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An Analysis of Police Pursuits in CT during 2019

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Abstract

Police pursuits can occur at any time, any location and can have numerous outcomes. There is past research on this topic which has been compared to this current study. The purpose of this research project is to analyze pre-existing data alongside the data collected by the researcher. The goal of this project serves to study every aspect of a police pursuit as provided through a mandatory pursuit form. In specific, the research was collected from different departments within the state of Connecticut during the 2019 calendar year. The pursuit form includes crucial information which can provide insight regarding pursuits in each jurisdiction and pursuits in general. Through studying this data, current pursuit trends can be identified, while existing trends can be elaborated on. The overall goal of this study seeks to provide comprehensive data to outline the ins and outs of police pursuits alongside the effects.

KEYWORDS: police pursuits, police pursuit forms, P.O.S.T.C., police departments, policies, termination, initiation, collisions

Introduction

Police pursuits have been a topic for discussion within police departments and within the community for several years. Police pursuits are known as a police officer participating in a high-speed vehicle chase to catch a fleeing suspect who may or may not be committing crime. Although, a specific speed limit is not outlined in a definition to characterize high-speed. It can be known that high-speed is considered when a vehicle is traveling at a dangerous rate of speed which can be dangerous for the operator, the officer, or a bystander.

During a police pursuit, there can be many factors that are taken into consideration. The officers might consider the weather conditions, the traffic conditions, or even the offense before deciding to pursue a fleeing vehicle. On the other hand, some officers might pursue a vehicle regardless of the circumstances to prevent an offender from evading. While pursuits can help catch an offender and apprehend them for an offense, pursuits can also put numerous parties in eminent danger. These factors need to be considered prior to the pursuit and during the pursuit. Knowing when to stop, slow, or terminate a pursuit is essential.

Factors that are recorded during pursuits can include the day, time, reason the pursuit was initiated or terminated, the location of the pursuit, the conditions surrounding the pursuit, the number of vehicles involved, and many other factors. For this study the speed was not recorded, although it is still an important aspect to look at when studying pursuits.

It is also important to acknowledge that each pursuit can have a different result and it can vary depending on the officer, the location or department, the shift, or the offender operating the vehicle. It is known that a pursuit can be initiated at any time, although there can be limitations in place based on a pursuit policy. The purpose of this research will delve deeper into pursuits to

identify trends in Connecticut.

Literature Review

Overview of POSTC Model Pursuit Policy

The POSTC model policy (see Appendix B) serves as a standard for all police pursuits in Connecticut in which POSTC officers are involved. In terms of this policy, a pursuit can be defined as "an attempt by a police officer in an authorized emergency vehicle to apprehend any occupant of another moving vehicle, when the driver of the fleeing vehicle is attempting to avoid apprehension by maintaining or increasing the speed of such vehicle or by ignoring the police officer's attempt to stop such vehicle." This definition sets the precedent for all police officers to refer to.

Police officers have guidelines to abide by as to when a pursuit may or may not be initiated. A police officer may only engage in a pursuit (Section 4a) if there is reasonable suspicion to believe that the occupant of the vehicle has committed or is attempting to commit a crime of violence, or that there are exigent circumstances that warrant the need to apprehend a suspect to protect the safety of the public. That means that police officers must not engage in pursuits for infractions, non-violent misdemeanors, non-violent felonies, and property crimes. The officers must also acknowledge the danger that will follow a pursuit. The data from this research demonstrates that 615 out of 678 pursuits were initiated due to circumstances that do not warrant a pursuit.

Section 9 highlights pursuit termination measures. The officer involved must assess the pursuit situation continuously and may terminate a vehicle at any time. The supervisor of the department may terminate the pursuit when potential danger outweighs the need for apprehension or if communication with the supervisor is compromised. A pursuit can also be

terminated if the identity of the occupants has been determined and that apprehension is not necessary for public protection. Overall, the main goal of the police officer is to keep all parties safe, even if it means letting a vehicle elude law enforcement; the main priority is safety.

Police High-Speed Pursuit Data Trends

Police pursuits have been prevalent in communities across the United States. Research has been done on the topic of pursuits to get a better understanding of the overall effect they have. Some of this research relates to the policies that a department may have regarding pursuits. Other research contains information regarding the facts and specific circumstances surrounding a police pursuit.

For the sake of this research, a pursuit can be defined as driving at a high rate of speed in order to overtake a vehicle whose driver is knowingly attempting to elude a law enforcement officer (Homant & Kennedy, 1994). The purpose of this research is to explore trends regarding pursuits in Connecticut. The research presented in this review will revolve around general data of pursuits, different types of policies that departments have, indirect or direct deaths caused by pursuits, and characteristics of officers that contribute to pursuits.

Alpert (1997), one of the most prominent researchers on this topic, studied data from numerous agencies. Alpert et al (1997) studied data that was collected by the California Highway Patrol based on 700 police pursuits. The results were categorized based on the initiation of the pursuit and the results of the pursuit.

Pursuits can be initiated for different reasons. Based on initiation, 429 pursuits had been initiated due to traffic offenses, 179 pursuits due to DUI, and 75 pursuits due to serious criminal activity. 243 of such pursuits had been terminated by the driver of the vehicle. These pursuits can result in injuries, accidents, or just end in a passive manner. Based on the results, 198 pursuits

resulted in a motor vehicle accident, 99 pursuits resulted in injuries, and 7 pursuits resulted in deaths. Although, 27 pursuits were terminated by an officer before any type of damage or injuries could occur (Alpert et al., 1997).

According to the Bureau of Justice Statistics (2017), there were 69% of police vehicle pursuits that were initiated due to traffic violations, 16% initiated due to speeding, 13% initiated due to reckless driving, and 12% initiated due to suspicion of driving while intoxicated (Reaves, 2017). The data from the BJS mirrors what had been collected by the California Highway Patrol, which demonstrates there is a common trend with pursuit initiation.

Lum and Fachner (2008) had studied pursuit data based on different conditions surrounding a pursuit. More specifically, the data was collected based on the road conditions and the results of injuries. For injuries, the different categories include minor injury, serious injury, and fatal injuries. This was also studied alongside the injury of police, bystanders, or the suspect of the pursuit. Based on the results of minor injury, this had the highest total number of injuries which was 732 out of 900 in total. Based on these results, there were 108 police officers injured, 153 bystanders, and 471 suspects injured. To compare to fatal injury, there were only 23 total injuries under this category. There was 1 police officer injured, 6 bystanders injured, and 16 suspects injured (Lum & Fachner, 2008).

Alongside these injuries, data shows that there were different road conditions surrounding whether there was an injury. The conditions are dry, ice, snow, and wet. There were 1,681 injuries/accidents that occurred with dry road conditions. There were 31 injuries/accidents with icy road conditions. There were 12 injuries/accidents with snowy road conditions. There were 93 injuries/accidents with wet road conditions. This data demonstrates that most accidents and injuries occurred when the road conditions were dry and normal.

Police High-Speed Pursuit Related Deaths

It is important to recognize that while people can get injured or get into an accident, they also can die. Deaths can be a factor that a department may consider when adopting a pursuit policy. Rivara and Mack (2004) did a study which collected data involving the number and characteristics of motor vehicle crash deaths. The data from this study was collected between 1994-2002, from the Fatality Analysis Reporting System and Crashworthiness Data System which is operated by the National Highway Traffic Safety Administration.

The samples of pursuits were randomly selected from these data sources between 1994-2002. From that, results show that there was a total of 2,654 crashes during this time, which involved 3,965 different vehicles. The total number of fatalities reached as high as 3,164, while 1,088 of those deaths were bystanders, 2,055 deaths were suspects in the fleeing vehicle, 102 deaths were pedestrians, and 40 deaths were police officers (Rivara & Mack, 2004). This data explains that there is a large number of crashes that result in deaths.

Johnson (2013) had also studied deaths related to pursuits during the years 1960-2011. In specific, the study focused on officer related deaths in relation to pursuits, direct pursuit involvement, participation in blocking a pursuit, and traveling to assist a pursuit. The data had been collected from the Law Enforcement Officers Killed and Assaulted reports which were published by the FBI. Research shows that in 2011, there were 1.32 officer deaths per 100,00 officers. Compared to 1.06 officer deaths in 1960 (Johnson, 2013).

Hill (2002) outlined the number of deaths that are a result of pursuits, which came from the National Highway Traffic Safety Administration and the Fatality Analysis Reporting System. From 1994- 1998, there were a total of 1,191 suspect deaths, 572 bystander deaths, and 21 police officer deaths (Hill, 2002).

During 2009-2013, the Bureau of Justice Statistics outlined that there were 2 serious injuries per 100 pursuits (Reaves, 2017). The BJS outlined the fatality rate for Connecticut from 1996-2015. There was a total of 58 pursuit related deaths during the 19 year-period. From this, 34 of suspects died, 23 non-occupant persons died, and 1 police officer death. The number of deaths is seen to decrease from past to present times, which could be a result of the newly formulated policy.

High-Speed Pursuit Policies/Guidelines

It is important to outline different policies that can be employed to uphold regulations on police pursuits. Nugent et al (1989) had studied pursuit policies and outlined different aspects that should be included in a policy to become successful. It was pointed out that policies have been adopted with the goals of reducing injuries and deaths, to give officers a clear understanding of when and how to conduct and pursuit, to maintain the police mission to enforce the laws while protecting life and property, and to minimize the liability in accidents in which they occur (Nugent et al., 1989).

This group of scholars established that every policy should address the following: definition of high-speed pursuit which distinguishes it from others, the rules for initiating pursuits, the types of offenses that a high-speed pursuit is allowed, description of the conditions in which a pursuit may/may not be conducted, the speeds that police vehicles may travel in relation to existing speed limits, description of alternatives that may be used, definitions of supervisory rules, the termination rules, the interjurisdictional rules, provide a detailed report and review process, incorporate references to state laws, state rules governing involvement of departmental aircraft, and description of alternatives that can be employed (Nugent et al., 1989) These requirements can serve as a basis to alleviate any controversy that comes with pursuits

within a department.

Homant and Kennedy (1994) had created different categories of policies. The categories were pure judgement: officer is cautioned against unreasonable danger to the public. Limited judgement: officer is aware of close supervision over decision making. Mild restrictive policies: some guidelines to follow when not to pursue in which the overall goal is to minimize risk. Severe restrictive policies: justification of pursuit is on the officer and there are restrictions of pursuits. Pursuits discouraged: police pursuit must be the last possible resort to prevent the fleeing suspect from escaping (Homant & Kennedy, 1994).

A questionnaire was given to 100 officers within 47 different state and 24 city departments. The purpose of this study was to understand officer's perspectives and to describe what types of policies they preferred when in the line of duty. Pure judgement policies were favored by 15.4% of officers. Limited judgement policies were favored by 55.6% of officers. Mild restrictive policies were favored by 23.4% of officers. Severe restrictive policies were favored by 4.3% of officers. Pursuit discouraged policies were favored by 1.3% of officers. The results demonstrate what type of policies that a police officer prefers, and what policy that the officer will respond well to. This can help different departments when deciding what policy to implement in the future.

The Bureau of Justice Statistics presented data trends on pursuits that occur alongside the type of policy or absence of such policy during 2012-2013. The written policy options are as follows: total with policy; permitted, but with officer discretion; permitted, with restricted criteria; permitted, but subject to supervisory approval/review; discouraged; prohibited; and no written policy (Reaves, 2017).

As of 2013, state police, highway patrol agencies, and departments that serve 25,000 or

more residents, have adopted a written pursuit policy. This demonstrates that 53% of state law enforcement agencies and 71% of local police departments had restrictive criteria within their policies. The criteria included information regarding the type of offense, the speed of the fleeing vehicle, and other surrounding conditions. In specific, some written policies discourage the initiation of pursuits. The percentages of this type of policy was extremely low. Only 2% of state police, highway patrol agencies, and sheriffs' offices implemented this policy. (Reaves, 2017).

