



Durham Regional Police Service 2020 Race-Based Use of Force Statistics

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Introduction

Recent events have reignited a much-needed conversation around race, law enforcement, and policy. Despite growing public demands for greater accountability and allegations of police bias against racialized communities, current discussions in Canada lack data from police services. Last summer Durham Regional Police Service initiated a four-pillar strategy to identify and address systemic barriers, including a plan to move forward with the mandatory collection, analysis, and public reporting of race-based data, starting with Use of Force. The purpose of our new Race-Based Data Collection Strategy is not to single out racialized communities for policing and enforcement purposes, target officers or impose individual punitive measures; rather, the goal of this initiative is to identify patterns across the Service, investigate whether racial disproportionalities and disparities exist and, if they do, uncover and address what assumptions, policies, procedures and/or programs at DRPS may be contributing to these disproportionalities and disparities.

This report provides a statistical summary of interactions amongst DRPS officers and the public between January 1 and December 31, 2020, where intervention with an individual or individuals met the requirements for the completion of a Ministry of the Solicitor General Use of Force Report (“Ministry Report”). DRPS officers are required under the Equipment and Use of Force Regulation (O. Reg. 267/18) to submit a Report to the Ministry following an incident where force was used.ⁱ As of January 1, 2020, officers are mandated to also record and report the perceived race of the subject(s) involved.ⁱⁱ As such, this report marks the first time this information has been compiled and presented at DRPS.

An initial analysis revealed that the Ministry’s Use of Force Form is not well-designed to collect all data required to properly investigate whether any disproportionalities and disparities in use of force interactions may be driven by racial bias. This necessitated the extraction of (de-identified) supplemental information from police records. Combined, these data serve as a starting point to help the Service to evaluate whether enforcement actions fall disproportionately on certain groups across a number of different dimensions. Importantly, racial disparities in any one factor do not alone provide conclusive evidence of racial profiling. Our framework for identifying significant disparities relies on the so-called “preponderance of evidence” approach; if disparities persist across a number of different outcomes after controlling for legitimate factors that should be part of officers’ decisions to use force, there is sufficient evidence to warrant further analysis and conversation.ⁱⁱⁱ As such, the results of this analysis will be instructive, rather than conclusive, serving as a starting point to guide the formation of an action plan and accountability framework to address any opportunities for organizational improvement at DRPS.

The relationship between law enforcement and the people they serve must be based on trust. Ultimately, Durham Regional Police Service’s Race-Based Data Collection Strategy is a step towards building public trust and community safety through greater transparency, equity, and non-discriminatory policing.

Methods

Data

Use of force data compiled for this analysis pertain to incidents that occurred between January 1 and December 31, 2020, and were acquired from two sources: 1) completed Ministry Use of Force Reports (“Ministry Reports”), and 2) the DRPS internal record management system (RMS).

Ministry Reports

All completed Ministry reports were verified for completeness and accuracy. One “incident” may be comprised of multiple reports if more than one officer was involved, and/or involve more than one use of force encounter (e.g., force may have been used a second time, at a different location with a different officer, but on same subject as part of the same incident in the police records system). Thus, incidents with multiple reports were checked for consistency of variables across the reports. If large discrepancies were seen (e.g., reports listed different locations, number of subjects, or perceived subject race), the incident details were re-verified across data sources and, where applicable, were treated as distinct use of force incidents. Otherwise, if the reports appeared to represent one single encounter, the report that was deemed the most representative (i.e., responses best reflected the majority of reports), was chosen to represent that incident.

In addition to clerical information, data collected on the form include: the date and time of the incident; situational factors like type of assignment (e.g., patrol, traffic, investigation) and type of incident (e.g., break and enter, domestic disturbance, weapons call); incident location (indoor/outdoor); weather and lighting; whether the reporting officer was alone or assisted by other officers; officer details (attire, rank, years of service completed); subject information (number and perceived subject race); the type of force used, and the reason force was used; the presence and use of weapons in the incident; whether alternative conflict resolution strategies were employed, and; whether injuries were suffered by either the police or subjects involved. A full list of the information gathered on the Ministry Use of Force Form is available for viewing through the Ontario Government’s Central Forms Repository.^{iv}

RMS

General Occurrence (GO) Reports relay and record a vast amount of information from police-related activities into police records management systems, including a detailed synopsis of the incident and the nature of police actions during the incident. Importantly, GOs also include information on the personal characteristics of the civilians involved, such as age and gender. For each incident, available data not captured on the Ministry Reports were manually extracted from the GOs and coded by two analysts (See [Appendix C](#) for a detailed template of the variables collected).^v

Additional Measures

Consistent with Standard 40 of Ontario’s Anti-Racism Data Standards (2019), the Ministry Form includes seven “race categories” that officers may select from when indicating the perceived race of subjects, including White, Black, East/Southeast Asian, Indigenous (First Nations, Inuit and Métis), Latino, Middle Eastern, and South Asian.^{vi} For the purposes of the current analysis, these racial and identity-based designations were collapsed into three major “racial groups”: White, Black, and Other race categories (“Others”).^{vii}

An additional category, “Multiple racial groups,” was created for incidents involving multiple subjects in *different* major racial groups, or incidents where the racial identity of some subjects was unknown (n=10).

For instance, an incident involving two subjects—one White and one Black—would be categorized as “Multiple groups”, along with incidents involving more than three subjects, as the perceived race of additional subjects beyond the third are not captured on the form. Thus, incidents categorized as “Multiple racial groups” were excluded from analyses of racial differences in various use of force outcomes. Note that if the incident involved two or three subjects of the same major racial group (e.g., two Black subjects), the incident was not excluded from the analysis and was categorized into the respective major group (e.g., Black).

