



BPD Use of Force and Response to Resistance
Analysis
1/25/17



Definitions

Police Use of Force:

“The amount of effort required by police to compel compliance by an unwilling subject”-IACA

BPD Policy (threshold for writing a report):

Any action other than compliant hand-cuffing that an officer is required to use to:

- 1) arrest an individual suspected of committing a crime
- 2) temporarily detain an individual to complete an investigation
- 3) address an immediate threat to the safety of the public , law enforcement officers, or the person of interest

as a result of non-compliance

In determining whether a particular response to resistance (use of force option) is objectively reasonable the officer must consider;

- 1) the seriousness of the offense the officer suspects when the force option is employed;
- 2) whether or not the subject poses an immediate physical threat to the officer or others and the degree of that threat
- 3) whether the subject is actively resisting or attempting to evade arrest by flight;
- 4) whether the totality of the circumstances justify the officer’s response

International Association of Chiefs of Police. *Police Use of Force in America 2001*.



Definitions (analytical)

Term	Definition
Use of Force Event	Use of force occurrence in a single time and location which could include multiple officers and suspects (determined by unique "Incident Number")
Use of Force Interaction	Any unique suspect vs officer contact involving an officer use of force. Multiple Use of Force Interactions can make up a single Use of Force Event.
Use of Force Iteration	Any individual action an officer takes against a suspect within a unique Use of Force Incident
Suspect Resistance Iteration	Any individual act of resistance a suspect takes against an officer within a unique Use of Force Incident



Analysis: Scope of UOF in Burlington

From 07/01/2010 to 10/31/2016:

1,681 UOF events

2,819 unique UOF interactions

6,936 UOF iterations

*1,988 suspects

This means:

1.2 suspects per event

1.7 unique police-suspect interactions per event

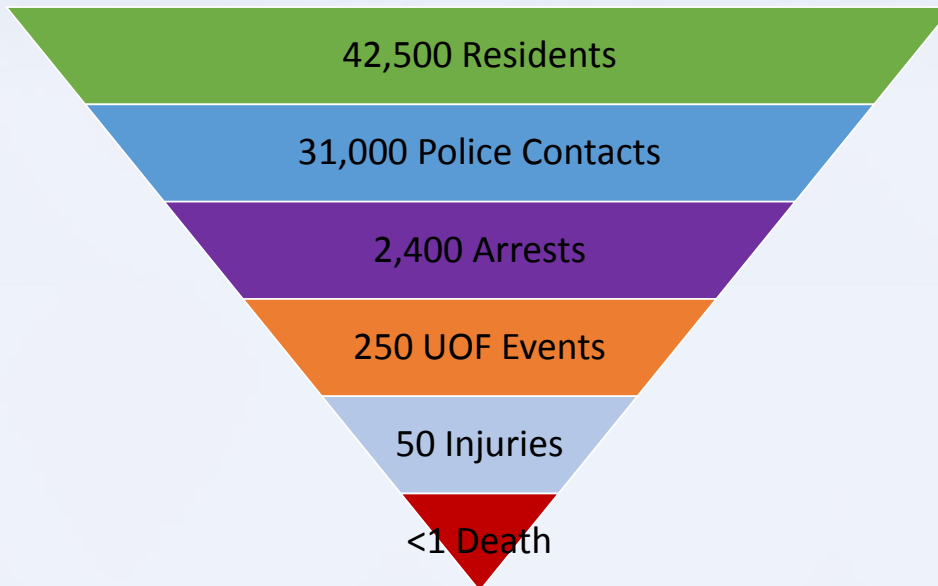
3.5 iterations of force per suspect

4.2 iterations of force per event

Analysis: Scope of UOF in Burlington



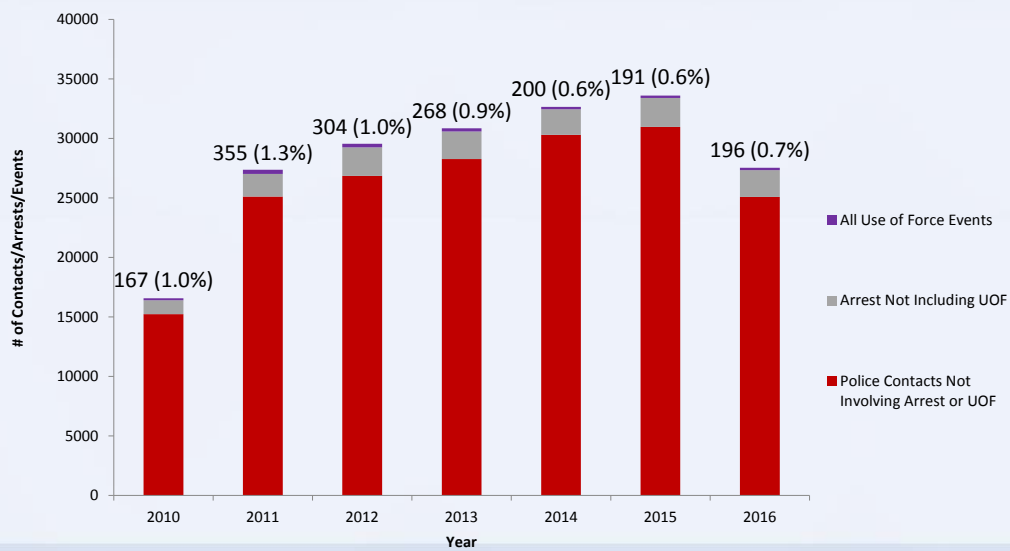
Each Year in Burlington:



Analysis: Scope of UOF in Burlington



UOF Events by Year Compared to Police Contacts and Arrests

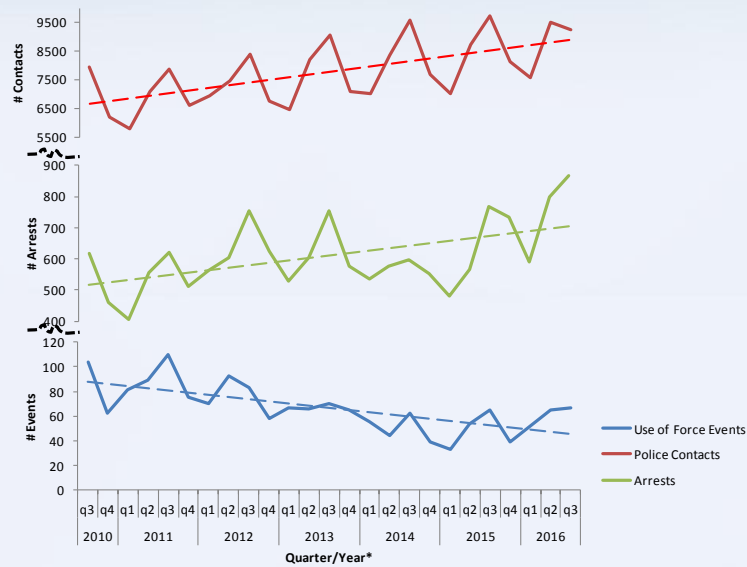


UOF events make up 1% of police contacts and 11% of arrests

Analysis: Scope of UOF in Burlington



Use of Force Events Compared to Calls for Service and Arrests 2010-2016



Analysis: Description of Data



Table I. Types of Suspect Resistance and Officer Force Used in UOF Interactions

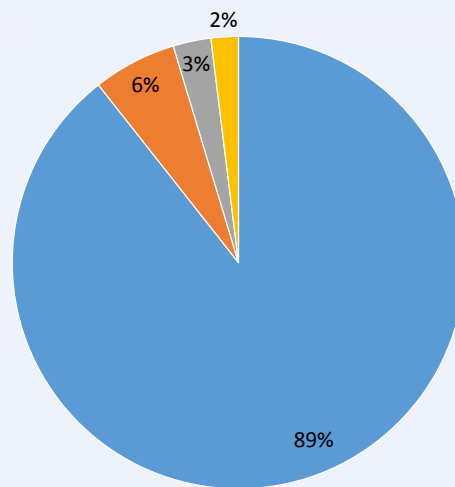
Type of Resistance	Suspect Resistance		Type of Force	Officer Force	
	# Unique Interactions	% Unique Interactions		# Unique Interactions	% Unique Interactions
Weapon used by Suspect	87	3.1%	Firearm Fired	4	0.1%
Simple Assault on LEO	69	2.4%	Projectile Launcher Used	5	0.2%
Assaultive	411	14.6%	Canine Bite	5	0.2%
Active Physical Resistance	1444	51.2%	Taser Used	81	2.9%
Escape/Flee from Detention	283	10.0%	Taser Shotgun Used	2	0.1%
Pre Assault Cues	310	11.0%	Firearm Pointed	644	22.8%
Passive Physical Resistance	209	7.4%	Baton Used	19	0.7%
Verbalized Challenge/Threats or Non Compliance	107	3.8%	OC Spray Used	306	10.9%
Refused Verbal Commands and Directions	843	29.9%	Taser Pointed	104	3.7%
Walked/Ran Away	90	3.2%	OC Spray Pointed	78	2.8%
None	701	24.9%	Projectile Launcher Presented	7	0.2%
			Taser Displayed	88	3.1%
			Empty Hand Techniques/Pain Compliance	948	33.6%
			Physical Force	881	31.3%
			Canine Command Presence	18	0.6%
			Baton Presented	12	0.4%
			Baton Escort	20	0.7%
			Applied Handcuffs/Tightness/Double Locked	708	25.1%
			Verbal Commands/Directions Given	1403	49.8%
			Other	252	8.9%
			None	103	3.7%
Total Unique Interactions:	2819		Total Unique Interactions:	2819	

Analysis: Weapons Used During Arrests



Most Severe Force Used in Interactions Involving an Arrest (n=15,423)

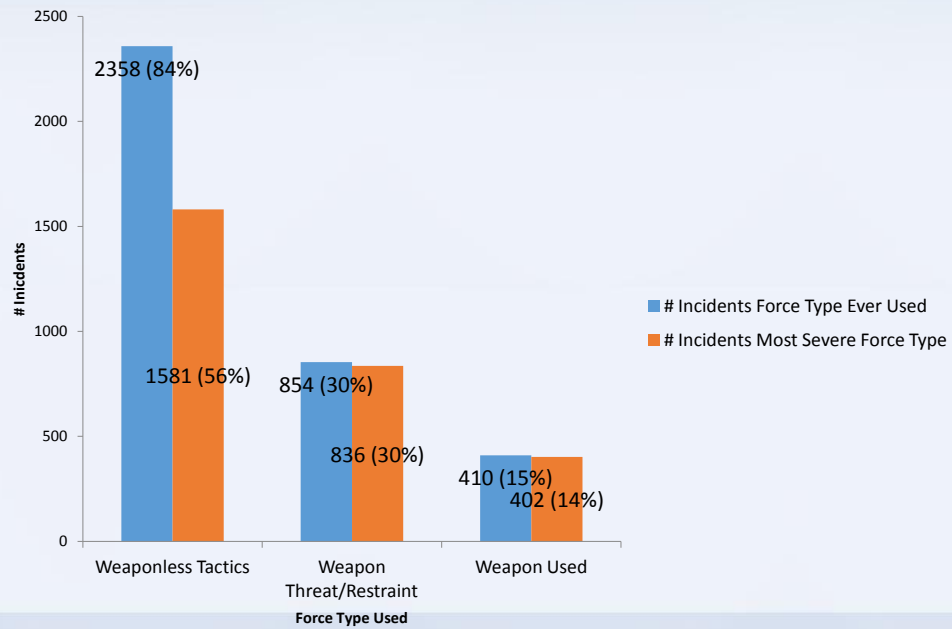
■ No Force Used ■ Weaponless Tactics ■ Weapon Threat/Restraint ■ Weapon Used



