Methodology

Driven by Bias: *An Analysis of Police Stops in Fresno*

In partnership with

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To assess racial bias in the Fresno Police Department's ("Fresno PD") patrol activities, we relied on data Fresno PD collects and reports under the Racial and Identity Profiling Act (RIPA) of 2015. We combined this data with population data from the U.S. Census Bureau to explore evidence of racial and identity profiling in Fresno PD's practices specifically related to traffic stops. These data and pursuant analyses help us identify people disproportionately affected and harmed by Fresno PD's traffic stop practices.

We focus on stops conducted in 2022—the most recent data available at the time of analysis.

As with all data, our findings depend on the quality of the data collected. We strongly encourage readers to consider the limitations of RIPA data when interpreting findings. For instance, RIPA data are collected under state regulations for all law enforcement agencies and based on officer perception and disclosures. For example, officers report what they perceive as the race(s) of the people they stopped, rather than having the people stopped self-identify their race(s). Other reports have found evidence of underreporting, misidentification, or even intentional obstruction of information by officers.[1]

Additionally, audits from other jurisdictions have found an undercount in RIPA data, meaning officers report fewer stops in RIPA data compared to the true number of stops. In Los Angeles County, this translated to underreporting detainments, consent searches, reasonable suspicion, and arrests.[2] In Fresno City, other data and community stories suggest an undercount in reported use of force incidents. Lastly, the Fresno RIPA data does not include any geographic information on where the stops occurred, therefore any stop analysis lacks information on which neighborhoods are disproportionately impacted.

We encourage RIPA data users to ground truth trends in the data with the community to identify discrepancies between the data collected and everyday community experiences. This project was produced in partnership with Fresno Building Healthy Communities ("FBHC")–a community-building organization that brings together people, organizations, and policymakers to foster and encourage a thriving community where all children and families can live healthy, safe, and productive lives.

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[1] Office of Inspector General, *The Sheriff's Department's Underreporting of Civilian Stop Data to the California Attorney General*, County of Los Angeles (June 10, 2022). Retrieved from https://assets-us-01.kc-usercontent.com/0234f496-d2b7-00b6-17a4-b43e949b70a2/ee467145-85c7-450c-a73993e1f1d79f78/The%20Sheriff%E2%80%99s%20Department%E2%80%99s%20Underreporting%20of%20Civilian%20Stop%20Data%20to%20the%20California%20Attorney%20General.pdf.
Barba, M., *Watchdogs want answers on how San Francisco cops misreported race data*, The San Francisco Standard (September 13, 2023). Retrieved from https://sfstandard.com/2023/09/13/san-francisco-cops-misreported-data-meant-to-curb-racial-profiling-now-watchdogs-want-answers/.

[2] Office of Inspector General, (June 10, 2022).

DATA SOURCES

Police Stop Data

California Department of Justice, "RIPA Stop Data" (reported by Fresno Police Department), 2022, https://openjustice.doj.ca.gov/data.

Citation Offense Codes and Descriptions

California Department of Justice, "Law Enforcement Code Tables", 2023, https://oag.ca.gov/law/code-tables.

Population Estimates by Race and Sex

U.S. Census Bureau, "DP05, B04006, B02018, and B02015," American Community Survey, 5-Year Estimates, 2018-2022, https://data.census.gov/cedsci/.

U.S. Census Bureau, "American Community Survey Public Use Microdata Sample (PUMS)", 2018-2022, https://www.census.gov/programs-surveys/acs/microdata/access.

DATA LIMITATIONS

This project aimed to detail the extent of racial profiling and harm done by Fresno PD's traffic stop practices. Community members detailed being subjected to uses of force, detainments, and gang profiling as well as profiling for immigration status during routine traffic stops. RIPA data regulations do not require law enforcement agencies to report perceived immigration status or whether the stop was done for gang or immigration reasons. The data do include information on the stop result, such as whether the stop resulted in a field interview card (often used to document people as a gang member or gang affiliated in California's CalGang database) or in a referral to the U.S. Department of Homeland Security/Immigration and Customs Enforcement. Compared to community stories, we saw an undercount in the number of these stops. In the dataset, only four people had a stop result for field interview card completed and one for referral to the U.S. Department of Homeland Security/Immigration and Customs Enforcement. Officers started all these stops for traffic violation reasons.

