Police Force Analysis System℠
First Summary Report

Richmond Police Department

Use of Force Data from January 1, 2018 to December 31, 2020

DRAFT

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Contents

Background – The Lack of Data on Police Uses 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 400,000 force incidents occurring each year 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] The FBI recently launched a new attempt to collect national use of force data with limited success.[3] 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.[4] Unfortunately, with no data or evidence to back up the

[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] Police Use Of Force Data Remains A Mess And The FBI's Involvement Isn't Making Anything Any Better, TechDirt, September 24, 2020.
[4] Guiding Principles on Use of Force, Critical Issues in Policing Series, Police Executive Research Forum, March 2014.

effectiveness of these new proposals, they are often met with skepticism and resistance by the law enforcement community.[5] By issuing recommendations for sweeping reforms without 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.[6]

The Department of Justice (DOJ) has attempted to reform dozens of law enforcement agencies over the last 27 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 capable of assessing 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.[7]

In May 2015, the Obama Administration launched the Police Data Initiative.[8] 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.[9] 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 three fields of information while others have more than thirty fields. Some agencies only report on officer involved shootings while others report on all uses of

[5] Statement of the International Association of Chiefs of Police and the Fraternal Order of Police on PERF's Proposed Use of Force Standards, February 2014.
[6] Protocol for reducing police shootings draws backlash from unions, chiefs group, Washington Post, March 31, 2014.
[7] "Do federal consent decrees improve local police departments? This study says they might," Washington Post, May 24, 2014.
[8] "Launching the Police Data Initiative," The White House President Barack Obama, May 18, 2015.
[9] Police Data Initiative Open Data Portal

force including the pointing of a firearm. Unfortunately, the use of force data provided to the Police Data Initiative provides 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.[10] The URSUS system uses an online reporting tool[11] to collect data from all law enforcement agencies in the state. The California DOJ provides access to some of the data on its Open Justice Portal[12] and releases annual reports.[13] 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. Each year about seven hundred use of force incidents that meet the URSUS reporting criteria which is less than 2% of the estimated 45,000[14] uses of force that occur in the state each year. Only twenty-five of the state's 509 law enforcement agencies had more than five 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 any department that wants 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 each 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.

[10] "California Launches Digital Platform to Collect Police Use-of-Force Data," Techwire.net, September 22, 2014.
[11] California Department of Justice URSUS Use of Force Incident Reporting
[12] California DOJ Open Justice Portal
[13] California DOJ URSUS 2016 Report
[14] 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 thirty-two law enforcement agencies in the Police Force Analysis System℠. 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. Three 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.[15] 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.[16] 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.

[15] "Early Warning Systems: What's New? What's Working?" CNA, December 2015.
[16] "Report questions LAPD program to flag misconduct," Los Angeles Times, August 25, 2014.

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 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 enough 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.

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, status, and behavior 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 their 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.

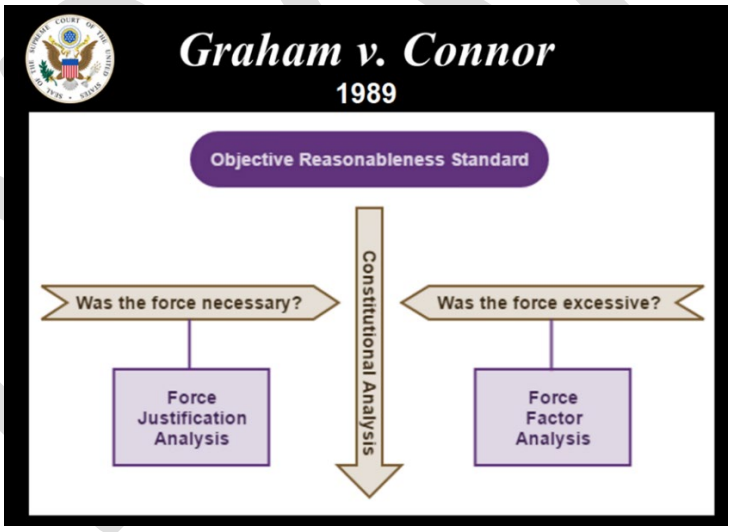
Bob Scales is a former King County deputy prosecutor and Special Assistant United States Attorney for the Western District of Washington. He worked for 14 years for the City of Seattle as a public safety policy advisor for three Mayors. Kathryn Olson served as an EEOC attorney and the Director of the Office of Professional Accountability for the Seattle Police Department. She is a past president of the National Association for Civilian Oversight of Law Enforcement (NACOLE). Chief Mike Sanford has over 30 years of law enforcement experience serving as Assistant Chief for the Seattle Police Department and Chief of Police for the cities of Wapato and Algona Washington. Mike was a patrol tactics trainer for the Washington State Criminal Justice Training Commission.

Police Force Analysis System℠

In the summer of 2015, Police Strategies LLC launched the Police Force Analysis System℠ (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,

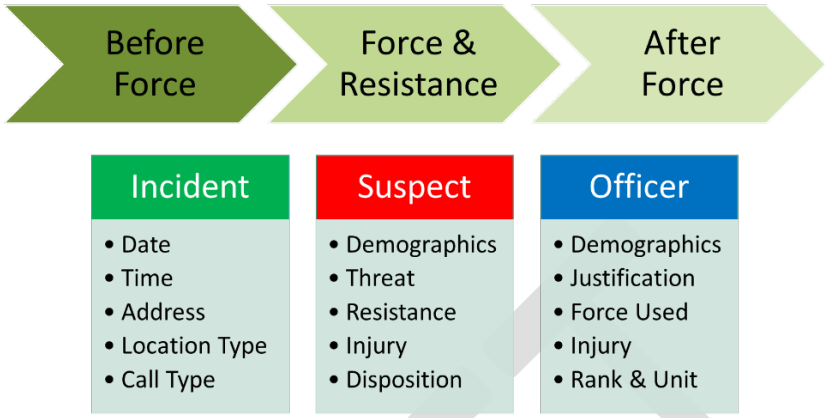
academics, and the public.[17] The core of PFAS builds upon the research work of Professor Geoff Alpert and his Force Factor method. Force Factor analysis formed the basis of Professor Alpert's 2004 book "Understanding Police Use of Force – Officers, Subjects and Reciprocity"[18] and has been the subject of several scholarly articles.[19]

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 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.



[17] Capitola Police creates online database to track use of force stats, Santa Cruz Sentinel, August 2014.
[18] Understanding Police Use of Force – Officers, Subjects, and Reciprocity, Cambridge Studies in Criminology, 2004.
[19] See, e.g., Reliability of the Force Factor Method in Police Use-of-Force Research, Police Quarterly, December 2015.

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 more than 90 law enforcement agencies in eight states involving about 16,000 incidents and 8,000 officers who used force 30,000 times. This is the largest and most comprehensive use of force database 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 Network℠ allows agencies to compare their use of force practices with other agencies in the system.

The Police Force Analysis System℠ 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 System℠

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 the Network to identify trends, patterns, correlations, and outcomes. Here are some of our initial key findings that were derived from the ninety-one agencies currently providing data for the system:

❖ Uses of Force are Linked to Arrests

Most use of force incidents are associated with an attempt by an officer to bring an individual into custody. If a subject 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 subject. A decline in use of force incidents follows falling arrest numbers, while an increase in force incidents is usually the result of rising arrest rates.

