	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
23436	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	1	1.104	0.000	0.730	1.142	0.556	0.000	0.938
23710	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23902	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	1	1.465	0.000	0.000	0.000	2.065	0.000	1.435

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24525	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
24742	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24947	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
24963	1	1.230	0.000	3.794	0.000	0.000	11.036	1.435
25046	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
25234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	1	1.025	0.000	9.484	0.000	0.000	0.000	1.435
25899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27188	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
27236	1	1.367	0.000	0.000	1.100	0.000	0.000	0.957
27294	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
27671	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	1	0.417	0.000	2.251	1.510	1.592	0.000	0.778
27866	1	0.641	0.000	0.000	1.443	1.807	0.000	0.807
28176	1	0.529	0.000	0.612	1.703	1.166	1.780	0.694
28219	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	1	1.073	0.000	0.000	1.117	1.001	0.000	0.949
28603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
29165	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
29301	1	0.000	0.000	0.000	1.649	3.613	0.000	0.717
29783	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
29834	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29849	1	2.051	0.000	0.000	0.000	0.000	0.000	1.435
30147	1	1.025	0.000	0.000	1.649	0.000	0.000	0.717
371	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	2	0.771	0.000	0.000	1.076	1.345	0.000	0.934
996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1561	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
1750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1907	2	0.771	0.000	19.900	0.538	1.345	0.000	1.401
2539	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2928	2	1.543	0.000	0.000	1.076	0.000	0.000	0.934
2977	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	2	1.543	0.000	0.000	1.076	0.000	0.000	0.934
3076	2	1.028	0.000	0.000	0.717	1.793	0.000	1.246
3439	2	0.882	0.000	0.000	1.229	0.000	11.371	0.801
3466	2	2.057	0.000	0.000	0.717	0.000	0.000	1.246
3487	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3506	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	2	1.440	0.000	0.000	0.430	1.793	0.000	1.495
3911	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3959	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
3983	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
4014	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
4037	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	2	0.900	0.000	0.000	0.986	1.120	3.317	1.012
4401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
4780	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5082	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5166	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
5266	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
5529	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
5624	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5721	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
5947	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5989	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	2	1.028	0.000	26.533	0.717	0.000	0.000	1.246

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
6951	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
7070	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
7309	2	2.314	0.000	0.000	0.538	0.000	0.000	1.401
7337	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7559	2	0.000	0.000	0.000	1.076	2.689	0.000	0.934
7682	2	1.983	0.000	0.000	0.461	0.768	0.000	1.468
7754	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	2	1.234	0.000	0.000	0.861	1.076	0.000	1.121
7918	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
7984	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
8161	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
8265	2	0.000	0.000	0.000	1.076	2.689	0.000	0.934
8270	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
8598	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
8729	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
8750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8921	2	0.000	0.000	0.000	1.076	2.689	0.000	0.934
8936	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	2	1.028	0.000	0.000	0.717	1.793	0.000	1.246
9239	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9360	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
10080	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
10809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
11019	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
11511	2	0.000	0.000	0.000	1.434	1.793	0.000	0.623
11714	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11753	2	1.543	0.000	0.000	1.076	0.000	0.000	0.934
11849	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
12044	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12069	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12138	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	2	1.371	0.000	0.000	0.717	0.598	8.844	1.246
12418	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
12514	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13160	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13558	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
13636	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
13722	2	0.851	0.000	0.000	1.187	0.927	0.000	0.838
13914	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14200	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14241	2	1.200	0.000	0.000	1.195	0.299	0.000	0.830
14730	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	2	1.543	0.000	0.000	0.538	1.345	0.000	1.401
14941	2	0.000	0.000	0.000	1.076	2.689	0.000	0.934
15139	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
15144	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
15221	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15899	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16293	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16563	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
16667	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16696	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16905	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17031	2	1.763	0.000	0.000	0.922	0.000	0.000	1.068
17534	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	2	0.643	0.000	0.000	1.255	1.120	0.000	0.779
17809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18131	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
18268	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
18530	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19858	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	2	1.234	0.000	0.000	0.861	1.076	0.000	1.121
20086	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	2	0.000	0.000	0.000	0.717	3.586	0.000	1.246
20399	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	2	1.543	0.000	0.000	1.076	0.000	0.000	0.934
20415	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	2	1.028	0.000	0.000	0.000	3.586	0.000	1.869
20784	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20806	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21035	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	2	0.000	0.000	0.000	0.861	3.227	0.000	1.121
21749	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21976	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	2	1.234	0.000	0.000	0.861	1.076	0.000	1.121
22297	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23105	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
23386	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	2	1.543	0.000	0.000	0.807	0.672	0.000	1.168
23775	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
23853	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24056	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	2	0.000	0.000	0.000	1.614	0.000	19.900	0.467
24661	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24674	2	1.157	0.000	0.000	1.076	0.672	0.000	0.934
24978	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	2	0.514	0.000	0.000	0.717	2.689	0.000	1.246
25471	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26121	2	0.457	0.000	4.422	1.315	0.896	1.474	0.727
26165	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27198	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
27327	2	0.771	0.000	0.000	1.076	1.345	0.000	0.934
27690	2	1.543	0.000	0.000	1.076	0.000	0.000	0.934
27866	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27876	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
28000	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	2	3.085	0.000	0.000	0.000	0.000	0.000	1.869
28404	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28460	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	2	0.000	0.000	0.000	0.000	5.378	0.000	1.869
28761	2	0.000	0.000	0.000	1.076	2.689	0.000	0.934
28854	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
28919	2	0.000	0.000	0.000	2.151	0.000	0.000	0.000
28959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29112	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30015	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	2	1.543	0.000	0.000	0.000	2.689	0.000	1.869
30053	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
39	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
371	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2306	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2539	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
2949	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
2953	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
2977	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3054	3	0.627	0.000	0.000	2.102	0.000	0.000	0.488
3074	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
3466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3746	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
3832	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4189	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
4277	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	3	0.940	0.000	0.000	1.103	1.155	0.000	0.952
5266	3	1.128	0.000	33.100	0.630	0.000	0.000	1.172
5502	3	1.693	0.000	0.000	0.315	0.000	0.000	1.318
5529	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5859	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