Population estimates were derived from the Statistics Canada 2016 Census, which provides estimates for Durham Region’s female, male, White and Black populations. Population estimates for the Other race categories were calculated by taking the total population estimate for Durham Region and deducting the total White population and the total Black population estimates.

Analysis

Descriptive statistics were computed for relevant variables at the report level or at the incident level, depending on what was most appropriate for the variable in question. Results were also stratified by major racial group to examine how race intersects with variables that may impact the likelihood and/or extent of police use of force. Due to small sample sizes, the Fisher’s exact test was used to test for significant racial differences. P-values less than 0.05 were considered statistically significant.^{viii} Racial Disproportionality Indices (DIs), calculated by dividing the frequency of incidents involving a particular racial group by their percent of Durham Region population estimate, were used to determine the representation of racial groups in DRPS use of force cases.^{ix} A DI greater than 1.00 indicates an over-representation of that racial group in DRPS use of force cases, while a DI less than 1.00 indicates an under-representation; as the value of DI falls further away from 1, the magnitude of this disproportionality grows. Following previous studies in this area of research, for the purposes of this analysis, DIs of 0.5, 1.50 and 3.00 were chosen as thresholds to signal significant under-representation, over-representation, and gross over-representation, respectively.^x

ⁱ See [Appendix A](#) for an overview of the Ontario Use of Force Report requirements and Use of Force Framework.

ⁱⁱ While biological notions of race have been discredited, the social construction of race remains a potent force in society. See [Appendix B](#) for the Glossary of Terms used by the Service.

ⁱⁱⁱ Ross, M. B., Kalinowski, J. J., & Barone, K. (2020). Testing for disparities in traffic stops: Best practices from the Connecticut model. *Criminology and Public Policy*, 19(4), 1289–1303. <https://doi.org/10.1111/1745-9133.12528>

^{iv} The Ministry’s Use of Force Report template is available for download from: <https://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&SRCH=&ENV=WWE&TIT=008-0270E&NO=008-0270E>

^v The additional variables collected were largely based off prior research investigating police use of force by the Toronto Police Services (Wortley, S., Laniyonu, A., & Laming, E. (2020)).

^{vi} First Nations, Inuit and Métis are constitutionally recognized sovereign nations with inherent rights to self-determination. Indigenous identity categories are often included within race-based or ethnicity data collection standards, as there are some commonalities between these concepts, such as experiences of racism in society and cultural belonging. As such, the inclusion of Indigenous within the race categories, or “racial groups”, is for the purposes of collecting information about how Indigenous people may be racialized by society.

^{vii} The number of incidents involving subjects perceived as East/Southeast Asian, South Asian, Latino, Middle Eastern, and Indigenous were too small to be disaggregated for meaningful analysis. Using the disaggregated data can generate misleading or statistically inconclusive results and evoke erroneous conclusions. As we collect more data and conduct multi-year analyses, we may be better positioned to disaggregate the data and present the results for each individual race category.

^{viii} A result of a statistical test is claimed to be “statistically significant” if the p-value is less than the significance level. We can think of the significance level as the probability of finding a significant effect (or difference) when there is none. “P-values less than 0.05 were considered statistically significant” means there is less than a 5% chance that we are finding ‘true’ differences when, in actuality, there are no significant differences.

^{ix} See Ontario’s *Data Standards for the Identification and Monitoring of Systemic Racism* for information on the Racial Disproportionality Index https://files.ontario.ca/solgen_data-standards-en.pdf.

^x Foster, L., Jacobs, L., & Siu, B. (2016); Wortley, S., Laniyonu, A., & Laming, E. (2020).

Results

In 2020, Durham Regional Police Service tended to roughly 180,600 calls for service that involved prospective police-citizen interactions. DRPS officers attended 259 incidents, involving 332 civilians, where either one or more levels of force were required to bring the situation to a resolution. This resulted in 384 completed Use of Force Reports (**Table 1**). This represents an extremely low incident rate (0.1%) when put into context of all calls in 2020 with citizen contact. Further, in 2020, the Office of Professional Responsibility found there to be no public complaints, internal investigations or Chief's complaints where excessive force was substantiated.

Of the 259 use of force incidents, 237 involved human subjects (91.5%) and 22 involved animals/no subject (e.g., accidental discharge; 8.5%) (**Table 1**). Of the 234 incidents involving human subjects, 53 incidents (22%) involved Black subjects, 145 (61%) involved White subjects, and 23 (10%) incidents involved Other race categories (see **Table 2** for complete breakdown). 59% (196) of all subjects were determined to be residents of Durham Region at the time of the incident (**Figure 1**). Additionally, out of the subjects where gender was determinable, 87.5% were male and 12.5% were female (**Table 3**). The average age of the involved subjects was 30.6 years. The analysis reveals that Black, Middle Eastern, and male subjects were over-represented in use of force incidents.

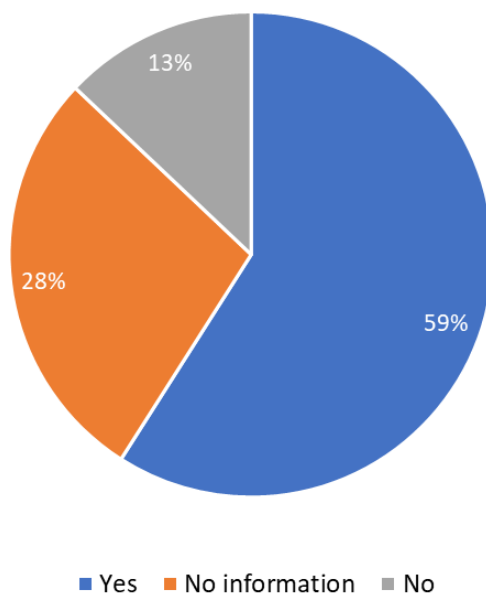
Table 1. Frequency of use of force incidents and reports, by subject and racial group

Use of Force Subject		Number of Incidents	% of All Incidents	Number of Reports	% of All Reports
Human Subject	White	145	56.00%	203	52.90%
	Black	53	20.5%	80	20.8%
	Others	23	8.9%	52	13.5%
	Multiple racial groups	16	6.2%	26	6.8%
	Total (human subjects)	237	91.5%	361	94.0%
Animal/No Subject		22	8.5%	23	6.0%
Total (all incidents)		259	100%	384	100%

One use of force incident may be comprised of multiple reports if more than one officer was involved.