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 of 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, when departments come under intense public scrutiny or when body cameras are first 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.

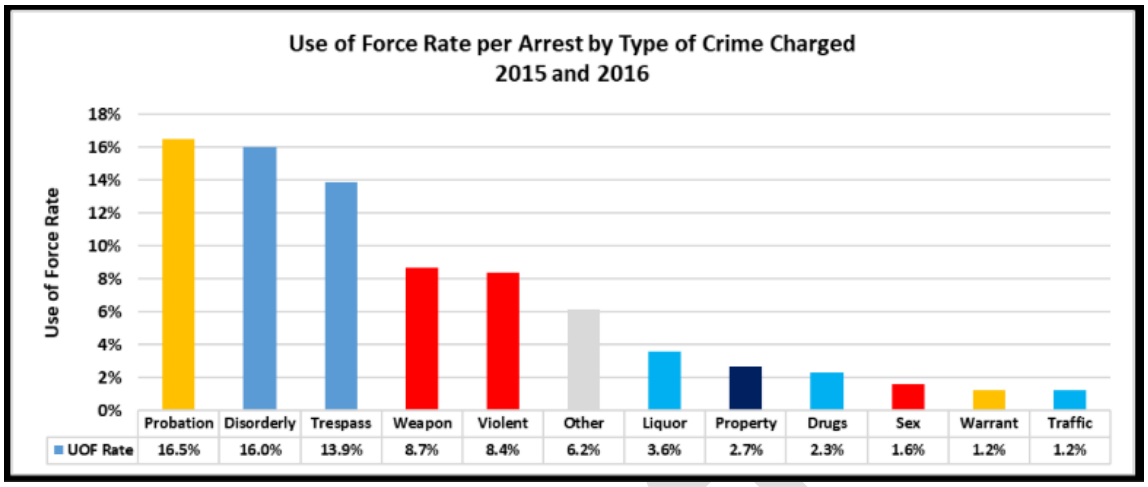
There is a strong correlation between the total number of uses of force a department has and the total number of arrests their officers make. Similarly, the more proactive and productive an officer is, the more arrests they will make and the more uses of force they will have. Rather than simply measuring the frequency of force, a better metric to assess risk is the number of

uses of force compared to number of arrests made. For example, an officer who makes ten arrests and uses force against four of those subjects (40% use of force rate) is a higher risk than an officer who makes three hundred arrests and uses force against twelve subjects (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.

❖ The type of crime involved determines the likelihood of resistance

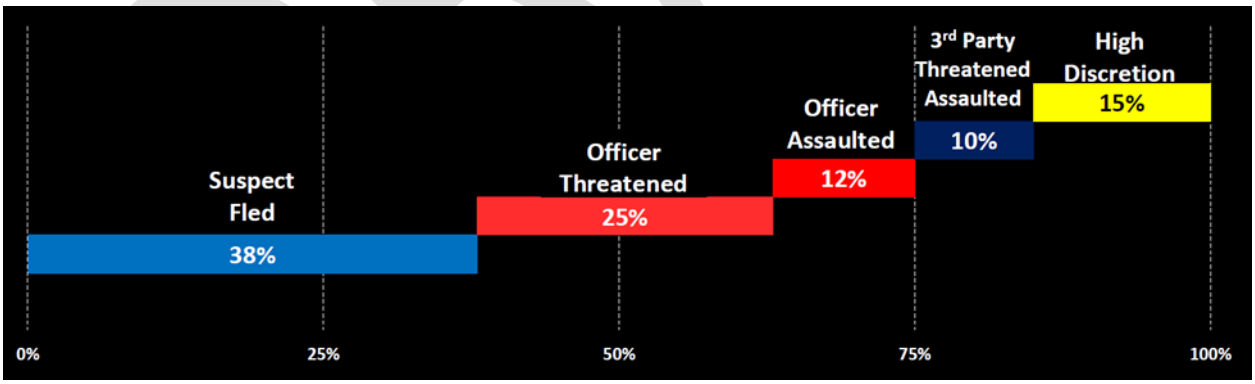
Whether an officer decides to use force during an arrest is determined primarily by the subject's behavior. If the subject fails to comply with a lawful order or resists being taken into custody, the officer will need to use force to make the arrest. Based on the data from the Police Force Analysis System℠, subjects who are engaged in disorderly conduct or trespassing or are in violation of parole or probation are the most likely to resist arrest (about 15% of the time). Subjects who are involved with drug or property crimes and traffic offenses are the least likely to resist officers (less than 3% of the time). This means that the types of crimes officers are responding to will influence a department's use of force rates.



❖ Most officer decisions to use force are low discretion

There are four primary factors that will motivate an officer to use force:

1) Suspect fled from the officer (38% of all force incidents)
2) Subject threatened the officer verbally or physically (25% of all force incidents)
3) Subject assaulted the officer before force was used (12% of all force incidents)
4) Subject threatened or assaulted a third party in the officer's presence (10% of all force incidents.



The presence of one or more of the above factors creates a sense of immediacy for the need to use force and often the officer will have no reasonable alternative than to use force. In only 15% of all force incidents, none of the four factors were present. In these circumstances

the officer may have additional options and more time available to attempt to bring the subject into custody without having to use force. These are the types of situations where de-escalation techniques can be used effectively.

❖ The Force Factor used will determine the outcomes

The Force Factor examines the level of force used compared to the level of resistance presented. While high Force Factor scores may be an indicator of potential excessive uses of force, if the officer does not respond with a sufficient level of force, it can take much longer to bring the subject under control with a much higher risk of injury to the officers involved. High Force Factor incidents are resolved quickly with a minimal risk of injury to officers, but a high subject injury rate. In any given situation, officers must make quick decisions about both the timing of force and the level of force to use in order to effectively take control of the subject and minimize the risk of injury to both officers and subjects.

Outcome % of Force Incidents	Low Force Factor	Medium Force Factor	High Force Factor
Short Force Duration	24%	26%	64%
Subject Injury Rate	36%	48%	68%
Officer Injury Rate	21%	16%	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 in the Police Force Analysis Network℠ have provided 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. It appears that primary the motivation for the use of force complaint is not the level of force that was used, but 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 suspected incorrectly of being involved in 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 subjects in these types of situations tend to view any level force used against them as unwarranted since they believe the officer does not have the authority to detain them. By contrast when a subject was engaged in serious criminal behavior, threatened the officer, actively resisted, and/or tried to flee, subjects are less likely to complain even if the officer used an extremely high level of force and the subject 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."[20]

[20] "Building Trust in Police: What Really Works?" The Crime Report, Center of Media Crime and Justice at John Jay College, July 18, 2014.

Data Collection from the Richmond Police Department

Police Strategies LLC began working with the Richmond Police Department in January 2022. Our first task was to code the Department's use of force reports and enter the data into the Police Force Analysis System℠. Richmond PD personnel provided copies of the reports through a secure online file sharing system. These reports and electronic data came from the Department's IAPro/BlueTeam™ records management system. Use of force incident reports from 2018 to 2020 were analyzed.

Richmond PD provided incident reports and officer narrative statements for each incident where force was used. Data was extracted from the incident reports and officer narrative statements and entered into a relational database. Interactive dashboards were then built for use by Richmond PD. The Police Force Analysis System℠ contains data on all use of force incidents where an officer used a weapon or any physical force.