6244	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6619	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7096	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
7337	3	1.209	0.000	0.000	0.901	0.550	0.000	1.046
7750	3	0.940	0.000	0.000	0.000	3.849	0.000	1.465
7872	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
7883	3	0.376	0.000	0.000	2.522	0.000	0.000	0.293
7980	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
7984	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
8091	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
8598	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8694	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
8729	3	0.000	0.000	0.000	1.576	3.849	0.000	0.732
8750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
8997	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
9194	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9453	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
9585	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
10088	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
10303	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10567	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
10809	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
10996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11205	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11625	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	3	0.522	0.000	0.000	1.576	1.711	0.000	0.732
12044	3	1.567	0.000	0.000	0.000	1.283	0.000	1.465
12138	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
12327	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
12495	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12609	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
13579	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
13722	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
13946	3	0.996	0.000	4.868	1.113	0.679	0.000	0.948
13988	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	3	0.513	0.000	0.000	1.719	1.400	0.000	0.666
14604	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14965	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
15755	3	0.564	0.000	0.000	1.891	0.000	6.620	0.586
16474	3	1.254	0.000	0.000	1.051	0.000	0.000	0.976
16687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16690	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
16767	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17071	3	0.000	0.000	0.000	1.051	5.132	0.000	0.976
17217	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	3	0.784	0.000	0.000	1.051	1.283	5.517	0.976
17809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	3	0.000	0.000	0.000	0.000	0.000	66.200	1.465
18131	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
18340	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
18532	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19042	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19049	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19065	3	0.940	0.000	0.000	0.000	3.849	0.000	1.465
19343	3	0.940	0.000	0.000	0.788	1.443	4.138	1.098
19373	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19659	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
20018	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	3	0.940	0.000	0.000	1.051	0.000	11.033	0.976
20466	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
20560	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
20771	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21045	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	3	0.000	0.000	0.000	3.152	0.000	0.000	0.000
22162	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
22304	3	0.836	0.000	0.000	1.401	0.855	0.000	0.814
22492	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
22533	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	3	0.752	0.000	0.000	1.471	1.026	0.000	0.781
23338	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	3	1.411	0.000	0.000	0.394	0.962	0.000	1.282
23533	3	0.000	0.000	0.000	1.576	3.849	0.000	0.732
23641	3	1.567	0.000	0.000	0.000	1.283	0.000	1.465

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
23687	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
24085	3	1.343	0.000	0.000	0.450	1.100	0.000	1.255
24361	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	3	0.940	0.000	0.000	0.788	1.924	0.000	1.098
24917	3	0.940	0.000	0.000	1.576	0.000	0.000	0.732
24978	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25471	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25886	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	3	1.254	0.000	0.000	0.525	1.283	0.000	1.221
26527	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
27173	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27199	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
27259	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
27671	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27704	3	1.254	0.000	0.000	0.000	2.566	0.000	1.465
27996	3	0.940	0.000	0.000	0.000	3.849	0.000	1.465
28010	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
28214	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28443	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28656	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28875	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29330	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29407	3	0.000	0.000	0.000	0.000	7.698	0.000	1.465
29834	3	1.881	0.000	0.000	0.000	0.000	0.000	1.465
30050	3	0.376	0.000	0.000	1.891	1.540	0.000	0.586
371	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
516	4	0.987	0.000	0.000	1.468	0.000	0.000	0.904
941	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	4	0.987	0.000	0.000	1.468	0.000	0.000	0.904
3076	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
3704	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
3832	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4267	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6133	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	4	0.877	0.000	9.542	0.979	0.000	0.000	1.004
7060	4	1.034	0.000	0.000	1.258	0.000	0.000	0.947
7187	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	4	1.097	0.000	0.000	0.979	0.000	0.000	1.004
7872	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	4	0.987	0.000	0.000	0.000	0.000	19.083	1.205
8161	4	0.752	0.000	0.000	2.516	0.000	0.000	0.689
8257	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
8729	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
10214	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10719	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11692	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
11753	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
11826	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
12991	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13054	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
13159	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	4	1.097	0.000	0.000	0.979	0.000	0.000	1.004

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
13988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
15758	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15820	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
16001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
16369	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	4	0.658	0.000	0.000	1.957	0.000	12.722	0.804
16690	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16814	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
17534	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
17599	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
17748	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
17842	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
18131	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
18340	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18521	4	1.044	0.000	0.000	1.215	0.000	0.000	0.956
18532	4	0.439	0.000	0.000	0.000	16.963	0.000	1.205
18561	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
18667	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
18987	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
19065	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19244	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
19415	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20066	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	4	0.790	0.000	0.000	1.174	5.089	0.000	0.964
20560	4	1.024	0.000	0.000	1.305	0.000	0.000	0.937
20601	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
20784	4	0.987	0.000	14.313	0.000	0.000	0.000	1.205
22228	4	0.658	0.000	0.000	1.468	6.361	0.000	0.904
22266	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
22304	4	1.053	0.000	0.000	0.000	5.089	0.000	1.205
22405	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	4	0.658	0.000	0.000	2.936	0.000	0.000	0.603
23641	4	0.987	0.000	0.000	0.917	2.385	0.000	1.017
23775	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
24525	4	0.987	0.000	0.000	0.000	6.361	0.000	1.205
24931	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25535	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25886	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
26355	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
26527	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
27173	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
27866	4	0.000	0.000	38.167	0.000	0.000	25.444	1.205
27996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28354	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
28658	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
28738	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
28959	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29319	4	0.000	0.000	0.000	5.872	0.000	0.000	0.000
29325	4	1.316	0.000	0.000	0.000	0.000	0.000	1.205
29834	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	5	0.739	0.000	0.000	1.472	0.757	2.120	0.763
941	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	5	1.216	0.000	0.000	0.589	0.000	4.240	1.220
3076	5	0.948	0.000	1.285	1.071	1.835	0.000	0.971
3832	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
4401	5	0.000	0.000	0.000	2.944	0.000	0.000	0.000
6223	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	5	0.000	0.000	0.000	2.944	0.000	0.000	0.000
6308	5	0.000	0.000	0.000	2.944	0.000	0.000	0.000
6714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6739	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	5	0.965	0.000	0.000	1.309	0.000	0.000	0.847
8091	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12044	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