Costs and Benefits

The costs and benefits of pursuits are measured in diverse ways. There was a study done by the NIJ which gathered data from 436 agencies, more than 1,200 pursuits recorded by Metro-Dade, Florida, Omaha, and Aiken County, South Carolina surveys from 779 officers and 175 supervisors, 555 opinion interviews, and 146 interviews with jailed suspects involved in pursuits.

The conditions surrounding an officer's decision to engage in pursuits includes traffic conditions, weather conditions, type of road, or area of pursuit alongside the risk evaluation. For motor vehicle violations, 43% of officers would pursue low risk pursuits, while 10% would pursue high risk pursuits. For property crimes, 42% would pursue of officer's state they would pursue a property crime if the risk was low, while 17% would engage if the risk was high. Lastly, an average of 95.5% of officers would pursue a vehicle if an officer was shot, either high or low risk (Alpert, 1997). These percentages show that the more severe violation, the more likely that officers are to participate in a police pursuit.

Schultz and Alpert (2010) refer to the police officer's perspective regarding a police pursuit. Although police records might present crucial information, it is important to understand the dynamics behind a pursuit and the thought process an officer considers when making a game-time decision. An officer must factor the risk created by the suspect's driving, the actions of

bystanders and others who can become involved, and the influence of the officer on the suspect's driving. The officer must use his or her judgement to balance the goals of law enforcement with the public's safety. Challenges officers face include the methods to stop a suspect from fleeing. This might be tire deflation devise, a precision immobilization technique (PIT) maneuver at proper speeds and locations, or deadly force (Schultz & Alpert, 2010). Police officers must weigh these alternatives alongside the risks of the pursuit.

Alternatives to Pursuits

Police pursuits can end horrifically and can escalate into dangerous situations. To prevent this, there are alternative devices, maneuvers, and methods that police officers can implement to terminate a pursuit.

According to Yates (2009), PIT maneuver is one of the most successful means of terminating a pursuit. The PIT maneuver is when an officer pulls alongside a fleeing vehicle, so the officer's front bumper is slightly ahead of the back bumper of the fleeing vehicle. The officer then matches the speed of the driver, gently touching the other vehicle. Ideally, the vehicle will safely spin to a stop (Raviv, 2016). Once the vehicle stops, the officer can apprehend the offender without causing any danger to the public. The California Highway Patrol implemented PIT in 2002. There were 967 total pursuits terminated with this maneuver, resulting in one death and 83 injuries (Raviv, 2016).

The National Institute of Justice outlined other alternatives to help make high-speed pursuits safer. Tire-Deflator Devices are spikes designed to immobilize a vehicle that is traveling at a high speed on an open roadway. This can allow the officer to leave the spikes flat until the correct vehicle approaches (Technology for Pursuit Management, 2013).

Another alternative is the Remote Tracking of Fleeing Vehicles. This allows an officer to

tag a vehicle, so it can be tracked. This device led to an 80 percent apprehension rate for fleeing suspects in tagged vehicles (Technology for Pursuit Management, 2013). These are safe alternatives to ending a pursuit without putting the officer or suspect in imminent danger.

Characteristics of Police who Participate in High-Speed Pursuits

Homant, Kennedy, and Howton (1993) had studied risk-taking and sensation seeking characteristics that correspond with pursuits. A sample of 69 officers filled out the Sensation Seeking Scale which was a 40-item scale with forced-choice answers allowing an officer to choose the answer most suitable to them. The questions presented were as follows: each day brings a new challenge as a police officer, it is not possible to take the risk out of being a police officer and good police officer has to be willing to take a chance (Homant, Kennedy, & Howton, 1993). Based on the scale, 90% of officers agreed that each day brings a new challenge, 75% agreed that the risk could not be removed, and 84% agreed that a good officer is willing to take a chance. The overall purpose of this study was to determine the extent to which personality variables account for differences in the pursuit decisions of patrol officers.

Broome (2013) took a psychological approach regarding pursuits. A five-step descriptive phenomenological psychological method was used to analyze and transform data of police experiences on pursuits. Based on 100-150 participants, each was interviewed on their account of police pursuit by just talking about the situation in general. From these open-ended responses, Broome established that anxiety of officers fluctuated throughout events. This depended on different circumstances of pursuits. For example, when an officer knew they were the primary officer, their anxiety became heightened. The results were produced from real situations and real police officers. This helped to gain an understanding of what happens during a pursuit and how the officers personally feel at this time (Broome, 2013).

Another study done by Crundall et al 2005, explained eye movements of police officers during a pursuit. This study was done in Nottinghamshire, UK and was based on a sample of 48 drivers. The sample was broken into three groups: the first group was 16 novice drivers who had a mean age of 20.4 years old, less than 2000 miles per annum, and 2.9 years of driving experience. The second group was 16 police drivers with a mean age of 39.2 years, 20,500 miles per annum, and 21.8 years of driving experience. The last group was comprised of 16 matched control drivers with a mean age of 37.1 years, 10,500 miles per annum, and 18.9 years of driving experience (Crundall et al., 2005).

The results showed that when watching video clips, the eye gaze was different for each group. For novice drivers gaze duration was 40%, for matched control gaze duration was 50% and for police gaze duration was 40%. Specifically, the gaze was 40% during the control setting, 60% during pursuits, and 30% during responses. This demonstrates that the furthest gaze does occur during a pursuit which can allow officers to anticipate what might happen once they reach the pursuing vehicle.

Lockie et al (2018) created a driving course to explain fast speeds during pursuits. the course was referred to as a DPPT which is the Driving Program Practical Test. Officers went through a 1.4-mile course during six different obstacles with the goal of hitting the least number of cones which acted as violations. Results summarized that the age group between 20-39 years old completed the course faster, but with a higher number of violations. The 40-59year old age group maintained steady driving skills throughout the course. The results show that younger drivers perceive a greater risk of accidents due to life-style behaviors, whereas older officers play by the rules (Lockie et al, 2018). Although this study portrays different results than would actual

situations due to the heightened adrenaline and reality of the pursuit.

Court Cases/ Lawsuits as a Result of Pursuits

Lawsuits stem from pursuits which allege civil rights violations pertaining to Title 18, Section 1983, U.S. Code. Several cases including Brower v. County of Inyo and Galas v. McKee had outlined the polices decision to pursue a vehicle was protected. In *Brower v. County of Inyo*, police used roadblocks to stop a fleeing vehicle which the Court ruled this method should be restricted. In *Galas v. McKee,* it became clear that officers can engage in high-speed pursuits as an acceptable means to apprehend traffic violators (Pape & Pipes, 2001).

In Connecticut during 2018, Tiffany Fitzgerald, a 26-year old passenger, was killed as a result of a pursuit in Danbury, CT. The Fitzgerald family is suing the town and the police officer. Claims are made against Hodge, the officer, stating he acted recklessly in chasing the vehicle, causing the officer to resign (Family sues police, 2018). This goes to show how dangerous pursuits can be. After the adrenaline dies down from the high-speed chase, there can be life altering damage that will remain forever. Losing lives of innocent people with no involvement in the pursuit should be reason enough to create limitations on pursuits.

Lawsuits can be a means to restore damages that were lost due to pursuits. Oftentimes innocent bystanders or passing vehicles can get caught in the crossfire of a live pursuit. Critics argue from this angle with hopes that pursuits will be restricted which can help to protect the lives of people. This brings forth questions of whether police officers and fleeing suspects should be held responsible for the damages done as a result of a high-speed pursuit.

Connecticut's Response

Recently, Connecticut decided to revisit their pursuit policy that has not been changed in 19 years. Connecticut officials have been considering a restrictive policy for pursuits. This will

restrict when police throughout the state can chase vehicles as a response to an increase in police pursuits. The restrictions will set to decrease the number of pursuits and the amount of injuries or deaths caused by such pursuits (Collins, 2019). The previous policy outlines minimum standards that police must follow. This states that dangers to the officers and the public must be less than the dangers to the public if the driver of the vehicle were to remain at large. Currently, there is no restrictions of pursuing a vehicle regarding the type of crime committed.

Research Methodology

This research study will employ secondary data analysis as the main methodology. The researcher, along with Sacred Heart University, formed an agreement with the Police Officer Standards and Training Council regarding vehicle pursuit reports. The researchers agreed to collect completed vehicle pursuit reports as prepared by police officers in Connecticut during 2019. The officers used the standardized form created by the P.O.S.T.C for reporting pursuits by police officers pursuant to Sec. 3 (a) and (b) of Public Notices Act 18-161. The purpose of this partnership is to compile, analyze, and prepare an annual report regarding police pursuits not later than April 30, 2020 to the joint standing committee of the General Assembly in accordance with Sec. 3 (C)(4) of Public Notices Act 18-161.

The main component of secondary data is collected from pursuit forms (See Appendix A). These pursuit forms were collected from departments and officers that engaged in a motor vehicle pursuit during the 2019 year in Connecticut. Each department was required to prepare pursuit forms anytime an officer pursued a vehicle. Data from the forms can help to describe pursuit trends that are present in the state of Connecticut. From these forms, the descriptive data was translated into statistical data to analyze.

Sampling Methodology

The sampling methodology used for the content analysis of documents is availability sampling. Availability sampling acknowledges that the samples are convenient and easy to find, which means the pursuit forms are easily accessible to the researcher. The samples do not come from one set population, rather they come from different populations. The populations that they come from are the different departments within CT where a pursuit takes place. The sample was the police pursuits which occurred in different departments across Connecticut during 2019. The sample included 73 different police departments in Connecticut, including the Connecticut State Police. From each of these samples, trends were studied.

Conceptualization/Operationalization

A pursuit is defined as one or more police vehicles driving at a high speed in order to catch up to a vehicle where the driver is attempting to elude a law enforcement officer. These pursuits are self-reported by police officers that were present at the time of the pursuit. Each officer involved is required to fill out the pursuit form that will be sent to the P.O.S.T.C.

Each variable is taken from the police pursuit data forms. The following are the variables being studied in the research:

1) Department: This variable is identified through identification of the town in which a police pursuit occurred. The following police departments will appear in the data set: Berlin, Bethel, Bloomfield, Branford, Bridgeport, Bristol, Brookfield, Central Connecticut State University (CCSU), Cheshire, Clinton, Connecticut State Police, Coventry, Danbury, Darien, Derby, East Hampton, East Haven, East Lyme, East Windsor, Easton, Enfield, Fairfield, Farmington, Glastonbury, Granby, Greenwich, Groton, Guilford, Hamden, Hartford, Ledyard, Madison, Manchester, Meriden, Middletown, Milford, Monroe, Naugatuck, New Milford, Newington,

Newtown, North Haven, Norwalk, Old Saybrook, Orange, Plymouth, Ridgefield, Rocky Hill, Southern Connecticut State University (SCSU), Seymour, Shelton, Simsbury, South Windsor, Southbury CSP Troop A, Southington, Stamford, Stonington, Stratford, Suffield, Thomaston, Trumbull, Vernon, Wallingford, Waterbury, Waterford, Watertown, West Haven, Westport, Wethersfield, Willimantic, Wilton, Windsor, and Woodbridge.

2) Pursuit Rate: This variable is identified by the number of pursuits per officer.

3) Pursuit Rate Category: This variable is identified by the amount of pursuits present per officer. Low pursuit rate (1) is 10 or less pursuits per officer, Medium pursuit rate (2) is 10-20 pursuits per officer and High pursuit rate (3) is more than 20 pursuits per officer.

4) Number of Sworn Officers: This variable is identified through numeric values. Each department presents the number of sworn officers a specific department has.

5) Department Size Category: This variable is identified by small, medium, and large departments. Small department size (1) is identified as 0-40 sworn officers. Medium department size (2) is identified as 41-100 sworn officers. Large department size (3) is identified as over 100 sworn officers.

