



Police Force Analysis SystemSM Summary Report

San Jose Police Department

Use of Force Data from January 1, 2015 to June 30, 2017

By:

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Background – The Lack of Data on Police Use of Force

In response to a recent series of highly publicized police shootings, the public and policy makers are demanding that law enforcement be more accountable and transparent about its use of force, particularly with regards to the impact on communities of color. But, as made clear in a 2013 survey by the U.S. Department of Justice,¹ there is wide variance in agency approaches to tracking force, a lack of in-depth review of force within many individual police departments, and simply no data allowing for a meaningful evaluation and comparison of use of force practices across the United States. Understanding police use of force in all its complexity requires a systematic examination of when, where, how, and why force is used in the approximately 800,000 annual force incidents involving nearly 18,000 police agencies throughout the country.

While the FBI has attempted to collect information on justifiable homicides by police officers, this amounts to an extremely small percentage of all police uses of force that occur each year and the data is limited and incomplete.² There are no reliable and comprehensive data sources available that could be used to develop evidence-based best practices for use of force. As a result, there currently exists a plethora of policies, training programs and procedures designed to guide officers on how to appropriately use force. Since none of these policies or programs have been evaluated for their effectiveness, agencies have no way of knowing whether their existing practices should be maintained, modified or overhauled. Some organizations such as the Police Executive Research Forum (PERF) have attempted to develop guidelines on how officers should appropriately use force.³ Unfortunately with no data or evidence to back up the effectiveness of these new proposals, they are often met with skepticism and resistance by the law enforcement community.⁴ By issuing recommendations for sweeping reforms without

¹ [“Data on Use of Force by Police Across U.S. Proves Almost Useless,” New York Times, August 11, 2015.](#)

² [“FBI director calls lack of data on police shootings ‘ridiculous,’ ‘embarrassing,’” Washington Post, October 7, 2015.](#)

³ [Guiding Principles on Use of Force, Critical Issues in Policing Series, Police Executive Research Forum, March 2016.](#)

⁴ [Statement of the International Association of Chiefs of Police and the Fraternal Order of Police on PERF’s Proposed Use of Force Standards, February 2016.](#)

providing any data to support those recommendations, the chasm between the public and police may actually widen as we debate how the police should reform themselves.⁵

The lack of evidence-based policies for use of force is quite shocking when you consider that these policies are being used to guide officers in making life and death decisions that could have criminal consequences and expose departments to significant liability. It is inconceivable that we would allow policies to govern the practice of medicine without ensuring that those policies are backed up by solid scientific research and constant evaluation and assessment.

The Department of Justice (DOJ) has attempted to reform dozens of law enforcement agencies over the last 25 years through a series of consent decrees and collaborative reform projects. Consent decrees can cost local governments millions of dollars and it can take up to a decade to reach compliance with court ordered mandates. Unfortunately, one thing that all consent decrees have lacked is a systematic and comprehensive data collection program that would be able to assess the effectiveness of the reforms and the long-term impacts of the decrees. A few studies by academic researchers have determined that the benefits of consent decrees are mixed at best.⁶

In May 2015 the Obama Administration launched the Police Data Initiative.⁷ This initiative was the result of recommendations from the Task Force on 21st Century Policing and it has two primary goals: (1) Use open data to build transparency and increase community trust, and (2) Provide internal accountability and effective data analysis. One of the data elements collected by the initiative is police use of force. This data is currently available on an open data portal managed by the Police Foundation.⁸ Only 24 law enforcement agencies have provided their data on use of force incidents and each of those agencies has a different method for reporting their stats. Some agencies only include 3 fields of information while others have more than 30 fields.

⁵ [Protocol for reducing police shootings draws backlash from unions, chiefs group, Washington Post, March 31, 2016.](#)

⁶ [“Do federal consent decrees improve local police departments? This study says they might,” Washington Post, May 24, 2017.](#)

⁷ [“Launching the Police Data Initiative,” The White House President Barack Obama, May 18, 2015.](#)

⁸ [Police Data Initiative Open Data Portal](#)

Some agencies only report on officer involved shootings while others report on all uses of force including the pointing of a firearm. Unfortunately, the use of force data provided to the Police Data Initiative provides very little insight into how officers are using force and where efforts on reform need to be focused.

The State of California recently adopted one of the most comprehensive use of force data collection programs in the country.⁹ The URSUS system uses an online reporting tool¹⁰ to collect data from all law enforcement agencies in the state. The California DOJ recently released its first report on use of force data from 2016.¹¹ The main limitation of URSUS is that it only collects data on use of force incidents that result in serious bodily injury or death of a civilian or officer or the discharge of a firearm. In 2016 there were just 782 incidents that met the URSUS reporting criteria which is less than 2% of the estimated 45,000¹² uses of force that occur in the state each year. Only 25 of the state's 509 law enforcement agencies had more than 5 incidents to report to URSUS in 2016 and more than half the agencies in the state did not have any incidents to report. While the URSUS system is a good first step, the limited amount of data it contains will provide little guidance to departments that want to implement data-driven reforms.

While URSUS captures data on all firearms discharges, most officers will go their entire careers without ever discharging their firearms in the line of duty. By contrast, half of the nation's 800,000 law enforcement officers will use some type of force at least once this year. We need to begin collecting and analyzing data on all use of force incidents so that agencies can craft evidence-based best practices and closely monitor officer behavior in the field.

⁹ ["California Launches Digital Platform to Collect Police Use-of-Force Data," Techwire.net, September 22, 2016.](#)

¹⁰ [California Department of Justice URSUS Use of Force Incident Reporting](#)

¹¹ [California DOJ URSUS 2016 Report](#)

¹² This estimate of the total number of use of force incidents in the state was derived from the total number of arrests in 2016 (1,120,759) multiplied by 4% which is the average use of force rate per arrest of the 32 law enforcement agencies in the Police Force Analysis SystemSM. A use of force incident includes the use of any physical force to overcome resistance and/or the use of any weapon.

Early Intervention (Early Warning) Systems

Many law enforcement agencies have developed Early Intervention Systems (EIS) to identify potentially problematic behavior among their officers at an early stage so that corrective measures can be taken before a serious incident, complaint or lawsuit occurs. A number of these systems include use of force data as one of the risk components. Typically, some type of trigger will be set based upon the frequency of force (e.g. 3 or more uses of force in a 6-month period) and when an officer meets that trigger, they will be flagged for additional review. The efficacy of EIS systems has been challenged and there is little evidence to demonstrate that they are effective at identifying high risk officers.¹³ The Los Angeles Police Department spent millions of dollars developing its TEAMS II system as part of a federal consent decree. Each month the system flags about 190 officers for additional review based in part on the frequency of use of force incidents. In 70% of the flagged cases supervisors did not find any issues with the officer's use of force and only 3% of the flagged officers were ordered to undergo retraining, were reprimanded or had some other action taken.¹⁴ As will be discussed later in this report, measuring the frequency of an officer's use of force is a poor measure of the appropriateness of that force.

Building the Data Infrastructure to Support Democratic Policing

The core function of the police in a democratic society is to protect life, liberty, and property, and coercion is the fundamental means by which they achieve those democratic goals. While the police perform many complex and important roles within the communities they serve, the single defining characteristic of the police is their capacity to both verbally and physically coerce individuals to do things that they are not otherwise inclined to do, particularly those individuals who are not obeying the rules. To be able to do this efficiently and effectively, the police must be viewed as a legitimate authority by the citizens they serve. This perceived legitimacy is driven by transparency in police decision-making, the presence of sufficient

¹³ ["Early Warning Systems: What's New? What's Working?" CNA, December 2015.](#)

¹⁴ ["Report questions LAPD program to flag misconduct," Los Angeles Times, August 25, 2014.](#)

accountability structures, and perhaps most important, fundamental fairness in the distribution of coercive authority.

Democratic policing is thus a process rather than an achievable end in itself, and it can only be demonstrated through constant evaluation in order to ensure that these democratic ideals are being satisfied. This process of evaluation requires adequate information about coercion. Recent tragic high-profile events have renewed our focus on an old problem: the fact that we simply do not have sufficient data about police coercion. The most important task to improve the quality of policing in the United States is to systematically collect and report data on police coercion, and to understand the distribution of coercion across people, places, and time.

- Who is being impacted by police use of coercion and why?
- Are some communities disproportionately impacted by police use of coercive authority?
- How does a suspect's mental health status affect police decision-making?
- Are marginalized populations, such as the homeless, at risk for disproportionate force?
- Does officer knowledge of a subject's potential threat or level of intoxication influence their use of coercive authority?

Police Strategies LLC has partnered with the Center for the Study of Crime and Justice at Seattle University to develop comprehensive information about the intersection of individual and contextual factors that explain situational, temporal, and spatial variation in the distribution of police coercive authority with attention to the ways in which demographic factors such as race/ethnicity, gender, and age, situational/historical/individual characteristics such as mental illness, homelessness, and location impact police-citizen interactions and police coercive control. Data from this system will produce research and support community engagement about the relationship between the intersection of race, age, gender, and status on police coercion.

Police Strategies LLC

Police Strategies LLC is a Washington State based company that was formed in February 2015. The company was built by law enforcement professionals, attorneys and academics with the primary goal of helping police departments use their own incident reports to make data-driven decisions and develop evidence-based best practices. The company's three partners are all former employees of the Seattle Police Department and were directly involved with the Department of Justice's pattern or practice investigation of the department in 2011 as well as the federal consent decree that followed. They wanted to take the lessons learned from that experience and provide other police departments with the tools they need to monitor use of force incidents, identify high risk behavior and evaluate the outcomes of any reforms that are implemented. The company has a partnership with the Center for the Study of Crime and Justice at Seattle University to assist in the analysis of the data.

Police Force Analysis SystemSM

In the summer of 2015, Police Strategies LLC launched the Police Force Analysis SystemSM (PFAS). PFAS combines peer-reviewed research with state-of-the-art analytical tools to produce a powerful data visualization system that can be used by law enforcement, policy makers, academics, and the public.¹⁵ The core of PFAS builds upon the research work of Professor Geoff Alpert and his Force Factor method. Force Factor analysis formed the basis of Professor Alpert's 2004 book "Understanding Police Use of Force – Officers, Suspects and Reciprocity"¹⁶ and has been the subject of several scholarly articles.¹⁷

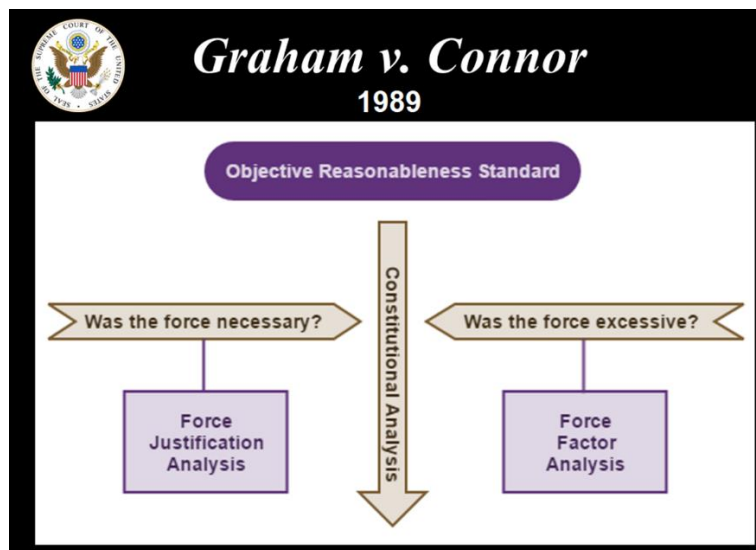
PFAS is a relational database that contains 150 fields of information extracted from law enforcement agencies' existing incident reports and officer narratives. The data is analyzed using legal algorithms that were developed from the evaluation criteria outlined in the United States

¹⁵ [Capitola Police creates online database to track use of force stats, Santa Cruz Sentinel, August 2016.](#)

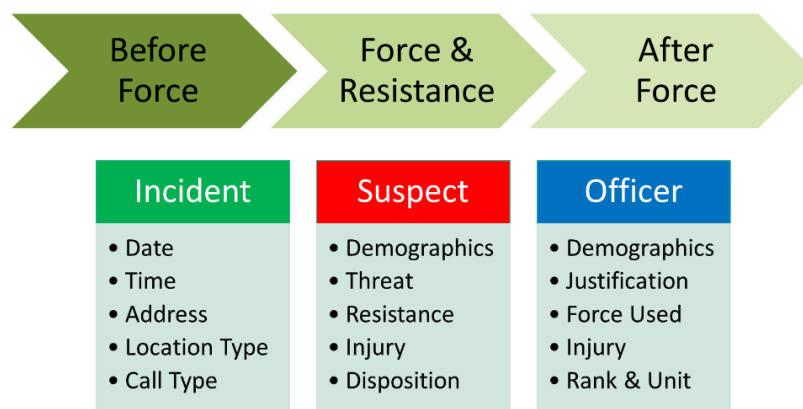
¹⁶ [Understanding Police Use of Force – Officers, Suspects, and Reciprocity, Cambridge Studies in Criminology, 2004.](#)

¹⁷ See, e.g., [Reliability of the Force Factor Method in Police Use-of-Force Research, Police Quarterly, December 2015.](#)

Supreme Court case of *Graham v. Connor*, 490 U.S. 386 (1989). The Court adopted an objective reasonableness standard which evaluates each case based upon the information that the officer was aware of at the time the force was used and then comparing the officer's actions to what a reasonable officer would have done when faced with the same situation. PFAS uses Force Justification Analysis to determine the risk that a use of force incident would be found to be unnecessary and Force Factor Analysis to evaluate the risk that the force would be found to be excessive.



PFAS examines relevant temporal data from immediately before, during and after an application of force.



PFAS uses powerful data visualization software to display the information on dynamic dashboards. These dashboards can be used by police management to identify trends and patterns in use of force practices and detect high risk behavior of individual officers. The system can also be used to spot officers who consistently use force appropriately and effectively. Since the system can find both high risk and low risk incidents, PFAS can be used both as an Early Intervention System to correct problematic behavior as well as a training tool that highlights existing best practices.

PFAS contains several years of historical data for each agency and is designed to be updated on a regular basis. This allows the department to immediately identify trends and patterns as well as measure the impacts and outcomes of any changes that are made to policies, training, equipment or practices. For example, if a department provides crisis intervention and de-escalation training to its officers, the system will be able to evaluate whether that training has had any impact on officer behavior.

PFAS currently has use of force data from 32 law enforcement agencies in five states involving more than 5,000 incidents and 2,500 officers who used force a total of 13,000 times. PFAS is the largest database of its kind in the nation. Although the incident reports from each of these agencies uses a different format, all the data extracted and entered into the system has been standardized which allows us to make interagency comparisons. The Police Force Analysis NetworkSM allows agencies to compare their use of force practices with other agencies in the system.

The Police Force Analysis SystemSM provides comprehensive information about police use of coercive authority, and permits the study of the intersection of individual and contextual factors that explain situational, temporal, and spatial variation in the distribution of police coercive authority. PFAS supports meaningful community engagement about police coercion by providing comprehensive and relevant data to address and inform community concern regarding police-citizen interactions.

Key Findings from the Police Force Analysis SystemSM

Under our partnership with the Center for the Study of Crime and Justice at Seattle University, we are continuously analyzing the use of force data from all the agencies in PFAS to identify trends, patterns, correlations and outcomes. Here are some of our initial key findings:

1. Uses of Force are Linked to Arrests

Almost all use of force incidents are associated with an attempt by an officer to bring an individual into custody. If a suspect resists a lawful arrest or detention, then it is usually necessary for the officer to use some type of force to gain control of the suspect. To reduce the need to use force, many agencies have sent some or all their officers through crisis intervention and de-escalation training. These courses help officers identify individuals with mental health issues and provides them with the verbal and interpersonal skills needed to help de-escalate and gain control of problematic situations without having to use force. While there are no comprehensive studies that have linked de-escalation training with a reduction in use of force incidents, it is likely that these programs do provide officers with valuable skills that they can use to resolve conflicts.

While many people view any use of force by police as a negative outcome regardless of how or why the force was used, our data shows that officers cannot do their jobs effectively without using some amount of force in appropriate circumstances. No matter how much de-escalation training an officer receives, there will always be a certain percentage of arrestees who will resist or flee regardless what the officer says or does. PFAS data shows that on average 4% of all arrests involve in a use of force.

Some departments have seen dramatic declines in uses of force when consent decrees are imposed or when departments come under intense public scrutiny or when body cameras have implemented. However, these declines in uses of force are almost always associated with a corresponding decline in arrests as officers become less proactive and they are more reluctant to engage in situations involving minor crimes, infractions or suspicious circumstances.

There is a strong correlation between the total number of uses of force a department has and the total number of arrests their officers make. Similarly, the more proactive and productive an officer is, the more arrests they will make and the more uses of force they will have. Rather than simply measuring the frequency of force, a better metric to assess risk is the use of force rate compared to arrests. For example, an officer who makes 10 arrests and uses force against 4 of those suspects (40% use of force rate) is a much higher risk than an officer who makes 300 arrests and uses force against 12 suspects (4% use of force rate).

When an agency begins to analyze its use of force incidents, the focus should be on the use of force rate per arrest, the necessity of the force used (i.e. whether the force was justified) and the proportionality of force to resistance (i.e. whether the force was excessive). Unfortunately, most departments and most Early Intervention Systems simply look at the frequency of force and work from the assumption that more force is bad, and less force is good. This type of simplistic analysis tends to penalize more productive and proactive officers and could lead to public safety problems if officers are encouraged to disengage and make fewer arrests.

2. Officers that use force more frequently, tend to use force more appropriately

PFAS examines not only the frequency of force that an officer uses, but also the risk that an individual force incident would be found to be unnecessary and/or excessive under the *Graham v. Connor* legal standard. We have found that officers who rarely use force tend to have higher risk scores than officers who frequently use force. This is probably because an officer who has more experience using force in the field will learn how to use force more appropriately than an officer who has only used force during training exercises.

This finding has significant implications for existing Early Intervention Systems which rely solely on the frequency of force to identify potentially problematic behavior. These systems flag officers with the highest number of force incidents as high risk. Our findings suggest that the opposite is true and that it is the officers who rarely use force who represent the greatest risk to the department. This may explain why most EIS systems have a very high false positive rate. (See the LAPD TEAMS II discussion above).