13159	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
13227	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
13331	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16672	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
17456	5	0.869	0.000	0.000	1.472	0.000	0.000	0.763
17534	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	5	1.158	0.000	0.000	0.981	0.000	0.000	1.017
17800	5	1.027	0.000	1.927	1.071	0.000	0.000	0.971
17842	5	1.738	0.000	0.000	0.000	0.000	0.000	1.525
18268	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18340	5	1.158	0.000	0.000	0.981	0.000	0.000	1.017
18561	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20106	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	5	1.241	0.000	1.514	0.315	2.163	3.029	1.362
22533	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	5	0.579	0.000	0.000	0.981	10.095	0.000	1.017
24361	5	0.000	0.000	0.000	2.944	0.000	0.000	0.000
24525	5	1.014	8.833	0.000	0.981	1.262	0.000	0.953
25046	5	1.470	0.000	0.000	0.453	0.000	0.000	1.291
25381	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25668	5	0.000	0.000	42.400	0.000	0.000	0.000	1.525
27173	5	0.000	0.000	14.133	1.963	0.000	0.000	0.508
27996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28649	5	1.158	0.000	0.000	0.981	0.000	0.000	1.017
28738	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	5	0.000	0.000	0.000	2.944	0.000	0.000	0.000
30050	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
838	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4307	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	6	0.000	0.000	0.000	5.314	0.000	0.000	0.000
4926	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5293	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
5669	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	6	1.129	0.000	0.000	0.550	1.222	0.000	1.104
7323	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	6	1.240	0.000	0.000	0.886	0.000	0.000	1.026
7994	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
8757	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	6	1.116	0.000	0.000	0.000	2.214	0.000	1.232
8874	6	1.302	0.000	0.000	0.000	1.107	0.000	1.232
8960	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9058	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9132	6	0.000	0.000	0.000	0.000	8.857	0.000	1.232
9316	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12042	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	6	0.801	0.000	0.000	2.044	0.681	0.000	0.758
13270	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	6	0.916	0.000	0.000	2.044	0.000	0.000	0.758
14960	6	0.992	0.000	0.000	1.771	0.000	0.000	0.821
15124	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	6	0.850	0.000	5.314	0.759	1.265	0.000	1.056
15980	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17433	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	6	1.063	0.000	2.657	1.139	0.000	0.000	0.968
17629	6	0.000	0.000	37.200	0.000	0.000	0.000	1.232
17748	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	6	0.992	0.000	4.133	0.590	0.984	0.000	1.095
18617	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
21750	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
21881	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
22228	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22298	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22445	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	6	0.000	0.000	0.000	5.314	0.000	0.000	0.000
23047	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23710	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
24742	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
25397	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	6	0.927	0.000	0.610	1.045	1.452	0.000	0.989
27394	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
27537	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	6	0.992	0.000	0.000	1.771	0.000	0.000	0.821
28286	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	6	1.488	0.000	0.000	0.000	0.000	0.000	1.232
371	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
941	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
1431	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	7	0.000	0.000	0.000	0.000	11.800	0.000	1.283
3074	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
3326	7	0.546	0.000	0.000	3.026	0.000	0.000	0.428
4082	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
6951	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	7	1.311	0.000	2.360	0.000	0.000	0.000	1.283
8161	7	0.546	0.000	0.000	1.513	3.933	0.000	0.855
8279	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
9329	7	0.546	0.000	0.000	3.026	0.000	0.000	0.428

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
10088	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10280	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	7	0.656	0.000	2.360	0.000	4.720	0.000	1.283
13113	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
13159	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
14298	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14505	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
14730	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
17456	7	0.819	0.000	1.967	1.513	0.000	0.000	0.855
18340	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	7	0.000	0.000	0.000	4.538	0.000	0.000	0.000
20891	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21213	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	7	0.000	0.000	0.000	4.538	0.000	0.000	0.000
25234	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
26505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
27173	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	7	1.311	0.000	0.000	0.908	0.000	0.000	1.026
28868	7	1.639	0.000	0.000	0.000	0.000	0.000	1.283
28959	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	7	0.819	0.000	5.900	0.000	0.000	0.000	1.283
29834	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Appendix G: Post-Stop Outcome – Search: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1104	1	1.073	0.000	0.000	1.355	0.000	0.000	0.792
1980	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	1	1.073	0.000	0.000	1.355	0.000	0.000	0.792
2571	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2604	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
2969	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
3076	1	0.000	0.000	0.000	2.711	0.000	0.000	0.000
3248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3439	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
3832	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3911	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3976	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4038	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4926	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	1	0.000	0.000	0.000	2.711	0.000	0.000	0.000
5669	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6170	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6233	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6325	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7323	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7994	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8126	1	0.000	0.000	0.000	2.711	0.000	0.000	0.000
8189	1	0.000	0.000	20.600	0.000	0.000	0.000	1.585
8257	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
8874	1	0.000	0.000	0.000	0.000	8.583	0.000	1.585
8898	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	1	0.000	0.000	0.000	0.000	8.583	0.000	1.585
9058	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
9132	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	1	1.288	0.000	0.000	1.084	0.000	0.000	0.951
9360	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
9585	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9827	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
10821	1	1.073	0.000	0.000	0.000	4.292	0.000	1.585
11010	1	0.000	0.000	0.000	0.000	8.583	0.000	1.585
11088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11707	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12042	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13243	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14711	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15124	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15761	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16431	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16667	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
16672	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17295	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17433	1	0.000	0.000	0.000	2.711	0.000	0.000	0.000
17456	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17629	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
17842	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18630	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19140	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	1	0.000	0.000	10.300	0.000	4.292	0.000	1.585
19529	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19780	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	1	1.073	0.000	2.575	0.678	1.073	0.000	1.188
20401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21467	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21881	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
22445	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22741	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22962	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23361	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23436	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23710	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23902	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24525	1	1.073	0.000	0.000	1.355	0.000	0.000	0.792
24742	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24963	1	1.073	0.000	10.300	0.000	0.000	0.000	1.585
25046	1	0.000	0.000	0.000	2.711	0.000	0.000	0.000
25234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27188	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27294	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27671	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	1	0.000	0.000	4.120	1.626	1.717	0.000	0.634
27866	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	1	1.073	0.000	0.000	1.355	0.000	0.000	0.792
28219	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	1	0.890	0.000	0.000	1.256	1.047	0.000	0.850
28603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29301	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29849	1	2.146	0.000	0.000	0.000	0.000	0.000	1.585