Summary of Richmond PD's Police Force Analysis System℠

The Richmond Police Department's Police Force Analysis System℠ (PFAS) contains 3 years of use of force data from 2018 to 2020. The database includes detailed information on 407 subjects who had force used against them and the 127 officers who used force during the 3-year period. In 2020 there were 128 use of force incidents involving 72 officers who used force a total of 269 times. This report will examine the 3-year trends in uses of force and will summarize the use of force data from the entire period.

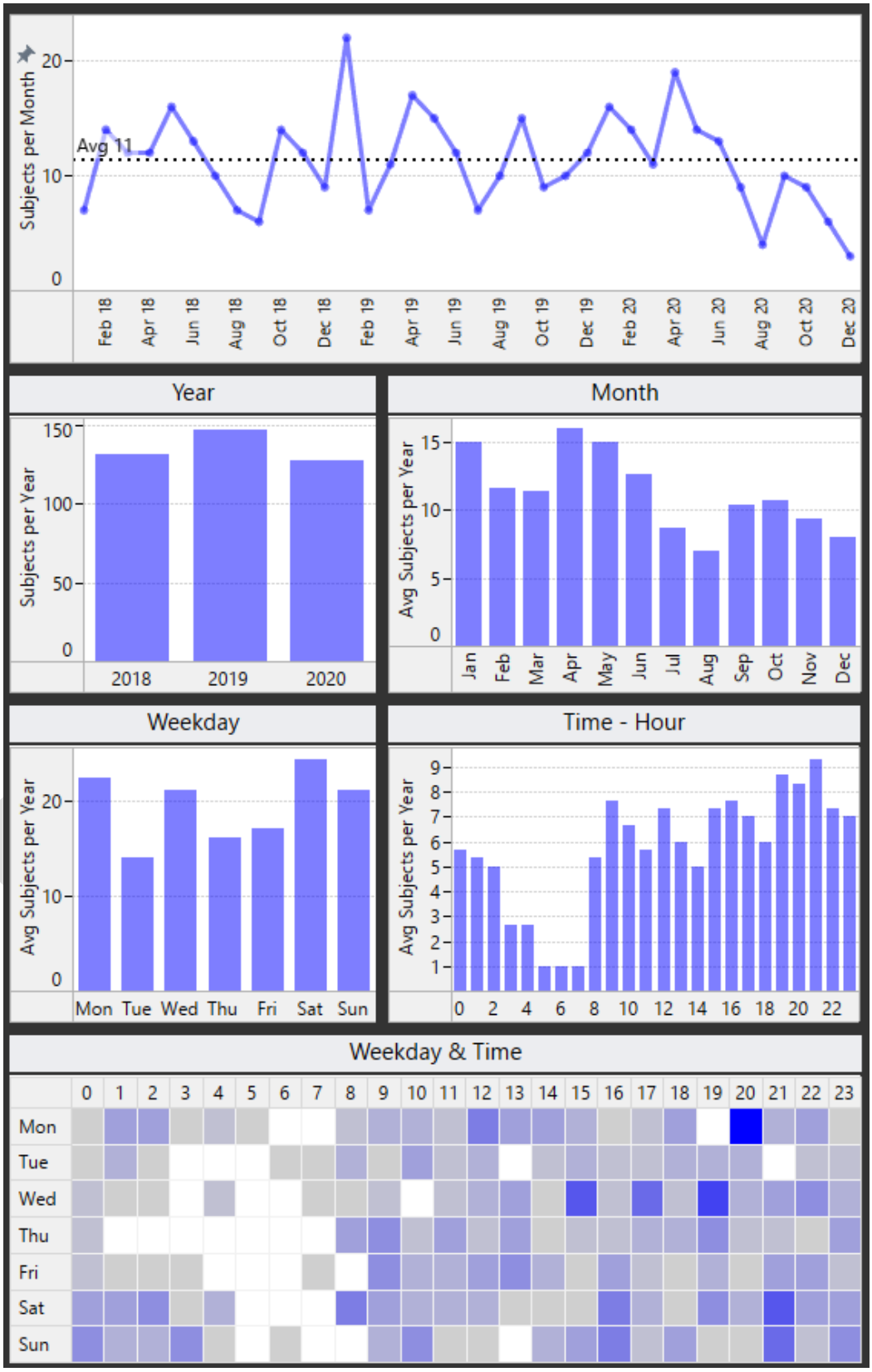
Date, Time, and Location of Use of Force Incidents

In 2018 there were 132 use of force incidents. Use of force incidents rose by 11% in 2019 to 147 incidents before falling to 128 incidents in 2020.

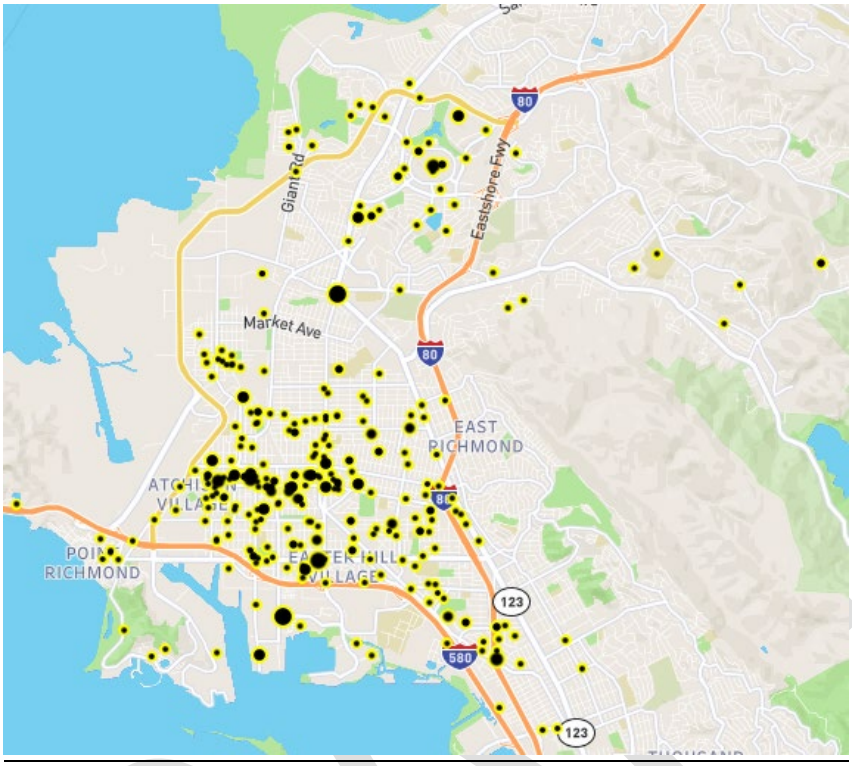
Over the last three years the months with the most force incidents were March, June and July each with five incidents per year and the months with the fewest incidents were January, April, and May with 15 incidents per month per year. August had the fewest incidents with 7 per year. During the week, Saturdays had the most incidents (24 per year), and Tuesdays had the fewest (14 per year). The peak hours for force incidents were between 7pm and 10pm.

Forty-eight percent of all force incidents occurred on the street, 34% occurred at a residence and 12% occurred at a business. Seventy-seven percent of all incidents were located in zip codes 94804 and 94801.