3. Less experienced younger officers are more likely to find themselves in situations where use of force is required

On average about half the officers in any given police department will use force at least once each year. Most of the officers who use force will be assigned to patrol and these officers tend to be the youngest and least experienced officers in the department. As we saw in the previous finding, the less experienced the officer, the more likely it is that the officer will engage in high risk use of force behavior. This has implications for officer deployment and training. As a risk management strategy, it may be prudent to partner more experienced officers with less experienced ones until they have had enough practice in using force in the field. From a training perspective it would be advisable to focus in-service use of force training on younger and less experienced officers and have each of their use of force incidents thoroughly reviewed and discussed with their supervisors.

4. Members of the public tend to be more concerned about the fact that force was used at all rather than the level of force that was used

Some of the agencies we are working with have provided us with data on complaints about uses of force and this data has been incorporated into PFAS. An analysis of that data has shown that when individuals complain about an officer using excessive force against them, it is more common for these incidents to have a low Justification Score rather than a high Force Factor score. Therefore, it appears as if the motivation for the complaint is not about the level of force that was used, but rather the fact that force was used at all. Complaints about use of force are most common when low levels of force are used against individuals who are engaged in minor crimes or infractions or when they are incorrectly suspected of criminal behavior. When these individuals fail to cooperate, the officer can usually gain control with a minimal amount of force and no injury. However, the suspects in these types of situations tend to view any force used against them as unwarranted, and therefore any amount of force used is likely to generate a complaint. In situations where a suspect was engaged in serious criminal behavior, threatened the officer, actively resisted

and/or tried to flee, suspects are less likely to complain even if the officer used a very high level of force and the suspect sustained an injury.

This finding is consistent with a recent study from the John F. Finn Institute for Public Safety:

“In our recently published study of policing, *Mirage of Police Reform*, we found that citizens’ assessments of procedural justice are shaped much less by how officers use their enforcement powers—such as using physical force or conducting searches—than whether they use them...[I]ndividual officers’ decisions about whether to use their coercive authority matter far more to public perceptions of police legitimacy than how they use it.”¹⁸

¹⁸ [“Building Trust in Police: What Really Works?” The Crime Report, Center of Media Crime and Justice at John Jay College, July 18, 2017.](#)

Data Collection from the San Jose Police Department

Police Strategies LLC began working with the San Jose Police Department (SJPD) in May 2017. Our first task was to code the Department's use of force reports from 2015 and 2016 and enter the data into the Police Force Analysis SystemSM.

SJPD provided two types of reports for coding: (1) General Offense Hardcopy (GO) reports and (2) Force Response Reports. These reports were received as Adobe Acrobat files. In addition, SJPD provided electronic data on some of the incident details (date, time, address, etc.) and suspect details (age, race, gender). There were 727 incident reports from 2015 and 617 from 2016. Some of these incidents involved more than one suspect that had force used against them.

Police Strategies LLC began coding the cases in July 2017. There were five coders that reviewed the reports and entered the data into PFAS. Each coder has successfully completed a three-month training course and has passed a series of exams to ensure that their coding is consistent and meets the standards required for the system. In addition, each coder's work is spot checked to ensure accuracy and consistency. Data entry was completed in early September 2017 and then the information was then processed through the system's legal algorithms. Finally, the interactive dashboards were built for SJPD. All the data entered into the system was geocoded and SJPD was able to provide shape files for the department's divisions, districts, beats and grids. This enabled us to prepare several customized dashboards that present the use of force data geographically.

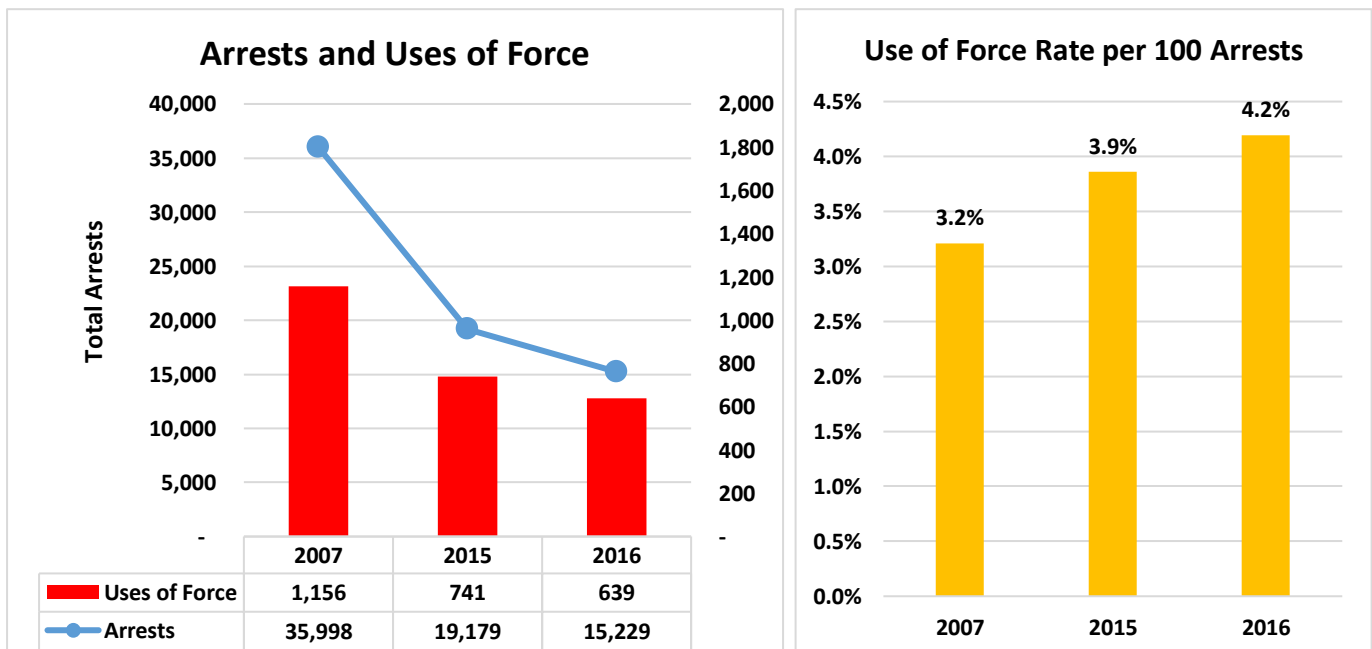
The Department has also contracted for quarterly updates of PFAS using 2017 data. In February 2017 SJPD stopped using the hand-written Force Response Reports and officers began entering the data into a new electronic database. SJPD sent us the records from that electronic database for entry into the system. The first six months of reports from 2017 have been entered into the system and the dashboards have been updated. Reports from the third quarter of 2017 are currently being coded and the updated dashboards will be ready by January 2018. Moving forward, the dashboards will be updated every quarter within 6 weeks of receiving the reports from the preceding quarter.

San Jose Police Department Force Response Report from 2007

The last use of force report created by SJPD used data from 2007 and used about 20 data fields taken from the Force Response Reports. While not all this data is directly comparable with the data contained in PFAS, we were able to make direct comparisons with the data taken from the Force Response Reports from 2015 and 2016. The following is a comparison of the data contained in the San Jose Police Department's 2007 Force Response Report and the Department's use of force data from 2015 and 2016 contained in the Police Force Analysis SystemSM.

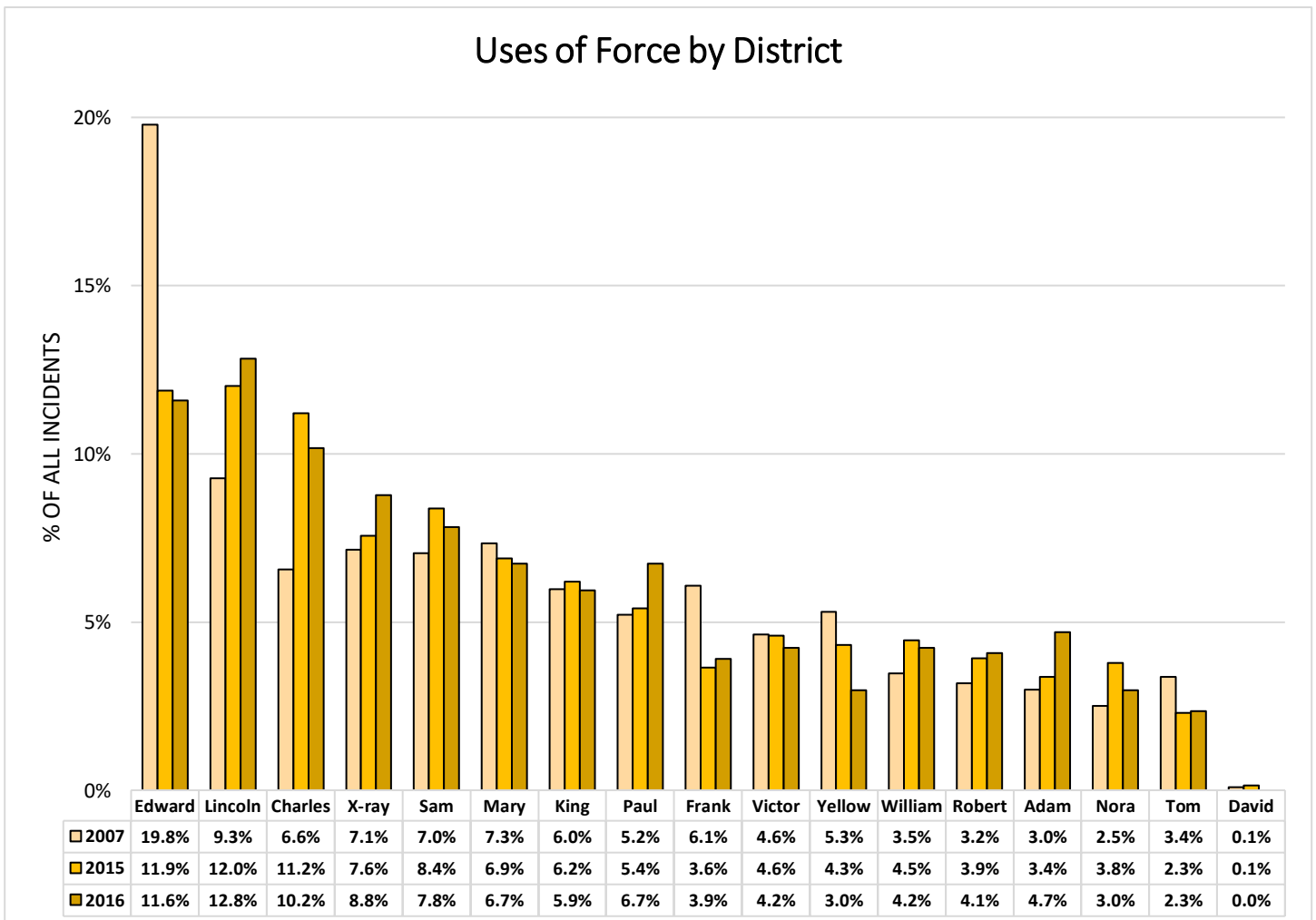
1. Arrests and Uses of Force

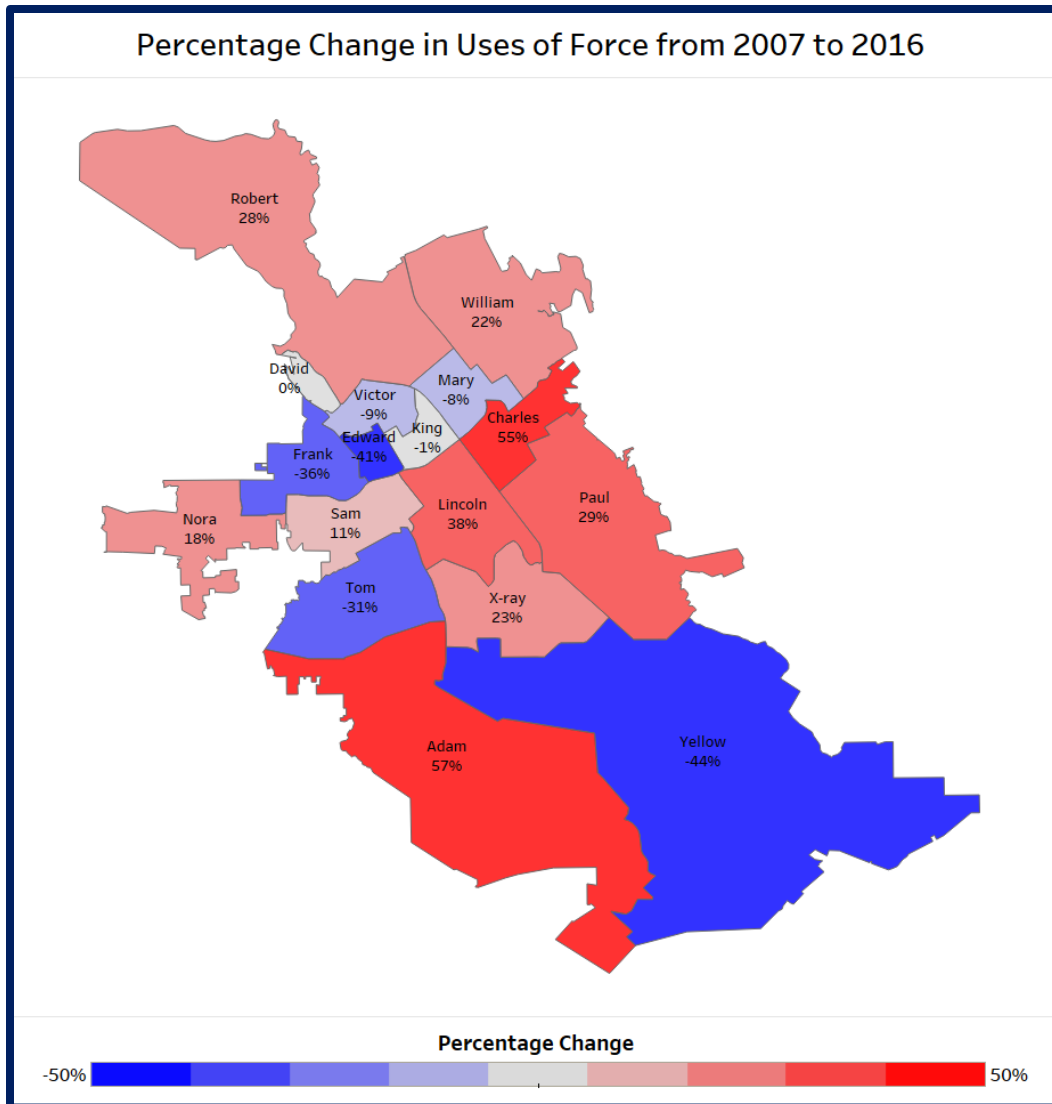
From 2007 to 2016 the number of annual arrests made by SJPD fell by 58% from 35,998 arrests to 15,229 arrests. At the same time the number of uses of force fell by 45% from 1,156 in 2007 to 639 in 2016. In 2007 the use of force rate (uses of force per 100 arrests) was 3.2% and by 2016 it had risen to 4.2%. This modest increase in the use of force rate is related to the lower number of arrests. When the department makes fewer arrests, officers will focus on more serious incidents particularly those involving violent crimes and weapons offenses. Suspects involved in these types of crimes tend to be less compliant generating a higher use of force rate. Therefore, the increase in the department's use of force rate is a product of an increasing percentage of violent crimes in overall arrests (19.8% in 2015 to 23.3% in 2016).



2. Location of Force Incidents

Over the last 10 years there has been a dramatic shift in the location of force incidents within the City of San Jose. The City is divided into 17 police districts and the proportion of all uses of force each year were examined for each district. In 2007 Edward District alone had 20% of all the force incidents in the City. By 2016 that percentage had fallen to 12%. By contrast Lincoln District had 9% of the City’s uses of force in 2007 and that grew to 13% by 2016. Over the last 10 years the percentage of the City’s uses of force has increased by over 50% in Adam and Charles Districts while falling by more than 40% in Yellow and Edward Districts. All the districts had double digit percentage changes except for David, King, Mary and Victor Districts which remained relatively unchanged. These dramatic shifts in the locations of use of force incidents may be a result of deployment and staffing changes or varying crime patterns or a combination of multiple factors.