30147	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1561	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1907	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2539	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2928	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
2977	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3076	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3439	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
3487	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3506	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	2	1.667	0.000	0.000	1.467	0.000	0.000	0.611
3911	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4014	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4037	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
4401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4780	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5082	2	5.000	0.000	0.000	0.000	0.000	0.000	1.833
5166	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5266	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	2	5.000	0.000	0.000	0.000	0.000	0.000	1.833
5624	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
5714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5721	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5947	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5989	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
6328	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7070	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7559	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7682	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
7754	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	2	0.000	0.000	0.000	0.733	2.037	0.000	1.222
7918	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
7984	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8265	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8270	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8921	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	2	2.500	0.000	0.000	1.100	0.000	0.000	0.917
9239	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9360	2	5.000	0.000	0.000	0.000	0.000	0.000	1.833
9585	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10080	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
10809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11019	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
11714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11753	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11849	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
12044	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12069	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12138	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12418	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12514	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13160	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13558	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13636	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	2	1.667	0.000	0.000	0.000	2.037	0.000	1.833
13914	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14200	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14241	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
15139	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15144	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15899	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16293	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16563	2	0.000	0.000	0.000	1.100	1.528	0.000	0.917
16667	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16696	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
16905	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17031	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	2	0.000	0.000	0.000	1.100	1.528	0.000	0.917
17809	2	5.000	0.000	0.000	0.000	0.000	0.000	1.833
17842	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18131	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18530	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19858	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	2	0.000	0.000	27.500	1.100	0.000	0.000	0.917
20086	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20399	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
20401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20784	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20806	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21035	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	2	0.000	0.000	0.000	0.733	2.037	0.000	1.222
21749	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21976	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	2	2.500	0.000	0.000	0.000	1.528	0.000	1.833
22297	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22598	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23105	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23775	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23853	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24056	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24661	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24674	2	5.000	0.000	0.000	0.000	0.000	0.000	1.833
24978	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	2	0.000	0.000	0.000	1.100	1.528	0.000	0.917
25471	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26121	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
26165	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27198	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27327	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	2	0.000	0.000	0.000	0.000	3.056	0.000	1.833
27876	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28000	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28404	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28460	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28761	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28854	2	0.000	0.000	0.000	2.200	0.000	0.000	0.000
28919	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29112	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30015	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30053	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2306	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2539	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2949	3	0.838	0.000	0.000	1.676	0.000	0.000	0.713
2953	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
2977	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3054	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3746	3	0.838	0.000	0.000	1.118	1.900	0.000	0.950
3832	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4189	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	3	0.000	0.000	0.000	2.515	2.850	0.000	0.356
5266	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	3	0.838	0.000	0.000	1.676	0.000	0.000	0.713
5529	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5859	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6619	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7096	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7883	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7980	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7984	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	3	0.000	0.000	0.000	3.353	0.000	0.000	0.000
8598	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8694	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
8997	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9194	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9453	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
9585	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10567	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11205	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11625	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	3	0.838	0.000	0.000	0.000	5.700	0.000	1.425
12044	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12138	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12327	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12609	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13579	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
13946	3	1.006	0.000	0.000	1.341	0.000	0.000	0.855
13988	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	3	1.118	0.000	0.000	1.118	0.000	0.000	0.950
14604	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14965	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15755	3	1.257	0.000	0.000	0.000	0.000	14.250	1.425
16474	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
16687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16690	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16767	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17071	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17217	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18532	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19042	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19049	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19065	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19343	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19373	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19659	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	3	0.000	0.000	0.000	0.000	11.400	0.000	1.425
20771	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21045	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	3	1.006	0.000	0.000	1.341	0.000	0.000	0.855
22304	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22492	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	3	0.838	0.000	0.000	1.676	0.000	0.000	0.713
23338	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
23533	3	0.838	0.000	0.000	1.676	0.000	0.000	0.713
23641	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
23687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24085	3	0.838	0.000	0.000	0.000	5.700	0.000	1.425
24361	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
24917	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24978	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25471	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
25886	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26527	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27199	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27671	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27704	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
27996	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