Similarly, according to RIPA data, in 2022, officers used force against 14 people during officer-initiated stops. Community experiences with Fresno PD strongly suggest that this is an undercount. Several community members spoke about themselves, or their loved ones, being subjected to officers' use of force. Quarterly reports from the Office of Independent Review also

indicate that during 2022 there were at least seven officer-involved shootings and 10 civilian complaints of unreasonable force.[3,4] As stated prior, audits of LA County Sheriff Department data revealed an undercount in the stops reported by the agency to CADOJ.[5] Audits of Los Angeles Police Department data have shown some discrepancies between body-worn video footage and actions reported during the stop, e.g., failing to report pointing firearms, data about detainees, and searches.[6]

Officer Reports of Race and Ethnicity

Race and identity fields included in RIPA data are imperfect and subject to officer bias. The race of people stopped in each incident is based on officer perceptions, rather than self-identification. RIPA regulations require officers to report their perception of the race, gender, age, and other characteristics of the people they stop without input from the person involved.[7] Officers' perceptions are the proper lens to use for purposes of understanding racial profiling because this is the information the officer knew (or assumed) when they stopped the person. However, these perceptions are also subject to the officers' bias or understanding of people's identities. Stop rates for certain groups may be over- or under-reported due to misidentification by officers. In other cases, officers may intentionally obscure the racial identity of the people they stopped.

Reports from other jurisdictions suggest officers log multiple races for individuals they stop or select the wrong race to mask their bias.[8] Audits have found Latinx people are overrepresented in the stops agencies fail to report in RIPA data. For example, an evaluation of the L.A. Sheriff's Department's stops found that sheriffs underreported over 50,000 stops and Latinx people represented most of those stops in 2019.[9] Similar concerns and evidence of underreporting stops and obstructing information about race have been

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[3] City of Fresno. 2022 Second Quarter Report. Fresno, CA: City of Fresno, 2022. https://www.fresno.gov/wp-content/uploads/2023/01/2022-2nd-Quarter-Report.pdf.
[4] City of Fresno. 2022 Fourth Quarter Report. Fresno, CA: City of Fresno, 2022. https://www.fresno.gov/wp-content/uploads/2023/04/2022-4th-Quarter-Report-003.pdf.
[5] Office of Inspector General, (June 10, 2022).
[6] Los Angeles Police Department Audit Division. The Racial and Identity Profiling Act of 2015 Audit. Los Angeles, CA: Los Angeles Police Department, October 2022. https://www.lapdpolicecom.lacity.org/110122/BPC_22-229.pdf.
[7] 11 Cal. Code. Regs. § 999.226. Available at https://oag.ca.gov/sites/all/files/agweb/pdfs/ripa/stop-data-reg-final-text-110717.pdf.
[8] Barba, M., (September 13, 2023).
[9] Office of Inspector General, (June 10, 2022).

raised in other jurisdictions like San Francisco.[10] In Fresno PD's 2022 data, officers identified people as Multiracial less than one percent of the time.[11] They coded all Multiracial people as being three races. By comparison, 3.2% of the Fresno City population identifies as Multiracial, and most identify as only two or more races.[12]

Additionally, RIPA data is limited in the number of racial categories included. For example, officers are provided a general racial category of Asian, which includes people of East and Southeast Asian origin. The lack of granular data for Asian and other racial subgroups means that we are unable to analyze differences in officer bias and racial profiling within these groups. The Asian population in Fresno, like other places, is ethnically diverse. The Hmong community makes up 33.9% of Fresno City's Asian alone population. The other largest Asian subgroups include Filipino, Laotian, and Chinese.[13] Each of these groups, and other Asian subgroups, have different experiences with Fresno PD not included in RIPA data. Community member stories suggest Fresno PD targets the Southeast Asian population, especially youth, for gang profiling.

Findings regarding racial bias in traffic stops depend on the quality of the data reported. Community members on the ground can help detect inaccuracies or stories hidden from the data. We believe the racial disparities observed in our findings provide evidence of racial bias by Fresno PD. They may also undercount disparities for groups underreported, misidentified, or withheld from the data.

Stop Duration Times

Officers are required to enter the approximate length of each stop in minutes. However, data input errors record some stops as being extremely long, from

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[10] Department of Police Accountability. Third Quarter 2023 Police Work. San Francisco, CA: City and County of San Francisco, October 2023. https://www.sf.gov/sites/default/files/2023-10/DPA%20Q3%202023%20Sparks%20Report%20-%2010.12.23.pdf

[11] Out of all Fresno PD stops in 2022, officers identified 0.09% of people they stopped as Multiracial.