Analysis: Weapons Used During UOF Incidents



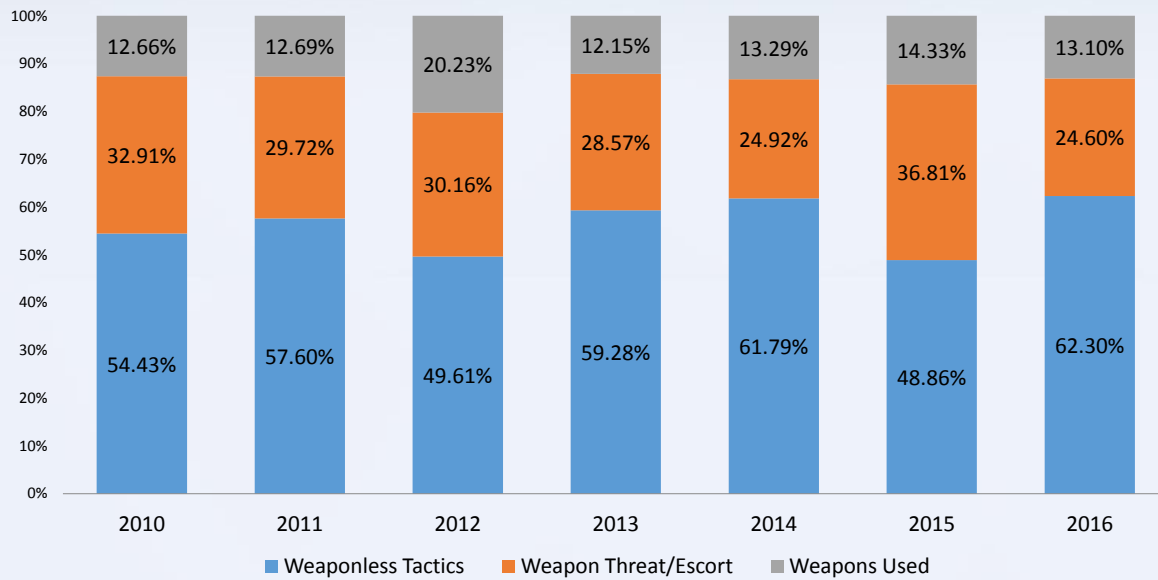
Force Types Used in UOF Interactions Compared to Most Severe Force Type Used Per Interaction



Analysis: Weapons Used During UOF Incidents



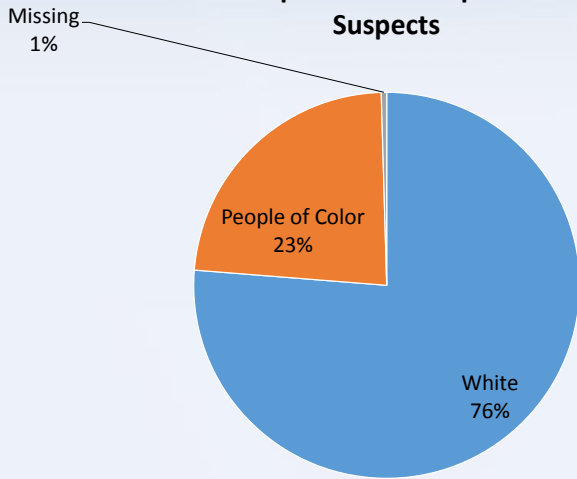
Most Severe Police Force Type Used Per Unique Interaction by Year
(n=2819)