28010	3	1.676	0.000	0.000	0.000	0.000	0.000	1.425
28214	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28443	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28656	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28875	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29330	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29407	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
516	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
941	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3076	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3704	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4267	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6133	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
7187	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
7872	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10214	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10719	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11692	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11826	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13054	4	1.094	0.000	0.000	0.000	1.250	0.000	1.111
13159	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
13988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
15758	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15820	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
16690	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16814	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
17534	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
17842	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18521	4	0.833	0.000	0.000	3.333	0.000	0.000	0.741
18532	4	0.000	0.000	0.000	0.000	10.000	0.000	1.111
18561	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
19065	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19415	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20066	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
20277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
20784	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
22228	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22266	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
22405	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23775	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25535	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25886	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26355	4	0.000	0.000	0.000	10.000	0.000	0.000	0.000
26527	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	4	0.000	0.000	0.000	10.000	0.000	0.000	0.000
27173	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28354	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	4	1.250	0.000	0.000	0.000	0.000	0.000	1.111
28658	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29319	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	5	0.524	0.000	0.000	1.467	0.917	0.000	0.611
941	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	5	2.357	0.000	0.000	0.000	0.000	0.000	1.833
3076	5	2.357	0.000	0.000	0.000	0.000	0.000	1.833
3832	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	5	0.000	0.000	0.000	2.200	0.000	0.000	0.000
6223	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6739	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	5	1.179	0.000	0.000	1.100	0.000	0.000	0.917
8091	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12044	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13227	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16672	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	5	0.000	0.000	0.000	1.467	2.750	0.000	0.611
17842	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18340	5	2.357	0.000	0.000	0.000	0.000	0.000	1.833
18561	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20106	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	5	1.768	0.000	0.000	0.000	2.063	0.000	1.833
22533	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	5	0.589	0.000	0.000	1.100	2.063	0.000	0.917
25046	5	1.347	0.000	0.000	0.943	0.000	0.000	1.048
25381	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25668	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28649	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
838	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4307	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4926	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5293	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
5669	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7323	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7994	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	6	0.875	0.000	0.000	0.000	1.750	0.000	1.000
8874	6	0.875	0.000	0.000	0.000	1.750	0.000	1.000
8960	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9058	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9132	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12042	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13270	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15124	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15980	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17433	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	6	0.000	0.000	7.000	0.000	0.000	0.000	1.000
17629	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	6	1.750	0.000	0.000	0.000	0.000	0.000	1.000
18617	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
21750	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21881	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22298	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22445	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23710	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24742	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25397	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	6	1.750	0.000	0.000	0.000	0.000	0.000	1.000
28820	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
941	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1431	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3326	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4082	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8279	7	1.600	0.000	0.000	0.000	0.000	0.000	1.143
9329	7	1.600	0.000	0.000	0.000	0.000	0.000	1.143

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
10088	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10280	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	7	0.000	0.000	0.000	0.000	8.000	0.000	1.143
13113	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20891	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21213	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	7	0.800	0.000	0.000	4.000	0.000	0.000	0.571
26505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	7	0.000	0.000	8.000	0.000	0.000	0.000	1.143
28868	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Appendix H: Post-Stop Outcome – Contraband: Deputy-District Comparison Ratios

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
36	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
220	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1104	1	1.079	0.000	0.000	1.535	0.000	0.000	0.741
1980	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	1	0.719	0.000	0.000	2.047	0.000	0.000	0.494
2571	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2604	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2969	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	1	1.079	0.000	0.000	0.000	3.346	0.000	1.483
3074	1	1.618	0.000	0.000	0.000	1.673	0.000	1.483
3076	1	0.719	0.000	0.000	2.047	0.000	0.000	0.494
3248	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
3439	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	1	0.647	0.000	0.000	0.614	3.346	0.000	1.186
3727	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
3832	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3911	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
3976	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4038	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
4926	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
5669	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
5947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6170	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6233	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6325	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7323	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
7337	1	0.000	0.000	21.750	0.000	0.000	0.000	1.483
7696	1	1.438	0.000	0.000	0.000	2.231	0.000	1.483
7872	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7994	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
8126	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
8189	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	1	0.000	0.000	0.000	0.000	0.000	65.250	1.483
8729	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8874	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8898	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
8960	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9058	1	1.213	0.000	1.359	0.576	0.837	4.078	1.205
9132	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	1	0.809	0.000	0.000	1.151	1.673	0.000	0.927
9360	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
9585	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9827	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
10821	1	1.618	0.000	0.000	0.000	1.673	0.000	1.483
11010	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	1	1.079	0.000	0.000	0.000	3.346	0.000	1.483
11511	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11707	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
12042	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
12153	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	1	1.438	0.000	0.000	0.000	2.231	0.000	1.483
12991	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13243	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14711	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
15124	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
15761	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
15899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16431	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	1	0.000	0.000	0.000	0.000	6.692	0.000	1.483
16667	1	1.438	0.000	7.250	0.000	0.000	0.000	1.483
16672	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17295	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
17433	1	1.079	0.000	0.000	1.535	0.000	0.000	0.741
17456	1	0.000	0.000	0.000	0.000	6.692	0.000	1.483
17464	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