[12] Based on U.S. Census Bureau Decennial Census counts, 92.3% of Multiracial people in Fresno City identify as two or more races. Retrieved from https://data.census.gov/table/DECENNIALPL2020.P2?q=Fresno%20city,%20California%20P2.

[13] U.S. Census Bureau, "B02015", American Community Survey, 5-Year Estimates, 2018-2022. Retrieved from https://data.census.gov/table/ACSDT5Y2022.B02015?q=Fresno%20city,%20California%20asian.

eight hours, to extremely short, one minute. These may not reflect the actual amount of time the stops took. To account for these extreme times, we identified certain stops as having outlier duration times and capped them to an upper or lower threshold value using a model of stop characteristics. About five percent of stops were identified as outliers and capped. This method is imperfect and does not calculate with complete accuracy the total stop duration time. We assume that our stop duration times are conservative estimates, and it is more likely officers spent more time on stops rather than less time on each stop dimension examined. Also, stop duration times logged by officers do not capture administrative or other department time spent due to officer patrol activities.

HOW WE USE RIPA RACE CATEGORIES

The race categories available to officers according to RIPA regulations are: Asian, Black/African American, Hispanic/Latine(x), Middle Eastern or South Asian, Native American, Pacific Islander, and White. We adjusted these categories and labels as needed to be more reflective and representative of each group based on our prior work and input from local partners. We also added a category for Multiracial to account for people officers perceived as being more than one race. We use the following categories in our analysis compared to their original label in RIPA data. Not all categories are mutually exclusive.

- American Indian or Alaska Native (AIAN): People officers perceived as Native American alone or in combination with another race or Latinx.
- Asian: People officers perceived as Asian alone and non-Latinx, excludes people perceived as South Asian.
- Black: People officers perceived as Black/African American alone and non-Latinx.
- Latinx: People officers perceived as Hispanic/Latine/x/o/a, whether alone or in combination with another race.
- Multiracial: People officers perceived as more than one race and non-Latinx.
- Native Hawaiian or Pacific Islander (NHPI): People officers perceived as Pacific Islander alone or in combination with another race or Latinx.
- Southwest Asian (Middle Eastern) or North African, or South Asian (SWANA/SA): People officers perceived as Middle Eastern or South Asian, alone or in combination with another race or Latinx.
- White: People officers perceived as White alone and non-Latinx.

We use a broader definition of AIAN, NHPI, and SWANA/SA—including people whom officers perceived as one racial identity alone or in combination with another identity—to increase data stability and the likelihood that results include these groups. We omit groups with a total stop count of less than five from our charts to ensure their rates are not inflated by small sample size and for data privacy.

HOW WE CREATE POPULATION ESTIMATES BY RACE

We scale RIPA data to Fresno City's population to measure racial bias and disparities in police stop practices. We calculated population estimates for the city using data from the U.S. Census Bureau's American Community Survey (ACS). Our population estimates by race correspond to RIPA's racial groups but are based on self-identification. Other than Latinx, AIAN, NHPI, and SWANA/SA, all groups are mutually exclusive, meaning they do not include Latinx or individuals identified as more than one race.

- American Indian or Alaska Native (AIAN): AIAN alone or in combination with another race or Latinx.
- Asian: Asian alone, non-Latinx and excluding South Asian.
- Black: Black or African American alone, non-Latinx.
- Latinx: Hispanic or Latino, alone or in combination with another race.
- Multiracial: People of two or more races, other than Latinx
- Native Hawaiian or Pacific Islander (NHPI): NHPI alone or in combination with another race or Latinx.
- Southwest Asian or North African, or South Asian (SWANA/SA): People who identify with Southwest Asian (Middle Eastern) or North African ancestry and/or as South Asian origin, alone or in combination with another race or Latinx.
- White=White alone, non-Latinx.

The table below specifies the population count and percentage for each racial group. We additionally use the ACS Public Use Microdata Sample (PUMS) to calculate the city's population distribution by race and sex at birth (available upon request).

Fresno City Population by Race

RACE	POPULATION COUNT	POPULATION %
White	137,387	25.4%
Latinx	273,280	50.5%
Asian	57,395	10.6%
Black	33,594	6.2%
SWANA/SA	33,158	6.1%
Multiracial	17,479	3.2%
AIAN	16,015	3.0%
NHPI	3,192	0.6%
Catalyst California's calculations of American Community Survey, 5-Year Estimates, 2018-2022. Asian excludes South Asian, which is included in the SWANA/SA category.		