Analysis: Racial Breakdown

White vs People of Color Population in UOF Suspects

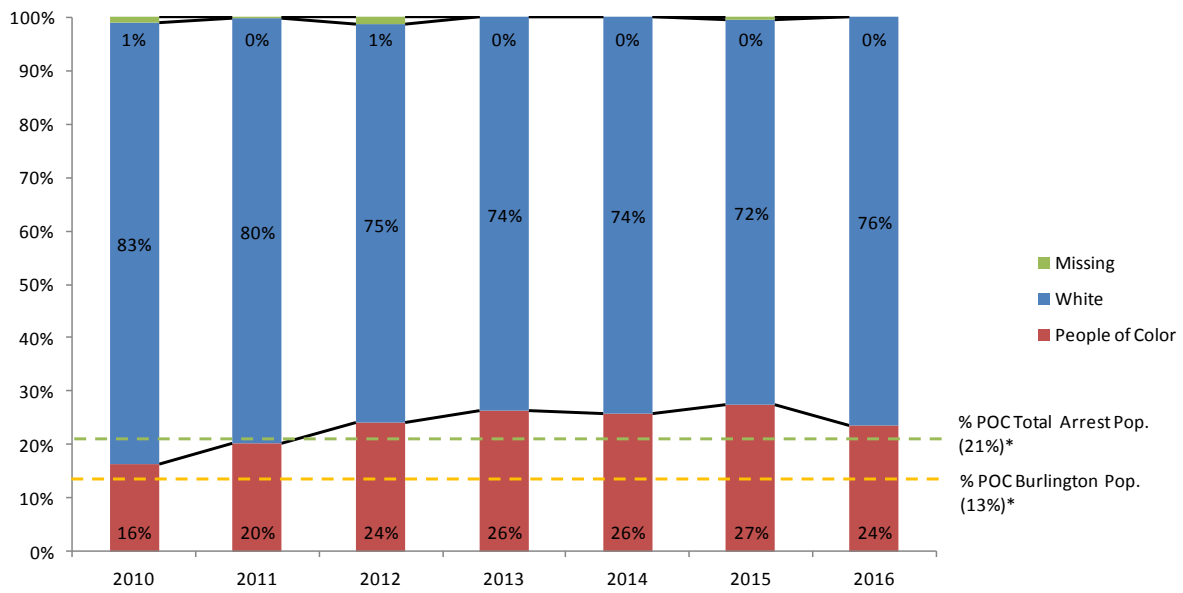


Race/Ethnicity	# Suspects	% Suspects
White	1516	76.26%
Black	354	17.81%
Hispanic	44	2.21%
Asian	33	1.66%
Other	32	1.61%
Missing	9	0.45%
Total	1988	100.00%



Analysis: Racial Breakdown

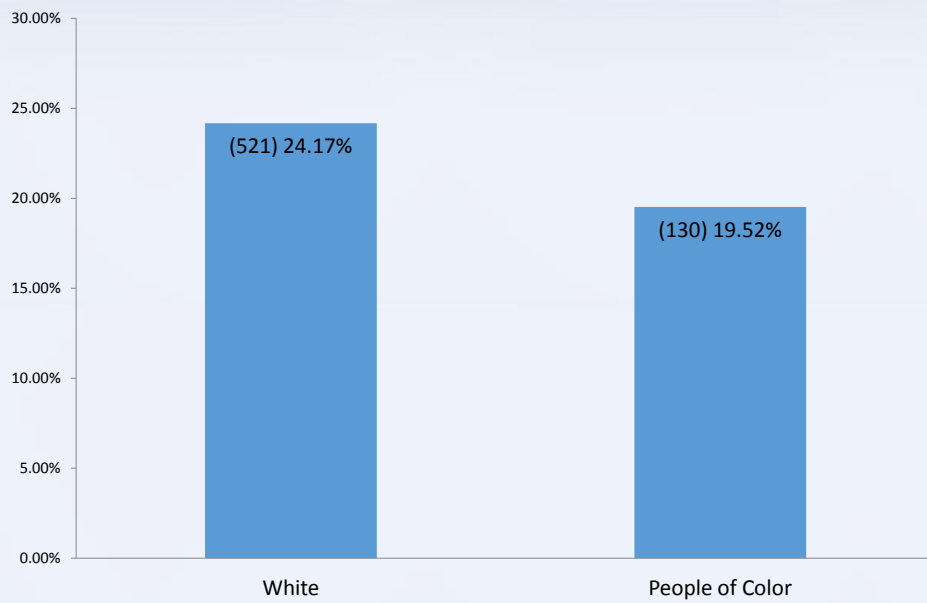
UOF Suspect Race Compared to Community Population and Arrest Population (n=1988)



Analysis: Injuries by Race



UOF Interactions Involving Injury to Suspect by Suspect Race



Analysis: Using Controls



Type of Resistance by Race (most severe)

Resistance Type	White		People of Color		p value
	#	%	#	%	
Active Physical Resistance	893	41.67%	218	32.73%	0.000
None	141	6.58%	84	12.61%	0.000
Weapon Used by Suspect	100	4.67%	29	4.35%	0.737
Simple Assault Against LEO	91	4.25%	31	4.50%	0.774
Assaultive	374	17.45%	124	18.62%	0.491
Escape	109	5.09%	30	4.50%	0.545
PreAssaultive Cues	78	3.64%	31	4.65%	0.236
Passive Physical Resistance	131	6.11%	39	5.86%	0.808
Verbalized Challenge/Threats or NonCompliance	23	1.07%	6	0.90%	0.701
Refused Verbal Commands/Directions	133	6.21%	55	8.26%	0.064
Walked/Ran Away	70	3.27%	20	3.00%	0.736