6) Reason Category: This variable is identified by the reason a pursuit was initiated by the officer. Violent Crimes (1), Property Crime (2), Motor Vehicle Violation (3), Suspicious Activity (4), and Other (5).

7) Month: This variable is identified by the month in which a pursuit took place.

8) Shift: This variable is identified by the shift in which a pursuit took place. Night Shift (1) occurs from 11PM-7AM, Day Shift (2) occurs from 7AM-3PM, and Evening Shift (3) occurs from 3PM- 11PM.

9) Time: This variable is identified by the time in which a pursuit took place.

10) Operation Rank: This variable is identified by the operating rank of the officer participating in the police pursuit. Officer and Detective (1), Corporal (2), Sergeant (3), Lieutenant and above (4).

11) In- Car Video: This variable identifies the presence of in-car video footage of the pursuit. This is identified through: No (1) and Yes (2).

12) BWC: This variable identifies the presence of body-worn cameras (BWC) during the pursuit. This is identified through No (1) and Yes (2).

13) Distance: This variable is identified by the length in miles in which a pursuit lasted for.

14) Terminate By: This variable is identified through which ranking officer terminated the police pursuit. This is identified through Supervisor (1), Officer (2), Other (3), and Not Terminated (4).

15) Termination Reason: This variable is identified by the reason behind the pursuit termination. Apprehended (1), Dangerous Conditions (2), Motor Vehicle Accident (3), Per Policy (4), Minor Offense (5), Other (6), and Evaded Police (7).

16) Road Condition: This variable is identified by the condition of the road during the time of the pursuit. The variables are Dry (0) and Wet (1).

17) Number of Vehicles: This variable is identified by the number of police vehicles used to pursue a fleeing vehicle.

18) Collision End: This variable identifies the presence of a collision as a result of a police pursuit. The variables are: No (0) and Yes (2).

19) Injury: This variable identifies the presence or absence of injuries as a result to a collision and police pursuit. The variables are: No (0) injuries and Yes (1).

20) Age: this variable is identified by a number to signify how old the occupant of the vehicle is.

21) Age Category: this variable is identified by two groups: Under 30 years old (0) and 30 years and older (1).

22) External Video: This variable is identified by the presence or absence of external video which can be used to review a pursuit. The variables are: No (0) and Yes (1)

23) Reviewed: This variable is identified by whether a pursuit was reviewed by a department. The variables are: No (0) and Yes (1).

Threats to Validity

There are situational or contextual factors that can challenge the validity of this research. One threat to the validity of this research includes the self-reporting system used for the recording of pursuits. As previously mentioned, police officers are required to utilize the standardized form created by the P.O.S.T.C for reporting pursuits by police officers pursuant to Sec. 3 (a) and (b) of Public Notices Act 18-161. The data is reliant on the departments who submit completed forms. The threat occurs when departments do not participate, which then skews the data samples. If a department has a pursuit but does not submit the form, then the results might not be accurate for the entire State of Connecticut. This makes it difficult because there is no way to know whether a department submitted the accurate number of forms, rather the researcher depends on the integrity of the officers to participate.

This sets limitations on the research that has been collected. If a department does not submit pursuit forms, valuable information might be left out when identifying new data trends. A department's lack of submitting forms can limit the scope of the research because not every subject of the population had been analyzed. Although, not every town/city has a pursuit occur, having a larger sample and population can contribute to forming a more accurate trend based on the entire state of Connecticut.

A second threat to validity is based on the self-reporting system used for these forms. Some police officers leave questions blank when filling out a pursuit form, thus leaving the data to be incomplete for that specific pursuit. Officers oftentimes hand-write these forms, which creates issues in deciphering what was written. These threats will cause the results to become inaccurate when compared to pursuits with all categories identified. Leaving important information out serves as a disadvantage to the data when compared to a fully completed pursuit form. Also, not being able to properly read a response can cause the researcher to record incorrect information. Ultimately, the forms become the main component to translate into data to analyze. If there is anything missing, the questions might not be examined accurately based on the variables compared. To eliminate this threat, all forms should be reviewed by the Supervisor of the police department, which can ensure that all the information is accurate and complete on the form. One of the variables studied revolves around the Supervisor's review of pursuits, which can identify if this had any effect on the overall prevalence of pursuits in a designated department.

Research Questions

1) Is the pursuit rate related to department size?

2) Does the reason for pursuit have any relationship with the pursuit termination reason?

3) Does the reason for pursuit have any relationship with the distance traveled?

4) Does the shift of an officer have any relationship with the reason for pursuit?

5) Does the shift of an officer have any relationship with the reason for termination?

6) Does the shift of an officer have any relationship with the distance traveled?

7) Is there a relationship between shift and the pursuit rate?

8) Does the size of the department have any relationship with the reason for pursuit?

9) Does the department size have any relationship with the reason for termination?

10) Does the presence of in- car video have any relationship with the pursuit rate?

11) Does the presence of BWC have any relationship with the pursuit rate?

12) Does the size of the department have any relationship with the presence of in- car footage?

13) Does the department size have any relationship with the presence of body-worn cameras?

14) Does the number of sworn officers have any relationship with the presence of body-worn cameras?

15) Does the number of sworn officers have any relationship with the presence of in-car video?

16) Does the department size have any relationship with the review of pursuits?

17) Does the number of vehicles involved in a pursuit have any relationship with a collision end?

18) Is there a relationship with the age of the motorist and distance traveled?

Results

Descriptive Analysis of Variables

Table 1

Pursuit Rate Category

	Frequency	Percent
LOW	247	36.1
MEDIUM	212	30.9
HIGH	226	33.0
Total	685	100.0

The pursuit rate category categorizes the pursuits based on the number of pursuits per officer. This chart demonstrates the number of pursuits that fit into each category based on the overall number of 685. A low pursuit rate is categorized as 10 or under pursuits per officer. A medium pursuit rate is categorized between 10-20 pursuits per officer. A high pursuit rate is categorized as 20 or more pursuits per officer.

Table 2

Department Size Category

	Frequency	Percent
SMALL	100	14.6
MEDIUM	267	39.0
LARGE	317	46.3
Total	684	99.9

The department size category categorizes each department based on the number of sworn officers. A small department size category is defined as 40 or less sworn officers. A medium department size category is defined as 41-100 sworn officers. A large department size category is defined as over 100 sworn officers.

Table 3

Reason Category

	Frequency	Percent
VIOLENT CRIME	74	10.8
PROPERTY CRIME	140	20.4
MOTOR VEHICLE VIOLATION	402	58.7
SUSPICIOUS	15	2.2
OTHER	54	7.9
Total	685	100.0

The reason category organizes the reasons in which a pursuit is initiated. Violent Crime can be defined as homicide, assault, sexual assault, robbery, or manslaughter. Property Crime can be defined as burglary, robbery, theft, larceny, motor vehicle theft, vandalism, and trespassing. Motor vehicle violation can be defined as running a red light/ stop sign, reckless or dangerous driving, racing, speeding, failure to signal, failure to have lights on, and many more. Suspicious Activity can be defined as a car that is out of place, removing accessories from a vehicle, or being in a place the vehicle should not be (i.e. near a crime scene). Lastly, Other can categorize crimes that do not fit into the other major categories listed. Other can be BOLO (be on the look-out), warrants, suicidal operators, DUI, etc. This chart identifies the frequency of each category, in which over 50% of the pursuits were initiated due to a motor vehicle violation.

Table 4

Shift Category

	Frequency	Percent
NIGHT (11x7)	299	43.6
DAY (7x3)	124	18.1
EVENING (3x11)	240	35.0
Total	683	96.8

The shift of an officer is organized in this chart. The shift is broken down based on the time in which a pursuit occurred. Night Shift occurs between 11pm and 7 am; Day Shift occurs between 7 am and 3 pm; and Evening Shift occurs from 3 pm to 11am. The descriptive data shows that Night Shift is when most of the pursuits took place, although many occurred in the Evening Shift as well. There were 22 pursuits that did not identify what time the pursuit occurred, which leaves a total of 663 pursuits accounted for.

Table 5

Operator Ranks Category

	Frequency	Percent
PO-DET	335	48.9
CORPORAL	10	1.5
SERGEANT	39	5.7
LT AND ABOVE	11	1.6
Total	395	57.7

The operator ranks category organizes the data based on who was operating the primary pursuit vehicle. The categories are Police Officer through Detective, Corporal, Sergeant, Lieutenant and above. There were 395 out of 685 pursuits which identified the primary pursuit operator. There was a total of 290 pursuits that did not account for the primary pursuit operator. This could be because the officer only wrote their name and not their rank. It seems that over 50% of the pursuits were pursued by the Police Officer through Detective category.

Table 6

In-Car Video Frequency

	Frequency	Percent
NO	249	36.4
YES	431	62.9
Total	680	99.3

The in-car video results are categorized based on the presence of in-car video during the pursuit. The categories are NO meaning there was no in-car video and YES meaning there was in-car video footage. The data showed that all pursuits except for 5 were accounted for. In fact, 431 out of 680 pursuits stated that there was in-car video footage at the time of the pursuit.

Table 7

Body-Worn Camera Frequency

	Frequency	Percent
NO	476	69.5
YES	202	29.5
Total	678	99.0

This table describes whether body-worn cameras were worn by an officer during the time of a pursuit. NO describes that there was not a BWC present, while YES describes that there was a BWC present during a pursuit. The data shows that 678 pursuits had accounted for this variable, leaving 7 pursuits unaccounted for. In over 50% of pursuits, there was no BWC present.

Table 8

External Video Frequency

	Frequency	Percent
NO	523	76.4
YES	118	17.2
Total	685	100.0

The external video describes whether there was external video footage present during the time of a pursuit. NO describes that there was no external video available, while YES describes that there was external video available. Although, only 641 out of 685 pursuits were accounted for. Data shows that 76.4% of pursuits did not have external video footage available.

Table 9

Terminate by Category

	Frequency	Percent
SUPERVISOR	228	33.3
OFFICER	231	33.7
OTHER	16	2.3
NOT TERMINATED	210	30.7
Total	685	100.0

This table describes who terminated the pursuit. The categories are defined by Supervisor, Officer, Other, or Not Terminated. Supervisor and Officer categories demonstrates that a pursuit was terminated by a law enforcement official. The Other category can demonstrate that a pursuit was terminated by another law enforcement official or the driver of the vehicle. While, 210 of these pursuits were categorized as Not Terminated.

Table 10

Termination Reason Category

	Frequency	Percent
APPREHENDED	32	4.7
DANGEROUS CONDITION	259	37.8
MOTOR VEHICLE ACCIDENT	25	3.6
PER POLICY	38	5.5
MINOR OFFENSE	60	8.8
OTHER	25	3.6
EVADED POLICE	243	35.5
Total	682	99.6

The Termination Reason category organizes the different reasons a pursuit was terminated. The categories are Apprehension, which means the suspect was caught; Dangerous Condition, which means that there were too many risks alongside the pursuit; Motor Vehicle

Accident, which means that the vehicle collided with another vehicle or an object; Per Policy, which means that the department policy prohibited the officer to pursue; Minor Offense, which means the offense was not substantial grounds to pursue a vehicle; Other, which means that the pursuit ended for other reasons such as the driver pulled over; and Evaded Police, which means that the driver was able to get away. Data shows that 259 pursuits were terminated due to the presence of dangerous conditions and 243 pursuits were terminated because the suspect evaded police. These are the two highest percentages of termination reasons.

Table 11

Road Conditions Category

	Frequency	Percent
DRY	607	88.6
WET	68	9.9
Total	675	98.5

The Road Condition data is organized into two different categories, DRY or WET. The data shows that 675 out of 685 pursuits were accounted for. Almost all the pursuits (607) took place when the road conditions were dry.