Calculating Proxy Estimates for SWANA/SA

RIPA data includes a category for Middle Eastern or South Asian, but this label is not commonly used in other datasets or by community members. We opt for the term Southwest Asian or North African, or South Asian ("SWANA/SA"). This includes South Asian ("SA") people and people of Southwest Asian or North African ("SWANA") origin. Southwest Asian or North African is a more representative and inclusive term than the orientalist term Middle Eastern or North African ("MENA").

Historically, SWANA people have been erased from data collection and reporting. The U.S. Census Bureau and its data products have grouped these communities into the White racial group, rendering invisible their unique experiences. Wars and conflict in the SWANA region have driven many people from these communities to the U.S. as refugees, where their identities have been negatively stereotyped and subject to prejudice or hate. Many SWANA folks also arrived for economic or educational opportunities and have contributed to the growing entrepreneurship economy here in the U.S. In other data reporting, South Asian is typically included in the broad racial category of Asian. However, in the criminal legal system and policing, officers and others racialize and profile many South Asian people in ways like SWANA people. In other words, their experiences with being policed may be more like the SWANA community than other Asian communities, prompting the need for distinct data collection in policing and the criminal legal system.

The U.S. Census Bureau has no equivalent data reporting category to help scale stop counts to population for the SWANA/SA communities. We have created proxy population estimates for these communities based on a

combination of ancestry and race tables from the ACS. We estimate the number of SWANA/SA people by summing the number of people who reported any SWANA ancestry and/or South Asian racial origin. We define South Asian origin based on these categories: Asian Indian, Bangladeshi, Bhutanese, Maldivian, Nepalese, Pakistani, Sikh, Sindhi, and Sri Lankan.[14] We define SWANA ancestry based on the following categories: Afghan, Algerian, Arab, Armenian, Assyrian, Bahraini, Chaldean, Egyptian, Emirati, Iranian, Iraqi, Israeli, Jordanian, Kurdish, Kuwaiti, Lebanese, Libyan, Middle Eastern, Moroccan, North African, Omani, Palestinian, Qatari, Saudi, Sudanese, Syrian, Tunisian, Turkish, Yazidi, and Yemeni. The U.S. Census Bureau uses these terms, and they do not reflect these groups' more inclusive and preferred terms. This list is also not exhaustive and will continue to change. For instance, some groups not included in ACS categories are Amazigh, Copts, Druze, and Bedouin.

Consensus on the identity groups included in the terms SWANA or MENA is still being built. These groups encompass a diversity of origins and intersections between national, geopolitical, religious, and ethnic identities. For years, advocacy organizations representing these communities have advocated for including a MENA category in the U.S Census to distinguish their experiences from the White experience.[15] While the U.S. Census Bureau begins to institute new standards to include MENA in data collection and reporting, our proxy estimates are the best available to help bring to light the discrimination experienced by these communities when it comes to policing.

HOW WE ESTIMATE RACIAL BIAS, HARM, AND WASTE

We test for evidence of racial and identity profiling in Fresno PD's traffic stop practices by examining racial and gender disparities in overall traffic stops, traffic stop reasons and citations, traffic stop results and tickets, actions taken during the stop, and time spent on stops.

Throughout our analysis, we focus on stops officers initiated themselves. We refer to these stops as "officer-initiated stops." Within the RIPA data, officers

[14] We also use ACS data to exclude South Asian from Asian population estimates accordingly. This ensures our Asian population estimates are not inflated by South Asian numbers that are included in a different category under RIPA data.
[15] The Leadership Conference on Civil and Human Rights, *Will you count? Middle Eastern and North African Americans (MENA) in the 2020 census,* (April 17, 2018). Retrieved from https://civilrights.org/resource/will-you-count-middle-eastern-and-north-african-americans-in-the-2020-census/.

must report if they made a stop in response to a call for service (e.g., 911 call) or initiated a stop themselves, an officer-initiated stop. Officer-initiated stops help identify racial bias in the stops that officers specifically decide to conduct themselves versus in response to a community request. In 2022, Fresno PD stopped 5,365 people across officer-initiated stops and calls for service– officer-initiated stops comprised 94.3% of these people (or 5,060 people) and calls for service 5.7% (or 305 people). Most of our analysis also focuses on stops Fresno PD made only for a traffic violation reason given these stops comprise nearly all officer-initiated stops.