Analysis: Using Controls

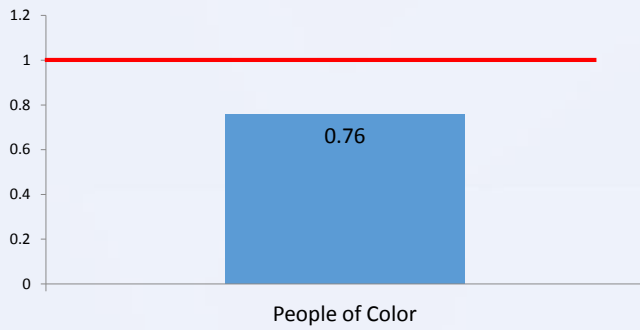
Call Type	People of Color		White		p-value						
	#	%	#	%							
Agency Assist	27	4.1%	109	5.1%	0.278	Impeding	16	2.4%	36	1.7%	0.227
Arrest on Warrant	42	6.3%	116	5.4%	0.382	Inciting a felony	1	0.2%	0	0.0%	0.073
Assault-Aggravated	31	4.7%	68	3.2%	0.070	L&L	0	0.0%	3	0.1%	0.334
Assault-On LEO	55	8.3%	149	7.0%	0.257	larceny from Building	0	0.0%	4	0.2%	0.265
Assault-Simple	54	8.1%	138	6.4%	0.136	larceny from Motor vehicle	0	0.0%	6	0.3%	0.172
Attempting to Elude	4	0.6%	22	1.0%	0.316	larceny from Person	5	0.8%	7	0.3%	0.143
Baracaded interaction	2	0.3%	19	0.9%	0.125	larceny-Other	1	0.2%	5	0.2%	0.685
Burglary	9	1.4%	43	2.0%	0.273	Maiming	0	0.0%	1	0.0%	0.577
Child Pornography	0	0.0%	1	0.0%	0.577	Minor in Possession	2	0.3%	4	0.2%	0.579
Complaint	10	1.5%	31	1.4%	0.918	Missing Persons	3	0.5%	2	0.1%	0.056
Cruelty to a child	0	0.0%	3	0.1%	0.334	Motor Vehicle Accident	1	0.2%	2	0.1%	0.695
Custodial Interference	0	0.0%	3	0.1%	0.334	Motor vehicle Violation	3	0.5%	5	0.2%	0.358
DC	120	18.0%	451	21.0%	0.090	Obstruction of Justice	2	0.3%	3	0.1%	0.391
Detox	26	3.9%	239	11.2%	0.000	OOC	9	1.4%	4	0.2%	0.000
DLS	1	0.2%	1	0.0%	0.382	Possesion of stolen property	2	0.3%	1	0.0%	0.080
Domestic-AGG	11	1.7%	43	2.0%	0.560	Prohibited Acts	0	0.0%	3	0.1%	0.334
Domestic-MIS	13	2.0%	66	3.1%	0.124	Reckless Endangerment	5	0.8%	13	0.6%	0.684
Domestic-VERB	15	2.3%	25	1.2%	0.039	Resisting Arrest	18	2.7%	73	3.4%	0.370
Drugs-Possession	17	2.6%	23	1.1%	0.005	Restraining Order Violation	2	0.3%	5	0.2%	0.762
Drugs-sale	27	4.1%	43	2.0%	0.003	Retail Theft	1	0.2%	12	0.6%	0.174
DUI	8	1.2%	33	1.5%	0.524	Runaway Juvenile	7	1.1%	13	0.6%	0.233
Enabling Consumption of minors	0	0.0%	2	0.1%	0.430	Search Warrant	65	9.8%	78	3.6%	0.000
Escape	0	0.0%	3	0.1%	0.334	Sexual Assault	0	0.0%	2	0.1%	0.430
False Public Alarms	0	0.0%	3	0.1%	0.334	Stalking	0	0.0%	2	0.1%	0.430
FIPO	1	0.2%	5	0.2%	0.685	Suicidal Subject	3	0.5%	64	3.0%	0.000
Hindering Arrest	1	0.2%	2	0.1%	0.695	Trespassing	23	3.5%	101	4.7%	0.167
Homicide	7	1.1%	1	0.0%	0.000	Trespassing-Felony	6	0.9%	33	1.5%	0.218
Identity Theft	1	0.2%	0	0.0%	0.073	Unlawful Restraint	2	0.3%	1	0.0%	0.080
						UVM/Vandalism-Building	3	0.5%	4	0.2%	0.233
						UVM/Vandalism-Other	4	0.6%	14	0.7%	0.882
						Total	666	128.6%	2143	100.0%	



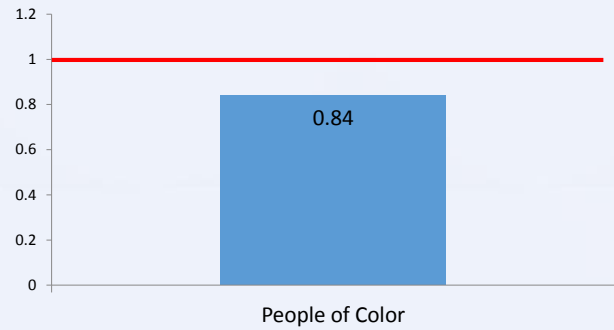
Analysis: Injuries by Race

— =Odds for White Suspects (set at 1:1)

Odds Ratio for Suspect Injury (baseline)



Odds Ratio for Suspect Injury (Controls)

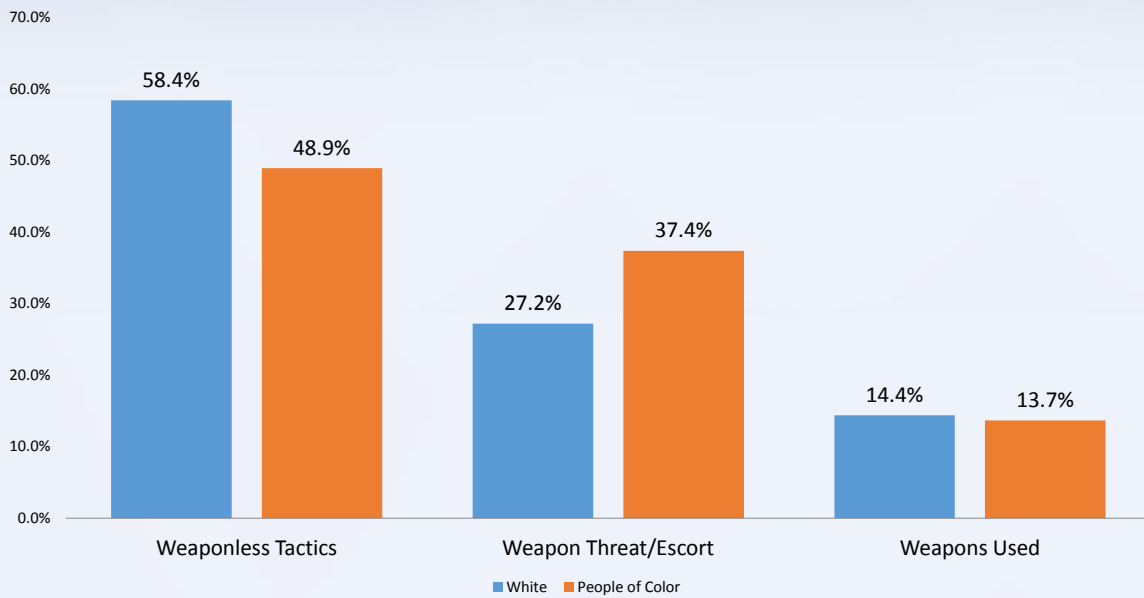


*not statistically significant (p=.125)