Table 12

Collision End Frequency

	Frequency	Percent
NO	559	81.6
YES	126	18.4
Total	685	100.0

This chart organizes the data based on whether there was a collision as a result of police pursuits. The two categories are NO there was no collision and YES there was a collision. The

data showed that 81.6% of all pursuits did not end in a collision. This demonstrates that the pursuit was likely terminated before it could lead to a collision.

Table 13

Injury Frequency

	Frequency	Percent
NO	641	93.6
YES	44	6.4
Total	685	100.0

The data for injury was categories by NO there was no injury and YES there was an injury as a result to the pursuit/ collision end. The data shows that almost all the pursuits (93.6%) did not end in injury. This demonstrates that there were very few injuries as a result of a collision and pursuit.

Table 14

Reviewed Frequency

	Frequency	Percent
NO	51	7.4
YES	632	92.3
Total	683	99.7

The reviewed category organized results of whether a pursuit was reviewed by the Supervisor of the department. The two categories are NO there was no review or YES there was a review of the pursuit. The data shows that 92.3% of pursuits were reviewed by the Supervisor. Although, this does not mean that it was within guidelines, rather solely based on the initial review.

Table 15

Descriptive Statistics- Sworn Officers, Distance Traveled, Number of Vehicles, and Average Age

	N	Range	Minimum	Maximum	Mean
SWORN	684	1016	15	1031	243.75
DISTANCE	526	41	0	41	2.67
NUMBER OF VEHICLES	682	29	1	30	1.54
AGE	377	83	0	83	29.70

The above data was represented through continuous values. The results present the overall numbers in each category, the range of numbers, the minimum and maximum numbers, and the mean average of each category. Sworn officers is the number of officers within each department. The mean number of sworn officers is 243.75. The distance of pursuits is expressed through miles. The mean distance of pursuits is 2.67 miles, coming from a minimum of under a mile and a maximum of 41 miles. The mean number of vehicles involved is 1.54, which the minimum number is 1 vehicle and the maximum was 30 police cars. The mean age is 29.70 years for operators of the pursuing vehicle.

Table 16

Pursuits Comparing Rate and Department Size

			PURSUIT_RATE_CATEGORY			
			LOW	MEDIUM	HIGH	Total
DEPT_SIZE_CAT	SMALL	Count	16	33	51	100
		% within DEPT_SIZE_CAT	16.0%	33.0%	51.0%	100.0%
	MEDIUM	Count	38	55	174	267
		% within DEPT_SIZE_CAT	14.2%	20.6%	65.2%	100.0%
	LARGE	Count	193	124	0	317
		% within DEPT_SIZE_CAT	60.9%	39.1%	0.0%	100.0%
Total		Count	247	212	225	684
		% within DEPT_SIZE_CAT	36.1%	31.0%	32.9%	100.0%

Table 16 explores the relationship with the department size and the amount of pursuits (pursuit rate category). It seems that there is a significant relationship between the size of a department and the rate at which vehicle pursuits occur (chi-square = 315.436; $p<.001$). Although the relationship is significant, the strength of such relationship is moderate ($V= .48$). The results show that overall 32.9% of pursuits were part of the “High-Rate” category of departments, but 65.2% of these pursuits occurred in a medium sized department. A medium sized department is typically comprised of 41-100 sworn officers. The high pursuit rate signifies that there will be 20 or more pursuits per officer. This demonstrates that there are a high number of pursuits per officer within such a department.

The results also show that 60.9% of low pursuit rates (0-10 pursuits per officer) occur in large departments. A larger department has 100 or more sworn officers. This shows that there are less pursuits per officer, not necessarily less pursuits overall. In addition, it is important to point out that the pursuit rate was 0% in large departments. This is significant because it demonstrates that there is a higher amount of pursuits within small and medium departments, leaving a low and medium pursuit rate for large departments. Generally, a larger department has less pursuits per each sworn officer.

Combining these two observations illustrate that medium sized departments, or those with between 41 and 100 sworn officers, are more likely to be in the “High-Rate” category of pursuits, and large departments are more likely to engage on fewer pursuits per officer compared to smaller departments.

Table 17

Reason Category with Termination Reason

			REASON CATEGORY					
			VIOLENT CRIME	PROPERTY CRIME	MV VIOLATION	SUSP.	OTHER	
TERMINATE REASON	APPREHENDED	Count	4	4	20	1	3	32
		% within TERMINATE_REASON	12.5%	12.5%	62.5%	3.1%	9.4%	100.0%
	DANGEROUS CONDITION	Count	21	61	150	11	16	259
		% within TERMINATE_REASON	8.1%	23.6%	57.9%	4.2%	6.2%	100.0%
	MOTOR VEHICLE ACCIDENT	Count	6	5	11	1	2	25
		% within TERMINATE_REASON	24.0%	20.0%	44.0%	4.0%	8.0%	100.0%
	PER POLICY	Count	1	11	23	0	3	38
		% within TERMINATE_REASON	2.6%	28.9%	60.5%	0.0%	7.9%	100.0%
	MINOR OFFENSE	Count	1	10	49	0	0	60
		% within TERMINATE_REASON	1.7%	16.7%	81.7%	0.0%	0.0%	100.0%
	OTHER	Count	4	5	10	0	6	25
		% within TERMINATE_REASON	16.0%	20.0%	40.0%	0.0%	24.0%	100.0%
	EVADED POLICE	Count	37	43	137	2	24	243
		% within TERMINATE_REASON	15.2%	17.7%	56.4%	0.8%	9.9%	100.0%
Total		Count	74	139	400	15	54	682
		% within TERMINATE_REASON	10.9%	20.4%	58.7%	2.2%	7.9%	100.0%

Table 17 explores the relationship between the termination reason and the reason category. This seeks to explore if the initial reason for starting the pursuit has any relationship on why the police terminate a pursuit. The relationship between these values is significant (chi-square= 56.237; $p<0.001$). Although the relationship is significant, the strength of this relationship is weak (V= 0.14). Based on the data, motor vehicle violations are oftentimes the center of attention in the reason category. The data shows of the 60 pursuits that were terminated because the offense was minor, 81.7% of these pursuits were motor vehicle violations. This allows officers to identify that the cost is not greater than the risk if the pursuit were to continue.

The data shows that 62.5% of motor vehicle violation pursuits are terminated due to apprehension. This demonstrates that officers terminate the pursuit, which ends in apprehension of the driver. Lastly, the data shows that 60.5% of pursuits that have been initiated due to motor vehicle violation end up being terminated per the department policy. A commonality of the policies revolves around the crime in which it is acceptable to engage in a pursuit- which MV violation ranks on the bottom.

It is also important to acknowledge that 243 pursuits had evaded the police. Although, 56.4% of those who evaded were motor vehicle violations. On the other hand, 15.2% of those who evaded the police had participated in a violent crime. This should grab attention of police departments due to the severity of the crime and the failure to apprehend a suspect of such crime. This can create a sense of danger in the community and should be considered one of the exceptions to pursuits.

Table 18

Pursuits Comparing Reason for Pursuit and Distance (in miles)

	N	Mean
VIOLENT CRIME	63	3.13
PROPERTY CRIME	115	3.59
MOTOR VEHICLE VIOLATION	294	2.09
SUSPICIOUS	14	2.73
OTHER	40	3.50
Total	526	2.67

Table 18 explores the relationship between the reason for pursuit and the distance of the pursuit (in miles). The reason for pursuits is defined by the crime in which caused the officer to pursue. The data demonstrates that there is a significant relationship ($F=3.796$; $p = .005$) between groups. The mean distance for property crime is 3.59 miles which is higher than the overall average of miles of pursuits which is 2.67 miles. The data also outlines the mean distance for other crimes (BOLO, suicidal drivers, DUI, etc.) is 3.50 miles.

The relationship within the data explains that the distance of a pursuit is longer when the offense is more serious. This can also be explained by the distance of motor vehicle violation which is 2.09 miles. Motor vehicle violations seem to be the least serious offense that causes a police pursuit. Although, over half of the pursuits were initiated due to the crime of motor vehicle violations. There is a higher volume of less serious offenses, though they are terminated sooner than other offenses.

Table 19.

Pursuits Comparing Reason Category and Shift

			SHIFT			
			NIGHT (11x7)	DAY (7x3)	EVENING (3x11)	Total
REASON_CAT	VIOLENT CRIME	Count	23	19	29	71
		% within REASON_CAT	32.4%	26.8%	40.8%	100.0%
	PROPERTY CRIME	Count	74	22	39	135
		% within REASON_CAT	54.8%	16.3%	28.9%	100.0%
	MOTOR VEHICLE VIOLATION	Count	178	63	150	391
		% within REASON_CAT	45.5%	16.1%	38.4%	100.0%
	SUSPICIOUS	Count	6	4	4	14
		% within REASON_CAT	42.9%	28.6%	28.6%	100.0%
	OTHER	Count	18	16	18	52
		% within REASON_CAT	34.6%	30.8%	34.6%	100.0%
Total		Count	299	124	240	663
		% within REASON_CAT	45.1%	18.7%	36.2%	100.0%

Table 19 seeks to explore the relationship between the shift of an officer and the reason for a pursuit. Based on the data, the relationship is significant (chi-square= 18.911; p=0.015). Although the relationship is significant, the relationship is considered to be weak (V= .12). The data shows that higher percentages of pursuit initiation occur during the Night shift between 11 pm and 7 am, stating that these officers are more likely to pursue vehicles. The data shows that 54.8% of all property crime pursuits occur during the Night shift.

This is important to point out that property crimes can be stealing vehicles, robbery, property damage, etc. More suspects may engage in behavior during the Night shift thinking they

will get away with it during the overnight hours. But as the data states officers will be more likely to pursue suspects in general. Just as the other data points out, a high percentage (45.5%) of motor vehicle violations occur during the Night shift. The Night shift seems to be the shift in which more pursuits are initiated, which could be due to the streets being less congested with traffic and people. This minimizes the public risk of danger when the officers decide to engage in a pursuit.

Table 20

Pursuits Comparing Shift and Termination Reason

			SHIFT			
			NIGHT (11x7)	DAY (7x3)	EVENING (3x11)	Total
TERMINATE_REASON	APPREHENDED	Count	12	6	13	31
		% within TERMINATE_REASON	38.7%	19.4%	41.9%	100.0%
	DANGEROUS CONDITION	Count	110	57	85	252
		% within TERMINATE_REASON	43.7%	22.6%	33.7%	100.0%
	MOTOR VEHICLE ACCIDENT	Count	15	6	2	23
		% within TERMINATE_REASON	65.2%	26.1%	8.7%	100.0%
	PER POLICY	Count	26	4	8	38
		% within TERMINATE_REASON	68.4%	10.5%	21.1%	100.0%
	MINOR OFFENSE	Count	25	10	20	55
		% within TERMINATE_REASON	45.5%	18.2%	36.4%	100.0%
	OTHER	Count	13	3	9	25
		% within TERMINATE_REASON	52.0%	12.0%	36.0%	100.0%
	EVADED POLICE	Count	98	38	101	237
		% within TERMINATE_REASON	41.4%	16.0%	42.6%	100.0%
Total		Count	299	124	238	661
		% within TERMINATE_REASON	45.2%	18.8%	36.0%	100.0%

Table 20 seeks to explore the relationship between the shift of the officer and the reason for termination. Based on the data, there is a significant relationship (chi-square= 24.29; p= 0.019) between the two factors. Although it is significant, the relationship is considered to be weak (V= .14). While comparing this data to Table 7, it seems that the Night shift is the shift in which most pursuits take place and later are terminated. The data shows that 68.4% of pursuits terminated due to policy reasons occurred on the Night shift. Although departments have their own requirements, most have limitations on pursuits including what offenses are acceptable to pursue. The data also shows that 65.2% of all pursuits terminated due to motor vehicle accidents occur during the Night shift. Based on the data, pursuits are more frequently terminated during the Night shift compared to the Day shift and Evening shift.

Table 21.