We demonstrate racial and gender bias in traffic stops through two primary methods of assessing bias in policing: benchmark and outcome tests. As a benchmark test, we compare traffic stops by race to the population by race in Fresno City. We compare differences in the distribution of the population to traffic stops by race and analyze disparities in stop rates per 1,000 by race. For outcome tests, we look at differences in traffic stop results and actions, specifically what types of tickets were given to different racial groups and use of force or detainment incidents during similar stop types. These methods are described in detail below.

Calculating Racial Bias in Traffic Stops

Calculating racial bias for traffic stops overall and by gender

To analyze traffic stop rates by race, we calculated the total number of officer-initiated, traffic stops conducted for each perceived racial group. It is important to note that observations may overlap depending on how the officer perceived a person's race. For example, a person can be perceived by officers as multiple races, like Latinx and SWANA/SA. In this case, they are counted twice in the analysis, once in each category. We first filter for stops not made in response to a call for service, and then for stops made for a traffic violation reason. After summarizing the total number of stops by perceived race, we then divided the total by each race's population count in Fresno City and multiplied the result by 1,000 to get stop rates per 1,000 people of the same race. Fresno PD stopped less than five people perceived as NHPI or Multiracial during officer-initiated traffic stops. We often exclude these groups from our charts given their low counts for data privacy and to reduce the potential for overinflating or deflating their stop rates.

We also analyzed gender bias in traffic stops. Officers are required to report their perception of a person's gender identity. They are provided the following categories: Male, Female, Transgender Man/Boy, Transgender Woman/Girl, Gender Nonconforming. In Fresno, officers perceived nearly every person they stopped during officer-initiated traffic stops as Male or Female. Officers

perceived only six people as Transgender Man/Boy, Transgender Woman/Girl, or Gender Nonconforming. Given this low count, we focused on people perceived as Male or Female for our analysis. We calculated the total number of stops Fresno PD made of racial group and then calculated what percentage Males and Females comprised of each racial group's total stops. We examined the percentage of stops by gender within each racial group and how the gender distribution compared across racial groups.

Calculating racial bias in traffic stop reasons

To measure racial disparities in traffic stops, we analyzed the rates of different types of traffic stops made by Fresno PD to identify traffic stops made for reasons that do not improve community safety. We also focused on the specific traffic citations Fresno PD gave as the reason for the stop as well as the perceived race of who was stopped.

We first analyzed the different types of traffic stops that Fresno PD made across each perceived racial group. There are three types of traffic stops: Equipment, Non-moving and Moving traffic stops. Moving traffic stops include traffic stops for speeding or making an illegal turn, for example. Non-moving and Equipment traffic stops include traffic reasons such as not having updated vehicle registration, parking violations, tinted windows, or bumpers in need of repair. These are traffic reasons that rarely contribute meaningfully to community safety and are often used as pretext for officers to stop a person and investigate them on an officer's suspicion of a crime. Understanding racial disparities in Fresno PD's traffic stops by the traffic stop type shows whether or not Fresno PD disproportionately stops certain perceived groups for traffic stops unrelated to community safety. Using non-safety related traffic reasons to stop people can be indicative of profiling, because an officer is using an excuse to stop someone based on racial bias.

To calculate the rate of traffic stops by traffic stop type across each perceived racial group, we filtered for officer-initiated traffic stops and summarized the number of stops made for each perceived racial group within each traffic stop type: Equipment, Non-moving, and Moving. We divided this number for each traffic stop type and race combination by the total population of each racial group and multiplied the rate by 1,000. The result is the rate of traffic stops made within each traffic stop type for each perceived racial group out of 1,000 people of that race in Fresno City. In other words, we compare the proportion of traffic stops within each traffic stop type by race to the proportions of each racial group in Fresno's population.

We also dive deeper into the specific traffic citation that Fresno PD used as a reason to stop someone. This data cut allows us to examine if people of

different perceived races are being stopped for different reasons. Again, high rates of traffic stops made for reasons unrelated to community safety can be indicative of racial profiling.

There were up to 113 different traffic citation reasons for traffic stops made by Fresno PD in 2022. To calculate the rate of traffic stops by the traffic citation reason for each perceived racial group, we filtered only for officer-initiated traffic stops, took the total number of traffic stops made for each traffic citation reason within each perceived racial group, and divided that by the total number of officer-initiated traffic stops made for each perceived racial group. The report visualizes the rate of traffic stops made for an Obstructed Window or No Vehicle Registration citation by perceived race because these are two of the most common traffic citations given as a traffic stop reason. Having an obstructed window or no vehicle registration are also not issues that endanger community safety, thus these citation reasons are helpful for identifying racial profiling.