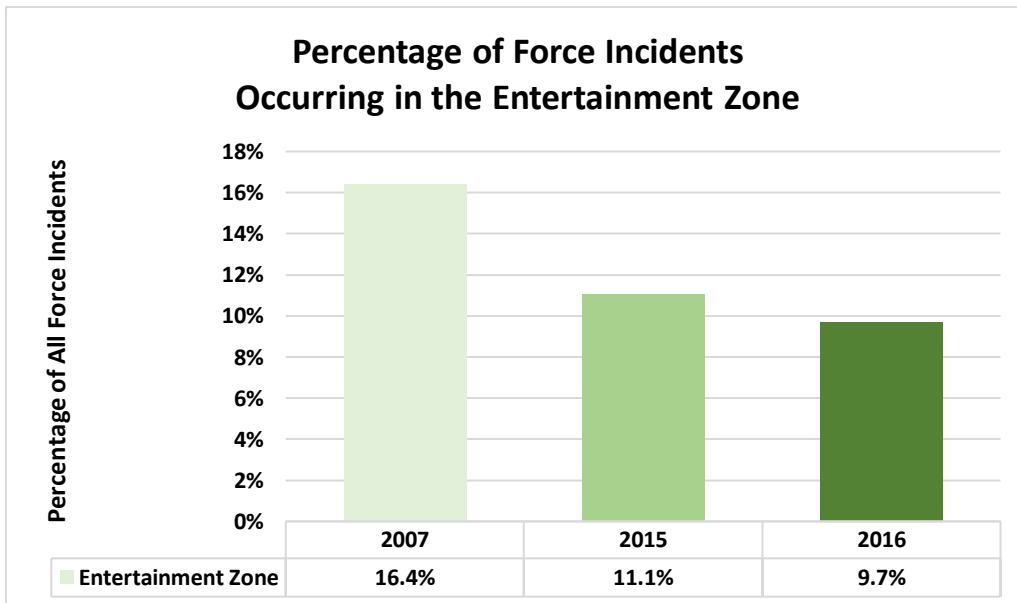
3. Entertainment Zone

It appears that most of the decline in force incidents with the following characteristics is due to a dramatic decline in force incidents in the Entertainment Zone:

- Friday and Sunday
- 12am to 4am
- On Views
- Alcohol related calls and assaults on citizens
- Edward District

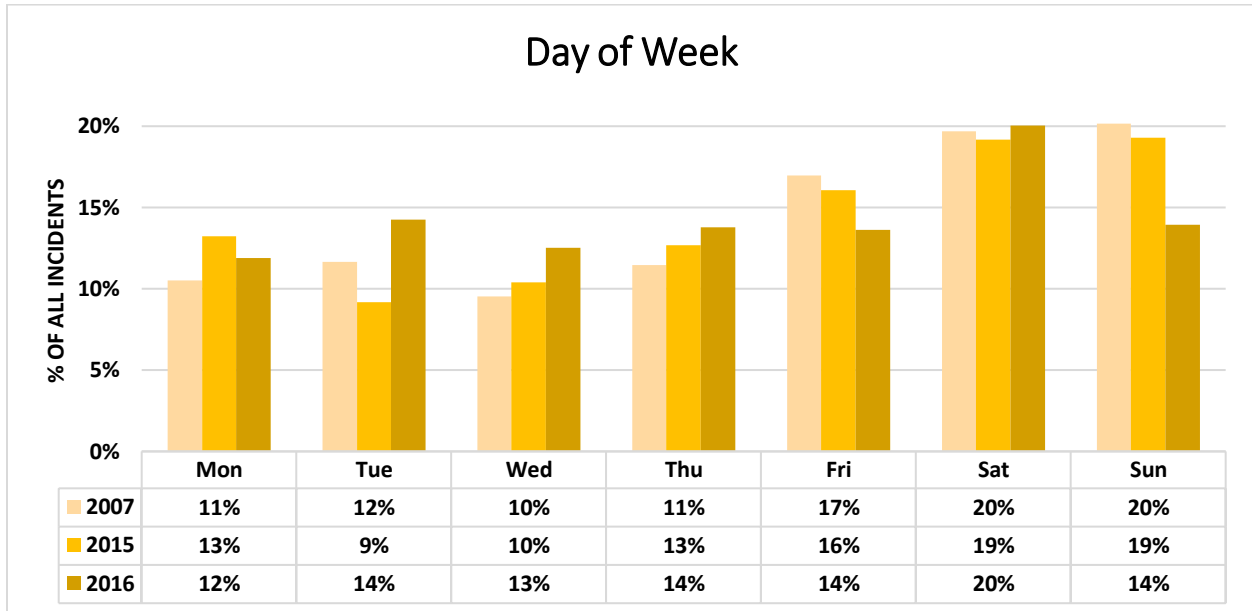
In 2015 and 2016 there were 144 uses of force in the Entertainment Zone. These incidents had characteristics that were different from incidents that occurred in other areas of the city:

- On Views were more common in the Entertainment Zone – 42% vs. 28% for the rest of the city
- Violent crimes were more common in the Entertainment Zone – 40% vs. 32% for the rest of the city
- Disturbances and suspicious circumstances were more common in the Entertainment Zone – 22% vs. 15% for the rest of the city
- 99% of incidents occurred outside (street or park) or inside a business or club vs. 71% in other areas of the city
- Between 1am and 2am was the most common hour for force incidents to occur in the Entertainment Zone (between 10pm and 11pm was the peak time in other areas of the city)
- Half the use of force incidents in the Entertainment Zone occurred on Saturday and Sunday vs. 35% in other areas of the city



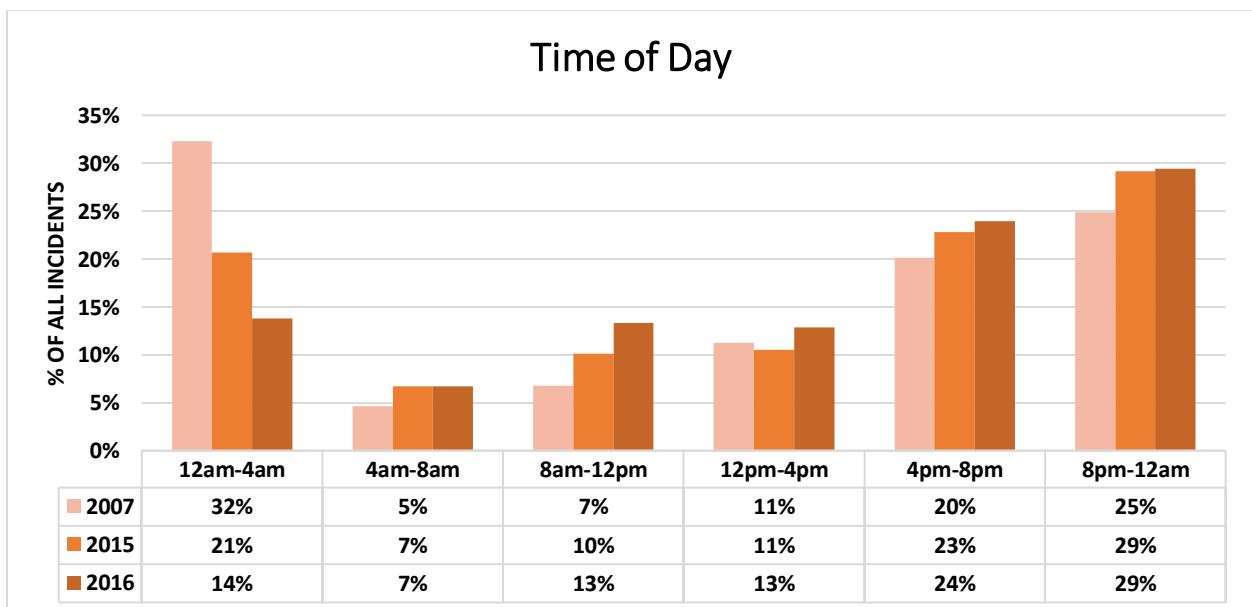
4. Day of the Week

Over the last 10 years the proportion of weekly incidents has increased from Mondays to Thursdays while it has declined on Fridays and Sundays. Saturdays have remained steady.



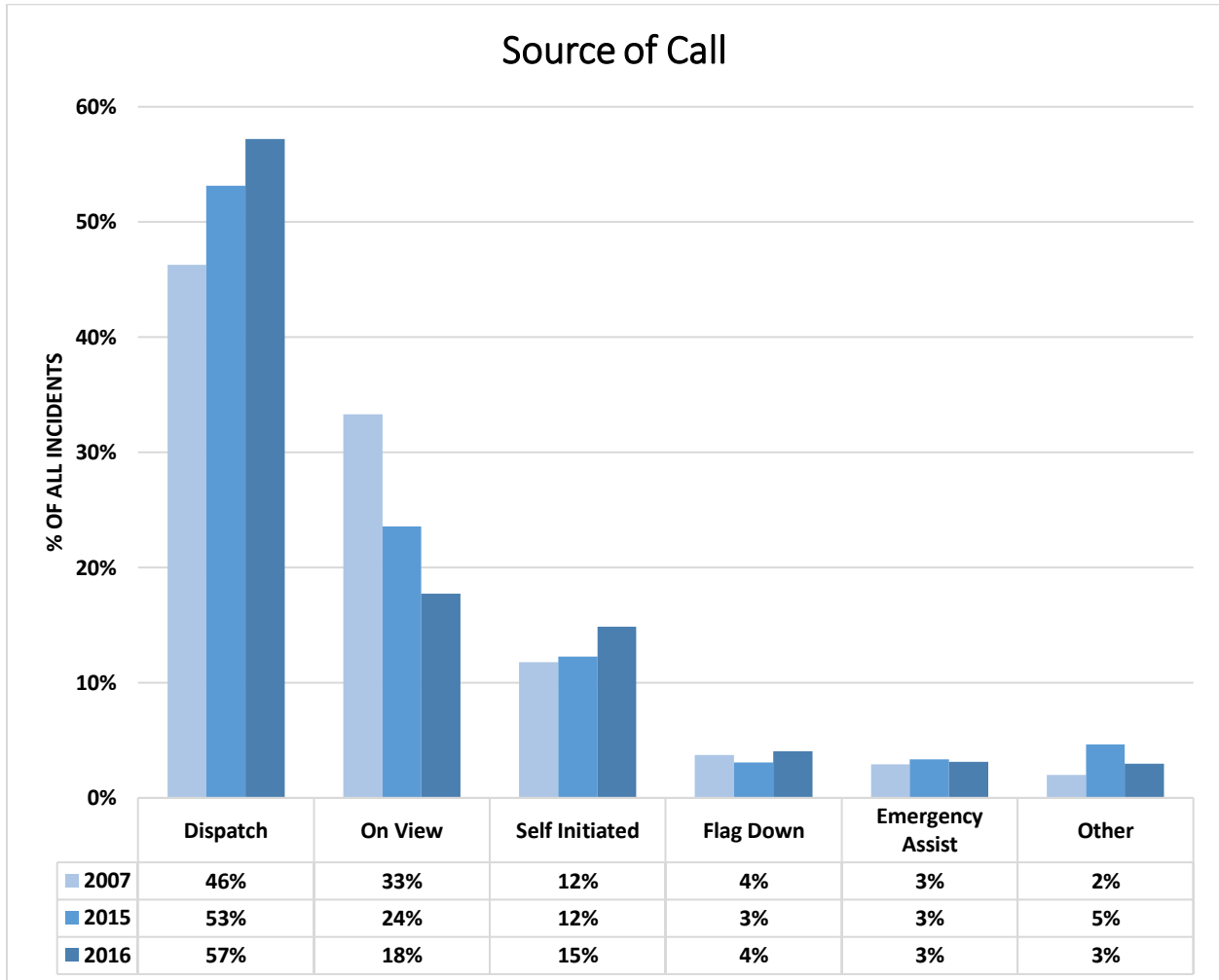
5. Time of Day

Between 2007 and 2016 the most significant change in the time that force incidents occur was from 12am to 4am. In 2007 nearly one-third of all force incidents occurred during this time but by 2016 this was down to 14% of all incidents.



6. Source of Call

Over the last 10 years use of force incidents resulting from dispatched calls have become more common while On Views have declined. In 2007 force incidents from Dispatched calls and officer initiated stops were nearly equal at 45% each. By 2016 Dispatched calls made up 57% of all force incidents while officer initiated stops were only 33% of force incidents.



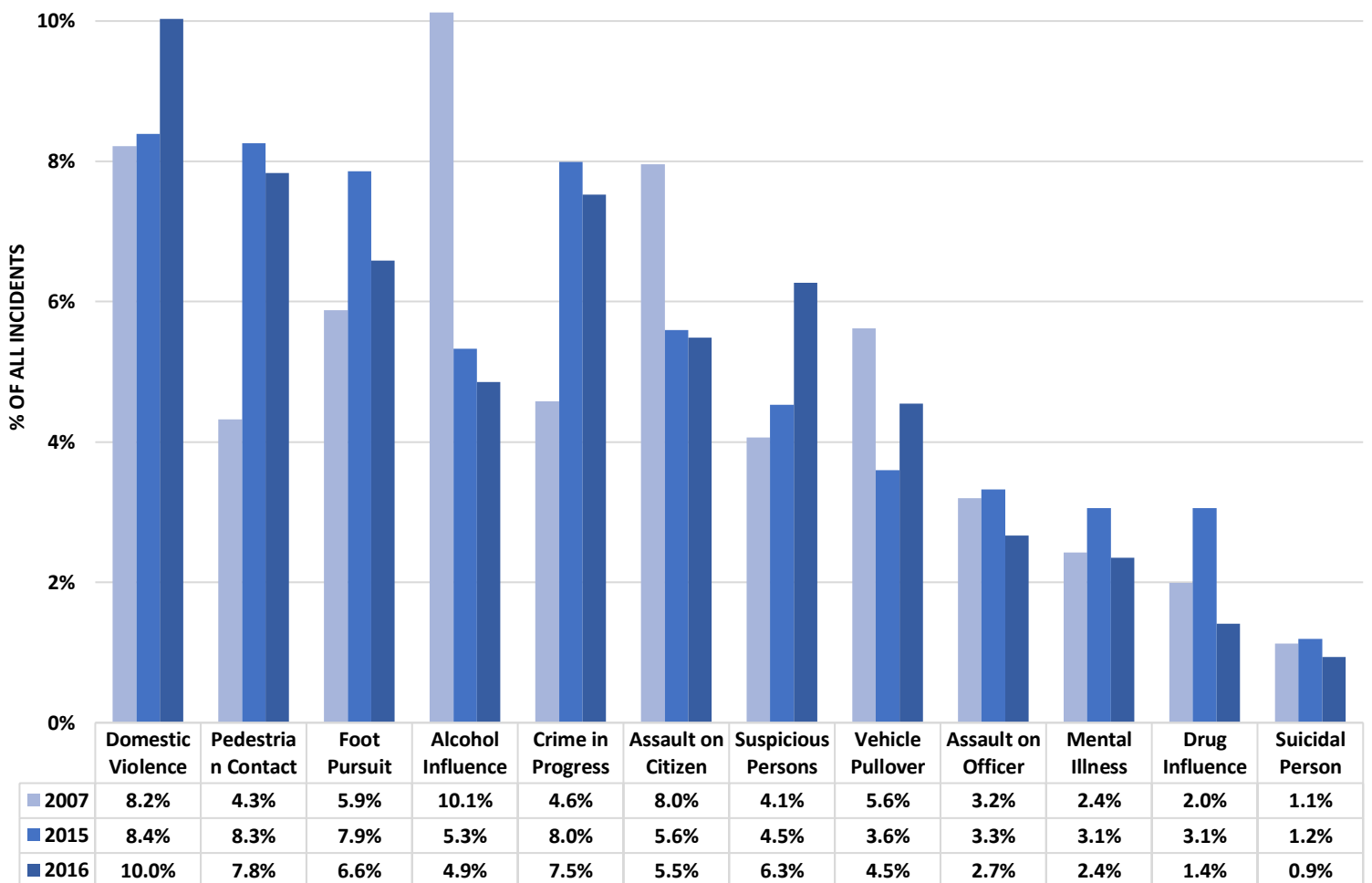
7. Incident Type

The following types of incidents have become more commonly associated with force incidents over the last 10 years:

- Domestic Violence
- Pedestrian Contacts
- Crime in Progress
- Suspicious Persons

Incidents where the suspect is under the influence of alcohol or the suspect has assaulted a citizen are less likely to be associated with a use of force in 2016 compared to 2007.

Incident Type



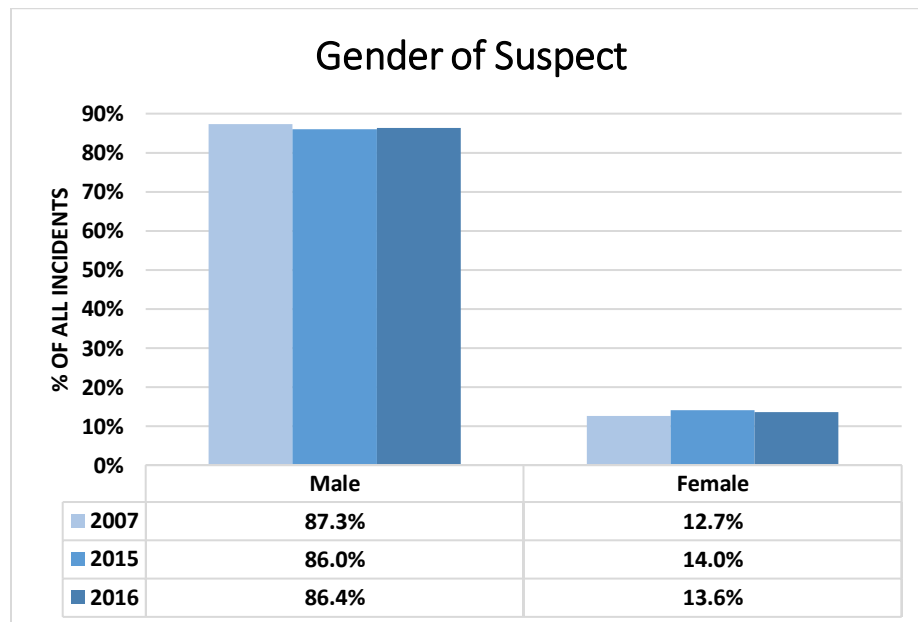
8. Number of Suspects

In 2007 officers reported that 34% of force incidents involved multiple suspects. By 2015 that percentage had dropped by nearly two-thirds with only 13% of incidents having more than one suspect involved.



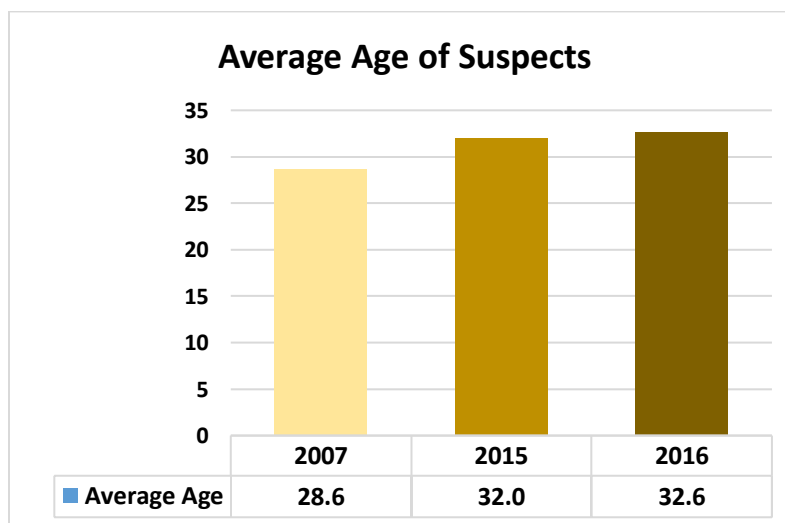
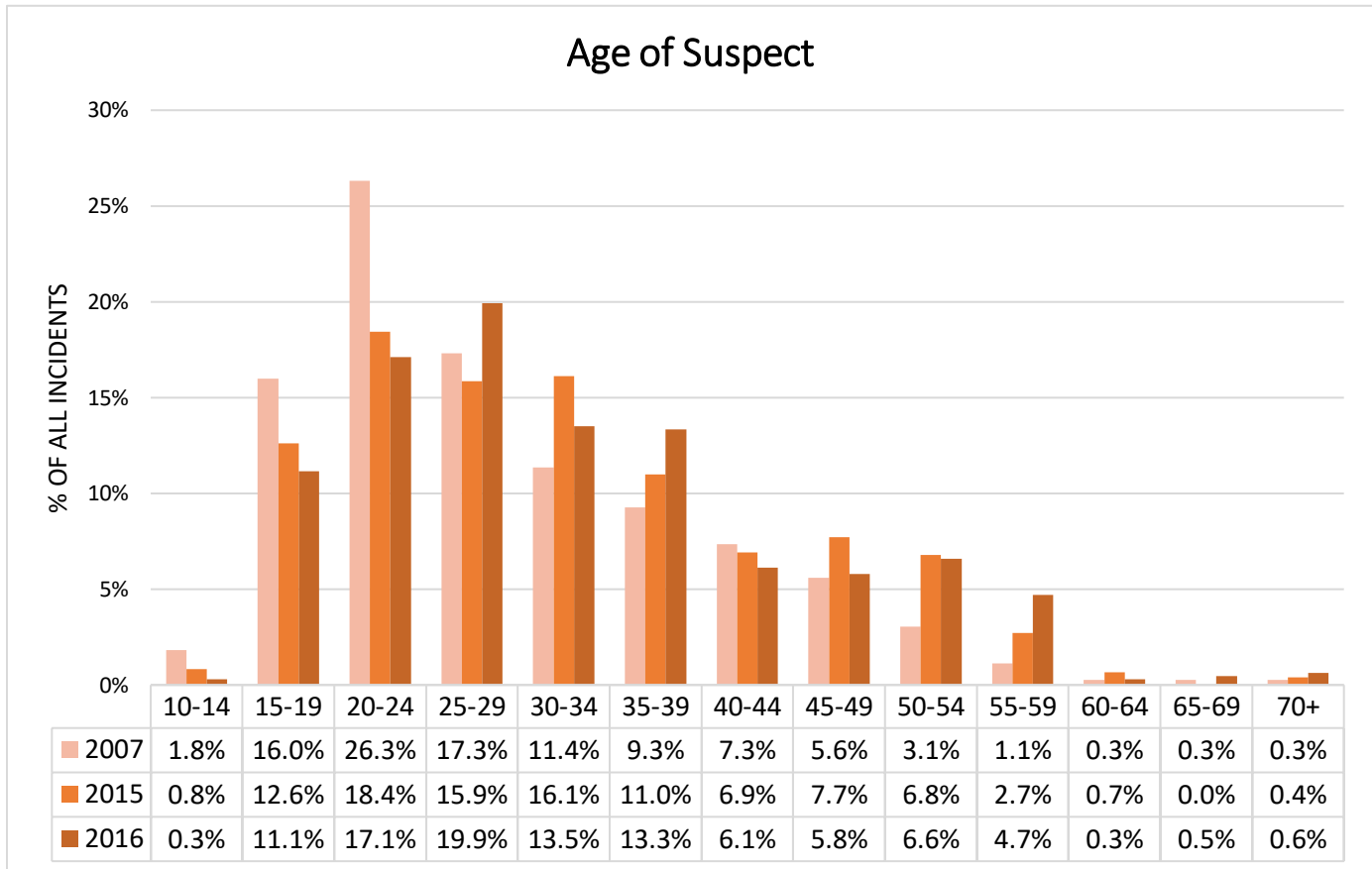
9. Gender of Suspects

The gender of suspects involved in force incidents has not changed significantly over the last 10 years with roughly one in eight incidents involving a female suspect.