Pursuits Comparing Distance and Shift

	N	Mean
NIGHT (11x7)	227	3.07
DAY (7x3)	94	2.59
EVENING (3x11)	185	2.29
Total	506	2.69

Table 21 explores whether there is a relationship between the shift of an officer and the distance traveled for a pursuit. The data shows that the overall distance for a pursuit was 2.69 miles. When compared to the shift, it seems he relationship between these two variables is non-significant ($F= 1.943$; $p= .144$).

Table 22

Pursuits Comparing Pursuit Rate Category and Shift

			PURSUIT_RATE_CATEGORY			
			LOW	MEDIUM	HIGH	Total
SHIFT	NIGHT (11x7)	Count	93	90	116	299
		% within SHIFT	31.1%	30.1%	38.8%	100.0%
	DAY (7x3)	Count	38	41	45	124
		% within SHIFT	30.6%	33.1%	36.3%	100.0%
	EVENING (3x11)	Count	102	73	65	240
		% within SHIFT	42.5%	30.4%	27.1%	100.0%
Total		Count	233	204	226	663
		% within SHIFT	35.1%	30.8%	34.1%	100.0%

Table 22 explores the relationship between the shift and the pursuit rate for a given department. The pursuit rate is defined as the amount of pursuits per officer- low, medium, and high. Based on the results, it seems that the relationship between the two variables is significant (chi-square= 11.639; p= .020). The significance of the relationship can be considered as weak (V= 0.094). The data demonstrates that high rate pursuit departments have 38.8% of pursuits occur during the Night shift. This explains that more officers pursue vehicles during the Night shift. The officers during this shift can be more apt to pursue because there are less people on the roads during overnight hours, which eliminates threats of potential danger. Low rate pursuit departments have 42.5% of pursuits occur during the Evening shift.

Table 23

Pursuits Comparing Department Size Category and Reason for Pursuit

			DEPT_SIZE_CAT			
			SMALL	MEDIUM	LARGE	Total
REASON_CAT	VIOLENT CRIME	Count	7	14	53	74
		% within REASON_CAT	9.5%	18.9%	71.6%	100.0%
	PROPERTY CRIME	Count	21	47	72	140
		% within REASON_CAT	15.0%	33.6%	51.4%	100.0%
	MOTOR VEHICLE VIOLATION	Count	62	183	156	401
		% within REASON_CAT	15.5%	45.6%	38.9%	100.0%
	SUSPICIOUS	Count	5	3	7	15
		% within REASON_CAT	33.3%	20.0%	46.7%	100.0%
	OTHER	Count	5	20	29	54
		% within REASON_CAT	9.3%	37.0%	53.7%	100.0%
Total		Count	100	267	317	684
		% within REASON_CAT	14.6%	39.0%	46.3%	100.0%

Table 23 explores the relationship between the reason for pursuit (by category) and the size of the department (by category). The relationship between these variables is significant (chi-square= 37. 282; p= <.001). This significant relationship is considered to be weak (V= .17). The highest percentages of pursuits and the corresponding reasons fall in the large department category. The data demonstrates that of all the pursuits for violent crimes, 71.6% of them were conducted by officers in large departments.

Data also shows that 45.6 % of motor vehicle pursuits were conducted by medium departments. The data can generalize that within larger departments, officers pursue vehicles for

more serious offenses. As the offense becomes less serious, the likelihood of pursuing the vehicle decreases. Overall, most pursuits in general are conducted by large departments.

Table 24

Pursuits Comparing Department Size and Termination Reason

			DEPT_SIZE_CAT			
			SMALL	MEDIUM	LARGE	Total
TERMINATE_REASON	APPREHENDED	Count	5	13	14	32
		% within TERMINATE_REASON	15.6%	40.6%	43.8%	100.0%
	DANGEROUS CONDITION	Count	45	104	110	259
		% within TERMINATE_REASON	17.4%	40.2%	42.5%	100.0%
	MOTOR VEHICLE ACCIDENT	Count	3	7	15	25
		% within TERMINATE_REASON	12.0%	28.0%	60.0%	100.0%
	PER POLICY	Count	5	25	8	38
		% within TERMINATE_REASON	13.2%	65.8%	21.1%	100.0%
	MINOR OFFENSE	Count	9	32	19	60
		% within TERMINATE_REASON	15.0%	53.3%	31.7%	100.0%
	OTHER	Count	5	6	14	25
		% within TERMINATE_REASON	20.0%	24.0%	56.0%	100.0%
	EVADED POLICE	Count	27	79	136	242
		% within TERMINATE_REASON	11.2%	32.6%	56.2%	100.0%
Total		Count	99	266	316	681
		% within TERMINATE_REASON	14.5%	39.1%	46.4%	100.0%

Table 24 explores the relationship between the department size and the reason a pursuit was terminated. The relationship between these variables is significant (chi-square= 34.487; p= .001). Although the relationship shows significance, the strength of this is considered to be weak (V= .16). The data demonstrates that 60% of pursuits that were terminated due to a motor vehicle accident, occurred in a large department. Also, 56.2% of pursuits that evaded the police occurred within a large department.

The data shows that a higher percentage of pursuits are terminated for various reasons occur within a large department. This can be important to point out that more pursuits might be terminated in a large department because the jurisdiction is larger and there might be more sworn officers to be able to do so. Also, a larger jurisdiction or department means that there will be more pursuits overall. These factors can contribute to the high percentages of pursuits being terminated by a large department versus medium and small.

Table 25

Pursuits Comparing Pursuit Rate Category and In-Car Video Footage

			IN_CAR_VIDEO		
			NO	YES	Total
PURSUIT_RATE_CATEGORY	LOW	Count	113	130	243
		% within PURSUIT_RATE_CATEGORY	46.5%	53.5%	100.0%
	MEDIUM	Count	89	123	212
		% within PURSUIT_RATE_CATEGORY	42.0%	58.0%	100.0%
	HIGH	Count	47	178	225
		% within PURSUIT_RATE_CATEGORY	20.9%	79.1%	100.0%
Total		Count	249	431	680
		% within PURSUIT_RATE_CATEGORY	36.6%	63.4%	100.0%

Table 25 explores the relationship between the presence/ absence of in-car video and the pursuit rate category. It seems that the relationship is significant (chi-square= 36.841; p= <.001). The significance of this relationship is weak (V= .23). The data shows that 79.1% of all high rate pursuits have in-car video footage. The data also shows that 58% of all medium pursuit rate have in-car footage as do 53.5% of all low rate pursuits.

The data demonstrates that overall 63.4% of all pursuits (low, medium, and high) had in-car video footage of such pursuits. The presence of the footage can be positive reinforcement for the officer to continue a pursuit. This can be proof of the officer following the pursuit policy appropriately, or inappropriately, and can held aide the supervisor in the review of the pursuits.

Table 26

Pursuits Comparing Pursuit Rate Category and Body-Worn Cameras

			BWC		
			NO	YES	Total
PURSUIT_RATE_CATEGORY	LOW	Count	173	68	241
		% within PURSUIT_RATE_CATEGORY	71.8%	28.2%	100.0%
	MEDIUM	Count	123	89	212
		% within PURSUIT_RATE_CATEGORY	58.0%	42.0%	100.0%
	HIGH	Count	180	45	225
		% within PURSUIT_RATE_CATEGORY	80.0%	20.0%	100.0%
Total		Count	476	202	678
		% within PURSUIT_RATE_CATEGORY	70.2%	29.8%	100.0%

Table 26 explores the relationship between the presence/absence of body-worn camera (BWC) footage and the pursuit rate category. The purpose was to explore if the presence of a BWC had any relationship with the rate of pursuits. The relationship between these two variables is significant (chi-square= 25.659; p= <.0001). The significant relationship was shown to be weak (V= .20). The data shows that 80% of all high rate pursuits did not have BWC footage during the time of the pursuit. The high pursuit rate is an officer participating in over 20 pursuits.

The data also shows that 71.8% of all low rate pursuits did not have BWC footage during the time of the pursuit. Within the low rate, the officer will participate in under 10 pursuits.

These rates demonstrate that there was a lack of BWC during the recorded pursuits, in both high and low pursuit rate categories. In fact, 70.2% of all pursuits did not have BWC. This could be because there was other means of in-car video at the time of the pursuit, or the department does not require officers to wear BWC. The results can reflect that more officers pursue vehicles when there is no BWC footage on their persons- which record audio and visual.

Table 27

Pursuits Comparing Department Size and In-Car Video Footage

			IN_CAR_VIDEO		
			NO	YES	Total
DEPT_SIZE_CAT	SMALL	Count	55	45	100
		% within DEPT_SIZE_CAT	55.0%	45.0%	100.0%
	MEDIUM	Count	44	222	266
		% within DEPT_SIZE_CAT	16.5%	83.5%	100.0%
	LARGE	Count	150	163	313
		% within DEPT_SIZE_CAT	47.9%	52.1%	100.0%
Total		Count	249	430	679
		% within DEPT_SIZE_CAT	36.7%	63.3%	100.0%

Table 27 explores the relationship between the department size and in- car video footage. This seeks to explain whether the size of the department had any relationship to the presence/absence of in-car footage. The relationship between these variables is significant (chi-square= 77.942 p= <.001). The significance of the relationship is moderate (V= .34). The data shows that 83.5% of pursuits in the medium department size category had in-car video during the pursuit. This constitutes for departments that employ 41-100 sworn officers. It seems that 52.1% of large departments (100 or more officers) had in-car footage during the pursuit. Based on the data, it can be concluded that medium-sized departments rely on in-car video systems to record pursuits to a greater extent than other sized departments.

Table 28

Pursuits Comparing Department Size and Body-Worn Cameras

			BWC		
			NO	YES	Total
DEPT_SIZE_CAT	SMALL	Count	74	26	100
		% within DEPT_SIZE_CAT	74.0%	26.0%	100.0%
	MEDIUM	Count	210	54	264
		% within DEPT_SIZE_CAT	79.5%	20.5%	100.0%
	LARGE	Count	192	121	313
		% within DEPT_SIZE_CAT	61.3%	38.7%	100.0%
Total		Count	476	201	677
		% within DEPT_SIZE_CAT	70.3%	29.7%	100.0%

Table 28 explores the relationship between the department size and the presence/absence of BWC. The relationship was found to be significant (chi-square= 23.498; p= <.001). Although it is significant, Cramer's V test shows that the relationship is weak (V= .19). Data shows that 79.5% of medium sized departments did not have BWC present at the time of the pursuit. In a large department, 61.3% of officers did not have BWC present. More officers did not have BWC than officers who did have BWC. The data can show that only 29.7% of all pursuits had BWC present. This might be because body cameras are not necessary during a pursuit in which an officer remains in the vehicle. This can go to show that when there is no BWC present, more officers tend to pursue vehicles which is upheld in 70.3% of all pursuits.

Table 29

Pursuits Comparing Number of Sworn Officers with BWC

	BWC	N	Mean
SWORN	NO	476	216.69
	YES	201	299.70

Table 29 explores the relationship between the presence/absence of BWC with the number of sworn officers. The mean number of sworn officers that did not have BWC is 216.69 while the mean number of sworn officers that did have BWC is 299.70. Through Levene's Test for Equality of Variances, it seems that the relationship is non-significant (F= 1.948; p=.163)

Table 30

Pursuits Comparing Number of Sworn Officers with In-Car Video

	IN_CAR_VIDEO	N	Mean
SWORN	NO	249	166.66
	YES	430	283.68

Table 30 explores the relationship between the number of sworn officers and the presence/absence of in-car video during a pursuit. Based on the independent samples test, it seems that there is a significant relationship (F= 146.87; p= <.001). The mean number of officers who had in-car video is 283.68 and the mean number of officers who did not have in-car video is 166.66. The data shows that most sworn officers did have in-car video footage at the time of the pursuit. As previously mentioned, the presence of in-car video can provide evidence whether the officer followed policy.