Calculating racial bias in traffic stop citation results
We analyzed the different results of Fresno PD's traffic stops by perceived racial group to further understand how different groups are treated in traffic stops. We first analyzed the rate of different traffic stop results out of all traffic stops by filtering for officer-initiated traffic stops and dividing the count of different traffic stop results by the total number of officer-initiated traffic stops.

From there we dived deeper into the different citations that resulted from a traffic stop for each perceived racial group. Across all perceived racial groups, there were up to 98 different traffic stop citations given as a result of a traffic stop in 2022. To calculate the rate of traffic citation results by perceived race, we filtered for officer-initiated traffic stops and then of these stops, stops that resulted in a citation for infraction. Out of these filtered stops, we then took the total number of each traffic citation result, or ticketed offense, for each perceived racial group and divided that by the total number of traffic citation stop results for that perceived racial group. In other words, we calculated the rate of a specific traffic stop citation result, or ticketed citation, out of 100 traffic stop citations within each perceived racial group.

Calculating racial bias in use of force and detainments
To further test for bias in Fresno PD's traffic stop practices, we examined disparities in the actions officers chose to take during their stops. First, we analyzed use of force incidents during traffic stops. We filtered the data to include only officer-initiated traffic stops. Then, we filtered the data to include stops where an officer used force. Uses of force include any stop where an officer took at least one of the following actions: baton or other impact

weapon used, canine bit or held a person, chemical spray uses, electronic device used, firearm pointed at a person, firearm discharged or used, person physically removed from vehicle, physical or vehicle contact, impact projectile discharged or used.

We found 14 use of force incidents during traffic stops. We calculated the racial and gender distribution of these stops—or what percentage each racial and gender group comprised of all use of force incidents. Given the low count of stops, we combined people of color groups by gender. We also explored why officers began these stops. Half began with minor equipment or non-moving concerns unrelated to community safety and all were due to traffic violations. For example, two were for no vehicle or trailer registration, two for parking violations, one for a bike headlight violation, and two for license plates displayed. Three were for failure to stop at a crosswalk, one for speeding, one for a handheld device while driving, and one for an unsafe lane change.

Next, we examined trends in detainments during traffic stops. One of the most common actions Fresno PD takes during traffic stops is detaining a person. An officer may detain a person if they suspect a crime and decide to investigate and question the person. We filtered the data for officer-initiated traffic stops and for any instance where an officer reported a curbside or patrol car detention. We then calculated the racial and gender distribution of these stops—or what percentage each racial and gender group combination comprised of all detentions. For example, Latinx men comprised 49.1% of all detentions. We compared this distribution to the population by race and gender to identify disparities in how often different identity groups are detained.

To further test for bias in detentions, we analyzed the stop result that occurred following the detention. We calculated the total detentions by race and gender group and then the percentage of detentions in that group that resulted in each possible stop result, e.g., custodial arrest with or without warrant, no action, citation for infraction, warning. We compared stop results across racial groups to test for differences in how likely a detention was to result in an arrest.

Calculating How Officers Spend Their Time

We conducted time spent analysis based on stop duration times clocked by officers to demonstrate inefficiencies in how officers spend their time. As described in limitations, this does not include the time officers spent patrolling between stops or administrative time that may be added across the department because of the stops conducted by officers. Whenever we

calculate time spent on stops, we control for unique stop incidents to ensure we do not double-count the time officers spend on a stop. An officer can conduct a stop where more than one person is involved, e.g., if they stop two people on the street during a pedestrian encounter. For example, in the case of two people stopped, if the officer spent 15 minutes on the stop, the time would be counted as 15 minutes, rather than 30 minutes (e.g., 15 minutes per person). Officers report the total time they spent on the stop, rather than the time spent per person involved.

Identifying and capping outliers

There are some stops in the data that show up as having taken up to eight hours to complete or stops that took one minute. These outliers in stop duration times are likely due to data input errors, such as officers forgetting to clock the end of the stop until after the fact or forgetting to clock the stop at all. To ensure the outlier stop duration times do not impact any analyses, we created a regression model and conducted an outlier analysis to identify, and cap stops with extremely high or low stop times.