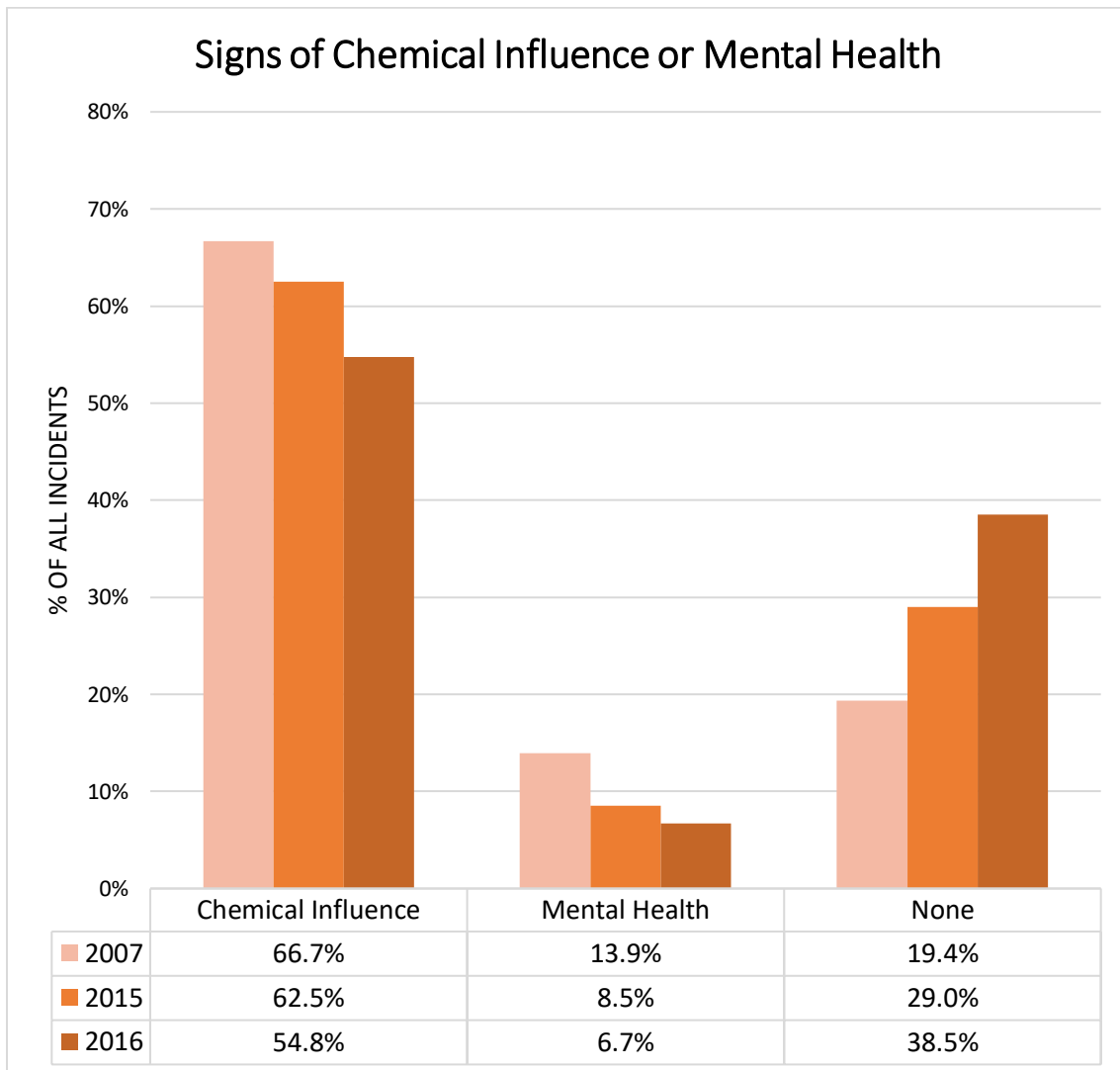
10. Age of Suspects

The proportion of suspects under age 25 that were involved in force incidents has decreased from 44% in 2007 to 29% in 2016. This has caused the average age of all suspects to rise from 28.6 years to 32.6 years.



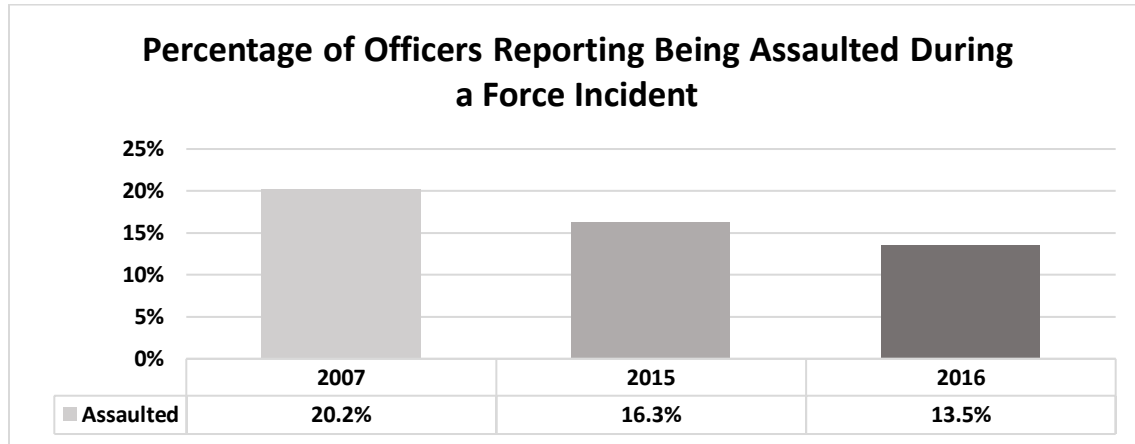
11.Suspects Under the Influence or Mental Health Issue

Since 2007 the percentage of suspects who are under the influence or experiencing mental health issues has declined steadily. Suspects with mental health issues dropped by nearly 50% from 2007 to 2016.



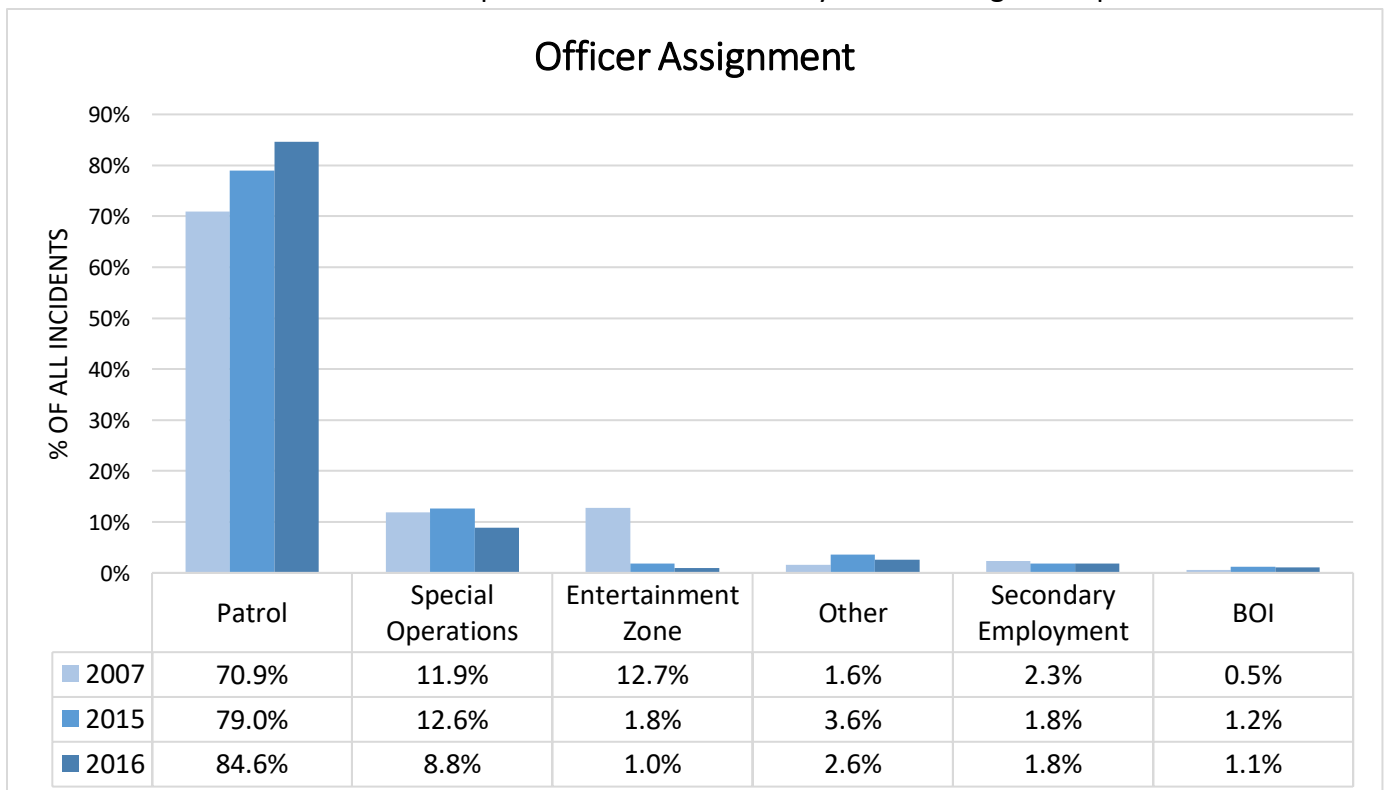
12. Assaults on Officers

From 2007 to 2016 fewer officers reported being assaulted by the suspect during a use of force incident.



13. Officer Assignment

Over the last decade, fewer officers assigned to specialty units were using force and most of the force used by the department shifted to patrol officers. By 2016, 85% of all the force incidents in the department were initiated by officers assigned to patrol.



Analysis of Use of Force Frequency by Officer Characteristics

As of June 2017, the San Jose Police Department had 915 sworn officers on its roster.¹⁹ From January 1, 2015 to June 30, 2017 about two-thirds of the officers in the department (613 officers) used force at least once. On average each of these officers used force 4.9 times. During this same period there were 62 officers who are no longer with the department and these officers used force 148 times.

The Use of Force Disparity Index is the percentage of all use of force incidents involving a group of officers divided by the percentage of all officers in the department that are associated with that same group. A score above 1 indicates that uses of force are over represented in the group. A score of less than 1 indicates that uses of force are underrepresented in the group. For example, San Jose PD has 180 sergeants making up 16.3% of all the officers in the department. These sergeants used force 191 times which is 6.1% of all the uses of force used by all the officers in the department. The Disparity Index for sergeants is 0.37 (6.1%/16.3%) which means that sergeants are underrepresented in uses of force (i.e. sergeants are 63% less likely to use force than you would expect based upon the number of sergeants in the department). By contrast, officers with less than 5 years of experience are overrepresented in uses of force. These officers make up 20% of the department but they are involved in 40% of all uses of force so they are twice as likely to use force as you would expect based upon their numbers in the department and they have a Disparity Index of 2.

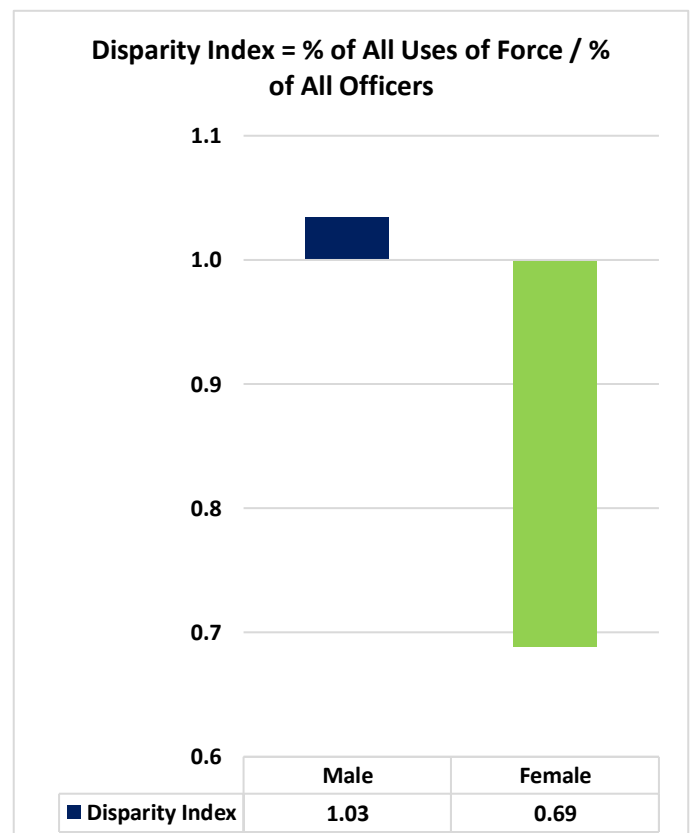
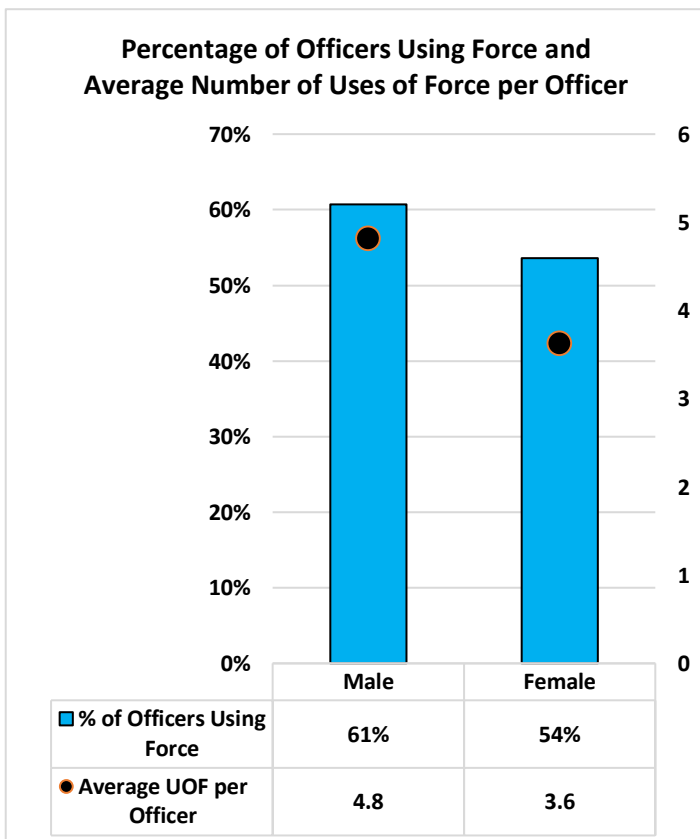
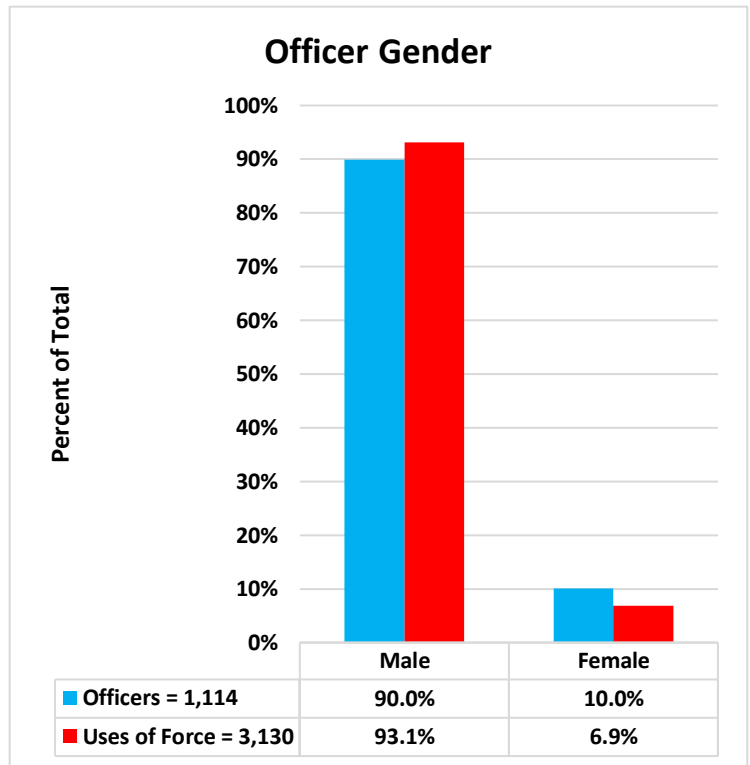
The following graphs examine how frequently officers with different characteristics use force.²⁰

¹⁹ All the use of force analyses involving officer characteristics includes both active and inactive officers except for the analysis related to the officer's current assignment which only includes active officers.