Table 2. Frequency of (human subject) use of force incidents, by racial group

Racial Group	Number of Incidents	% of Incidents	% of Population	Disproportionality Index
White	145	61.2%	72.9%	0.8
Black	53	22.4%	8.0%	2.8
Others	23	9.7%	19.1%	0.5
East/Southeast Asian	8	3.8%	5.0%	0.7
Indigenous	1	0.4%	2.0%	0.2
Latino	1	0.4%	1.0%	0.4
Middle Eastern	7	3.0%	1.9%	1.6
South Asian	6	2.5%	8.6%	0.3
Multiple racial groups	16	6.8%	-	-
Total	237	100%	100%	-

Figure 1. Percent of subjects that were Durham Region residents at the time of the encounter (n=332 subjects)**Table 3. Subject gender and age characteristics (n=332)**

Number of Subjects	Number of Subjects	Average Age (years) ^a	% of Subjects ^a	% of Population	Disproportionality Index
Male	238	30.6	87.5%	48.7%	1.8
Female	34	30.3	12.5%	51.3%	0.2
No info/not accessible	60	-	-	-	-
Total	332	30.6	100%	100%	-

^a "No info/not accessible" excluded from calculation.

Officer Characteristics & Contextual Factors

Length of service, Type of assignment, and Type of incident

The majority of officers (71.7%) involved in a use of force incident were constables at the time of the incident (**Table 4**). The median length of service for officers involved in use of force incidents was 8.7 years. For the subgroup analysis by race, we dichotomized the officer experience variable using 5 years as the cutoff. Some statistically significant racial differences emerged (see **Table 5**). The data indicate that officers with less than 5 years of experience were more likely to be involved in use of force incidents with racialized individuals and less likely to be involved in incidents with White individuals than more experienced officers. A larger dataset (i.e., using multi-year data) and more information is needed to elucidate any circumstances which may underlie these trends; however, one factor that might influence the relationship between length of service and use of force is the type of policing assignment.

Generally, officers are required to have amassed a certain degree of experience as they move through the ranks. Compared to officers in higher ranks, constables are more likely to be assigned to frontline patrol and proactive work. This type of work is more likely to lead to police-public encounters in which force may be used. Indeed, results show most use of force incidents (64.1%) occurred when officers were performing general patrol assignments (**Table 4**). 27% of use of force incidents occurred while officers were performing “Other” types of assignments, the majority of which included tactical and canine assignments. Approximately one third of incidents occurred during a “Weapons call” for service. 36% involved “Other” types of calls, which included a large proportion of mental health/check on wellbeing, stolen vehicle, and drug investigation calls, as well as search warrants.

Importantly, no statistically significant differences were found in the likelihood of different racial groups being involved in weapons/armed person calls for service ($p=0.350$). That being said, Black subjects were overrepresented among these types of calls; although Black subjects make up 8% of the Durham Region population, 25% of the weapons/armed person calls involved Black subjects. 95% of these calls were citizen-generated.

The majority of incidents were reactive in nature (citizen-generated), including calls for service from members of the public (71% of all incidents) and follow-up investigations (3%) (**Table 4**). Of the calls that were proactive in nature (police-initiated), warrant executions were the most numerous (12% of all incidents). Results also indicate that officer-initiated incidents that resulted in the use of force were no more likely to involve Black, White, or Other race categories (**Table 6**). In other words, incidents involving Black subjects were just as likely to be police-initiated as incidents involving White and Other race category subjects.

Table 4. 2020 DRPS Use of force variable summary: officer characteristics, contextual factors, and use of force options and outcomes

	Number of incidents/reports	% of Reports (n=361)	% of Incidents (n=237)
OFFICER CHARACTERISTICS			
Length of service (years completed)	8.7 years (median)	-	-
Rank			
Constables	259	71.7%	-
Others	52	14.4%	-
Team	50	13.9%	-
CONTEXTUAL FACTORS			
Type of assignment			
General Patrol	152	-	64.1%
Drugs	10	-	4.2%
Investigation	7	-	3.0%
Foot Patrol	2	-	0.8%
Traffic	1	-	0.4%
Other	65	-	27.4%
Type of incident			
Weapons/Armed Person Call	80	-	33.8%