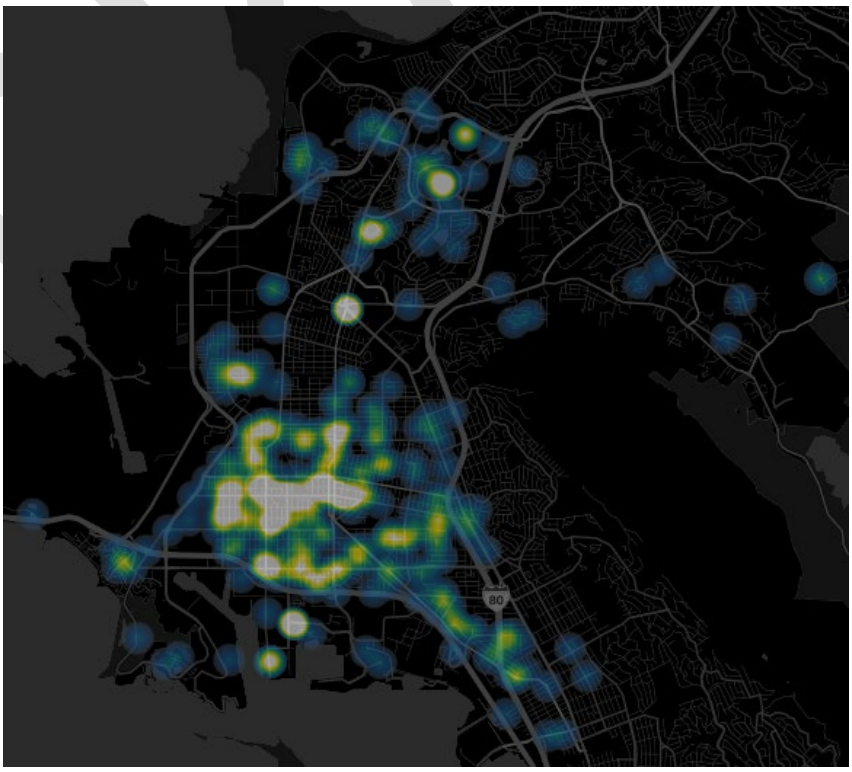
Richmond PD – Use of Force Incidents – 2018 to 2020



Use of Force Incident Locations – 2018 to 2020



Use of Force Heat Map – 2018 to 2020



Reason for Contact

Over the last 3 years 58% of officers who used force were responding to a dispatched call for service. Twenty-nine percent of officers were making an officer-initiated contact and 13% of officers were responding to assist other officers.

The most common initial call types for force incidents were violent crimes (34%) and property crimes (20%). Only 1% of force incidents were related to a contact for a drug related crime. Over the last three years 44 use of force incidents involved a call for a welfare check and 58 incidents started as a traffic stop.

Force Frequency

Between 2018 and 2020 there was an average of 136 use of force incidents per year involving 81 officers who used force 269 times. There were three officers who averaged between 10 and 12 uses of force per year, 23 officers who averaged between five and nine incidents per year, 33 officers who used force three or four times per year and 68 officers who used force once or twice per year. Over the last three years the top 10% of officers (13 officers) made up 35% of the 807 officer uses of force. These officers may have been assigned to patrol and were likely making the most arrests in the Department.

Force Justification

The Force Justification Score is based upon the four Graham Factors: (1) seriousness of the crime being investigated; (2) the level of threat to the officer or others; (3) the level of resistance; and (4) whether the subject fled from the officer. Low Justification Scores are indicative of incidents where subjects were not committing serious crimes, did not pose a significant threat to the officer or others, did not present a high level of resistance, and did not flee.

From 2018 to 2020, 14% of the Department's use of force incidents had low Force Justification scores (<6). The average Force Justification score was 9.7 on a scale of 0 to 20.

Over the last three years there were 28 incidents that received the highest justification score of 20. These incidents involved an assault on the officer before the officer made the decision to use force.

Since 2018 there were 71 officers who were involved in at least one incident with a low Force Justification score. Six officers were involved in four to six low Force Justification incidents each and 18 officers were involved in two or three incidents with low Force Justification scores.

Low Force Justification incidents were more likely to have the following characteristics than cases with higher Force Justification scores:

Incident Characteristic	Force Justification Score		Greater Likelihood
	Low	Medium & High	
Subject taken to hospital for mental health evaluation	43%	13%	3.3
Subject was White	19%	6%	3.2
Subject had mental health issues	45%	19%	2.4
Subject was suicidal	7%	3%	2.3
Officers spent time talking to the subject before force was used	40%	18%	2.2
Subject was a resident of another city	28%	15%	1.9

Subjects involved in a low Force Justification incident are three times more likely to be White and are three times more likely to be taken to the hospital for a mental health evaluation than subjects involved in higher force justification incidents. Subjects in low Force Justification incidents are more likely to be suicidal and a resident of another city and officers generally spend

more time talking to them before using force than in incidents with higher Force Justification scores.

The average Force Justification Score was similar for Male subjects (9.6) and for Female subjects (9.9). By race Black subjects had the highest average Force Justification Score (9.9) and White subjects had the lowest average score (8.8). By age subjects between 18 and 29 had the lowest average Force Justification score (9.3) and subjects over 50 had the highest average score (10.4).

Force Factor

The Force Factor Score is based upon the proportionality of force to resistance and scores range from -6 to +6. A negative score means that the subject's resistance level was higher than the officers' force level. A medium Force Factor Score is between 0 and +2. This is the range where most officers can gain control of a subject by using force that is at least proportional to the level of resistance or slightly above. A Force Factor of +3 or above is considered a high score. This does not mean that the force was excessive, but these incidents do present a higher risk to the department.

Over the last three years 43 incidents had a high Force Factor score (+3 or above). All of the high Force Factor incidents involved the use of a weapon. Half of high Force Factor cases involved a canine bite, and the other half involved the use of pepper spray or electronic control weapons. Canine use typically results in a high Force Factor score due to the scenarios where canines are commonly used (i.e. a subject hiding from the police and the canine apprehending the suspect with a bite). This scenario results in a +4 Force Factor (6 Less Lethal Weapon – 2 Passive Resistance = +4 Force Factor).

Over the last three years 16 officers were involved in high Force Factor incidents. Five officers were involved in five to nine high Force Factor incidents each. Three of those officers were canine handlers. One officer was involved in two high Force Factor incidents and the remaining ten officers were involved in only one high Force Factor incident in the last three years.

Average Force Factor scores were lower for Female subjects (-0.1) than for Male subjects (0.7). By race average Force Factor scores were highest for White subjects (0.8) and lowest for Black and Hispanic subjects (0.5). Subjects between 18 and 39 had the highest average Force Factor score (0.6) and Juveniles had the lowest Force Factor Score (0.3).

The most common Force Factor Score was +1 (44%) followed by 0 (24%) and +2 (13%). There were 43 incidents with a +3 or +4 Force Factor score and no incidents with a higher score. Since 82% of all force incidents are between 0 and +2, this indicates that most officers in the Department behave very consistently when faced with a given level of resistance and they tend to use the minimal amount of force necessary to gain compliance.

When higher levels of force are used against lower levels of resistance, the subjects are controlled much faster with lower injury rates for officers but higher injury rates for subjects.