Officer Gender

There are 111 female officers in the San Jose Police Department representing 10% of all the sworn officers. Between January 1, 2015 and June 30, 2017, female officers used force 216 times which was 6.9% of all the force used during the period. Female officers were 31% less likely to use force than would be expected based upon their percentage of the police force.

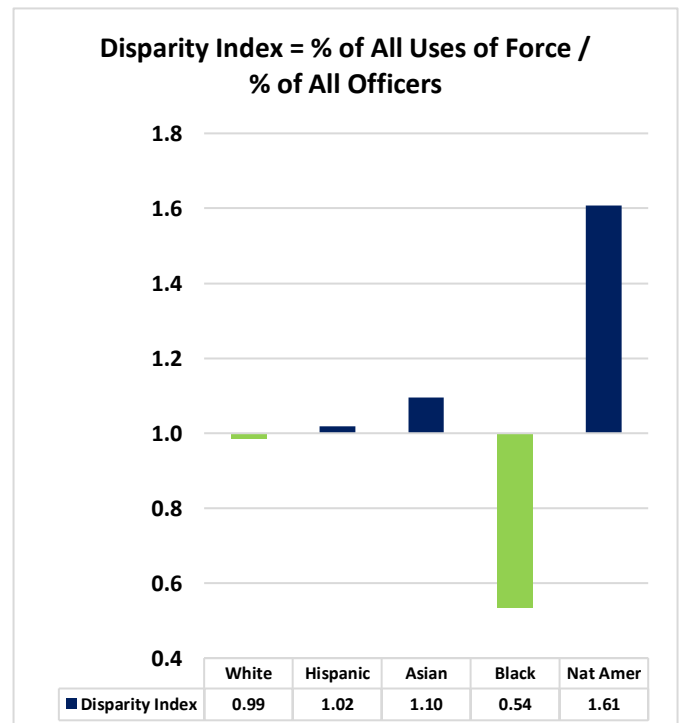
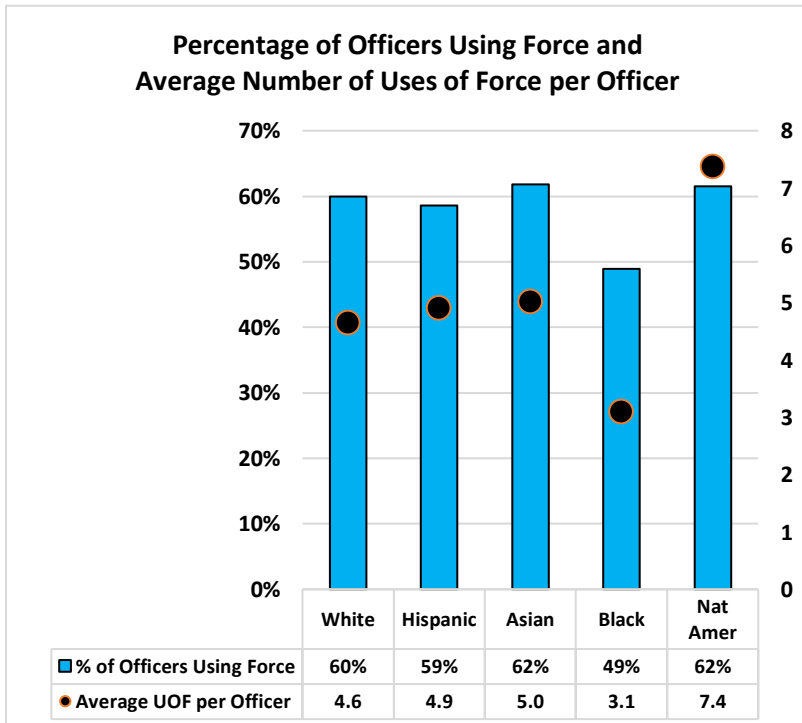
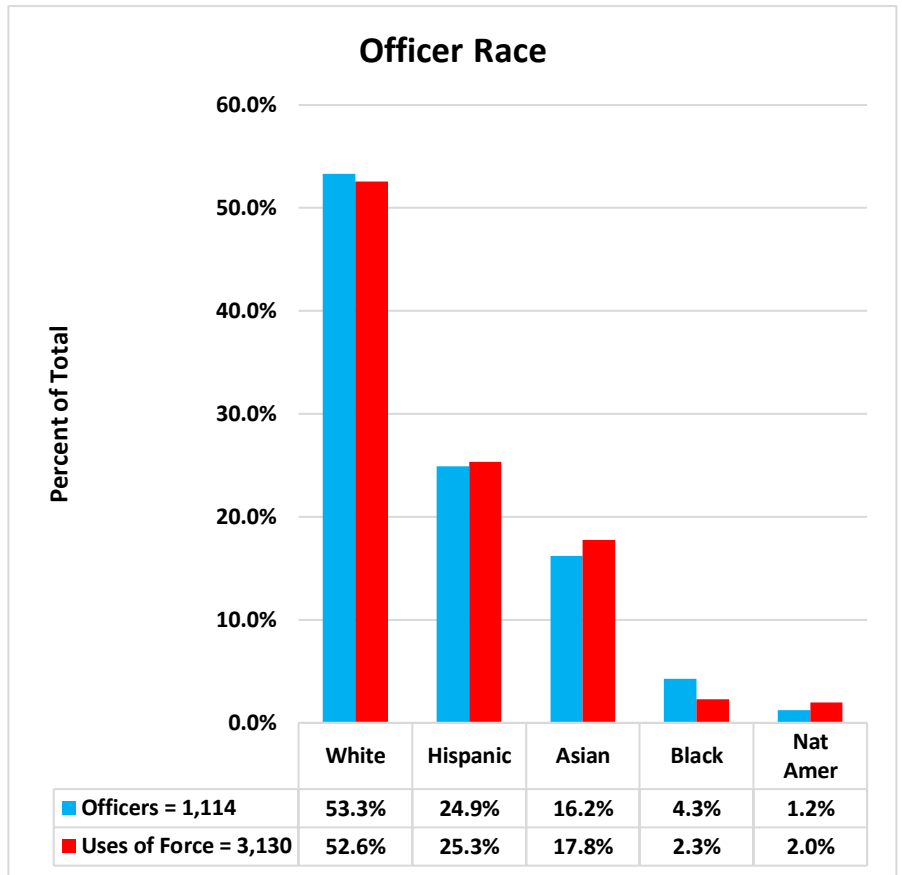
Over the last two and a half years, 54% of female officers used force at least once compared to 61% of male officers. On average, female officers who used force were involved in 3.6 incidents compared to 4.8 incidents for male officers.



Officer Race

The amount of uses of force by White, Hispanic, and Asian officers are proportionate to their share of all officers in the department. Black officers are 46% less likely to use force and Native American officers are 61% more likely to use force than would be expected based upon their percentage of the police force.

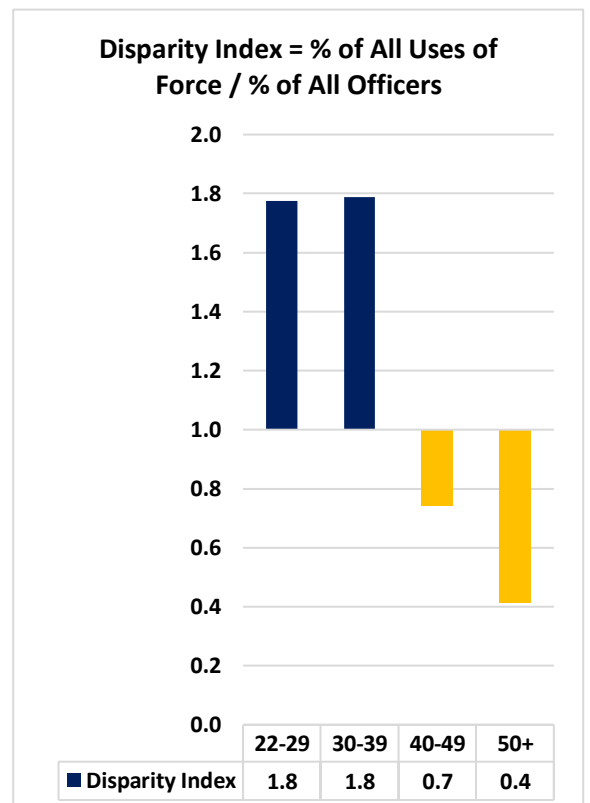
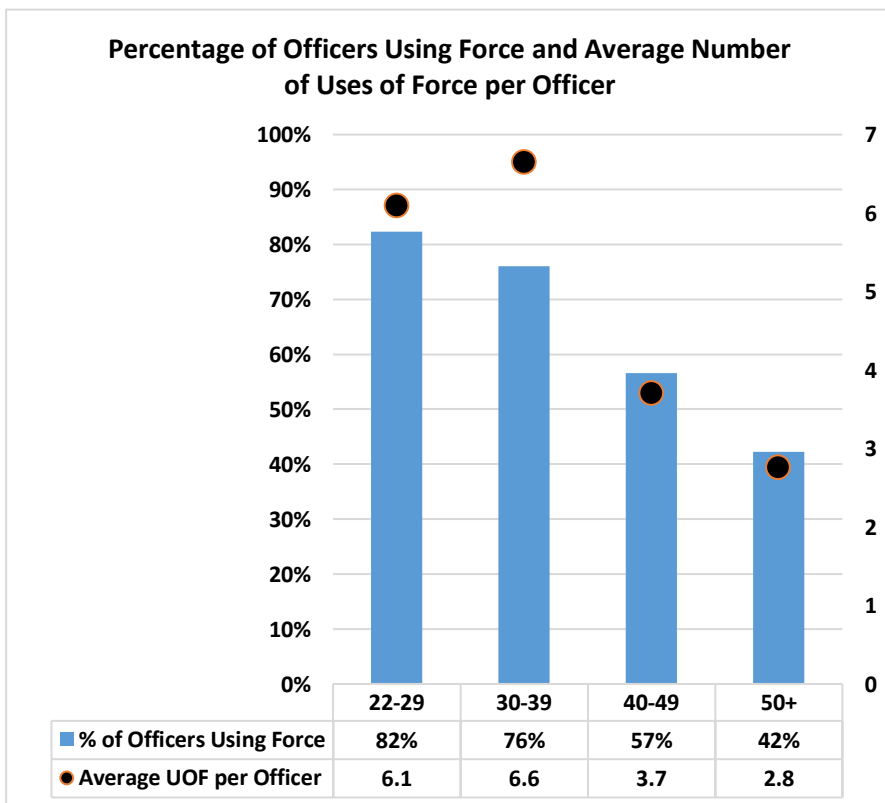
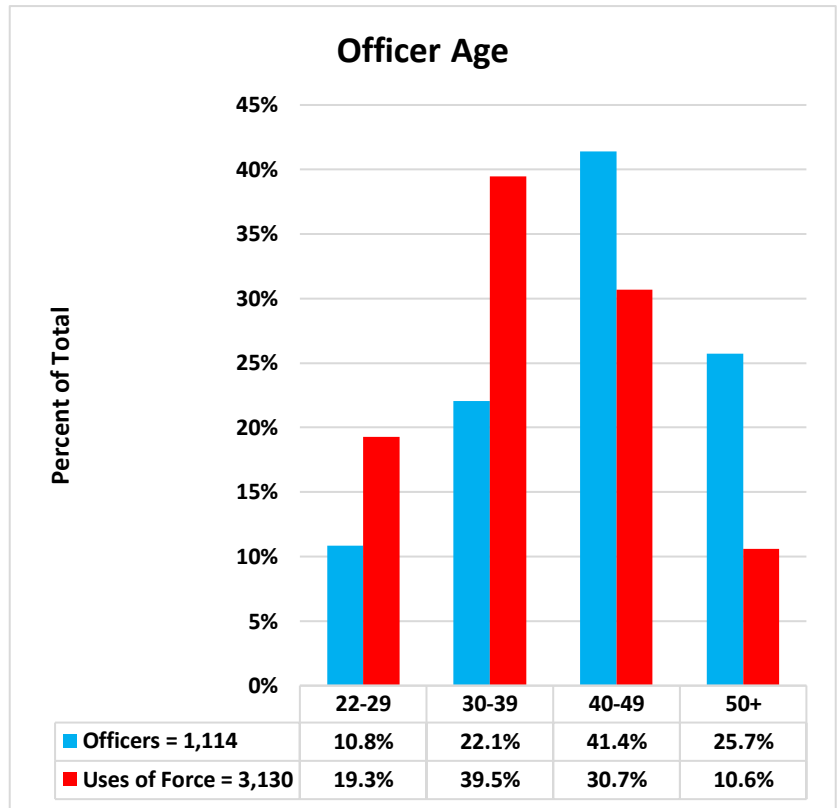
About 60% of White, Hispanic, Asian, and Native American officers in the department used force at least once during the last two and a half years while 49% of Black officers used force. On average each White, Hispanic and Asian officer using force used force about 5 times while Black officers used force 3 times and Native American officers used force 7 times.



Officer Age

Officers under 40 years of age have a greater percentage of all uses of force than would be expected based upon the number of officers in the department. Younger officers are 80% more likely to use force than would be expected based upon their proportion of the department.

The younger the officer, the more likely he/she is to use force. About 82% of officers under 30 used force at least once in the last two and half years while only 42% of officers over 50 used force. Those officers who used force and were under 40 years on average used force about 6 times while older officers used force only about 3 times.

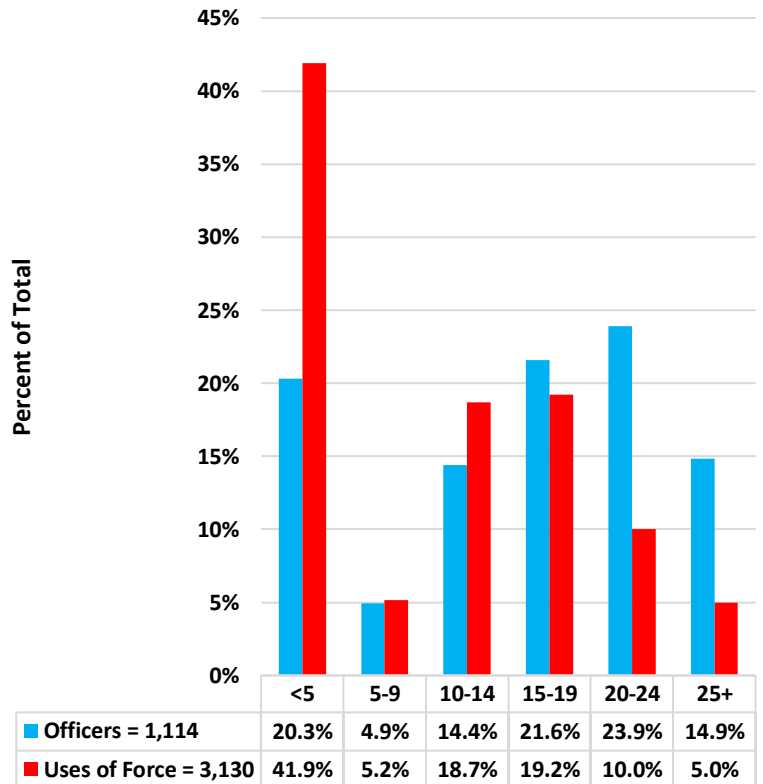


Officer Years of Experience

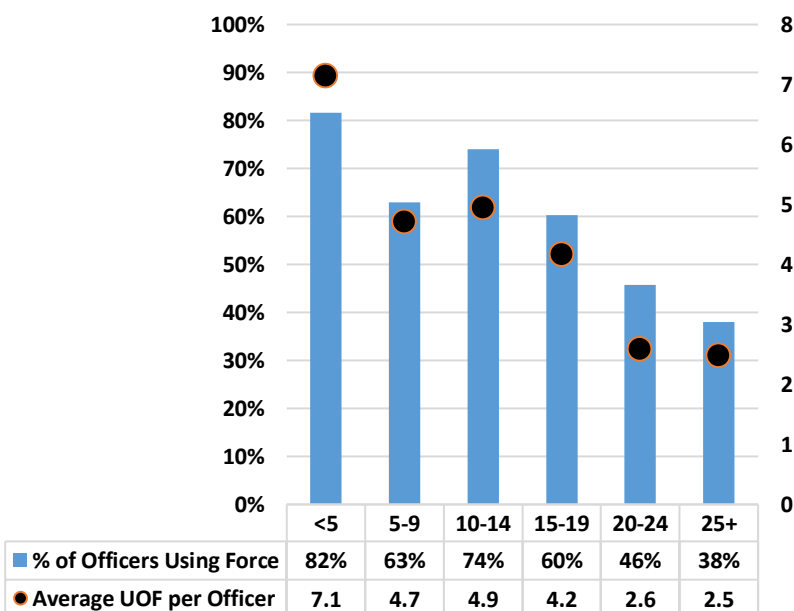
Officers with less than five years of experience have a greater percentage of all uses of force than would be expected based upon the number of officers in the department. The least experienced officers in the department are more than twice as likely to use force than would be expected based upon their proportion of the department. The less experienced the officer, the more likely he/she is to use force.

About 82% of officers with less than 5 years' experience used force at least once in the last two and half years while only 38% of officers with 25 or more years' experience used force. On average those officers who used force and had less than 5 years' experience used force on average 7 times, while officers using force with more than 25 years' experience used force only 2.5 times.