Domestic Disturbance (excl. weapons)	18	-	7.6%
Traffic	16	-	6.8%
Other Disturbance	15	-	6.3%
Suspicious Person	11	-	4.6%
Break and Enter	9	-	3.8%
Robbery (excl. weapons)	3	-	1.3%
Others	85	-	35.9%
Nature of Police Contact			
Reactive (citizen-generated)	176	-	74.3%
(Call for service from public)	(168)	-	(70.9%)
(Follow-up investigation)	(8)	-	(3.4%)
Proactive (police-generated)	55	-	23.2%
(Warrant execution)	(28)	-	(11.8%)
(Police stop (e.g., traffic))	(20)	-	(8.4%)
(Police witnessed crime)	(4)	-	(1.7%)
(In police custody)	(3)	-	(1.3%)
No info/not accessible	6	-	2.5%
Subject weapon(s) reported ^a			
None	100	-	42.2%
Unknown	55	-	23.2%
Knife/Edged Weapon(s)	36	-	15.2%
Handgun(s)	10	-	4.2%
Shotgun(s)	4	-	1.7%
Baseball Bat/Club(s)	3	-	1.3%
Rifle(s)	2	-	0.8%
Other	27	-	11.4%
Subject intoxicated or high on drugs			
No	115	-	48.5%
No info/not accessible	63	-	26.6%
Yes	54	-	22.8%
Unsure (on behalf of officer)	5	-	2.1%
Subject experiencing a mental health crisis/illness ^b			
No	96	-	40.5%
Yes	74	-	31.2%
No info/not accessible	60	-	25.3%
Unsure (on behalf of officer)	7	-	3.0%
Reasons for use of force ^c			
Effect arrest	292	80.9%	-
Protect self	281	77.8%	-
Protect public	209	57.9%	-
Prevent escape	127	35.2%	-
Prevent commission of offence	114	31.6%	-
Other	14	3.9%	-
Lighting condition			
Daylight or with good artificial light	152	-	64.1%
Dark/Dusk/with poor artificial light	85	-	35.9%
Location of incident			

Outdoor	134	-	56.5%
Indoor	97	-	40.9%
Both	6	-	2.5%
USE OF FORCE OPTIONS AND OUTCOME			
Alternative strategy used ^c			
Verbal Interaction	264	73.1%	
Cover	109	30.2%	
Concealment	70	19.4%	
None	65	18.0%	
Other	5	1.4%	
Type of force used ^d			
Firearm - pointed at person	151	41.8%	-
Conducted energy weapon (CEW)	104	28.8%	-
(CEW – Presence only)	(66)	(18.3%)	-
(CEW – Probe)	(38)	(10.5%)	-
Handgun - drawn	56	15.5%	-
K9 apprehension	22	6.1%	-
Empty hand techniques	20	5.5%	-
Other	8	2.2%	-
Injury ^c			
None	168	-	70.9%
Subject(s)	63	-	26.6%
Officer	14	-	5.9%
Third Party	2	-	0.8%

^a Includes incidents where a weapon was reported but not found. No incident involved more than one type of weapon; however, multiple subjects may have been carrying the same type of weapon (e.g., all carrying handguns). These incidents would be categorized as involving “handgun(s)”.

^b Incidents where a subject was suspected to be experiencing a mental health crisis or illness that was believed to influence the outcome of the incident. Includes, but is not limited to, mental health apprehensions.

^c Figures do not add up to 100%. There may be multiple reasons for using force during a single encounter. Similarly, a single encounter could involve the use of several different alternative strategies or involve injuries to more than one party.

^d Although an individual officer may attempt several different use of force tactics in a single encounter, officers only reported the highest level of force used.

Table 5. Frequency of reports involving different racial groups, by officer length of service (n=294 reports)

Length of Service (Years)	0 to <5 years	>= 5 years
Black	37 (26.8%)	36 (23.1%)
Others	32 (23.2%)	17 (10.9%)
White	69 (50.0%)	103 (66.0%)
Total	138	156

$p = .006$ (Fisher’s exact test). Excludes reports submitted on behalf of a team (e.g., Tactical Support Unit, Guns and Gangs, DEU) and reports involving Multiple racial groups (n=67).

Table 6. Nature of police contact, by racial group (n=237 incidents)

Nature of Police Contact	Black	White	Others
Citizen-generated (reactive)	37 (69.8%)	111 (76.6%)	19 (82.6%)
Police-initiated (proactive)	15 (28.3%)	32 (22.1%)	3 (13.0%)
No info/not accessible	1 (1.9%)	2 (1.4%)	1 (4.3%)
Total	53	145	16

$p = .392$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16).

Impairment Status and Mental Health

The research team examined GO reports to determine whether subjects involved in use of force cases were under the influence of drugs or alcohol at the time of the incident. Although impairment status was undeterminable for a large number of incidents (26.6%), 22.8% of the incidents involved a subject intoxicated on alcohol or under the influence of drugs (**Table 4**). To examine racial differences, we dichotomized the impairment variable (**Table 7**). The results suggest that White subjects (28.3%) were more likely to be intoxicated or high during the incident than Black subjects (11.3%) or those from Other race categories (17.4%). These results were statistically significant.

Table 7. Percent of incidents involving a subject who was intoxicated or high on drugs, by racial group (n=221 incidents)

Subject Intoxication	Black	White	Others
Intoxicated or High	6 (11.3%)	41 (28.3%)	4 (17.4%)
Not intoxicated/Unknown	47 (88.7%)	104 (71.7%)	19 (82.6%)
Total	53	145	23

$p = .029$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16).

Given the increasing trend in calls related to checks on wellbeing and/or mental health, it was important for us to consider the frequency of incidents that involved someone experiencing a mental health crisis or who had a mental health illness which was suspected to contribute to the outcome of the incident. Results show that almost an entire third of the incidents involved a mental health crisis or illness. The majority of these types of calls (88%) were citizen-generated (data not shown). Once again, we dichotomized the variable to investigate any racial differences and found that calls involving Black subjects appeared to be slightly less likely to include someone experiencing a mental health crisis or mental health illness compared to the other racial groups, although the differences were not statistically significant (**Table 8**).

Table 8. Percent of incidents involving a subject who was experiencing a mental health crisis or mental health issue that was suspected to impact the outcome of the incident, by racial group (n=221 incidents)

Subject Mental Health	Black	White	Others
Crisis or illness noted	13 (24.5%)	53 (36.6%)	7 (30.4%)
None noted	40 (75.5%)	92 (63.4%)	16 (69.6%)
Total	53	145	23

$p = .263$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16).