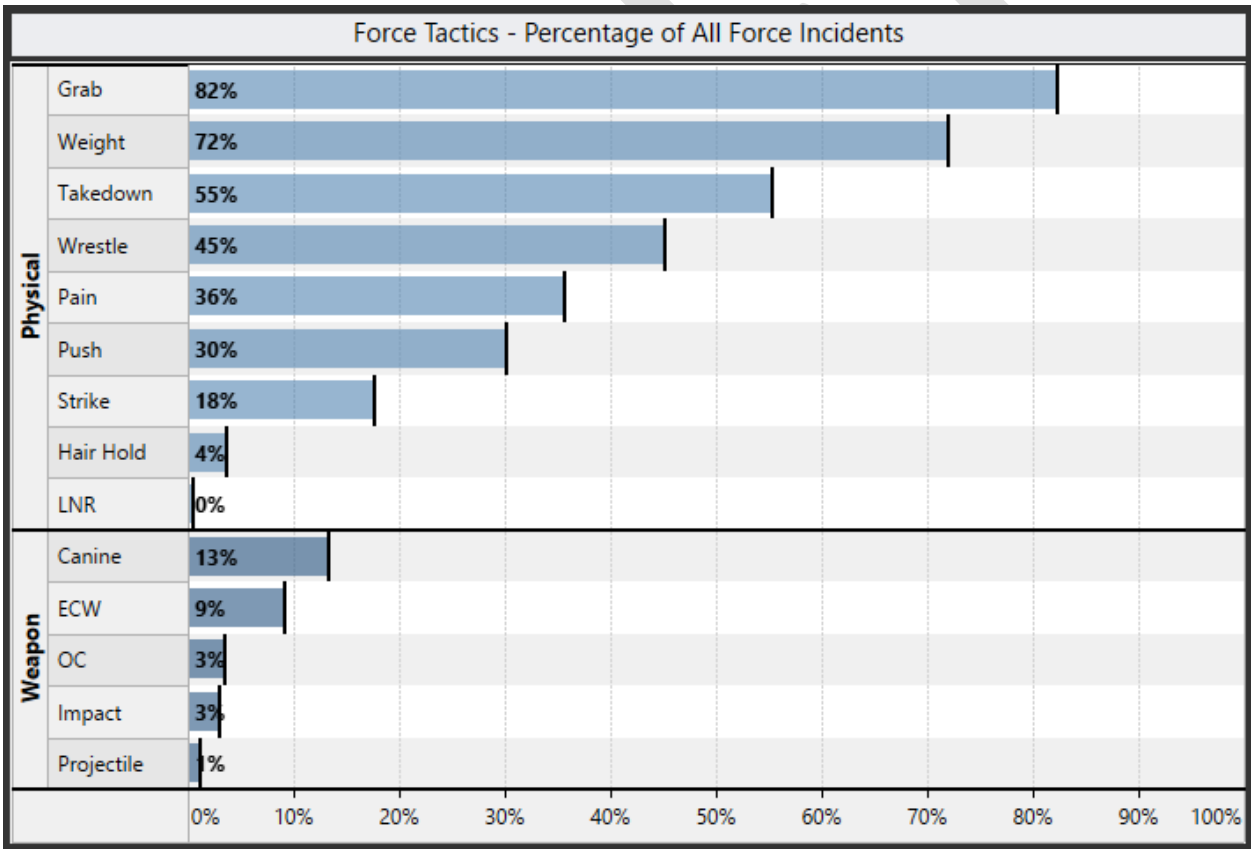
	Force Factor		
	Low (-1 to -3)	Medium (0 to +2)	High (+3 to +4)
Subject brought under control within 1 or 2 Force Sequences	6%	5%	44%
Subject Injury Rate	16%	34%	72%
Officer Injury Rate	19%	10%	0%

Force Tactics

Of the 407 use of force incidents that occurred from 2018 to 2020, 73% involved physical force only, 16% involved only the use of weapons by officers and 11% involved both physical force and the use of a weapon.

Grabbing/pulling (82%), using weight to hold a subject down (72%), and takedowns (55%) were the most common physical tactics used while canines (13%) and ECWs (9%) were the most frequently used weapons.

Force Tactics Used - 2018 to 2020

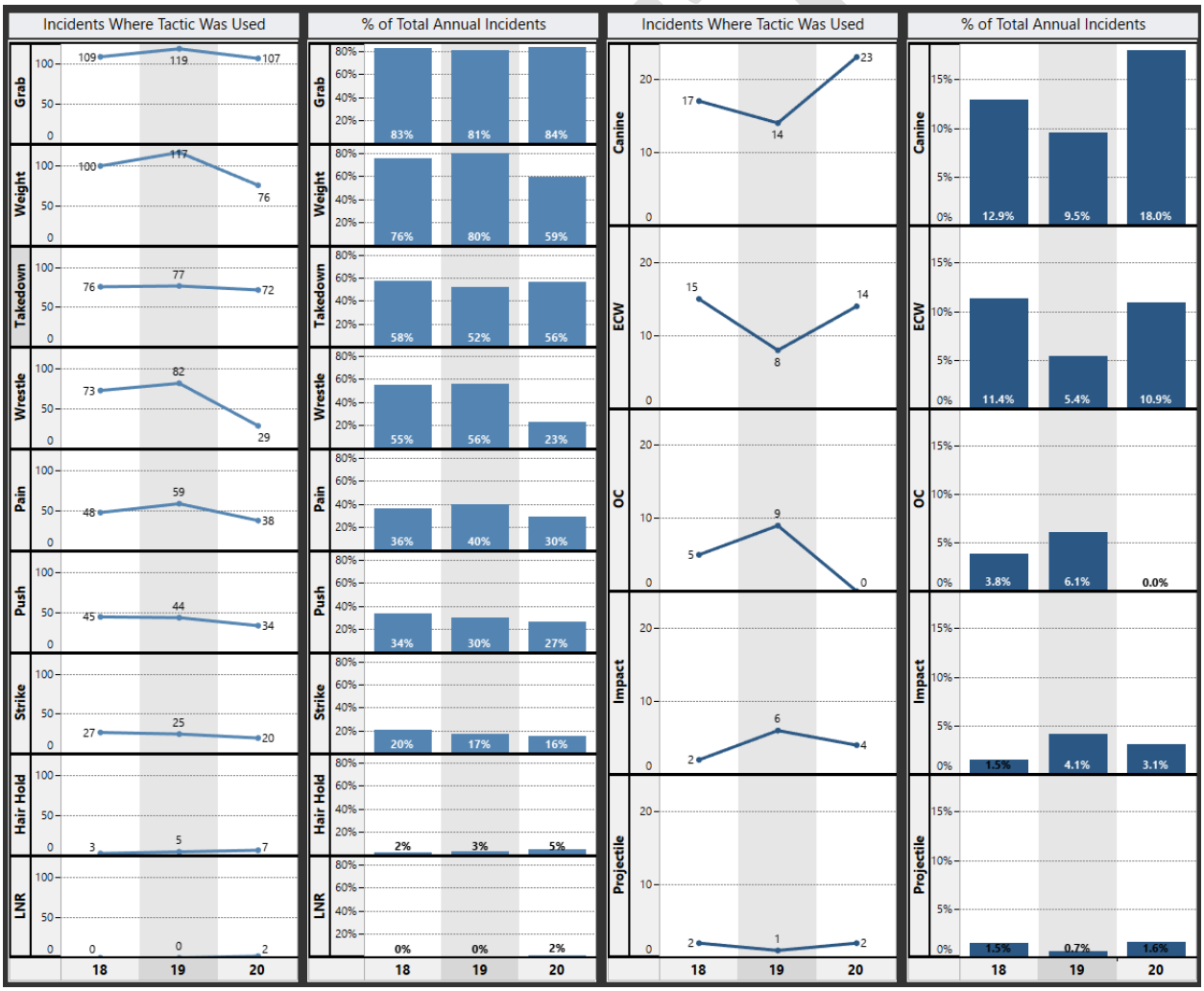


Over the last three years officers have used 2,544 individual physical force tactics and weapons during 407 incidents.