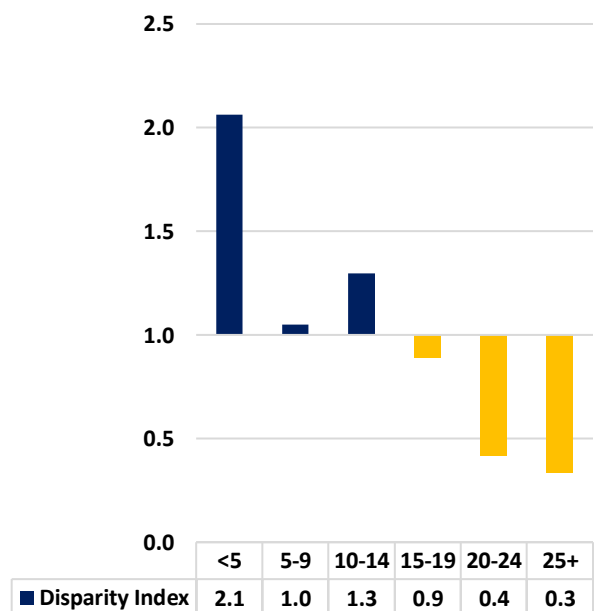
Officer Years of Experience



Percentage of Officers Using Force and Average Number of Uses of Force per Officer



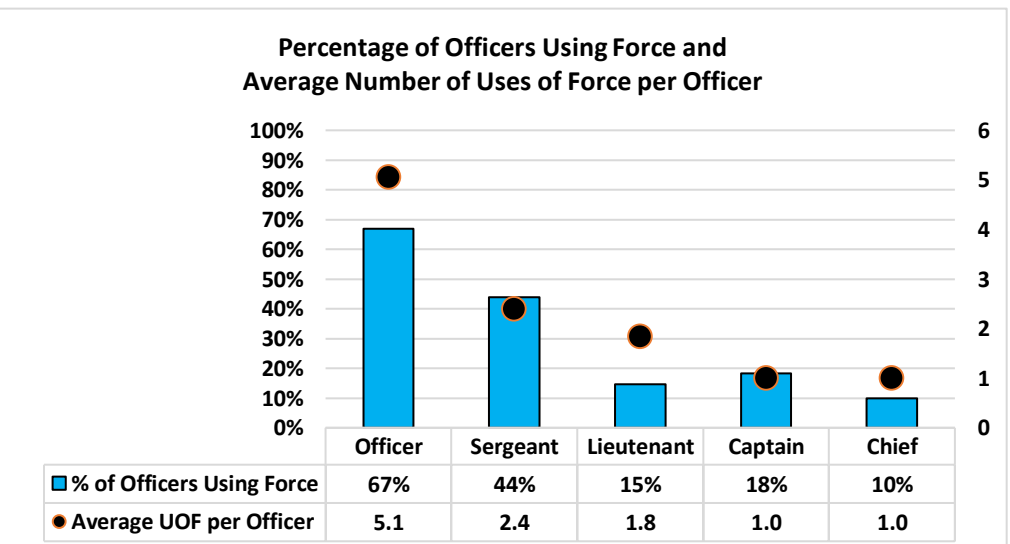
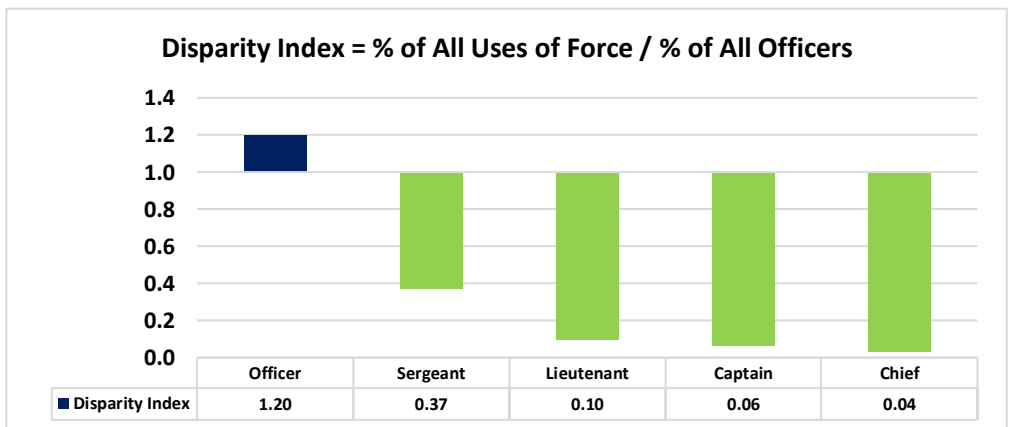
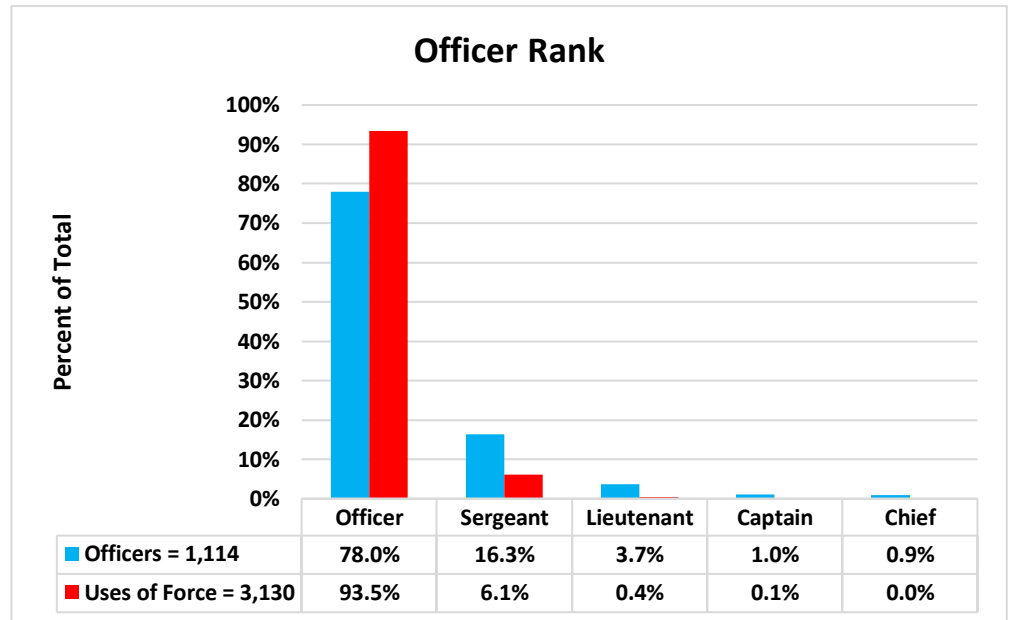
Disparity Index = % of All Uses of Force / % of All Officers



Officer Rank

Officers are 20% more likely to use force than would be expected based upon their proportion of all sworn personnel in the department. Sergeants, lieutenants, captains and chiefs are all much less likely to use force than would be expected based upon their numbers in the department.

About 67% of officers in the department used force at least once in the last two and half years. On average each of those officers used force about 5 times. About 44% of sergeants in the department used force at least once in the last two and half years. On average each of those sergeants used force about 2 times. Less than 20% of lieutenants, captains and chiefs used force and on average they used force less than 2 times each.

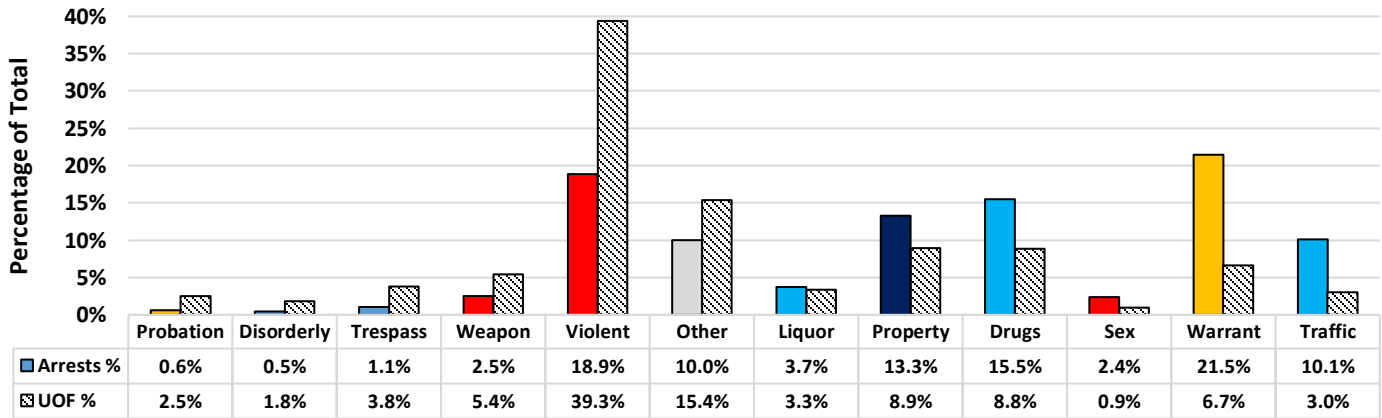


Analysis of Use of Force Rates by Type of Crime

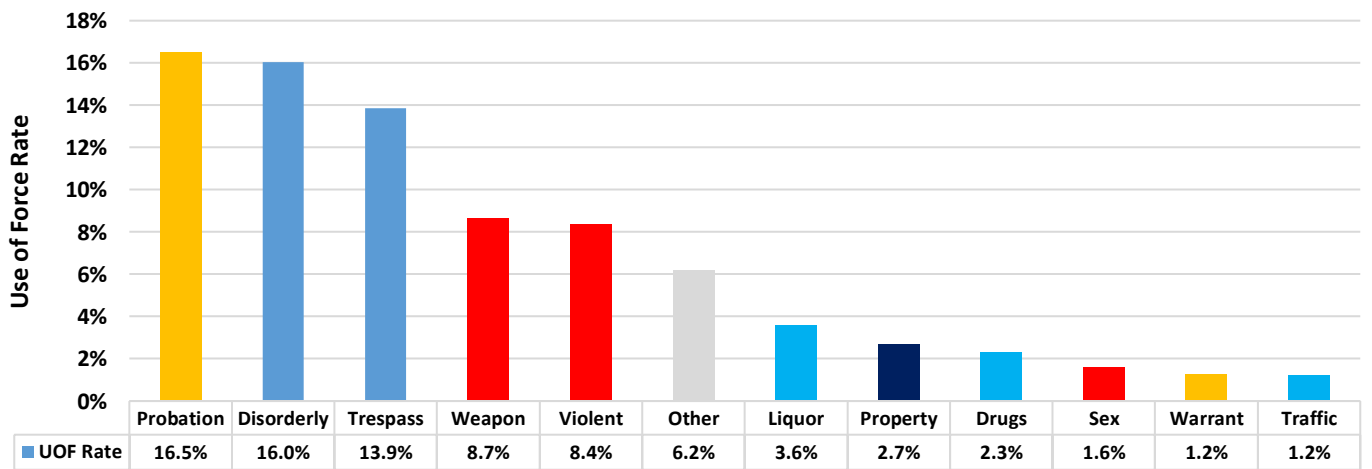
Most uses of force are associated with a custodial arrest. In 2015 and 2016, SJPD made a total of 34,408 arrests and force was used 1,380 times. This produced an average use of force rate per arrest of 4%. When the type of crime involved is taken into consideration, we see a large range of use of force rates.

Arrests are concentrated around four main crimes: warrants (22% of all arrests), violent crimes (19% of all arrests), drug crimes (15% of all arrests), and property crimes (13% of all arrests). By contrast, uses of force are primarily focused around violent crimes (39% of all uses of force) and every other type of crime is involved in less than 10% of all force incidents.

**Arrests by Crime as a Percentage of All 34,406 Arrests
Uses of Force by Crime as a Percentage of All 1,380 Uses of Force
2015 and 2016**



**Use of Force Rate per Arrest by Type of Crime Charged
2015 and 2016**



Suspects who are engaged in disorderly conduct or trespassing are more than five times more likely to have force used against them during an arrest than suspects who are involved in property crimes, drug crimes, non-violent sex crimes and traffic offenses. This suggests that suspects who are disorderly or trespassing are more likely to resist arrest than suspects engaged in other types of crimes. Individuals committing disorderly conduct are probably in an agitated state and are less likely to comply with an officer's orders. Individuals who are trespassing will usually be ordered to leave the area and if they refuse then force will need to be used.

While the crimes of disorderly conduct and trespassing have high use of force rates, the offenses make up less than 2% of all arrests made by the department each year. Arrests for violent crimes generate a much higher number of uses of force. Use of force rates for violent crimes and weapons offenses are just over 8% which is more than double the force rates of most other crimes. Individuals committing violent crimes may have more aggression and anger and therefore will be less amenable to officer commands.

Suspects who were in violation of their probation had the highest use of force rate of all the types of crimes (16.5%). An individual who is in violation of the conditions of his or her probation is probably acutely aware that any contact with the police could have serious consequences. Therefore, these types of individuals are the most likely to resist officers. By contrast individuals with warrants had a very low use of force rate of 1.2%. This may be because many individuals with outstanding warrants may not even know that a warrant had been issued for their arrest. Therefore, they may be less cautious when encountering the police.

Analysis of Use of Force by Suspect Characteristics

Whenever the issue of police use of force is discussed or debated, one of the fundamental questions is whether police officers treat individuals differently based upon their personal characteristics (e.g. age, race, gender, etc.). We used the Pearson correlation to evaluate the linear relationship between individual suspect characteristics and high-risk use of force behavior (e.g. low Justification Score, high Force Factor score and high injury rate). A strong correlation between a suspect characteristic and a high-risk behavior may indicate that officers are taking that suspect characteristic into consideration when making use of force decisions or actions. The following suspect characteristics were measured:

1. Gender
2. Age
3. Race
4. Height
5. Weight
6. Officer believed suspect was under the influence of drugs or alcohol
7. Officer believed suspect had a mental health issue
8. Residence (San Jose, Another City, or Homeless)

The following suspect behaviors were also examined in relation to high Force Factor scores and high injury rates:²¹

9. The seriousness level of the suspected crime
10. Whether the suspect fled from the officer
11. Whether the officer believed the suspect was armed

²¹ Comparisons were not made with Justification Scores because each of these elements is a component of the Justification Score.

Suspect Characteristic	Lower Justification Score (Higher Risk of Unnecessary Force)	Higher Force Factor Score (Higher Risk of Excessive Force)	Higher Injury Rate
Age	Older Suspect***	Older Suspect**	ns
Gender	ns	Male Suspect***	Male Suspect***
Weight	ns	Heavier Suspect***	ns
Drugs/Alcohol	ns	Not Under the Influence***	ns
Mental Health	ns	No Mental Health Issue***	ns
Race	ns	ns	ns
Height	ns	ns	ns
Residence	ns	ns	ns
Flight		Suspect Fled***	Suspect Fled***
Armed		Armed Suspect**	Armed Suspect***
Crime		More Serious Crime**	More Serious Crime**

*** p < .001 - Correlation is Significant at the 0.1% Level
** p < .01 - Correlation is Significant at the 1% Level
ns = Not Significant

A statistically significant correlation found in this table could be caused by two principal factors or a combination of the two factors:

1. The suspect characteristic is associated with a certain type of suspect behavior (e.g. older suspects are more likely to threaten the officer than younger suspects or heavier suspects present a higher level of resistance than lighter suspects), or
2. The officer treats the suspect differently based upon the suspect's characteristic (e.g. the officer is more reluctant to use force against a juvenile suspect or a female suspect than an older suspect or male suspect).

The Justification Scores are based upon all the relevant legal factors (outlined in *Graham v. Connor*) that go into an officer's decision to use force. A low Justification Score means that an officer decided to use force when the suspect was involved in a lower level crime, the suspect did not present a significant threat, the suspect did not flee from the officer, and there was very little resistance. An incident with a lower Justification Score is at greater risk of being found to be unnecessary, but it does not necessarily mean that the force used was unlawful. The only

characteristic that had a statistically significant correlation with a low Justification Score was the age of the suspect. Officers are more likely to use force with a lower Justification Score against an older suspect than a younger suspect. Juveniles tend to have the highest Justification Scores which may be due to an officer's reluctance to use force against a minor unless it is absolutely warranted.

The Force Factor Scores are based upon the proportionality of the level of force used to the level of resistance presented. An incident with a higher Force Factor score is at greater risk of being found to be excessive, but it does not necessarily mean that the force used was unlawful. The Force Factor Score controls for the level of resistance presented. Therefore, a statistically significant correlation is more likely to be caused by the officer behaving differently based upon the suspect's characteristic. There were several suspect characteristics that had a statistically significant correlation with a higher Force Factor Score. Officers are likely to use a higher level of force against males, older suspects, and heavier suspects. Officers may feel the need to use a higher level of force to control these types of suspects and/or they may be more reluctant to use higher levels of force against females, younger suspects and lighter suspects. Officers are more likely to use higher levels of force against individuals who are not under the influence of alcohol or drugs and do not present some type of mental health issue. This means that when officers are faced with a resistant suspect who is obviously under the influence and/or has an observable mental health issue, the officer is going to try and control the suspect with a lower level of force. This may be due to the officer's perception that these types of individuals are more vulnerable and present less of a threat to the officer's safety.

When a suspect is involved in a more serious crime, or when a suspect flees, or when a suspect is armed, an officer is more likely to use a higher level of force than when a suspect does not present any of these conditions. Similarly, these suspect behaviors are also associated with a higher injury rate for the suspect. Only one other characteristic was associated with a higher suspect injury rate. Male suspects are more likely to be injured than female suspects.