17534	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17629	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	1	0.719	0.000	0.000	1.024	2.231	0.000	0.989
17842	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18268	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18630	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18996	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19140	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	1	0.863	0.000	2.175	0.921	1.338	0.000	1.038
19529	1	1.079	0.000	0.000	0.000	3.346	0.000	1.483
19640	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19780	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
20277	1	1.040	0.000	1.554	1.097	0.478	1.165	0.953
20401	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20692	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21467	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21881	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
22445	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22741	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22962	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
23361	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
23436	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	1	1.294	0.000	4.350	0.614	0.000	0.000	1.186
23710	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23902	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24525	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
24742	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24963	1	0.719	0.000	0.000	1.024	0.000	21.750	0.989
25046	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
25234	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25618	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25899	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27188	1	1.079	0.000	0.000	1.535	0.000	0.000	0.741
27236	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27294	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27394	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
27671	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27690	1	0.000	0.000	3.107	2.193	0.956	0.000	0.424
27866	1	0.634	0.000	0.000	0.903	2.756	0.000	1.047
28176	1	0.818	0.000	1.500	1.271	0.923	0.000	0.869
28219	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	1	0.270	0.000	0.000	2.687	0.000	0.000	0.185
28603	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	1	1.079	0.000	0.000	1.535	0.000	0.000	0.741
29165	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29301	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
29783	1	0.000	0.000	0.000	3.071	0.000	0.000	0.000
29834	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29849	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
30147	1	2.157	0.000	0.000	0.000	0.000	0.000	1.483
371	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
1561	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1907	2	1.083	0.000	8.125	0.560	0.903	0.000	1.354
2539	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2928	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2977	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
3074	2	2.167	0.000	0.000	0.000	0.000	32.500	1.806
3076	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
3439	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
3487	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
3506	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3832	2	1.000	0.000	0.000	1.034	1.111	0.000	0.972
3911	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4014	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4037	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	2	1.156	0.000	2.167	0.897	0.722	4.333	1.083
4401	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4780	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5082	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
5166	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5266	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5529	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5624	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
5714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5721	2	2.889	0.000	0.000	0.000	1.204	0.000	1.806
5947	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5989	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
6244	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
6308	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
6328	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
7070	2	2.167	0.000	16.250	0.000	0.000	0.000	1.806
7309	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7559	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
7682	2	1.625	0.000	0.000	0.841	0.903	0.000	1.128
7754	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
7872	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
7918	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7984	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8265	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8270	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8598	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
8729	2	4.333	0.000	0.000	0.000	0.000	0.000	1.806
8750	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
8757	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8921	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
9239	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9316	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9360	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
9585	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10080	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10318	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10809	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11019	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
11753	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11849	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12044	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12069	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12138	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
12418	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12514	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13160	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13558	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13636	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13722	2	0.000	0.000	0.000	1.494	1.204	0.000	0.602
13914	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14200	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14241	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
14730	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
15139	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15144	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
15221	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15899	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16293	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16563	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
16667	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16696	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16905	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17031	2	2.167	0.000	0.000	1.121	0.000	0.000	0.903
17534	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
17809	2	2.167	0.000	0.000	0.000	1.806	0.000	1.806
17842	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18131	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18247	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18530	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19199	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19310	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19858	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	2	0.000	0.000	10.833	0.747	1.204	0.000	1.204
20086	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
20399	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
20401	2	4.333	0.000	0.000	0.000	0.000	0.000	1.806
20415	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
20784	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20806	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21035	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
21749	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21750	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21976	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22378	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22598	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23105	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	2	1.733	0.000	0.000	0.448	1.444	0.000	1.444
23775	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23853	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24056	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
24361	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
24661	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
24674	2	1.733	0.000	0.000	0.897	0.722	0.000	1.083
24978	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	2	0.000	0.000	0.000	1.121	1.806	0.000	0.903
25471	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25628	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26121	2	0.000	0.000	0.000	2.241	0.000	0.000	0.000
26165	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27198	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27327	2	1.083	0.000	0.000	1.121	0.903	0.000	0.903
27690	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27876	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28000	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28176	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28404	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28460	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28658	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28761	2	0.000	0.000	0.000	0.000	3.611	0.000	1.806
28854	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28919	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29112	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30015	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30053	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
39	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2306	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
2539	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2553	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2949	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
2953	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