Table 31

Pursuits Comparing Department Size and Status of Review

			REVIEWED		
			NO	YES	Total
DEPT_SIZE_CAT	SMALL	Count	8	92	100
		% within DEPT_SIZE_CAT	8.0%	92.0%	100.0%
	MEDIUM	Count	20	247	267
		% within DEPT_SIZE_CAT	7.5%	92.5%	100.0%
	LARGE	Count	23	292	315
		% within DEPT_SIZE_CAT	7.3%	92.7%	100.0%
Total		Count	51	631	682
		% within DEPT_SIZE_CAT	7.5%	92.5%	100.0%

Table 31 explores the relationship between department size and whether pursuits are reviewed. The relationship between these factors is non- significant (chi- square= .054; p=.974). The data shows that over 90% of pursuits in all departments (small, medium, and large) are reviewed.

Table 32

Pursuits Comparing Number of Vehicles and Collision End

	N	Mean
NO	558	1.43
YES	124	2.01
Total	682	1.54

Table 32 explores the relationship between the number of vehicles and the presence/ absence of collision. The results demonstrate there is a significant relationship (F= 13.254; p <.001). The data shows that the mean number of vehicles is 1.54. When there was a collision present, there was a mean number of 2.01 vehicles involved. Compared to a mean number of 1.43 vehicles involved when there was no collision.

The data explains that there is more likely to be a collision when there are more vehicles involved. This can potentially cause panic to the driver, causing him/her to collide into an object or another vehicle. Therefore, when other officers decide to join the pursuit, they should consider that there will be a higher chance of a collision occurring, which can also potentially inflict injuries.

Table 33

Pursuits Comparing Age Category and Distance

	AGE_CAT	N	Mean
DISTANCE	under 30	174	2.54
	30 and older	126	3.39

Table 33 explores the relationship between the age of the motorist and the total distance (in miles) of the pursuit. The average distance that a motorist under 30 years traveled was 2.54 miles. The average distance that a motorist 30 years and older traveled was 3.39 miles. The relationship between these two variables is non-significant (F= 3.596; p= .059). Which explains that the age of the motorist has no significant influence on the distance they travel during a pursuit.

Discussion

Every police pursuit of a motor vehicle is a dangerous undertaking. The decision to evade the police, and the decision by the police to pursue, is one of utmost importance and should be minimized at all costs. However, before discussing the implications of the data analysis, it's important to put these pursuit numbers in context with motor vehicle patterns in the state. In 2010 for example, the population of Connecticut was approximately 3.6 million people, and the number of licensed drivers was about 2.9 million. The CT DOT estimates that there were more than 10 million trips made by CT drivers every day (Connecticut Department of Transportation, 2012).

The Institute for Municipal and Regional Policy (IMRP) publishes data on the number of police motor vehicle stops made each year in CT (Ross, 2018). According to the latest IMRP report, CT police officers made approximately 560,000 motor vehicle stops each year, or about 1535 per day. Therefore, one out of every about 6,500 car trips results in a stop by the police. Furthermore, out of those 560,000 motor vehicle stops, there were 685 pursuits, or attempted stops. This translates into one pursuit out of every 818 stops, and one pursuit for every 5.33 million trips. Essentially, police pursuits, compared to the sheer volume of motor vehicle trips made every year in the state, are extremely rare. This shows that for the most part traffic stops are successful and do not require police to engage in pursuits. There had also been 96,879 accidents that occurred on Connecticut roads during 2010 (Connecticut Department of Transportation, 2012). While, there were only 126 collisions as a result of police pursuits during 2019. This is important to acknowledge because people assume that pursuits end in collisions, while there is a larger portion of the population to worry about in terms of collisions. The data demonstrates that pursuits are not that prevalent in society. The low rate of pursuits can also

explain that officers follow the pursuit policy that has been implemented, which they terminate or disengage when it is appropriate to do so.

When considering the population and the number of drivers in Connecticut, police pursuits are extremely rare when looking at the data side-by-side. While the number of drivers rises into the millions, only 685 of these people had engaged in a police pursuit. This leaves a population of 2.89 million people who had not engaged in police pursuits and followed the rules of the road, which is still extremely high. The rates of pursuits are low when looking at the big picture, which can be a result of the Connecticut pursuit policy.

A new policy was adopted in December 2019 (Appendix B) that outlines the requirements and guidelines of pursuits in Connecticut. The policy that was adopted was implemented prior to the research being conducted. The purpose of this policy was to establish a uniform statewide policy, which will serve as the minimum standard for police pursuits in Connecticut. The policy that has been implemented will serve as a part of the curriculum for all police officers with basic training and re-certification programs. Through training, officers will become educated on the applicable statues, court decisions, department policy, supervisory/ individual responsibilities, reporting requirements, inter-jurisdictional considerations, and pursuit driving skills and techniques. These guidelines will undoubtedly contribute to limiting the pursuit rates in Connecticut because officers know when it is appropriate to pursue a vehicle. This thorough policy helps to maintain a low rate of pursuits in relation to the overall population.

It is important to place the results from this research in context with other research on police pursuits. The existing research focused on many general areas of pursuits such as pursuit-related deaths and injuries, conditions surround pursuits, different guidelines of pursuit policies, characteristics of officers involved, alternatives to pursuits, and the outcome of pursuits. On the

other hand, this specific research focused on pursuit trends within the State of Connecticut during 2019. This study aimed to find specific trends about police pursuits to help influence further decisions on pursuit policies. The focus was centered on analyzing pursuit forms which provide important information of each pursuit. This exploratory study explored many possible relationships within the data.

After assessing the existing data with the current data, a trend was easily established regarding the prevalence of pursuits. It seems that motor vehicle violations were the leading reason that pursuits were initiated, both in the past and present times. In fact, Alpert et al (1997) and Reaves (2017) collected data on pursuits from the California Highway Patrol many years apart. Alpert found that 429 pursuits out of 700 pursuits were initiated due to motor vehicle violations. Reaves had presented similar findings from 115 agencies through the Bureau of Justice Statistics. It was found that 69% of pursuits were initiated due to motor vehicle violations. The current research revealed a similar pattern. Based off 685 pursuits in Connecticut, 402 (58.7%) were initiated due to motor vehicle violations (see Table 3). The data collected indicated that the main initiation reason was motor vehicle violations. Motor vehicle violations demonstrate that the operator was driving recklessly, which presents immediate risks to the public. It appears, therefore, that CT police pursuits are similar in nature to the ones reported in CA.

The P.O.S.T.C model policy, which is employed by CT departments, states that officers may engage in pursuits if he or she has reasonable suspicion that warrant the need to apprehend the operator in a timely manner due to the potential for harm to the public if such apprehension does not occur. Officers participating in pursuits must be able to defend the exigent need to apprehend the operator due to the potential harm or risk to the public. As the data outlined, there

are more motor vehicle pursuits than any other type of pursuit, which explains why officers are more likely to pursue these offenses. Vehicles traveling at high speeds or disobeying the rules of the road can put the larger population in danger. Even though the offense is minor, there is a high volume of these offenses which contributes to the officers need to apprehend these operators.

It is important to compare the reasons pursuits began with the termination reasons to explore the relationship between these two variables. Seeing that a vast majority of pursuits take place within different department sizes, shifts, and for different reasons, it raises questions as to the reasons behind termination. It brings forth the question of whether these same variables have a similar relationship with termination reasons, as they do with initiation. Table 17 explores the research question regarding the relationship between the reason for pursuit and the termination reason. The data shows that from the 60 pursuits that were terminated due to it being a minor offense, 49 (81.7%) were motor vehicle violations. This demonstrates that motor vehicle violations seem to be the leading reason that pursuits are initiated, and the lack of seriousness leads officers to terminate the pursuit. This shows that there is a relationship with the officer's decision to pursue and to terminate. It seems that officers choose to pursue motor vehicle violators, but after assessing the circumstances surrounding the pursuit, they decide it is not appropriate to continue. These results can demonstrate that the officers used the appropriate discretion while pursuing a vehicle.

According the P.O.S.T.C model policy, a police officer or supervisor may terminate pursuit at any time. It is important for officers to continuously assess the circumstances and decide whether the risks of the individual pursuit are greater than the public safety. This assessment must be done while also considering the reason for initiation. While motor vehicle violations are the most prevalent pursuit reason, they can be viewed as a minor offense. Due to

this evaluation, officers decide to terminate the pursuit. The decision to terminate motor vehicle pursuits is based on the safety of the officer and the public, which both parties could potentially be put in danger during a pursuit. The dangers that follow a high-speed chase are not worth putting the population at risk. Therefore, officers use their professional discretion to distinguish what pursuits should continue and what pursuits should be terminated.

The data provided insight to the party who is most likely to terminate a pursuit. It seems that the data presented similar trends between supervisors and primary pursuit officers. The data shows that 228 (33.3%) of pursuits required the supervisor to get involved and terminate the pursuit, while 231 (33.7%) of the pursuits were terminated by the primary pursuit officer. These percentages are strikingly close. This explains that officers oftentimes did use the appropriate discretion when terminating a pursuit, though when that discretion was not effective, supervisors had to step in. If officers had self-terminated pursuits more frequently, then supervisors would not have to get involved, taking away from other tasks in need of attention. To regulate self-termination, there can be additional specifications within policies to support an officer with his or her decision to pursue.

It appears that department size is related to vehicle pursuits. The results show that within a large department, 60.9% of the pursuits are low rate. Meaning, when there is a department with over 100 sworn officers, there is under 10 pursuits per officer. Interestingly, there are 0 high-rate pursuits in a large department. This shows that there are a higher number of pursuits per officer in small and medium sized departments. A larger department size calls for a lower amount of pursuits per officer because there are more officers in the field and the location of the department. A larger department will likely be in a densely populated area. As outlined in the P.O.S.T.C model policy, officers must consider the population density as well as vehicular and

pedestrian traffic in terms of a pursuit. These factors must be considered during the initiation of pursuits and the termination of all pursuits. This can help to explain the relationship between department size and the number of pursuits. There are no high rate pursuits in larger departments because of the high population density in these areas. If officers were to pursue a high number of vehicles in these heavily populated areas, then there would be a large population potentially at risk during a pursuit. Therefore, it seems that large departments oversee larger populations. When there are more people, there is more public danger. This explains why larger departments do not participate in high rate pursuits, opposed to less populated areas.

Full understanding of the relationship between department size and pursuit termination is beyond the scope of this research, however, it might be explained by several organizational variables. For example, it can center around training and oversight within the departments. A larger department might have more robust training and requirements. The best way to keep a larger population of officers in order is to enforce a set of requirements that must be followed. Within a large department, it will be harder for management to keep track of the entirety of officers. Therefore, it seems appropriate that strict training and requirements can help to manage the officers more efficiently. Whereas, in smaller departments the officers might have more opportunities to use their discretion with pursuits.

The time of day is also an important factor in police pursuits. The night shift was found to have the highest number of pursuits. It is known that the night shift occurs from 11pm to 7am. The night shift is during the calm hours of the night, when most businesses are unoccupied, and people are home. During these hours, the roads are less populated with both vehicular and pedestrian traffic. The P.O.S.T.C policy requires that officers to examine these factors when engaging in a pursuit. Officers are more likely to pursue during the overnight hours because there

are less people and vehicles on the roads, which minimizes the risk of danger that could arise. If the risk of danger is low, then the officer has a better chance of apprehending the operator without putting the population at risk.

It also appears that the reasons for initiating pursuits are related to the time of day. The night shift seems to be the most prevalent time that officers pursue vehicles. In fact, 54.8% of all property crime pursuits occurred during the night shift between 11pm and 7am. This can be due to the increased opportunity to commit crimes such as motor vehicle theft, burglary, larceny, and so on. While businesses are closed and vehicles are unattended, this provides opportunities for these crimes to be committed. Officers might be more likely to pursue this offense due to there being less traffic on the roads. While there is less traffic, this gives officers more opportunity to detect offenders while patrolling the area and to become alert when something seems suspicious. According to Jany (2019), experts say car thieves may drive more brazenly in a vehicle that is not their own. This provides the example that an offender might drive recklessly in a vehicle that is stolen, which allows the officer to detect that a crime is being committed. Since the roads are not congested, officers can pursue these vehicles. This helps to explain why the rate of property crimes pursuits is highest during the night shift.