There were three suspect characteristics examined that did not have any correlation with Force Justification, Force Factor or Force Injury Rates: the suspect's race, the suspect's height

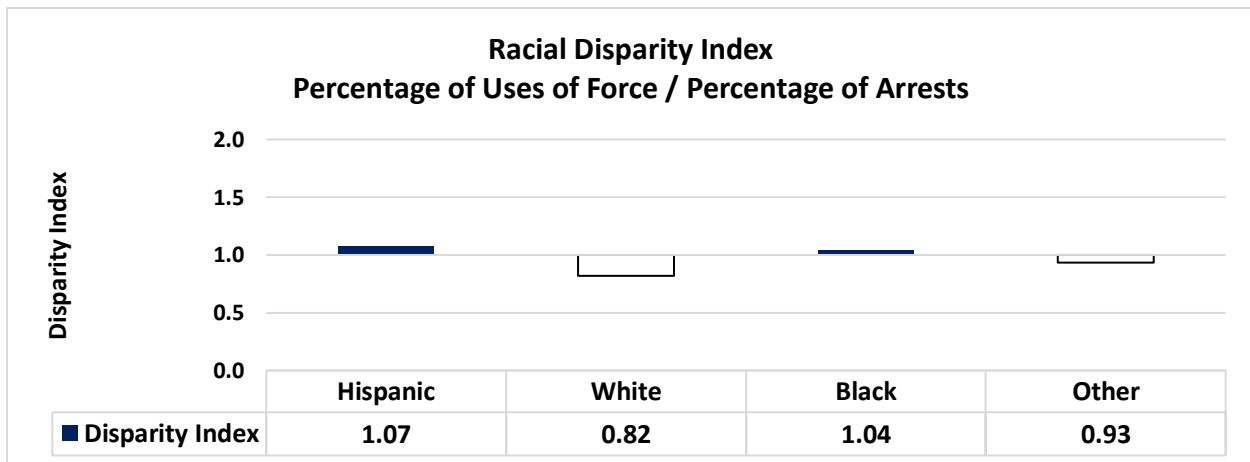
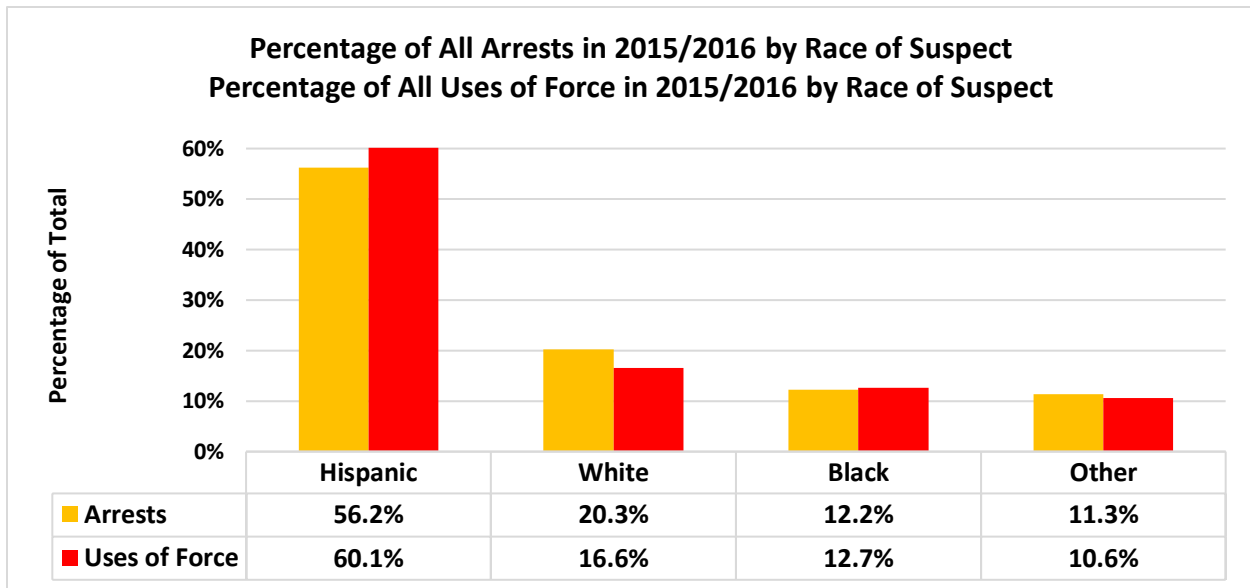
and the suspect's residence. This finding suggests that an officer's decision to use force and the level of force that an officer chooses to use are not influenced by the suspect's race or height or whether the suspect is homeless or a resident of another city. This finding also suggests that suspect behavior in use of force incidents does not vary by the race of the suspect. Additional correlations were conducted between suspect race and other behaviors and the only statistically significant correlation was between Hispanic suspects and flight. Hispanic suspects were more likely to flee from the police than White suspects.

Racial Disparity Analysis

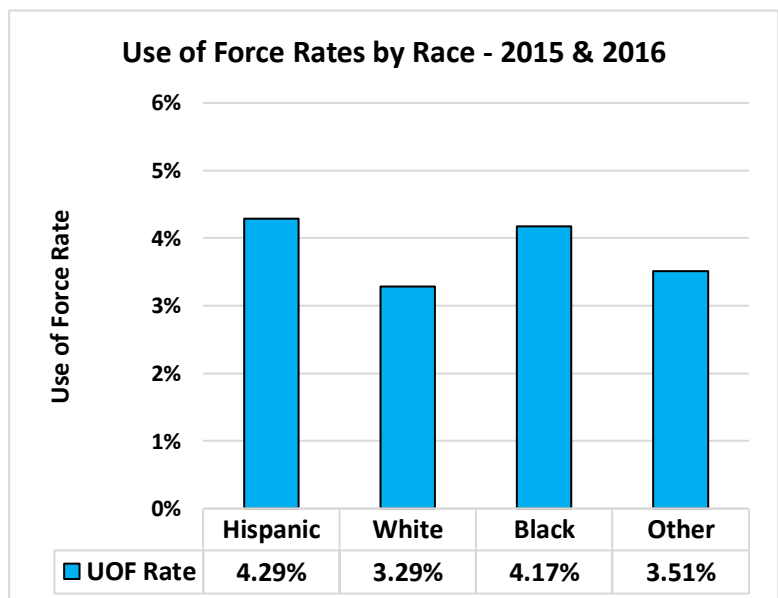
While census data of the residential population is sometimes used as a benchmark for disparity analysis, it does not provide an adequate measure to assess the possible impacts of racial bias by police officers. There are many factors that could affect the racial disparity between uses of force and the population that have nothing to do with officer bias such as crime rates, compliance rates, possession of weapons, poverty rates, deployment strategies, etc. When the racial composition of suspects involved in use of force incidents is compared to the demographics of the population there are some disparities present. Hispanic and Black suspects are overrepresented in the use of force numbers when compared to their percentage of the population, while White and Asian suspects are underrepresented.

A better benchmark for measuring demographic disparities in police uses of force is arrest data. Almost every use of force incident is associated with an arrest. All things being equal, we would expect to see the same proportion of suspect characteristics for those who are arrested as those who have force used against them. If there is racial bias present, we would expect to see racial disparities between uses of force and arrests. When we calculate the Racial Disparity Index using arrests as the denominator rather than population, any racial disparities with uses of force are virtually eliminated. This means that when suspects are arrested by SJPD officers, they are no more or less likely to have force used against them based upon their race or ethnicity.

The Use of Force Disparity Index is the percentage of all use of force incidents involving each racial group of suspects compared to their proportion of all arrests. A score above 1 indicates that uses of force are over represented in the racial group. A score of less than 1 indicates that uses of force are underrepresented in the racial group. As an example, Hispanic suspects make up 56.2% of all arrests and they are involved in 60.1% of all uses of force. The Racial Disparity Index for Hispanic suspects is 1.07 ($60.1\% \div 56.2\%$) which means that Hispanic suspects are 7% more likely to be involved in a use of force incident than you would expect based upon their proportion of the arrestees. Hispanic and Black suspects are slightly overrepresented in uses of force when compared to arrests. White and Asian/Other suspects are slightly underrepresented in use of force incidents compared to arrests.

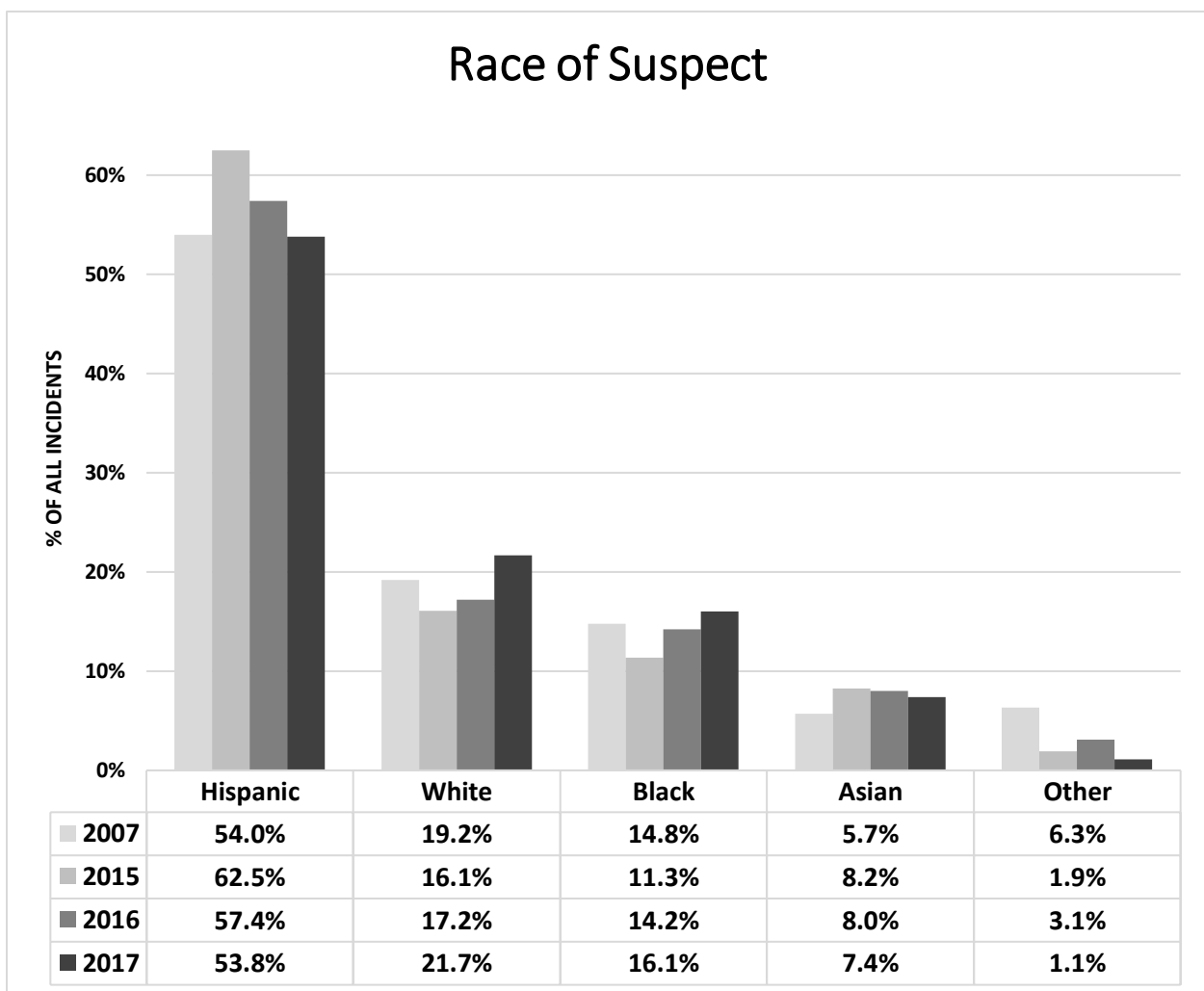


Use of force rates (uses of force per 100 arrests) also had minor variations by race. For White suspects, 3.29% of all their arrests resulted in a use of force, while Hispanic suspects had a use of force rate of 4.29%. Black suspects and Asian/Other suspects had use of force rates between Hispanics and Whites. The use of force rates for all races were separated by less than one percentage point.

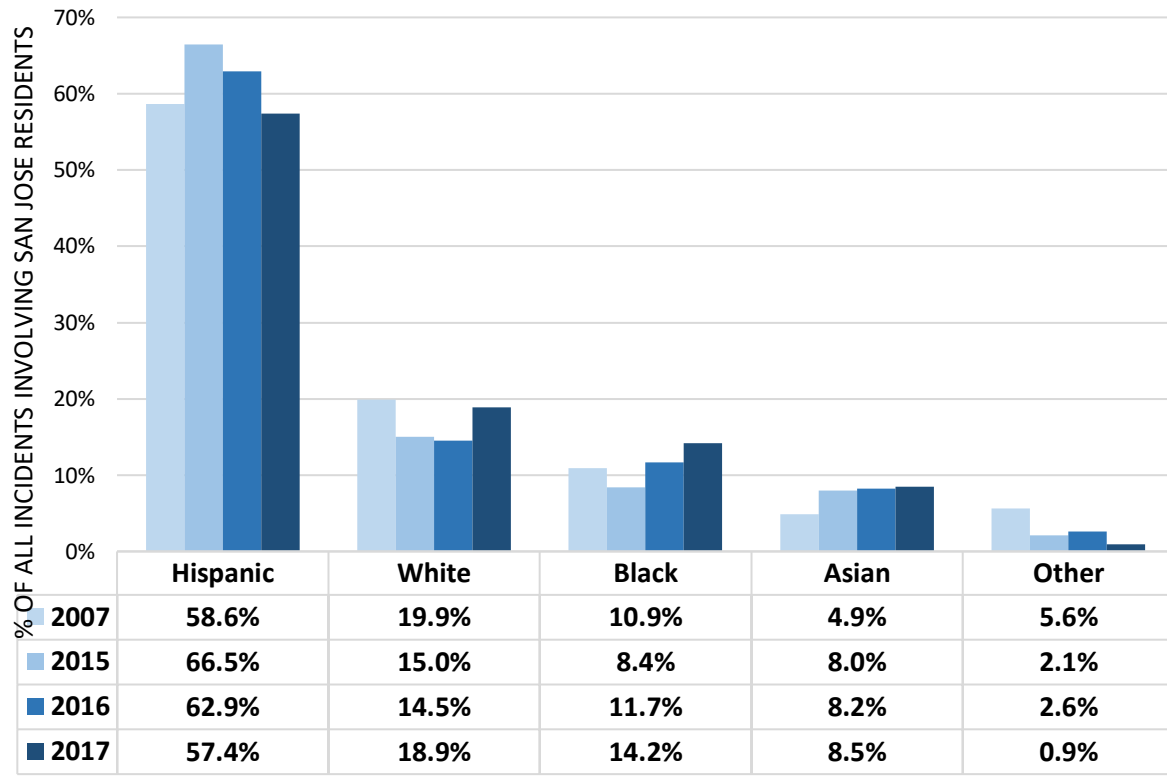


Trends in the Race of Suspects Involved in Uses of Force

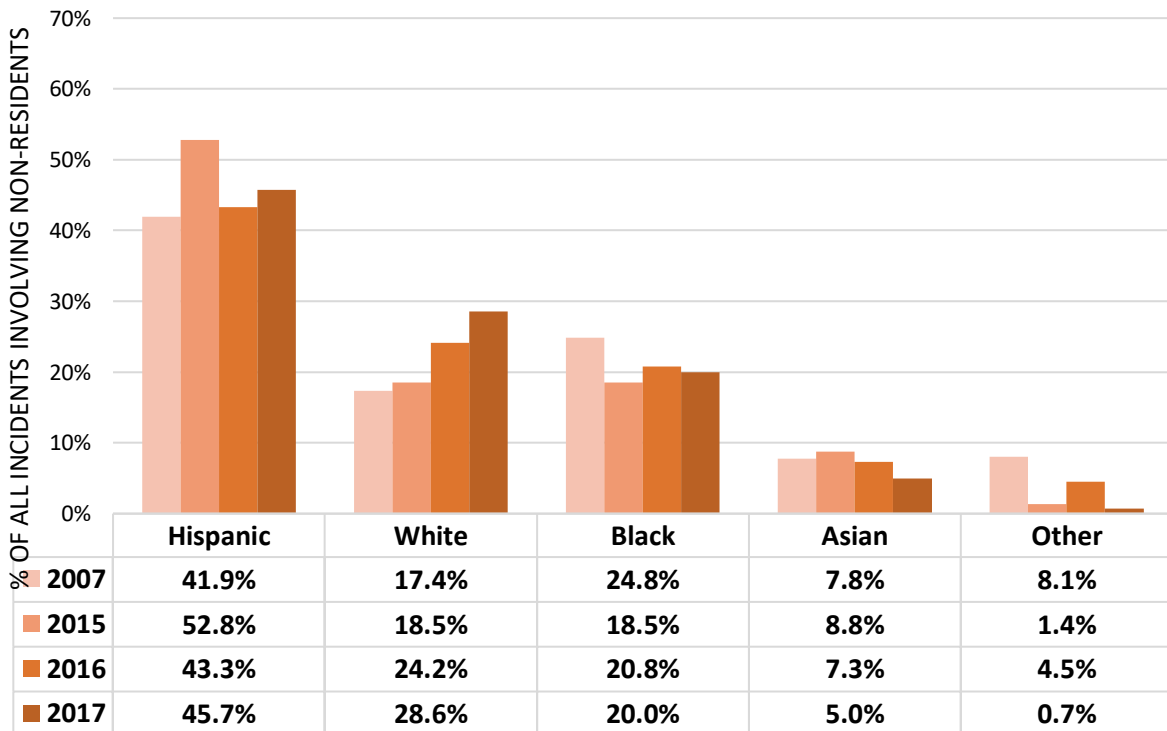
Over the last decade the race of the majority of suspects involved in force incidents has been Hispanic. In the first nine months of 2017 about one in five suspects was White and one in six was Black. Asian suspects have consistently made up less than 10% of all suspects. White and Black suspects make up a higher percentage of non-resident suspects than suspects who are residents of San Jose. Nearly half of non-residents suspects were either White or Black compared to 33% of suspects who were residents of San Jose.



Race of Suspect - San Jose Resident



Race of Suspect - Non-Resident



Interagency Comparative Analysis Using the Police Force Analysis NetworkSM

As a contributor of data to the Police Force Analysis SystemSM, San Jose PD also has access to data from other agencies in the system through the Police Force Analysis NetworkSM (PFAN). PFAN currently has use of force data from 32 law enforcement agencies in five states involving more than 5,000 incidents with 2,500 officers who used force 13,000 times. This is the largest database of its kind in the nation. Although the incident reports from each of these agencies uses a different format, all the data extracted and entered into the system has been standardized which allows us to make meaningful interagency comparisons. The Police Force Analysis NetworkSM allows agencies to compare their use of force practices with other agencies in the system.

1. Force Tactics Comparisons

PFAN contains data on all the force tactics and weapons that officers use. The system allows department wide usage rates to be compared across agencies. The following table lists the usage rates for weapons and physical tactics by SJPD officers and then compares that with the averages from other agencies. SJPD officers use impact weapons and projectile weapons more frequently than officers from other agencies in the system. For physical tactics San Jose PD officers use their weight, strikes and pushing more frequently than officers from other agencies and SJPD officers are less likely to end up wrestling with suspects.

Weapon	Percentage of Incidents Used	Interagency Comparison
Electronic Control Device	17%	Average
Impact Weapon	17%	Above Average
Projectile Weapon	4.6%	Above Average
Canine Bite	4.2%	Average
Pepper Spray	4.2%	Average

Physical Tactic	Percentage of Incidents Used	Interagency Comparison
Takedown	57%	Average
Used Weight	40%	Above Average
Strike	32%	Above Average
Push	21%	Above Average
Pain Compliance	16%	Average
Wrestle	10%	Below Average
Hair Hold	2.5%	Average
Lateral Neck Restraint	0.7%	Average

2. Risk Factor Comparisons

PFAN provides a comprehensive comparative risk analysis of relevant factors involved in use of force incidents. The primary risk areas are:

1. Frequency of Force – The more uses of force an agency has the greater the risk of injuries, complaints and lawsuits resulting from these incidents.
2. Force Justification and Force Factor – Force incidents with low Force Justification Scores are at higher risk of being found to be unnecessary while incidents with high Force Factor scores are at higher risk of being found to be excessive.
3. Injury Rates – Higher injury rates pose risks to the health and safety of officers and suspects and are more likely to result in complaints and lawsuits.