Environmental conditions

Environmental conditions may affect officers' risk assessment of the situation. The majority of incidents (64%) occurred under good lighting conditions, whereas 36% happened under poor lighting conditions, including dark, dusk, or poor artificial lighting (**Table 4**). The magnitude of overrepresentation of Black subjects in incidents with good lighting conditions—such as daylight and good artificial lighting—was larger than that in poor lighting conditions (**Table 9**), while Other race categories were significantly underrepresented in incidents with poor lighting; however, incidents involving Black subjects were no more likely to have occurred in good versus poor lighting conditions than their White and Other race category counterparts. Just over half of the incidents (56.5%) happened in outdoor settings (**Table 4**). Although Black subjects were overrepresented in all incidents regardless of location, no statistically significant racial differences emerged from the data (**Table 10**).

Table 9. Frequency of incidents involving different racial groups, by lighting condition at the time of police encounter (n=221 incidents)

Racial Group	Lighting Condition			
	Good	DI	Bad	DI
Black	40 (28.6%)	3.6	13 (16.1%)	2.0
Others	16 (11.4%)	0.6	7 (8.6%)	0.5
White	84 (60.0%)	0.8	61 (75.3%)	1.0
Total	140	-	81	-

$p = .062$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16). DI calculated by dividing the percent of incidents per racial group by their percent of Durham Region population estimate. DI: Disproportionality Index.

Table 10. Frequency of incidents involving different racial groups, by location (n=221 incidents)

Racial Group	Location					
	Indoor	DI	Outdoor	DI	Both	DI
Black	20 (22.2%)	2.8	32 (25.4%)	3.2	1 (20.0%)	2.5
Others	4 (4.4%)	0.2	18 (14.3%)	0.8	1 (20.0%)	1.1
White	66 (73.3%)	1.0	76 (60.3%)	0.8	3 (60.0%)	0.8
Total	90	-	126	-	5	-

$p = .073$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16). DI calculated by dividing the percent of incidents per racial group by their percent of Durham Region population estimate. DI: Disproportionality Index.

Subject weapon(s)

34% of use of force incidents originated from a weapons/armed person call; however, in approximately half of these instances, no weapons were ultimately found (**Table 11**). Conversely, several incidents that were not reported as a weapons/armed person call ultimately involved subjects in possession of a weapon. The "false alarm" rate (i.e., weapons/armed person calls that did not result in the discovery of a weapon) was highest

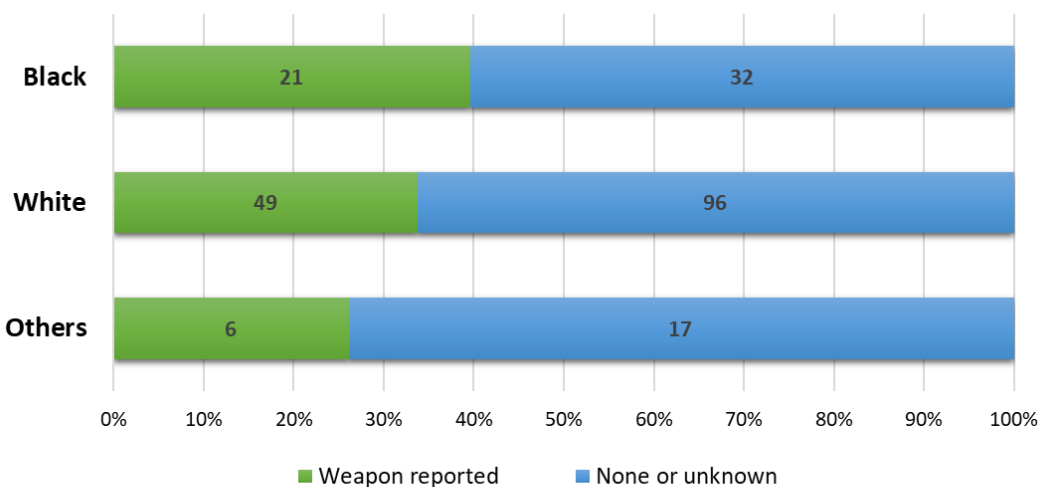
for Black subjects (60%) (White=48%; Others=44%). Note that weapons may have been discarded by subjects prior to officers arriving on scene.

Overall, the most common weapon reported or observed to be carried by the subject(s) was a knife/edged weapon (15.2% of incidents) (**Table 4**). "Other" type of weapons included air rifles/pistols, replica guns, and weapons of opportunity, such as tools and various other sharp objects. To assess racial differences, we dichotomized the subject weapon reported variable from Table 3. Across all racial groups, the majority of subjects were not recorded as possessing a weapon (**Figure 2**). Further, the results indicate no statistically significant racial differences in reported weapon possession.

Table 11. Frequency of weapons/armed person calls and subject weapons retrieved (n=237 incidents)

Weapon/armed person call?	Weapon retrieved?			Total
	No	Yes	No info/not accessible	
No	111	33	13	157
Yes	41	32	7	80
Total	152	65	20	237

Figure 2. Subject weapon(s) reported, by racial group (n=221 incidents)