In 2020 the percentages of force incidents involving using weight to hold a subject down, wrestling, and pain compliance fell from the levels of prior years.

Between 2019 and 2020 the use of canines and ECWs went up, but no OC was used in 2020.

Annual Number of Force Tactics Used



Subjects

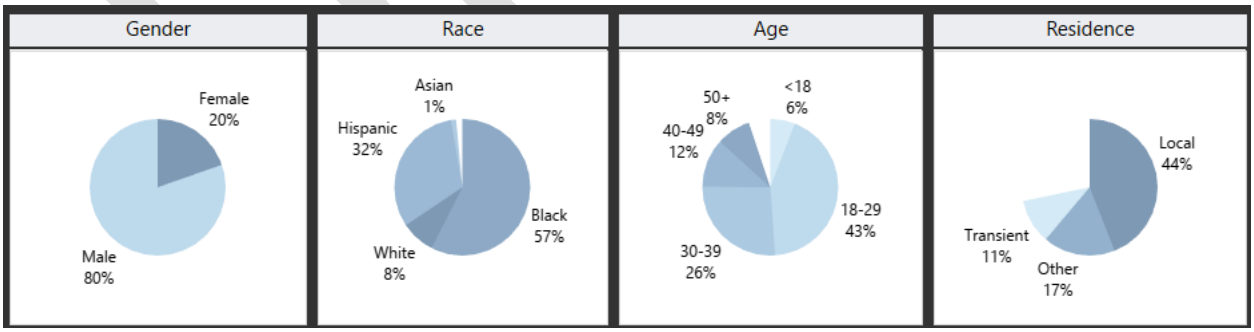
From 2018 to 2020 there were two demographic groups (gender, race, and age) that made up about half of all use of force subjects (Black and Hispanic males between 18 and 39).

Most Common Characteristics of Use of Force Subjects 2018 – 2020				
Gender	**Race**	**Age**	**Number of Subjects**	**Percentage of Force Incidents**
Male	Black	18-39	118	29%
Male	Hispanic	18-39	96	24%
All Other Demographic Groups & Unknown			193	47%

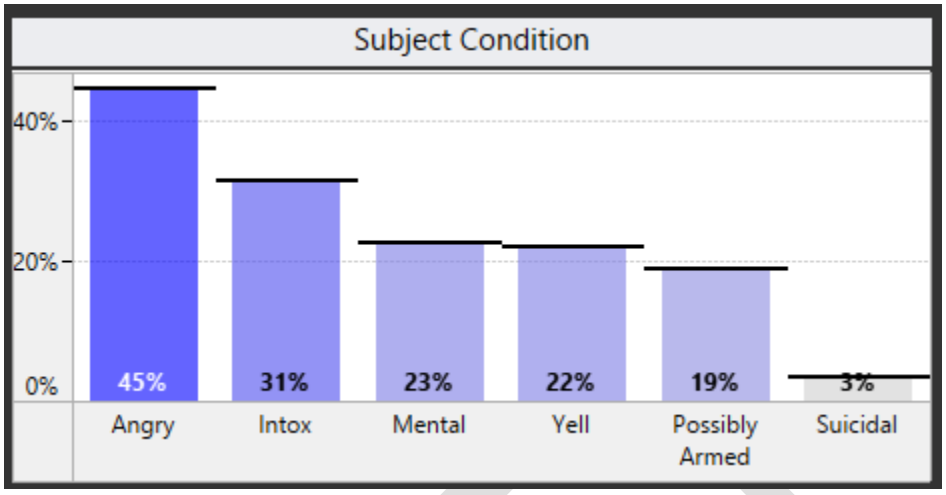
From 2018 to 2020 the following subject trends were observed:

- Black subjects increased from 52% to 68% while Hispanic subjects dropped from 32% to 25% and White subjects fell from 12% to 5%.
- Juvenile subjects were involved in 11% of use of force incidents in 2019 but only 2% in 2020.
- Twenty percent of force incidents involved transient subjects in 2018 and that fell to 8% by 2020.
- Subjects under the influence of alcohol or drugs decreased from 39% in 2018 to 23% in 2020.

Use of Force Subject Characteristics - 2018 to 2020



Subject Condition – 2018 to 2020



Injuries

Over the last three years there were forty-three officers who were injured during a force incident. Eleven of those officers were injured twice. Five percent of force applications by officers resulted in an injury to the officer who used force. Eight officers only complained of pain only, twenty-four officers had a bruise or a scrape, nine officers received a cut, one officers was contaminated with body fluid and one officer received a fracture or broken tooth. About 40% of the injuries were to the officers' arms and about a quarter of officer injuries were on the head. A quarter of injured officers received medical treatment by EMTs or at a hospital.

Over the last three years 148 subjects who had force used against them were injured (36% of all incidents). Of the subjects who were injured, a majority of the injuries were minor: complaint of pain (7%), ECW probe (8%), bruise/scrape (26%) or minor cut (17%). About a third of all injuries were due to canine bites. One subject lost consciousness and one subject received a fracture.

Eighty-four percent of subjects who were injured or complained of injury received medical treatment. EMTs treated 16% of injured subjects and 68% were treated at a hospital. Thirty percent of injuries were to the subjects' head and 24% to the arms.

Use of Force Trends

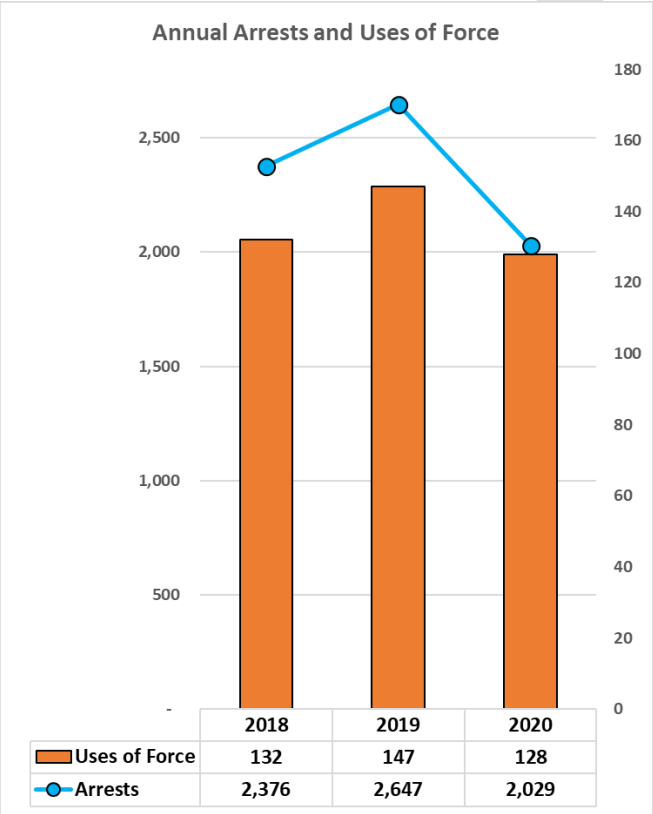
Over the last three years the following force trends were observed:

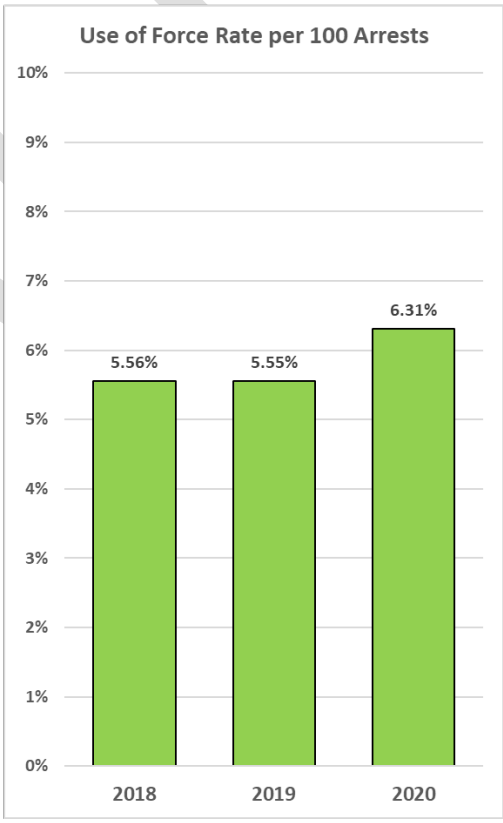
- The average Force Justification scores have decreased slightly while the average Force Factor scores have increased slightly.
- Officers are spending more time with subjects before using force. In 2018 17% of force incidents involved a Long Talk and by 2020 that had increased to 24%.
- In 2020 the average number of force sequences was lower than in prior years indicating that officers were able to control subjects more quickly after force was initiated.
- In 2020 86% of officers who used force were responding to a dispatched call for service compared to 58% in 2018.
- Over the last three years the average severity of subject injuries has increased while the average severity of officer injuries has decreased. Injury rates for both officers and subjects have remained the same.
- Between 2018 and 2020 the percentage of force incidents involving assault on officers, obstructing, robbery and warrants increased while incidents involving assaults, firearms, and liquor violations decreased.
- On January 14, 2019 there was one use of force incident that involved nine subjects. In the last three years there is no other day that has had more than five force incidents.
- The longest period of time with no force incidents was between August 10, 2020 and September 1, 2020.

Use of Force Frequency Trends

a) Arrests and Uses of Force

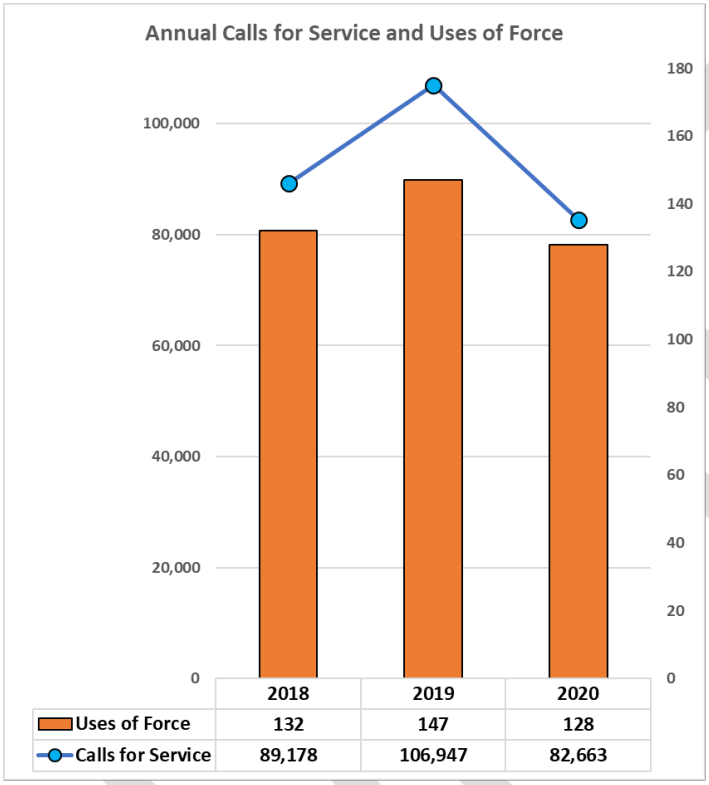
From 2018 to 2020 the number of annual arrests made by Richmond PD fell by 15% from 2,376 arrests to 2,029 arrests. The decline in arrests occurred in 2020 and was likely due to the pandemic. During this same time period the number of uses of force fell by 3% from 132 in 2018 to 128 in 2020. From 2018 to 2020 the use of force rate per one hundred arrests varied between 5.6% and 6.3%.

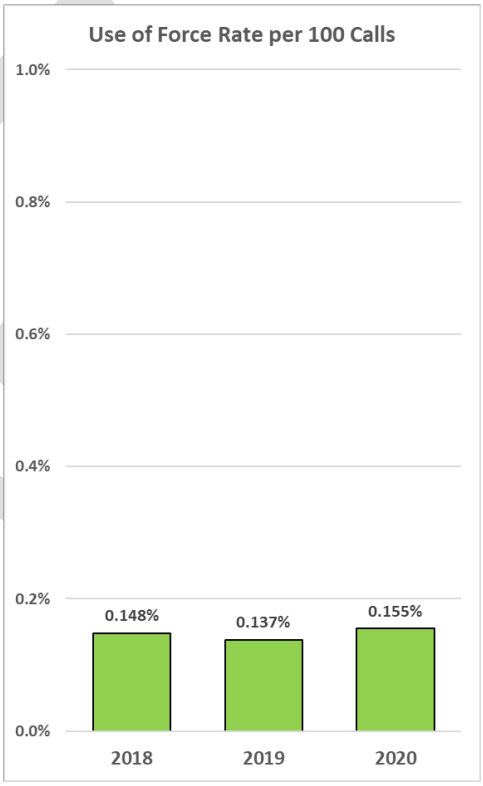




b) Calls for Service and Uses of Force

From 2018 to 2020 the number of annual calls for service to Richmond PD fell by 7% from 89,178 calls to 82,663 calls. During this same time period the number of uses of force fell by 3% from 132 in 2018 to 128 in 2020. From 2018 to 2020 the use of force rate per one hundred calls for service varied between 0.14% and 0.16%.





Interagency Comparative Analysis Using the Police Force Analysis Network℠

As a contributor of data to the Police Force Analysis System℠, Richmond PD also has access to information from other agencies in the system through the Police Force Analysis Network℠ (PFAN). PFAN currently has use of force data from more than 90 law enforcement agencies in eight states involving about 16,000 incidents and 8,000 officers who used force 30,000 times. This is the largest and most comprehensive use of force database in the nation. Although the incident reports from these agencies have different formats, all the data has been extracted and entered into the system using a standardized coding method which allows us to make meaningful interagency comparisons. The Police Force Analysis Network℠ allows agencies to compare their use of force practices with other agencies in the system.