2977	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3054	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3746	3	1.255	0.000	0.000	0.851	0.000	0.000	1.046
3832	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4189	3	0.941	0.000	0.000	0.851	1.863	0.000	1.046
4277	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4299	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4700	3	0.856	0.000	0.000	1.161	1.693	0.000	0.951
5266	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	3	0.784	0.000	0.000	2.129	0.000	0.000	0.654
5529	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5859	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6328	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6619	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7096	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
7883	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
7980	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
7984	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
8091	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	3	0.000	0.000	0.000	4.257	0.000	0.000	0.000
8598	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8694	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
8729	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8750	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8936	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
8997	3	0.000	0.000	0.000	0.000	9.313	0.000	1.307
9194	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
9453	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
10088	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10567	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10809	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
10996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11205	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11625	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11753	3	0.672	0.000	0.000	1.824	1.330	0.000	0.747
12044	3	1.344	0.000	0.000	0.608	0.000	0.000	1.120
12138	3	0.000	0.000	0.000	4.257	0.000	0.000	0.000
12327	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12375	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12609	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12991	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
13579	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
13722	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
13946	3	0.784	0.000	0.000	1.419	1.552	0.000	0.871
13988	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	3	1.176	0.000	0.000	0.000	2.328	0.000	1.307
14604	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14941	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14965	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15755	3	1.046	0.000	0.000	0.000	0.000	16.556	1.307
16474	3	1.220	0.000	0.000	0.946	0.000	0.000	1.017
16687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16690	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16767	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16996	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
17071	3	0.314	0.000	0.000	1.703	3.725	0.000	0.784
17217	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	3	0.000	0.000	0.000	0.000	0.000	49.667	1.307
17809	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
18532	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19042	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19049	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19065	3	1.176	0.000	0.000	1.064	0.000	0.000	0.980
19343	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19373	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19659	3	0.000	0.000	0.000	2.838	3.104	0.000	0.436
20018	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20059	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20401	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20415	3	0.000	0.000	0.000	0.000	0.000	49.667	1.307
20466	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20560	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20771	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21045	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21282	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22162	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22297	3	1.046	0.000	0.000	1.419	0.000	0.000	0.871
22304	3	1.283	0.000	0.000	0.774	0.000	0.000	1.069
22492	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23049	3	0.784	0.000	0.000	2.129	0.000	0.000	0.654
23338	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	3	0.941	0.000	0.000	0.851	1.863	0.000	1.046
23533	3	1.176	0.000	0.000	0.000	2.328	0.000	1.307
23641	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
23687	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24085	3	1.176	0.000	0.000	0.000	2.328	0.000	1.307
24361	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	3	0.000	0.000	0.000	0.000	9.313	0.000	1.307
24917	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
24978	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25471	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
25886	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26165	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26527	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27199	3	0.784	0.000	0.000	2.129	0.000	0.000	0.654
27259	3	0.784	0.000	0.000	2.129	0.000	0.000	0.654
27671	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27704	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
27996	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
28010	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
28214	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28443	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28656	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28875	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29330	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29407	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	3	1.568	0.000	0.000	0.000	0.000	0.000	1.307
30050	3	0.672	0.000	0.000	1.824	1.330	0.000	0.747
371	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
516	4	0.876	0.000	0.000	2.030	0.000	0.000	0.798
941	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3074	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
3076	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3704	4	0.657	0.000	0.000	3.045	0.000	0.000	0.598
3832	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
4267	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5502	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5669	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6133	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6327	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
6951	4	0.657	0.000	16.750	0.000	0.000	0.000	1.196
7060	4	1.007	0.000	0.000	1.421	0.000	0.000	0.917
7187	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7872	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	4	0.000	0.000	0.000	0.000	0.000	67.000	1.196
8161	4	0.438	0.000	0.000	4.061	0.000	0.000	0.399
8257	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8997	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9585	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
10214	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10719	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11692	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
11753	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11826	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12327	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
12991	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13054	4	1.126	0.000	0.000	0.000	4.786	0.000	1.196
13159	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	4	1.032	0.000	0.000	1.305	0.000	0.000	0.940

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
13988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14271	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14772	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
15758	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15820	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16078	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16474	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16553	4	0.657	0.000	16.750	0.000	0.000	0.000	1.196
16690	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16814	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
16996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	4	1.051	0.000	0.000	0.000	6.700	0.000	1.196
17534	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17599	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
17842	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18131	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18268	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18340	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18521	4	1.095	0.000	2.792	0.508	0.000	0.000	1.097
18532	4	0.000	0.000	0.000	0.000	33.500	0.000	1.196
18561	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
18563	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18667	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
19065	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19244	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19415	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20066	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
20560	4	1.022	0.000	0.000	1.354	0.000	0.000	0.931
20601	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
20784	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22266	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22304	4	1.051	0.000	0.000	0.609	3.350	0.000	1.077
22405	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22623	4	0.000	0.000	0.000	6.091	0.000	0.000	0.000
23641	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
23775	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24361	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
24931	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25046	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25234	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25535	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25886	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26355	4	0.000	0.000	0.000	6.091	0.000	0.000	0.000
26527	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26634	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27259	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	4	0.438	0.000	5.583	2.030	0.000	11.167	0.798