Analysis: Weapons by Race



Most Severe Force Type Used in Interactions by Suspect Race

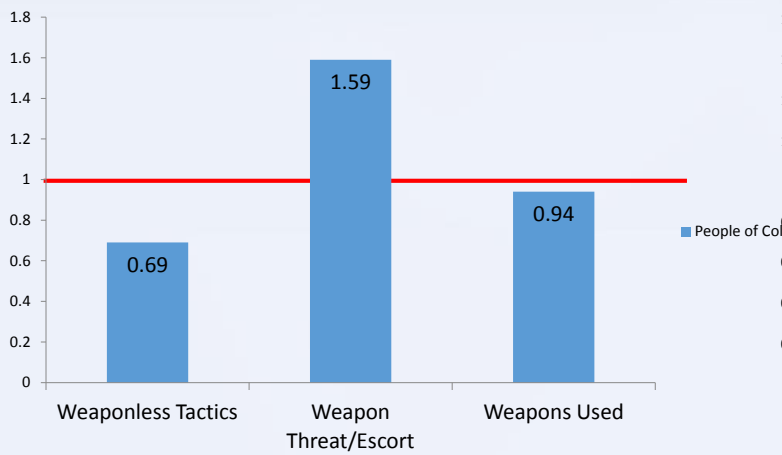




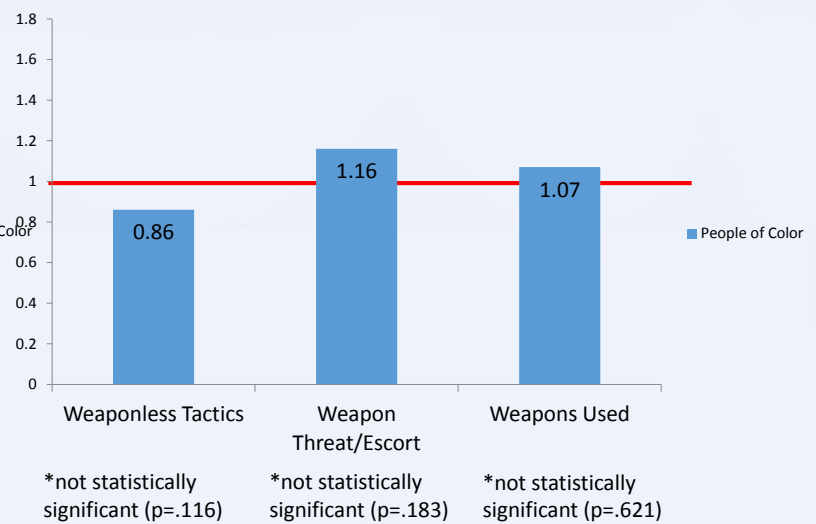
Analysis: Weapons by Race

— =Odds for White Suspects (set at 1:1)

Odds Ratio for Most Severe Force Type (baseline)



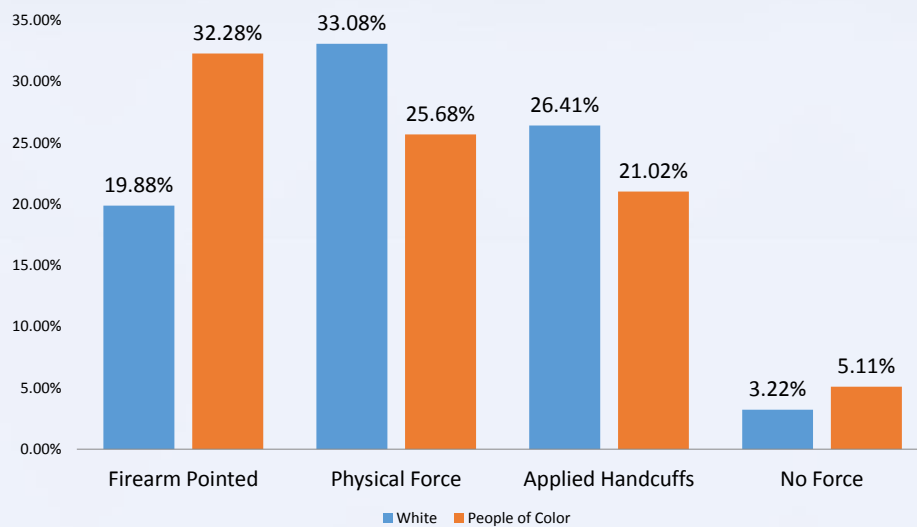
Odds Ratio for Most Severe Force Type (Controls)



Analysis: Force Type by Race



UOF Interactions Involving Individual Force Types by Suspect Race



Only force types which differ across race groups to a statistically significant degree shown here (4).