This report is designed to alert the Department of potentially high-risk areas that may need improvement as well as areas where the Department is performing with low levels of risk. A high-risk score does not necessarily mean that there is a problem that needs to be addressed and for that reason this report does not recommend any specific corrective actions. Instead, the annual use of force reports and comparative dashboards will allow the Department to focus more attention on higher risk areas and determine whether any adjustments to policies, procedures or training are warranted. Similarly, a low-risk score does not mean that there are no issues that need to be addressed. Departments are encouraged to continue to conduct individual force reviews and use the dashboard systems to supplement and enhance those reviews to identify issues that might not otherwise be uncovered. The system will also help to highlight those areas where the Department is performing well and will help to maintain those performance levels.

Since use of force characteristics can vary from year to year, the comparative data includes all available data for each agency.[21]

[21] Police Strategies LLC had previously received data from Richmond PD for the year 2014 and that data was included for the PFAN comparisons.

1) 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. Graham v. Connor - Force Justification and Force Factor Scores – 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. Force Speed and Duration – The speed of the officer's decision to use force as well as the duration of the force incident are both measured. The faster the force incident occurs the less opportunity there is for de-escalation. The longer a force incident lasts the greater the risk of injury to both officers and subjects.
4. Injury Rates – Higher injury rates pose risks to the health and safety of officers and subjects and are more likely to generate complaints and lawsuits.

The following risk rankings are based upon a comparison with the ninety-one agencies currently in the Police Force Analysis Network℠. "Lower Risk" scores are more than one standard deviation below the mean. "Higher Risk" scores are more than one standard deviation above the mean. "Medium Risk" scores are within one standard deviation of the mean.

🔴 Higher Risk 🟡 Medium Risk 🟢 Lower Risk

Risk Level	Risk Type	Metric	Value	Interagency Comparison
🟡	Force Frequency	Uses of force per 1,000 population	1.3	Above Average
🟡	Force Frequency	Use of force rate per 100 calls for service	0.15%	Above Average
🟡	Force Frequency	Use of force rate per 100 arrests	6.1%	Above Average
🟡	Force Frequency	Percentage of officers in the department using force annually	44%	Average
🔴	Force Frequency	Average annual uses of force per officer using force	3.3	High
🟡	Graham v Connor	Percentage of incidents with low Force Justification Scores	15%	Below Average
🟡	Graham v Connor	Percentage of incidents with high Force Factor Scores	8.8%	Above Average
🟡	Graham v Connor	Percentage of incidents with both low Justification and high Force Factor scores	1.9%	Average
🟡	Force Speed / Duration	Percentage of incidents with 5 or 6 Force Sequences	38%	Above Average
🟡	Force Speed / Duration	Percentage of incidents where the Speed of Force was immediate	52%	Average
🟡	Injury	Subject injury rate	41%	Average
🟡	Injury	Subject severity of injuries	2.5	Average
🟡	Injury	Subject medical treatment rate	80%	Above Average
🟡	Injury	Officer injury rate per incident	6%	Below Average
🟡	Injury	Officer severity of injuries	2.2	Average

Richmond PD was within one standard deviation of the mean for fourteen of the fifteen risk metrics. The Department was one standard deviation above the mean for the average annual number of uses of force per officer.

2) Force Tactics Comparisons

PFAN contains data on all the physical force tactics and weapons that officers use. The system allows department wide usage rates to be compared across agencies. The following tables list the usage rates for weapons and physical tactics by Richmond PD officers and then compares those rates with the averages from other agencies in the Network.

Compared to other agencies in the Network, Richmond PD officers are less likely to use electronic control weapons and neck restraints and are more likely to use canines, wrestling and using weight to hold subjects down.

Use of force incidents from Richmond PD are more likely to involve the use of a weapon only and are less likely to involve both the use of a weapon and physical force than other agencies in the Network.

Weapon	Richmond PD Percentage of Incidents Used	Interagency Average	Interagency Comparison
Electronic Control Weapon	12%	25%	Below Average
Canine Bite	13%	3%	High
OC	2.4%	2.4%	Average
Impact Weapon	5.1%	2.4%	Above Average
Projectile Weapon	0.8%	0.9%	Average

Physical Tactic	Richmond PD Percentage of Incidents Used	Interagency Average	Interagency Comparison
Grab/Hold/Pull	78%	81%	Average
Takedown	55%	53%	Average
Used Weight	58%	32%	High
Pain Compliance	32%	24%	Above Average
Wrestle	37%	20%	High
Push	24%	17%	Above Average
Strike	19%	12%	Above Average
Hair Hold	3.1%	3.1%	Average
Lateral Neck Restraint	0.5%	2.2%	Below Average

All Force Tactics Used	Richmond PD Percentage of Incidents Used	Interagency Average	Interagency Comparison
Only Physical Tactics Used	70%	68%	Average
Both Physical Tactics and Weapons Used	14%	23%	Below Average
Only Weapons Used	16%	9%	Above Average

3) Subject Injury Rate Comparisons

Compared to other agencies, Richmond PD's subject injury rates were in the average range except for ECW probe injuries. This is because Richmond PD officers use ECWs at a lower rate than other agencies. Canine injuries were higher than other agencies because Richmond PD utilizes canines at hire rates.

Minor Injury	Subjects Injured	Interagency Average	Interagency Comparison
Complaint Only	3%	3%	Average
ECW Probe	5%	9%	Below Average
Bruise or Scrape	10%	12%	Average
Cut or Bleeding	8%	10%	Average
Chemical	1%	1%	Average

Serious Injury	Subjects Injured	Interagency Average	Interagency Comparison
Canine Bite	13%	3%	High
Unconscious	0.3%	0.6%	Average
Fracture (including teeth)	0.7%	0.6%	Average

4) Force Justification Components

Compared to other agencies, Richmond PD officers faced subject conditions that were in the average range.

Force Justification Component	Richmond PD Average Score	Interagency Average Score	Interagency Comparison
Subject Resistance	3.5	3.5	Average
Crime Investigated	2.8	2.7	Average
Subject Threat	1.7	1.5	Average
Subject Flight	1.2	1.1	Average

5) Other Force Characteristics

The following table lists those force characteristics which are significantly different in Richmond PD compared with the other agencies in the Police Force Analysis Network℠. These are simply descriptive measures and are not necessarily associated with increased risk.

Characteristics of Force Incidents that are **More Common** in Richmond PD than Other Jurisdictions	Characteristics of Force Incidents that are **Less Common** in Richmond PD than Other Jurisdictions
Three or more officers were present	Only one officer was present
Three or more officers used force	Only one officer used force
The subject was under the influence of alcohol or drugs	The subject was suicidal
Subject was a resident of the jurisdiction	Subject was not a resident of the jurisdiction
Subject made threatening movements before force was used	Subject made verbal threats
Subject possessed a firearm	Subject possessed a knife
Original call type was a property crime or violent crime	Original call type was a welfare check or disturbance
Subject was charged with a violent crime	Subject was not charged with a crime
Subject was taken for a mental health evaluation	Subject was not taken for a mental health evaluation
The use of force occurred on the street or outside a residence	The use of force at a business or inside a residence