Alongside the reasons for pursuit, the shift has a significant relationship with the termination reason. The data in Table 20 states that 68.4% of pursuits terminated due to policy requirements occurred during the night shift. It seems that different departments have different policies governing vehicular pursuits. The P.O.S.T.C. states that an officer can terminate a pursuit at his or her discretion based on the circumstances surrounding pursuits. The policy states that pursuits may be terminated when the immediate apprehension is not necessary to protect the public and apprehension is feasible at a later time. This can allow the officer to terminate the

pursuit and the possible danger that comes along with the pursuit. As mentioned, there is less pedestrian and vehicular traffic during the night shift, providing a decreased risk of danger. Officers can choose to terminate pursuits because apprehending an offender is not essential during this time. Meaning, the public is not in immediate danger by allowing the vehicle to continue onward. Since apprehension can be achieved later, officers terminate the pursuits which is represented in the data that has been presented.

The number of injuries was recorded in this research. Injuries contribute to the public scrutiny of pursuits. According the Bureau of Justice Statistics for 2009-2013, data showed that there were 2 serious injuries per 100 pursuits (Reaves, 2017). The current study shows that 6.4% of pursuits in Connecticut ended in injuries. In both past and present research, the rate of injury is low. This can be due to the policies that have been adopted by departments. The P.O.S.T.C. outlines in Section 13, the alternative measures to pursuits which are aimed to safely end pursuits. When a pursuit ends safely, there will be less injuries. Measures are utilized by officers to safety stop a vehicle from pursuing and to eliminate the possibility of a collision or injury. For example, roadblocks, boxing-in, intentional collision of offending vehicle, and tire-deflation devices are acceptable alternatives for Connecticut officers to utilize. The purpose of these methods is to attempt to refrain from injuring the driver as well as the public.

The research provided insight to traffic safety in general. While comparing traffic in CT and pursuits in CT, the data shows that pursuits are not as prevalent based on the number of drivers on the roads. After noting there is 2.9 million drivers on CT roads, the concern can revolve around the greater good of the people. Is the large population worth putting at risk to pursue a vehicle, especially for a minor infraction? It is evident that motor vehicle violation is a minor infraction that can potentially induce major risks. There were 402 collected pursuits out of

685, which had been related to motor vehicle violations. It would be a disservice to the community to allow officers to engage in high numbers of pursuits for reasons in which the cost does not outweigh the benefit. The data can provide insight to police operations as to what offenses should constitute means for a pursuit, which can influence the officer's discretion.

The results of the research are important because they outline trends centered around police pursuits from direct experiences. Police pursuits have been a hot topic in past and present times, so it is important to analyze any possible relationships that the data provided. Although there were studies done in the past, the current study collected data in a different manner. The data had been collected directly from a mandated pursuit form (see Appendix A), that provides an officer with specific requirements to be accountable for after the pursuit. The current study involves a more direct way of collecting data which helped to produce more valid results. Validity is important because it can provide better information for the P.O.S.T.C to educate police officers on all aspects of pursuits, coming from their own records.

The existing research relied solely on the data collected from the prescribe Pursuit Form and did not focus on the characteristics of officers. Noting the characteristics of officers can help the community to understand what types of officers would be more likely to pursue, but it will not help a department to address the dangers of pursuits. This information can be useful for a given department, but it does not contribute to the facts and the overall trends regarding police pursuits. Future research in this area should also include officer-level variables as well.

Moving forward, pursuit forms should be mandated within every state and police department. This can help to provide valuable information and data for specific departments, which is based on the prevalence of pursuits in their jurisdiction, as well as put forth an organized way of doing so. This can also be a way to collect the appropriate data which can limit

the amount of paperwork that can follow. This can allow the department to assess what needs to be done to regulate pursuits. Although utilizing existing data can be useful, it is in the best interest of police departments to focus on trends that are specific to them. The forms can provide information such as the areas that are “hot spots” in a jurisdiction, the officer who is most frequently pursuing vehicles, or even the most common reason for pursuit initiation. This can allow departments to make executive decisions or tailor policies based on what needs to be done to manage pursuits and the potential dangers.

Conclusion

It is important to analyze and explore all aspects of pursuit data. By doing so, it can educate the people within the community and the police force. Even though the past trends of pursuits cannot be changed, the data can help to encourage policy changes in the future and can also help train officers appropriately. The trends can help to train officers so that they use the appropriate discretion when faced with a pursuit or help the officers to utilize means of termination. Overall, the data in this study can be useful to provide data that supports the P.O.S.T.C. model policy that has been set in place as of December 2019.

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Appendix A.

An example of a pursuit form filled out by an officer.

STATE OF CONNECTICUT

DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION

Police Officer Standards and Training Council
Connecticut Police Academy

Pursuit Tracking Form

Department Name: _____

1. **Reason for pursuit:** Possibly in possession of a gun
2. **Date and time of pursuit:** 4/13/19 02:02
3. **Primary pursuit vehicle operator:** _____
4. **Type of vehicle utilized in pursuit:** Marked
5. **In car video:** Yes/(No)
6. **Body worn camera:** (Yes)/No
7. **Location pursuit initiated:** _____
8. **Location pursuit terminated:** N/A
9. **Location pursuit concluded, if not terminated:** _____
10. **Who terminated pursuit:** N/A
11. **Reason for pursuit termination:** N/A
12. **Weather conditions:** Wet
13. **Number of police vehicle(s) involved:** 2
14. **Was there a collision as a result of the pursuit:** Yes/(No)
15. **Injuries resulting from the pursuit:** None
16. **Describe damage to vehicles involved if question #14 was answered Yes:**

17. **Age of offender involved in pursuit:** 23
18. **Criminal history of offender, if any:** On Probation for Criminal Possession of a Firearm
19. **External video available:** Yes/(No)
20. **Was pursuit reviewed** (Yes)/No, **findings of supervisor, provide a brief narrative:** Complied with Departments Policy and Procedures

Please submit completed forms to: CTpolicepursuit@newtown-ct.gov

Appendix B.

Full copy of the P.O.S.T.C pursuit policy

POSTC Model Policy

Police Motor Vehicle Pursuit Policy

Sec. 1. Purpose

The purpose of this policy is to establish a Uniform Statewide Pursuit Policy in accordance with the provisions of Public Act 99-171, Public Act 19-90 and C.G.S section 14-283a(b). This policy shall serve as the minimum standard for all police pursuits in Connecticut, involving POSTC Certified Police Officers. Additional requirements adopted by an individual police agency shall not conflict with any provision of this policy.

Sec. 1. Policy

Pursuits of fleeing motor vehicles may present a danger to the lives of the public, officers, and those vehicle occupants involved in the pursuit. Each police agency shall be responsible for assisting police officers in the safe performance of their duties.

Sec. 3. Definitions

1. “Pursuit” means an attempt by a police officer in an authorized emergency vehicle to apprehend any occupant of another moving motor vehicle, when the driver of the fleeing vehicle is attempting to avoid apprehension by maintaining or increasing the speed of such vehicle or by ignoring the police officer’s attempt to stop such vehicle.

2. “Authorized emergency vehicle” means a police vehicle equipped with operable emergency equipment, including audible siren and red or blue flashing lights, while such vehicle is being operated by a police officer.

3. “Primary unit” means the police vehicle operated by a police officer that initiates a pursuit or any police vehicle operated by a police officer that assumes control of the pursuit.

4. “Secondary unit” means any police vehicle operated by a police officer that becomes involved as a backup to the primary unit and follows the primary unit at a safe distance.

5. “Supervisor” means a person designated by the police agency to have supervisory control over the operation of the agency’s vehicles during a pursuit.

6. “Communications” means the central dispatch center or personnel staffing the central dispatch center of the police agency in the jurisdiction where the pursuit is occurring.

7. “Uniform Statewide Pursuit Policy, “known as “the policy” or “this policy,” means Sections 14-283a-1 to 14-283a-4, inclusive, of the Regulations of Connecticut State Agencies.

8. “Police agency” means the Division of State Police within the Department of Public Safety, including local police officers serving in municipalities with a Resident State Trooper, or an organized municipal police department.

Sec. 4. Procedures

A. Initiation of Pursuit

1. A police officer may only engage another vehicle in a pursuit if he/she has reasonable suspicion to believe that the driver or occupant has committed or is attempting to commit a crime of violence, or there are exigent circumstances that warrant the need to apprehend the suspect in a timely manner because of the potential for harm to the public if the apprehension

does not occur. The officers must be able to articulate the exigent need to apprehend the driver of occupant because of the potential harm or risk to the public.

2. Offenses that constitute Infractions, property crimes, (to include stolen motor vehicles), non-violent misdemeanors and non-violent felonies shall not be justification to engage in a pursuit of another vehicle, absent articulable exigent circumstances.

3. The officers involved in the pursuit and their supervisor's shall continuously reassess the factors listed above to determine whether the pursuit shall continue or be terminated.

4. A pursuit shall not be undertaken, even if allowable by other provisions of this policy, unless and until the officer, based upon the information available to him/her at the time, shall make an objectively reasonable determination that the threat of imminent death or serious physical injury to the officer, the public or both, created by the pursuit is less than the immediate or potential danger to the public, should the suspect(s) or occupant(s) remain at large. A decision to engage in a pursuit shall be based upon the following:

- *a. The underlying crime for which the operator or occupants are suspected of committing;*
- *b. Whether the identity of the operator or occupant is known and apprehension by other means is possible;*
- *c. That the immediate danger to the public and the police officer created by the pursuit is less than the immediate danger to the public should the occupants of the pursued vehicle remain at large;*
- *d. Location, speed, direction of other traffic, population density, type of vehicle being pursued and operators driving behaviors;*

e. Environmental factors such as, weather, time of the day, visibility;

f. Relative capability of the police vehicle(s) and the vehicle being pursued;

g. Road conditions, including surface type, wet, icy, dry roadway. Road typography, traffic controls;

h. The presence of other people in the police vehicle;

i. Population density, vehicular and pedestrian traffic.

Sec. 5. Pursuit Operations

1. All authorized emergency vehicle operations shall be conducted in strict conformity with Sections 14-283a-1 to 14-283a-4, inclusive, of the Regulations of Connecticut State Agencies, and section 14-283a of the Connecticut General Statutes.
2. Upon engaging in or entering into a pursuit, the pursuing vehicle shall activate appropriate warning equipment. An audible warning device shall be used during all such pursuits.
3. Upon engaging in a pursuit, the police officer shall immediately notify communications of the location, direction and speed of the pursuit, the description of the pursued vehicle and the initial purpose of the stop. The police officers shall keep communications updated on the pursuit. Communications personnel shall immediately notify any available supervisor of the agency or agencies involved in such pursuit, clear the radio channel of non-emergency traffic, and relay necessary information to other police officers of the involved police agency or agencies, and adjacent police agencies in whose direction the pursuit is proceeding.
4. When engaged in a pursuit, police officers shall drive with due regard for the safety of persons and property.

5. Unless circumstances dictate otherwise, a pursuit shall consist of no more than three police vehicles, one of which shall be designated as the primary unit. No other personnel shall join the pursuit unless instructed to participate by a supervisor.
6. The primary unit involved in the pursuit shall become secondary when the fleeing vehicle comes under police air surveillance or when another unit has been assigned primary responsibility.