27996	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28286	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28354	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28572	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
28658	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
28738	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28959	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28988	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29319	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
29834	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	4	1.314	0.000	0.000	0.000	0.000	0.000	1.196
371	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
537	5	0.857	0.000	0.000	1.636	0.000	0.000	0.720
941	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
3074	5	1.714	0.000	0.000	0.000	0.000	0.000	1.440
3076	5	0.000	0.000	0.000	0.000	12.000	0.000	1.440
3832	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3937	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3983	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4401	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6223	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6244	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	5	0.000	0.000	0.000	3.273	0.000	0.000	0.000
6714	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6739	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7060	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7337	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8257	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8729	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10088	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10303	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11511	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	5	1.714	0.000	0.000	0.000	0.000	0.000	1.440
12044	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13227	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13331	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15139	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15760	5	1.714	0.000	0.000	0.000	0.000	0.000	1.440
16553	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16672	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17534	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17619	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17800	5	0.686	0.000	3.600	1.636	0.000	0.000	0.720
17842	5	1.714	0.000	0.000	0.000	0.000	0.000	1.440
18268	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
18340	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18563	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20018	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20106	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22228	5	1.714	0.000	0.000	0.000	0.000	0.000	1.440
22533	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23386	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23493	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	5	0.000	0.000	0.000	0.000	12.000	0.000	1.440
24361	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	5	1.143	0.000	0.000	0.818	1.000	0.000	1.080
25046	5	1.286	0.000	0.000	0.818	0.000	0.000	1.080
25381	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25668	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27996	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28649	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28738	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29783	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29834	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30050	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
376	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
692	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
838	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2041	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154
2618	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3604	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3727	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4307	6	0.000	0.000	0.000	0.000	15.000	0.000	1.154
4497	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4542	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4926	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5293	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
5669	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6062	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6308	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7274	6	1.165	0.000	0.000	0.625	0.000	0.000	1.058
7323	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7696	6	1.068	0.000	0.000	0.900	0.600	0.000	1.015
7994	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8757	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8758	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154
8874	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8960	6	0.000	0.000	0.000	0.000	15.000	0.000	1.154
9058	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9132	6	0.000	0.000	0.000	0.000	0.000	75.000	1.154
9316	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11010	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11088	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11234	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12042	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12153	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13270	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14960	6	0.636	0.000	0.000	3.750	0.000	0.000	0.577
15124	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15326	6	0.636	0.000	0.000	3.750	0.000	0.000	0.577
15760	6	0.989	0.000	0.000	1.667	0.000	0.000	0.897
15980	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16001	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17160	6	0.000	0.000	0.000	0.000	15.000	0.000	1.154
17433	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17464	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154
17629	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17748	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17842	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17997	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18617	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18930	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20277	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
21750	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21881	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154
22228	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22298	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22445	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23047	6	1.271	0.000	0.000	0.000	0.000	0.000	1.154
23710	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24742	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24917	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25248	6	1.090	0.000	0.000	1.071	0.000	0.000	0.989
25397	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26947	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27236	6	0.000	0.000	0.000	0.000	15.000	0.000	1.154
27394	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27537	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28219	6	0.636	0.000	0.000	3.750	0.000	0.000	0.577
28286	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28820	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28868	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29165	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000
371	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
483	7	1.706	0.000	0.000	0.000	0.000	0.000	1.261
941	7	1.706	0.000	0.000	0.000	0.000	0.000	1.261
1431	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3069	7	0.000	0.000	0.000	0.000	14.500	0.000	1.261
3074	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3326	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4082	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4277	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4497	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6951	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7309	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8091	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8161	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8279	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9329	7	1.706	0.000	0.000	0.000	0.000	0.000	1.261

Deputy ID	District	Ratio by Whites	Ratio by Ethnicity Unknowns	Ratio by Native Americans	Ratio by Hispanics	Ratio by Blacks	Ratio by Asians	Ratio by Non-Hispanics
10088	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10280	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11714	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11869	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12495	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12735	7	1.706	0.000	0.000	0.000	0.000	0.000	1.261
13113	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13159	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14298	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14730	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15221	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16369	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17456	7	0.787	0.000	1.115	1.487	1.115	0.000	0.873
18340	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18561	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18987	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19640	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20064	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20601	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20891	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21213	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22533	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22587	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23641	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24525	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24931	7	0.000	0.000	0.000	4.833	0.000	0.000	0.000
25234	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26505	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26796	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27173	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27866	7	1.137	0.000	2.417	0.000	0.000	0.000	1.261
28868	7	1.706	0.000	0.000	0.000	0.000	0.000	1.261
28959	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29325	7	0.000	0.000	3.625	2.417	0.000	0.000	0.630
29834	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000