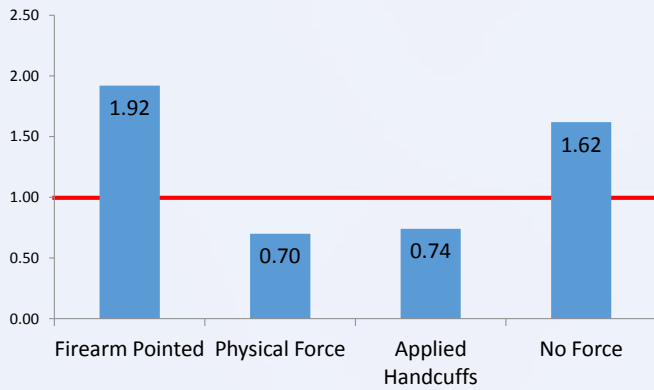


Analysis: Force Type by Race

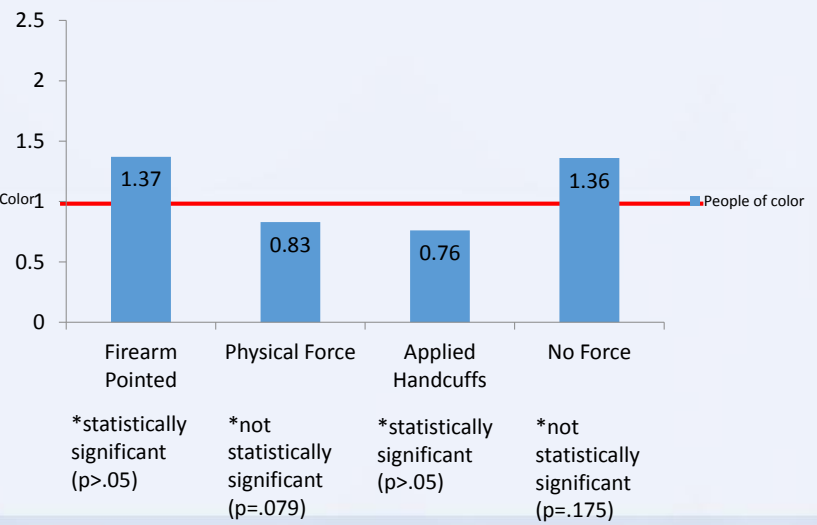
— =Odds for White Suspects (set at 1:1)

Only force types which differ across race groups to a statistically significant degree shown here (4).

Odds Ratio for Individ. Force Type (baseline)



Odds Ratio for Individ. Force Type (Controls)



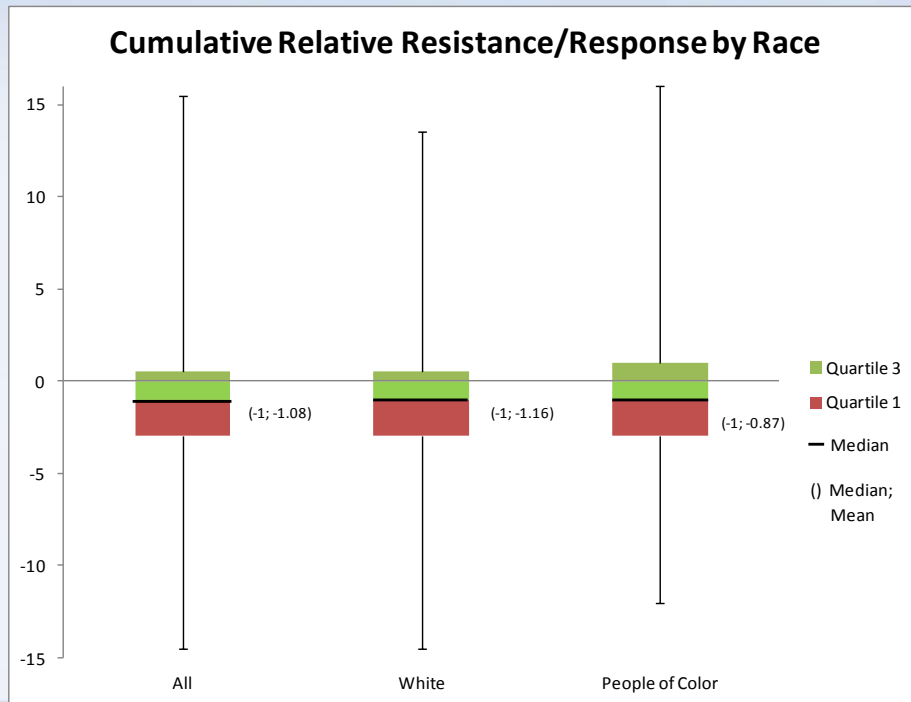


Analysis: RRR by Race

More severe response than resistance

Equal Response:Resistance

More severe resistance than response





Main Findings

- 1) UOF incidents make up small percentage of police activity (1% of police contacts; 11% of arrests)
- 2) As arrests and calls for service have increased, UOF incidents have decreased (33 fewer UOF events per year)
- 3) In 2016, UOF incidents were comprised of a higher percentage of weaponless tactics and a lower percentage of weapon threats than from 2010-2015
- 4) People of Color are slightly overrepresented in the pool of UOF suspects (2 percentage points)
- 5) The disparity between White and People of Color suspects in odds of having a gun pointed at them is statistically significant (People of Color 37% higher odds)
- 6) No major differences across race in terms of average police force:suspect resistance ratio



Analysis: Force Iteration Continuum

Unique Force Iteration/Response Order Continuum (% of Column)