The first step in our outlier analysis was to create a robust model that accounts for the various factors that impact stop duration times. These factors, also known as independent variables, were used to create a regression model with stop duration time acting as the dependent variable (or the variable influenced by the independent variables).

Dependent Variable: Stop duration time

Independent Variables:

- Stop in response to call for service
- Age of person stopped
- Race of person stopped
- Gender of person stopped
- Stop reason
- Stop result
- Number of people stopped
- Action taken during stop
- Person removed from vehicle
- Contraband found
- Person detained
- Use of force
- Person handcuffed
- Search took place
- Sobriety test conducted

After the final model was determined, we used it to estimate the amount of time each stop should have taken given the combination of independent variables observed in each stop, along with a 95 percent confidence interval. This amount of time that a stop should have taken according to the model is called the predicted value. The 95 percent confidence interval tells us the lowest and highest amount of time a stop with those characteristics would have taken 95 percent of the time.

Using the confidence intervals of the predicted values, a stop was determined to be an outlier if the officer-reported duration time was either below or above the confidence interval. If a stop had a reported duration time within the confidence interval, then that duration time was not considered an outlier and remained unchanged. If the reported stop duration time was below the confidence interval, then it was replaced with the lower confidence interval value. Alternatively, if the reported stop duration time was above the confidence interval, then it was replaced with the upper confidence interval value. All subsequent stop duration analyses were done using a combination of original officer-reported and replaced ("capped") stop duration times. The replaced ("capped") stop duration times are applied only to outlier stops. About five percent of stops, or 264 out of 5,317 stops in 2022, were identified as outliers and capped.

Analyzing time spent on traffic stops

We analyzed how much time Fresno PD spends on traffic stops compared to other officer-initiated stops. We did this by calculating the total amount of time officers spent on officer-initiated stops and dividing that value by the time officers spent on each stop reason. We also calculated the average and median time spent on each stop reason. For these calculations, the adjusted stop duration time is used for stops where the stop duration was identified as an outlier. Given the small percentage of time officers spent on stops other than traffic violations, we combined stops for probation or parole or multiple reasons into one 'Other reasons' category for visualization. Probation or parole stops comprised just 0.1% of officer time and stops for multiple reasons 0.04%.

Analyzing racial bias in time spent

We examined bias in how much time officers spent on stops by race. Traffic stops also waste public resources when officers are racially biased in how they allocate their time to stops. To identify evidence of bias in time spent, we filtered officer-initiated traffic stops for stops that resulted in similar actions: a warning, no action, or a citation for infraction. By comparing similar stops, we can test if officers are spending relatively longer on stops of particular racial groups, indicating racial and identifying profiling and bias.

Using our adjusted stop duration field, we calculated the five-number summary and average for each racial group and, given the low count for some groups, for people of color overall. We observed differences in the distribution of time spent. Stop times were more positively skewed for people perceived as White than people of color, meaning stop times of White people were more clustered toward the lower end of stop time. They also had a smaller interquartile range (the difference between quartiles three and one), meaning there was less spread in the middle range of stops for White people compared to people of color. Additionally, we examined our outlier analysis for coefficients that remained significant after controlling for several stop characteristics, e.g., stop reason, actions taken, gender, race, contraband found. Stops of AIAN, Black, and SWANA/SA individuals continued to take longer compared to stops of White people after controlling for a wide range of stop characteristics.

COMMUNITY QUOTES

Catalyst California and Fresno BHC facilitated a community meeting in Fresno where preliminary RIPA data findings were shared with Fresno community members, and they were asked to engage in several exercises to share their reactions to the RIPA data and their own experiences with policing in Fresno.

Community members were asked to respond to reflection prompts defining what safety means to them, how they have been impacted by policing in Fresno as well as what they would like to see done differently in terms of investments and policing in Fresno. Some exercises asked community members to directly write their responses down while others were shared through verbal discussion. All responses were transcribed by Catalyst California. We then took the transcribed notes and documented the most prominent themes that were raised by community members. These themes are embedded throughout the report along with direct quotes written by community members. All direct quotes are provided in the original language that the community member spoke in as well as either an English or Spanish translation.

For more information about our methods, please visit our GitHub repository: https://github.com/catalystcalifornia/fresnoripa/blob/main/README.md/.

For access to the full report, visit: https://fresnobhc.org/driven-by-bias-fresno-police-department-report/#report.