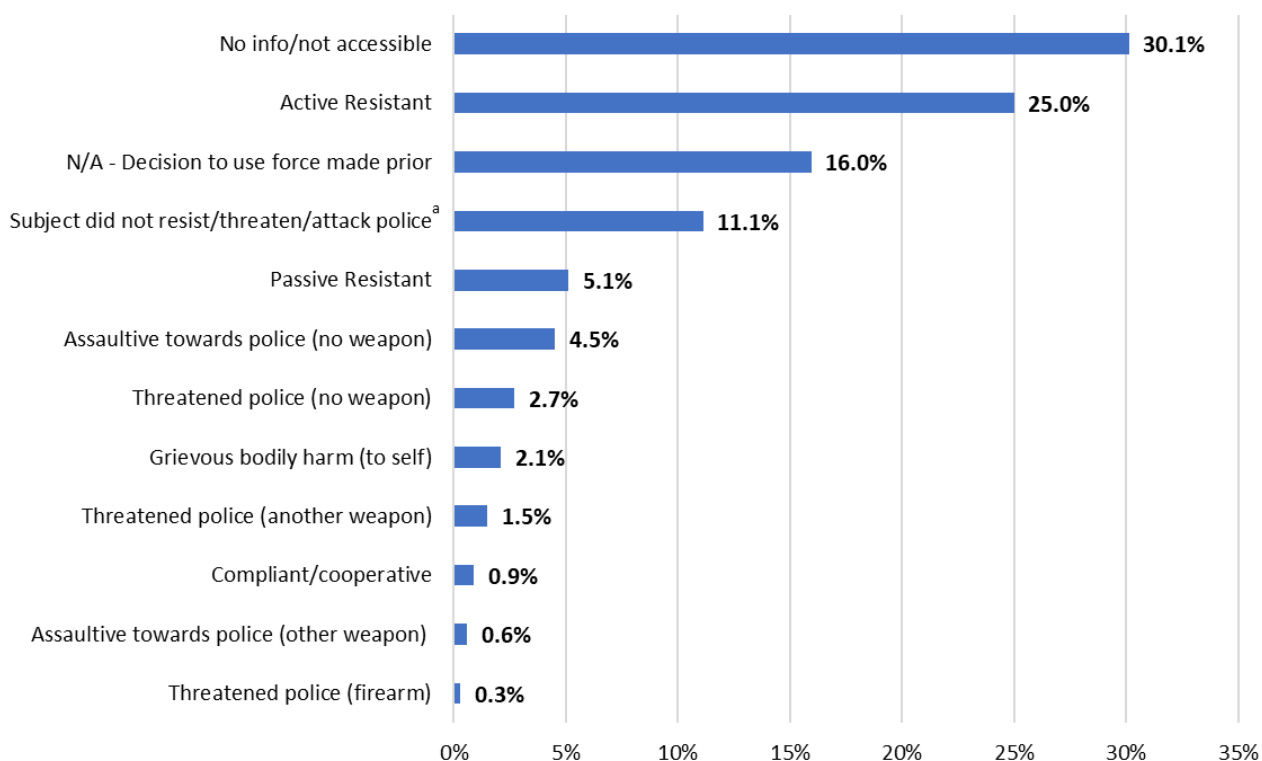
$p = .514$ (Fisher's exact test). Excludes incidents involving Multiple racial groups ($n=16$). "Weapon reported" may include weapons suspected but not found. Similarly, "None or unknown" may have resulted in weapons being recovered.

Subject Behaviour

Subject behaviour during encounters with law enforcement is crucial for a thorough understanding of police use of force. Subjects who threaten or attack police officers, or other civilians, are more vulnerable to police use of force than others. Overall, information regarding subject behaviour was difficult to acquire. Aside from weapon possession, Ministry Use of Force Reports do not collect this information. Further, within GO reports, often this information was either not accessible (e.g., Tactical Support Units took over the incident), or the narratives did not contain specific information about the subjects' behaviour (**Figure 3**).

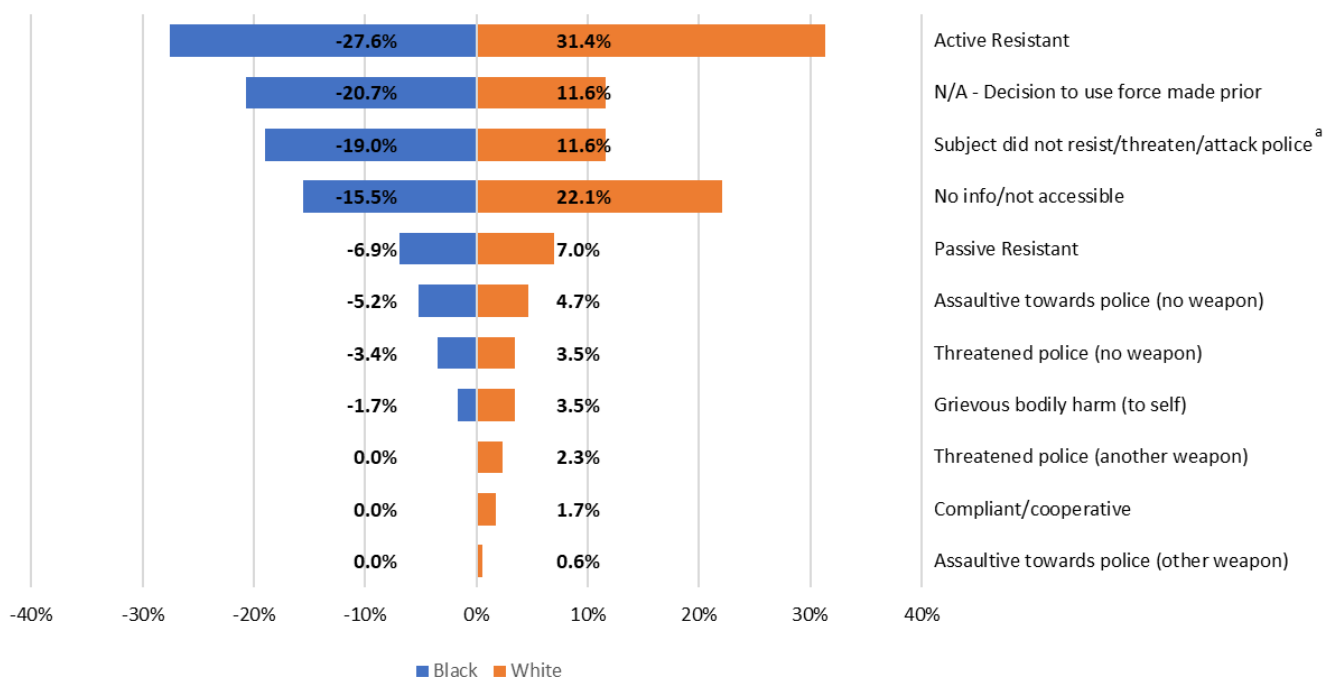
Among the incidents where information was available in GO report narratives, we see that a fairly large proportion of subjects were active resistant at the moment officers decided to use force. Many incidents also indicated that force was used on subjects who were not threatening, resisting or attacking police at the time the decision was made to use force, or the decision to use force was made prior to interacting with the subject (note that for the former, weapons may still have been suspected or observed on the subject(s)). Further, active resistant was the most frequent subject behaviour observed among both Black and White subjects (**Figure 4**). Other race categories were not included due to the small number of incidents that would be further dispersed over the various behavioural categories.