For each of the risk factors examined, SJPD is within one standard deviation of the mean for all the agencies in the system. This means that the department is generally within the expected norm for all its use of force practices. There are some areas where SJPD is above or below the average for the other the agencies. This indicates a higher/lower risk than average. Of all the areas examined, the highest risk for the department is related to the injury rates for both suspects and officers. SJPD has a suspect injury rate of 44% compared to an interagency average of 30% and an officer injury rate of 19% compared to 13% for other agencies.

SJPD is doing better than average in some risk areas. SJPD's use of force rate per 1,000 population is half of the interagency rate and SJPD officers are less likely to be involved in high Force Factor incidents. Perhaps most importantly, only 0.7% of SJPD incidents involve both a low Justification Score and a high Force Factor Score which is half of the interagency average. These Low Justification/High Force Factor incidents create the highest level of risk for an agency.

Risk Factors Force Frequency	San Jose PD	Interagency Average	Standard Deviation
Annual Number of Uses of Force per 1,000 Population	0.6	1.2	Within 1 SD
Annual Number of Uses of Force per 100 Arrests	4.2	4.1	Within 1 SD
Percentage of All Officers in the Department Using Force Each Year	50%	49%	Within 1 SD
Average Number of Uses of Force per Officer	2.6	2.1	Within 1 SD

Risk Factors Force Justification and Force Factor	San Jose PD	Interagency Average	Standard Deviation
Percentage of All Force Incidents with a Low Justification Score	16%	17%	Within 1 SD
Percentage of All Force Incidents with a High Force Factor Score	6%	8%	Within 1 SD
Percentage of All Force Incidents with Both a Low Justification Score and a High Force Factor Score	2.6%	2.6%	Within 1 SD
Percentage of Officers with Multiple Low Justification Incidents	6.0%	6.0%	Within 1 SD
Percentage of Officers with Multiple High Force Factor Incidents	0.7%	1.3%	Within 1 SD

Risk Factors Injury Rates	San Jose PD	Interagency Average	Standard Deviation
Suspect Injury Rate	44%	30%	Within 1 SD
Officer Injury Rate	19%	13%	Within 1 SD

3. Suspect Injury Rate Comparisons

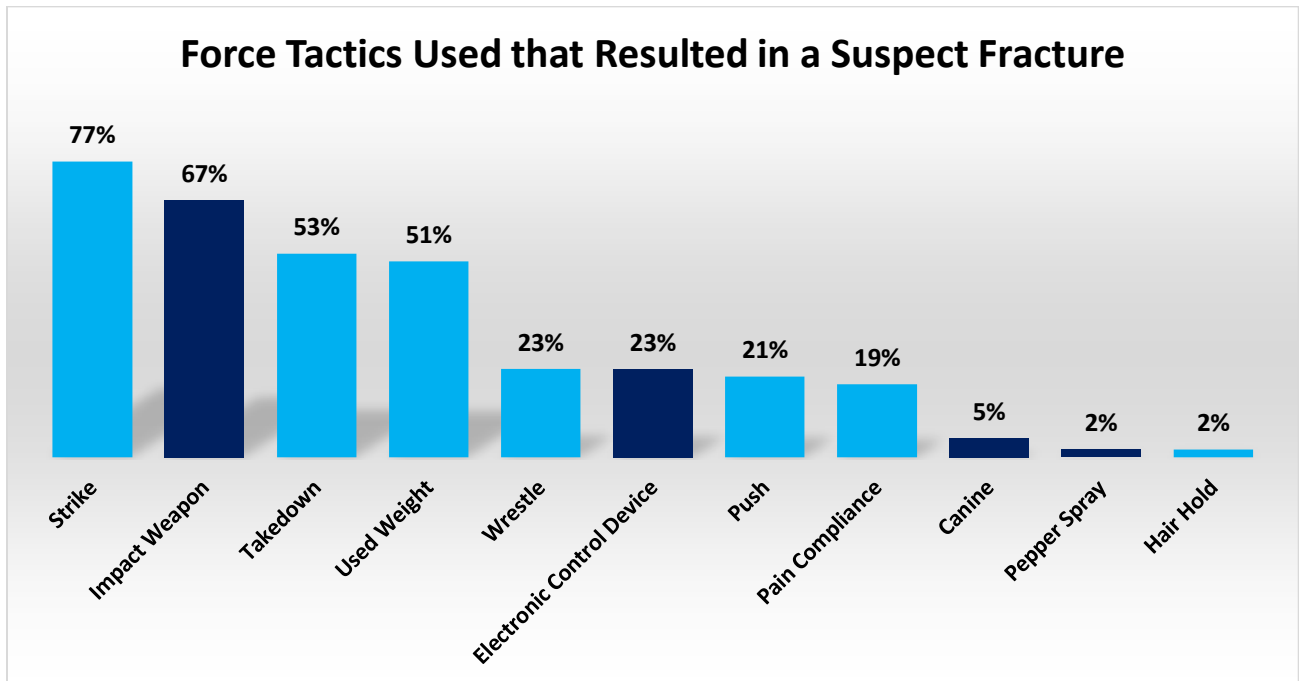
SJPD is above average for all types of suspect injuries except for loss of consciousness. For fractures, SJPD is more than one standard deviation above the mean for all the agencies which indicates that the department is an outlier in this area.

Using PFAS we can conduct a more detailed analysis of the 43 force incidents that resulted in a suspect fracture. More than two-thirds of the suspect fracture incidents are associated with a physical strike and/or the use of an impact weapon. Incidents that involve a suspect fracture have a long duration with half the cases taking 5 or 6 force sequences to bring the suspect under control. A high number of force sequences suggests that the officers

are in a protracted struggle with the suspects. As a result, the officer injury rate for this type of incident is 40% which is more than twice the department average. Four out of five of these incidents involve two or more officers using force and the use of both physical force and a weapon.

Although impact weapons were used in a majority of suspect fracture cases, a fracture injury is still a rare occurrence. Impact weapons were used 283 times in the last two and half years and only 10% of those incidents resulted in a suspect fracture.

Suspect Injury Rates	San Jose PD	Interagency Average	Standard Deviation
Scrapes and Bruises	20.1%	13.7%	Within 1 SD
Cuts	14.9%	10.7%	Within 1 SD
Canine Bites	3.7%	2.7%	Within 1 SD
Fracture (includes broken teeth)	2.6%	0.5%	Above 1 SD
Pepper Spray	2.5%	1.5%	Within 1 SD
Unconsciousness	0.2%	1.2%	Within 1 SD

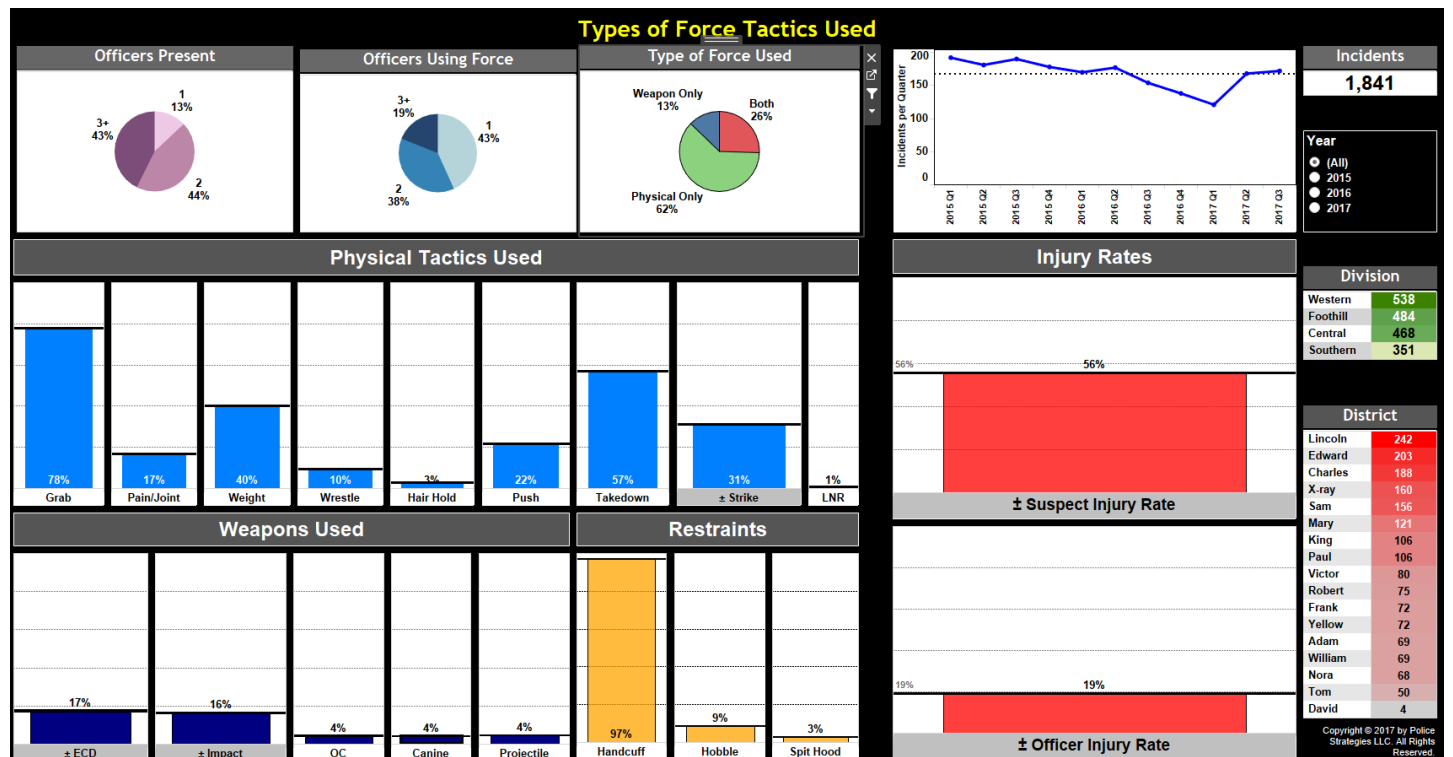
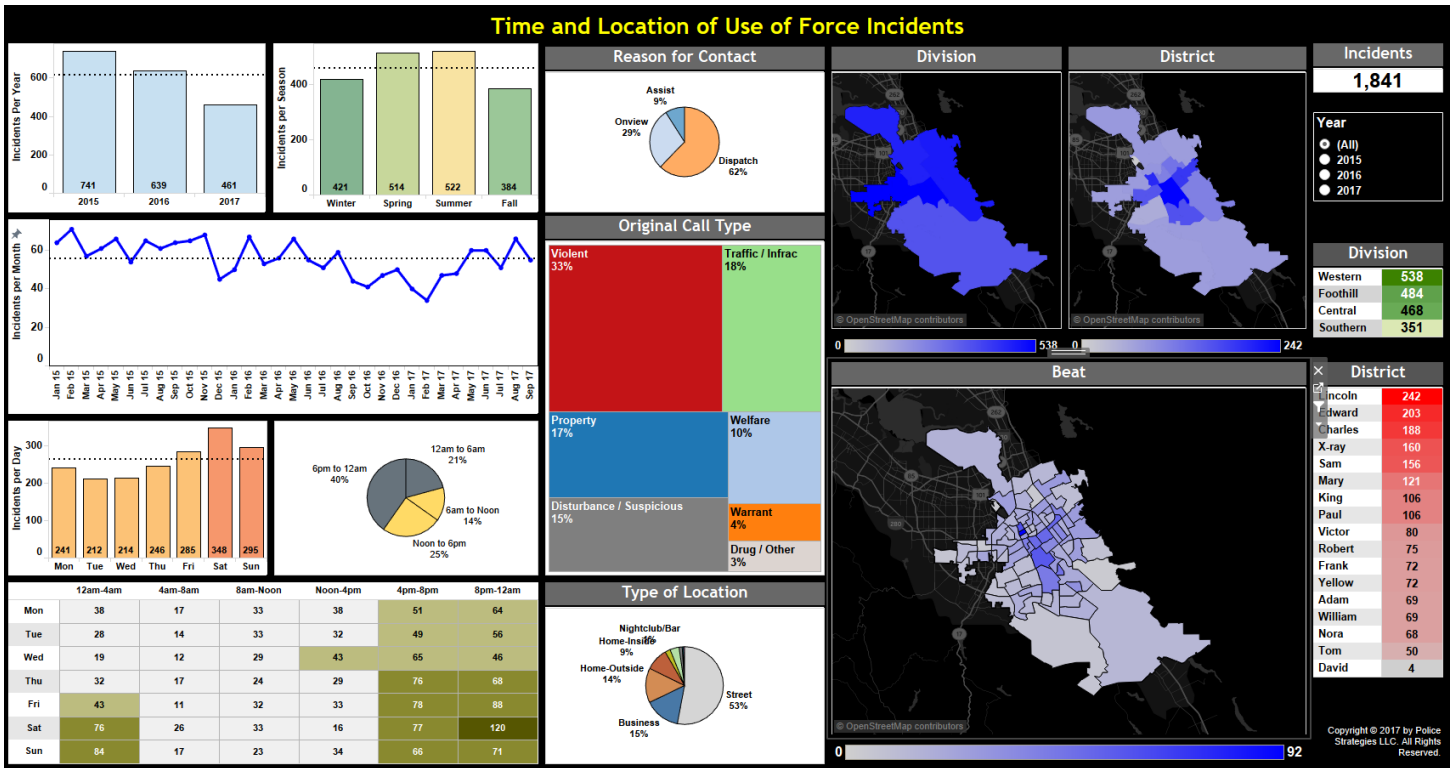


4. Other Force Characteristics

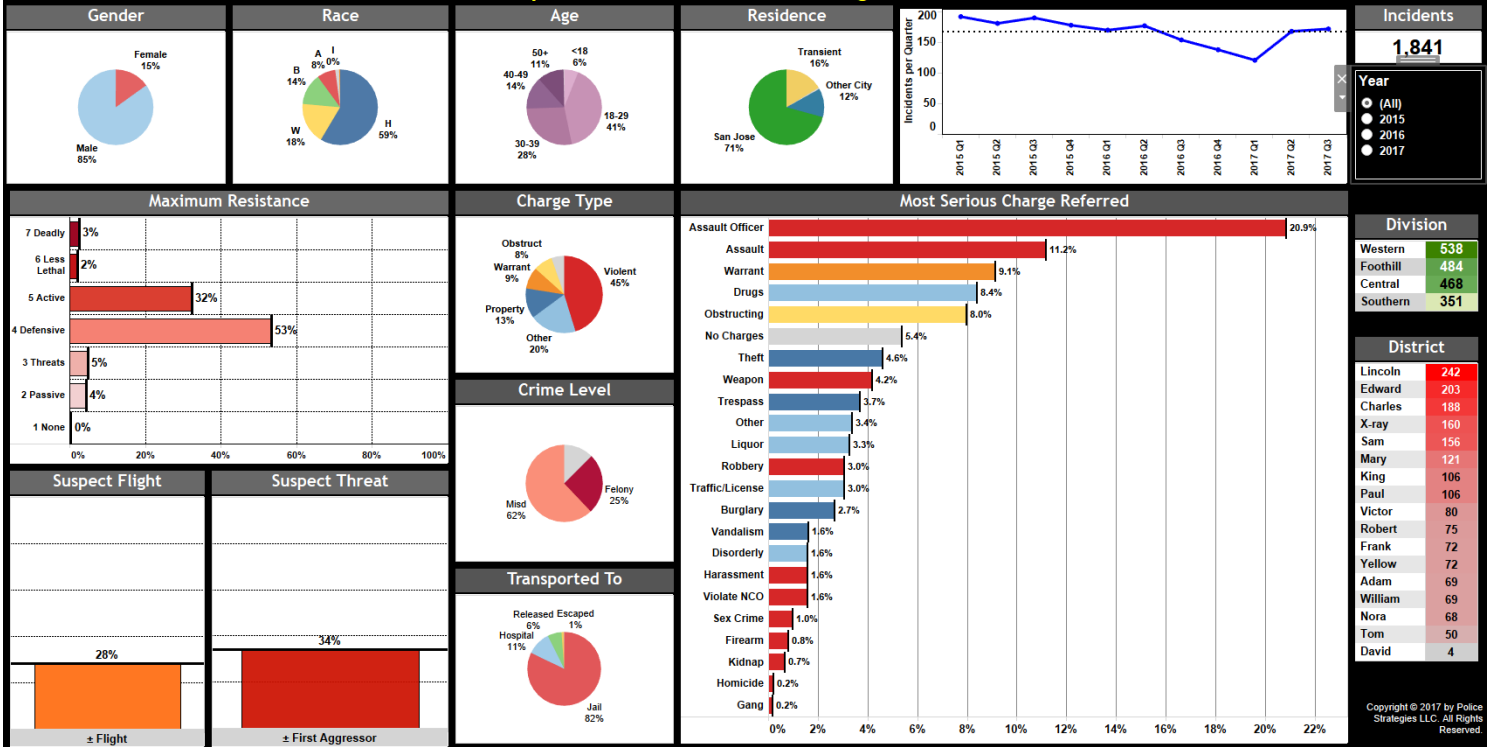
For most of the criteria measured by the Force Analysis NetworkSM, San Jose PD is within the average range of the other agencies. The following table lists those force characteristics which are significantly different in San Jose compared with the other agencies. These are simply descriptive measures and are not necessarily associated with increased risk.

Characteristics of Force Incidents that are More Common in San Jose than Other Jurisdictions	Characteristics of Force Incidents that are Less Common in San Jose than Other Jurisdictions
Officer used force after an On-View event	Officer used force after a dispatched call
Three or more officers were present when force was used	Only one officer was present when force was used
Three or more officers used force	Only one officer used force
The reason for the contact was a violent crime or a traffic offense	The reason for the contact was a welfare check or a warrant arrest
The most serious crime referred was a violent crime or a drug crime	There was no charge referred for prosecution
Suspect is homeless	Suspect was a resident of another city
Suspect presented a higher level of resistance	Suspect presented a lower level of resistance
Suspect was non-White	Suspect was White
Suspect was not suicidal	Suspect was suicidal

Sample Dashboards from the Police Force Analysis SystemSM



Suspect Characteristics and Charges Referred



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