Sec. 6. Supervisory Responsibilities

1. When made aware of a pursuit, the appropriate supervisor shall evaluate the situation and conditions that caused the pursuit to be initiated, the need to continue the pursuit, and shall monitor incoming information, coordinate and direct activities as needed to ensure that proper procedures are used. Such supervisor shall also have the authority to terminate the pursuit. When the agency supervisor communicates a termination directive, all agency vehicles shall disengage warning devices and cease the pursuit.
2. Where possible, a supervisory police officer shall respond to the location where a vehicle has been stopped following a pursuit.

Sec. 7. Pursuit Tactics

1. Police officers not engaged in the pursuit as the primary or secondary unit shall not normally follow the pursuit on parallel streets unless authorized by a supervisor or when it is possible to conduct such an operation without unreasonable hazard to other vehicular or pedestrian traffic.
2. When feasible, available patrol units having the most prominent markings and emergency lights shall be used to pursue, particularly as the primary unit. When a pursuit

is initiated by other than a marked patrol unit, such unit shall become the secondary unit when a marked unit becomes available as the primary unit, and such unit shall disengage from the pursuit when another marked unit becomes available as the secondary unit.

3. Motorcycles may be used for a pursuit in exigent circumstances including, but not limited to, situations where a felony has been committed, deadly force has been used by a vehicle occupant, or the pursuit is necessary to preserve a life, provided that weather and related conditions allow such pursuit to continue. Motorcycles shall disengage from the pursuit when support from marked patrol units becomes available.
4. Once the pursued vehicle is stopped, police officers shall utilize appropriate police officer safety tactics and shall be aware of the necessity to utilize only the force the police officer reasonably believes to be necessary to take occupants into custody.
5. All intervention techniques short of deadly force shall be used when it is possible to do so in safety and when the police officers utilizing them have received appropriate training in their use. Such techniques shall include, but not be limited to, boxing in the vehicle or using controlled termination *devices such as stop sticks*.
6. Roadblocks are prohibited unless specifically authorized by the supervisor in charge after consideration of the necessity of applying deadly physical force to end the pursuit.

Sec. 8. Use of Firearms during a Pursuit

1. Officers should not discharge their firearms at a moving vehicle or its occupants unless, the occupants are using deadly physical force against the officer or another person present, by means other than the vehicle.

a. This does not preclude exigent circumstances such as, but not limited to, where the officer reasonably believes there are no other means available to avert the threat of the

vehicle, or if such vehicle is being utilized as a weapon against the others such as in a vehicle ramming attack.

b. No officer should intentionally position his or her body into the path of a fleeing motor vehicle, unless such action is a tactic approved by the law enforcement unit that employs such police officer. Whenever possible, the involved officer should make a reasonable effort to move to an area of safety if the vehicle becomes a threat, including retreating from the threat, if practical.

Sec. 9. Termination of the Pursuit

1. The police officer serving as the primary unit engaged in the pursuit shall continually re-evaluate and assess the pursuit situation, including all of the initiating factors, and terminate the pursuit whenever he or she reasonably believes that the risks associated with continued pursuit are greater than the public safety benefit of making an immediate apprehension.
2. The pursuit may be terminated by the primary unit at any time.
3. A supervisor may order the termination of a pursuit at any time and shall order the termination of a pursuit when the potential danger to the public outweighs the need immediate apprehension. Such decision shall be based on information known to the supervisor at the time of the pursuit.
4. A pursuit may be terminated if the identity of the occupants has been determined, immediate apprehension is not necessary to protect the public or police officers, and apprehension at a later time is feasible.
5. A pursuit may be terminated when the police officers are prevented from communicating with their supervisors, communications or other police officers.

6. *A pursuit shall be terminated if the police officer knows or is reasonably certain, that the fleeing motor vehicle is being operated by a juvenile and the suspected offense is not a violent felony.*

Sec. 10. Inter-Jurisdictional Pursuits

1. The primary unit shall notify communications when it is likely that a pursuit will continue into a neighboring police agency's area of law enforcement responsibility or cross the state line. Municipal police agencies and the State Police shall notify each other whenever entering the other's area of law enforcement responsibility.
2. A pursuit into a bordering state shall comply with the laws of both states and any applicable inter-agency agreements.
3. In all cases where a pursuit enters an area of law enforcement responsibility of a police agency other than that of the initiating police agency, the police agency in pursuit shall be responsible for immediately notifying the police agency responsible for such area. The desk officer or duty supervisor for the police agency responsible for such area shall determine if assistance is necessary and police officers from police agencies other than the initiating agency shall not join the outside pursuit unless:
    a. Directed by such duty supervisor or desk officer; or
    b. The involved pursuit unit is unable to request assistance; or
    c. The situation demands immediate assistance. The supervisors of the respective police agencies involved in the pursuit shall communicate with each other to determine the respective responsibilities of each police agency and to determine which police agency will assume primary operational control of the pursuit. The supervisors shall also communicate with each other regarding any external

conditions pertinent to the continued conduct of the pursuit. Communications between police agencies shall be controlled by inter-agency police radio systems, if they exist, or by telephone, or by both.

4. In all cases where the pursuit enters a municipality without a regularly organized police department, notification shall be made to the State Police troop responsible for that area. Such troop shall maintain radio communications with all local police officers serving in any such municipality.
5. *Agencies pursuing a vehicle into another jurisdiction must most notify that jurisdiction as soon as practical, providing that agency with all other available information pertinent to the pursuit, including but not limited to:*
    1. *The reason(s) for the pursuit, or primary offense the driver or occupant(s) are believed to have committed*
    2. *Location, speed, and direction of travel*
    3. *Vehicle and occupant(s) description*
    4. *The number of vehicles and agencies involved in the pursuit*
    5. *Whether assistance is requested/needed or not*
    6. *Other available information as to the conditions of the pursuit*

When/if appropriate, the initial agency will notify the jurisdiction when/if the pursuit has been terminated or is leaving their jurisdiction.

Any agency involved in the pursuit may, at its discretion, choose to terminate its involvement in a pursuit at any time. The supervisor and the police officers involved in the pursuit shall make their own determination whether their officers shall enter, continue or terminate the pursuit within their jurisdiction.

Sec. 11. Post-Pursuit Reporting

1. Whenever a police officer engages in a pursuit, the police officer shall file a written report on the appropriate form required by his or her agency describing the circumstances. This report shall be reviewed by the appropriate supervisor or supervisors to determine if policy has been complied with and to detect and correct any training deficiencies.
2. Each police agency shall periodically analyze its police pursuit activity and identify any additions, deletions or modifications warranted in agency pursuit procedures.
3. *Post-Pursuit reports shall be completed for each police pursuit in accordance with department policy and training.*
4. *In accordance with Public Act 19-90 and C.G.S. section 14-283a(a)(2), Not later than January 31, 2020, and annually thereafter, each Chief of Police and the Commissioner of the Department of Emergency Services and Public Protection shall submit an annual report to the Police Officers Standards and Training Council regarding pursuits by police officers, on the standardized form developed and promulgated by POSTC*
5. *Each police agency involved in the pursuit must report their involvement to POSTC on the designated reporting form. Departments shall indicate on the form whether they were the initiating agency or a secondary unit.*

Other Pursuit Considerations

1. *High speed operation - A police officer in pursuit may operate his or her vehicle at a speed that the condition of his or her vehicle, existing road, traffic, environmental conditions, and his or her driving abilities will safely permit.*
2. *Number of involved pursuit vehicles - No more than three police vehicles shall be actively involved in a pursuit, unless directed otherwise by a commander or supervisor, however, all police officers should be alert to the progress and location of any nearby and ongoing pursuit.*
3. *Offensive driving tactics are limited - Deliberate contact between vehicles, (i.e., intentional collision or ramming) shall not be attempted unless deadly force or potentially deadly force is indicated and permission is obtained from a supervisor.*
4. *Operating against the flow of traffic is prohibited - A police officer shall not pursue a violator operating against the flow of traffic on any limited access highway, divided highway, highway access ramp or one-way street.*
5. *Spacing of Vehicles - All police units in active pursuit shall space themselves at reasonable and safe distances to permit adequate braking and reaction times if any preceding vehicle stops, slows, turns, becomes disabled or collides with any vehicle or object.*
6. *Police officers shall operate available emergency warning lights and their vehicle siren to alert other motorists to unexpected pursuit vehicle maneuvers.*
7. *A police pursuit vehicle entering any intersection against traffic control signals or signs shall slow to safe speeds and be prepared to slow or stop to avoid any collision.*

Sec. 13. Forced Stop Procedures (Alternative Measures)

1. *Forced stop procedures short of deadly force, may be considered to stop a fleeing vehicle only after all other reasonable alternatives have failed;*
2. *Forced stop procedures may be considered when the necessity for an immediate apprehension outweighs the dangers presented to all parties involved and innocent persons.*
3. *Forcing vehicles to stop usually presents serious safety hazards to participants and any innocent persons who are present.*
4. *Forced stop procedures must be reasonably and properly applied by police officers who have received appropriate training in their use and have received authorization from their supervisor, absent exigent circumstances.*
5. *Forced stop procedures shall be conducted in accordance with department policy and training.*

A. *Roadbloacks*

    1. *Use of a roadblock, ramming or forcing a vehicle from the roadway may be employed if deadly force can be reasonably applied to apprehend one of the following persons, after all other reasonable alternatives have been exhausted or would be ineffective;*
    2. *A dangerous fleeing felon - A person for whom there is reasonable cause to believe that the person has committed a violent felony involving an actual or threatened attack which the police officer has reasonable cause to believe could or has resulted in death or serious physical injury; or*

3. *Any person who is operating a motor vehicle recklessly and in such a manner as to be reasonably likely to cause death or serious injury to any other person should he or she be allowed to continue operation of the vehicle.*
4. *The use of a roadblock shall be used in accordance with department policy and training.*

B. *Boxing-In*

1. *Boxing in shall only be performed at relatively low speeds. The use of such a tactic must be carefully coordinated with all involved vehicles, taking into consideration the circumstances and conditions apparent at the time, as well as the potential risk of injury to police officers, the public and the occupants of the violator vehicle.*
2. *Boxing in normally requires two or more police units to position themselves around the violator to form a box at low speeds pursuits. Once the fleeing vehicle is blocked, the police pursuit vehicles slowly and gradually reduce their speed, causing the violator to stop.*
3. *It must be anticipated that a violator may attempt to maneuver past the lead blocking vehicle or intentionally collide with it or one of the other blocking vehicles to move out of the box.*
4. *Boxing-in techniques shall be used in accordance with department policy and training.*

C. *Intentional Collison of the Offending Vehicle*

1. *A deliberate contact between a police vehicle and a violator's vehicle and is intended to cause the violator to spin or leave the roadway in a slow and controlled manner.*
2. *This technique should be used in accordance with department policy and training.*
3. *When considering intentional collision of a violator, each police officer and supervisor must be aware that these actions may result in serious physical injury or death and may activate the vehicle airbags or fuel system shut-offs causing the police vehicle to become disabled.*

D. *Tire Deflation Devices – Stop Sticks*

1. *Police officers must first complete a department required training course on the use of Tire Deflation Devices. These devices shall only be used in accordance with department policy.*
2. *Stop Sticks shall not be deployed to stop Motorcycles, or other vehicles with less than four (4) wheels.*

Sec. 14. Vehicle Pursuit Training

Police officers who drive police vehicles shall be given initial and periodic update training in the agency's pursuit policy and in safe driving tactics. The provisions of Sections 14-283a-1 to 14-283a-4, inclusive, of the Regulations of Connecticut State Agencies shall be a part of the curriculum for all police basic recruit-training and re-certification programs in Connecticut.

1. *Pursuit Training Programs shall consist of:*
    a. *Knowledge of applicable statues*
    b. *Court decisions impacting police pursuits*
    c. *Department policy*

d. Supervisory and individual responsibilities in a police pursuit

e. Reporting requirements

f. Inter-jurisdictional considerations

g. Pursuit driving skills and techniques.