Figure 3. Subject behaviour at the time decision was made to use force (n=332 subjects)



^a May include incidents where subject(s) threatened or assaulted a civilian prior to police engagement, or where a subject weapon was suspected or observed but was not used to threaten or attack police at the time the decision was made to use force.

Figure 4. Subject behaviour of Black and White subjects at the time decision was made to use force (n=230 subjects)



^a May include incidents where subject(s) threatened or assaulted a civilian prior to police engagement, or where a subject weapon was suspected or observed but was not used to threaten or attack police at the time the decision was made to use force.

Reason for use of force

Although the Ministry Use of Force Reports do not collect any information pertaining to subject behavior, the form does ask officers to report their reason(s) for using force. Our data indicates that to effect arrest (80.9%) was the most common reason for using force, followed by to protect self (77.8%), protect public (57.9%), prevent escape (35.2%), and prevent commission of offence (31.6%) (**Table 4**). In a small minority of cases, officers used force because they were trying to prevent subjects from harming themselves.

Further analysis reveals that the reasons for using force varied by racial group (**Table 12**). The most common reason that led to police use of force on Black subjects was to protect officers themselves (80%), although officers were no more likely to report this as a reason for using force with Black subjects than with other racial groups ($p = .644$). By contrast, for incidents involving Whites and Other race categories, force was most frequently used to effect an arrest (83.7% and 86.5% of reports, respectively). Officers were significantly less likely to use force to effect an arrest during incidents with Black subjects than with the other racial groups ($p = .006$).

Table 12. Officer-reported reason(s) for use of force, by racial group (n=335 reports)

Reason for Use of Force	Black	White	Others	Statistical Significance
Effect arrest	54 (67.5%)	170 (83.7%)	45 (86.5%)	**
Protect self	64 (80.0%)	152 (74.9%)	41 (78.8%)	NS
Protect public	49 (61.3%)	104 (51.2%)	35 (67.3%)	NS
Prevent escape	25 (31.3%)	77 (37.9%)	11 (21.2%)	NS
Prevent commission of offence	21 (26.3%)	69 (34.0%)	12 (23.1%)	NS
Total number of reports	80	203	52	-

** $p < 0.05$ (Fisher's exact test). NS = "not significant". Percentages do not add up to 100% as there may be multiple reasons for using force during a single encounter. Excludes reports involving Multiple racial groups (n=26).

Use of Force Options and Outcomes

Alternative strategies used and Type of force used

Verbal interaction was the most commonly reported alternative strategy used during use of force incidents (73.1% of reports); officers also employed cover (30.2%) and concealment (19.4%) as alternative forms of conflict resolution (**Table 4**). We also compared the use of at least one alternative strategy during a use of force incident among all racial groups. Results show that there were no statistically significant differences in the likelihood of officers using an alternative form of conflict resolution during incidents with different racial groups (**Table 13**).

Regardless of race, the most frequent type of force used was an officer pointing a firearm at the subject (41.8%) and use of a conducted energy weapon (CEW) (28.8%) (**Table 4**). In almost two-thirds of the cases where a CEW was utilized, no probe was actually launched (i.e., CEW presence only). Other less prevalent use of force techniques included a drawn handgun and use of police dogs. It should be noted that although a single incident could involve several different use of force tactics, only the highest level of force was reported by officers. **Figure 5** provides an examination of racial differences with respect to the type of force used, as reported by officers. Overall, the distribution of types of force used was not grossly different when comparing reports involving Blacks, Whites, and Other race categories. The results show officers were more likely to use empty hand techniques during incidents with White subjects as compared to Black and Other race categories subjects. It is worth noting, however, that the number of reports detailing this type of force was relatively small (n=20), which reduces our confidence in these particular results.