Force Type Used	1st Iter.	2nd Iter.	3rd Iter.	4th Iter.	5th Iter.	6th Iter.	7th Iter.	8th Iter.	Total Iterations
Verbal Commands/Directions Given	41.9%	17.9%	11.7%	12.3%	14.6%	11.4%	8.3%	5.3%	1791
Applied Handcuffs/Tightness/Double Locked	2.2%	8.6%	22.5%	26.7%	19.1%	16.7%	33.3%	5.3%	726
Baton Escort	0.2%	0.4%	0.8%	0.2%	0.4%	0.0%	0.0%	0.0%	25
Baton Presented	0.1%	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	12
Canine Command Presence	0.3%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	19
Physical Force	12.2%	21.8%	21.4%	19.8%	23.2%	23.7%	20.8%	36.8%	1236
Empty Hand Techniques/Pain Compliance	13.4%	22.8%	20.9%	18.6%	16.3%	17.5%	6.3%	10.5%	1241
Taser Presented	1.3%	1.7%	1.5%	1.1%	0.4%	0.9%	0.0%	7.7%	97
Projectile Launcher Presented	0.1%	0.2%	0.3%	0.2%	0.4%	0.0%	0.0%	0.0%	10
OC Spray Pointed	0.3%	1.8%	2.0%	1.6%	0.4%	2.6%	0.0%	0.0%	80
Taser Pointed	1.2%	2.6%	1.5%	1.3%	0.8%	0.0%	2.1%	0.0%	115
OC Spray Used	2.0%	5.8%	6.5%	6.3%	8.5%	12.3%	10.4%	0.0%	320
Baton Used	0.1%	0.3%	0.3%	0.7%	0.8%	0.0%	0.0%	0.0%	19
Firearm Pointed	17.8%	7.7%	2.4%	0.0%	1.2%	0.9%	4.2%	0.0%	687
Taser/ECD/Shotgun	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2
Taser Used	0.5%	1.5%	1.9%	4.1%	4.1%	2.6%	2.1%	5.3%	103
Canine Bite	0.1%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	5
Projectile Launcher Used	0.1%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	7
Firearm Fired	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4
None	1.2%	1.7%	2.2%	2.2%	4.1%	4.4%	6.3%	10.5%	125
Other	4.8%	4.2%	3.7%	4.3%	5.7%	7.0%	6.3%	21.1%	312
Total Unique Interactions	2819	1977	1162	555	246	114	48	19	6936
% Total Unique Interactions	100.0%	70.2%	41.3%	19.6%	8.4%	3.8%	1.6%	0.5%	100%



Analysis: Resistance/Response Table

Most Severe Suspect Resistance Type Compared to Most Severe Officer Force Type Per Interaction (% of Column)

Force Type Used	None	Walked or Ran Away	Refused Verbal Commands	Verbal Challenge/Threat	Passive Physical Resist	Pre Assault Cues	Escaped or Fled	Active Physical Resist	Assaultive	Simple Assault on Leo	Weapon Used by Suspect	Total Use of Force Interactions
Verbal Commands/Directions Given	3.7%	0.0%	1.6%	6.9%	5.3%	2.8%	5.0%	1.5%	0.8%	0.0%	0.0%	56
Applied Handcuffs/Tightness/Double Locked	5.4%	4.3%	2.3%	0.0%	3.7%	4.7%	5.2%	2.5%	1.2%	0.9%	2.4%	76
Baton Escort	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.6%	0.0%	0.0%	0.0%	7
Baton Presented	0.0%	0.0%	1.1%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	4
Canine Command Presence	0.0%	4.3%	1.1%	3.4%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	6
Physical Force	1.0%	8.7%	11.4%	3.4%	13.4%	13.2%	14.9%	29.5%	25.5%	30.2%	7.9%	573
Empty Hand Techniques/Pain Compliance	2.7%	4.3%	13.7%	24.1%	22.0%	27.4%	20.1%	40.3%	36.0%	31.0%	6.3%	791
Taser Presented	2.3%	4.3%	2.3%	13.8%	1.2%	4.7%	4.5%	1.4%	2.8%	0.9%	0.8%	60
Projectile Launcher Presented	0.0%	0.0%	1.1%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.8%	4
OC Spray Pointed	0.3%	0.0%	0.0%	0.0%	1.8%	3.8%	0.7%	1.9%	1.6%	3.4%	0.0%	42
Taser Pointed	1.3%	13.0%	1.7%	6.9%	1.2%	12.3%	6.0%	1.4%	3.2%	1.7%	4.7%	74
OC Spray Used	1.0%	0.0%	5.1%	10.3%	3.0%	6.6%	2.2%	13.3%	18.4%	18.1%	3.9%	291
Baton Used	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.5%	0.8%	1.7%	1.6%	14
Firearm Pointed	76.2%	60.9%	57.1%	27.6%	47.0%	18.9%	34.3%	4.3%	3.2%	3.4%	63.0%	639
Taser/ECD/Shotgun	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	2
Taser Used	0.0%	0.0%	1.1%	3.4%	0.6%	1.9%	3.0%	2.5%	5.5%	8.6%	5.5%	81
Canine Bite	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.1%	0.2%	0.0%	0.0%	5
Projectile Launcher Used	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.4%	0.0%	0.8%	5
Firearm Fired	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	2.4%	4
None	0.3%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	5
Other	5.0%	0.0%	5.3%	0.0%	3.5%	2.8%	3.6%	2.5%	1.4%	4.1%	0.8%	80
Total Resistance Interactions	298	23	188	29	170	109	139	1112	501	121	129	2819
% Total Resistance Interactions	10.6%	0.8%	6.7%	1.0%	6.0%	3.9%	4.9%	39.4%	17.8%	4.3%	4.6%	100.0%



END