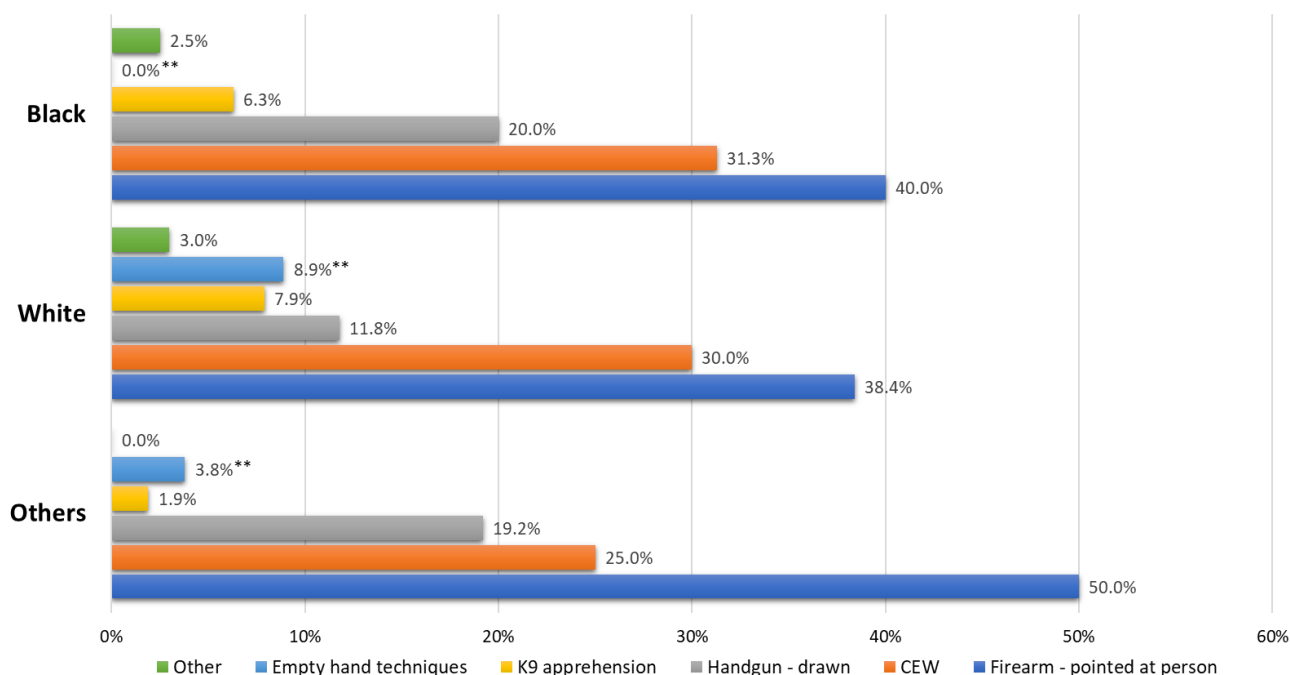
Officers are more likely to respond with higher levels of force (e.g., drawing or pointing a firearm) in incidents where there are higher risks to officer or civilian safety. Additionally, more officers are likely to be deployed to respond to such calls. Thus, in order to examine racial differences in firearm use (drawn or pointed) while controlling for the numbers of officers involved, incidents were categorized as either involving a firearm that was pointed or drawn, or not. It should be noted that officers did not discharge their firearms (except for the humane dispatch of animals or in training) during this time period. Results show that officers were no more likely to draw or point their firearm during incidents with Black, White, or Other race category subjects (**Table 14**).

Table 13. At least one alternative strategy used during the use of force incident, by racial group (n=221 incidents)

At Least One Alternative Strategy Used	Black	White	Others
Yes ^a	43 (81.1%)	126 (86.9%)	19 (82.6%)
None	10 (18.9%)	19 (13.1%)	4 (17.4%)
Total	53	145	23

^a At least one officer-submitted report for the incident indicated using an alternative strategy.

$p = .518$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=26).

Figure 5. Frequency of type of force used by officer(s) at the time of police encounter, by racial group (n=335 reports)

** indicates $p < 0.05$ (Fisher's exact test). Although an individual officer may attempt more than one use of force tactic in a single encounter, officers only report the most severe type of force used. Excludes reports involving Multiple racial groups (n=26).

Table 14. Firearm drawn or pointed at subject(s) during the use of force incident, by racial group (n=221 incidents)

Firearm drawn or pointed	Black	White	Others
Yes ^a	31 (58.5%)	81 (55.9%)	15 (65.2%)
No	22 (41.5%)	64 (44.1%)	8 (34.8%)
Total	53	145	23

^a At least one officer-submitted report for the incident indicated pointing or drawing their firearm at a subject.

$p = .712$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16).

Injuries

Out of the 237 incidents, 14 (6.0%) involved injury to officers, and 63 (26.6%) resulted in injuries to a subject (**Table 4**). This suggests that during 94% of all occasions where an officer was required to use force, members were able to effectively gain control of the situation and avoid personal injury. Further, all injuries incurred on subjects were categorized as minor (data not shown), and the frequency of subject injuries across different racial groups was not statistically significant (**Table 15**). Note that subject injuries may not be related to the use of force encounter and may include injuries sustained prior to interacting with officers.

Table 15. Frequency of incidents involving subject injury, by racial group (n=221 incidents)

Injury	Black	White	Others
Yes	13 (24.5%)	45 (31.0%)	5 (21.7%)
No	40 (75.5%)	100 (69.0%)	18 (78.3%)
Total	53	145	23

$p = .579$ (Fisher's exact test). Excludes incidents involving Multiple racial groups (n=16).

Summary of Findings

Results from DRPS' Race-Based use of force analysis reveal that Black civilians are over-represented in police use of force interactions in 2020. These results are in line with findings from the Ontario government's Special Investigations Unit and data from other provincial police services during the same time period, which have consistently shown police used force against Black people at a disproportionate rate compared to their White counterparts.^{xi} On their own, however, disproportionalities and disparities do not provide conclusive evidence of racial bias in policing, nor does it provide evidence of an overabundance of criminality in any racialized community. There exist multiple explanations for the over-representation of Black individuals in use of force incidents. Determining whether racial bias exists in police use of force practices would first require controlling for legitimate factors that should be part of officers' decisions to use force, such as the threat of weapons and subject behaviour.^{xii} If disparities and disproportionalities persist after controlling for those factors, then there is greater support for the existence of racial bias.

Several important findings emerged from the data. For instance, no racial differences were observed in the nature of police contact (proactive vs reactive), nor the likelihood of subjects incurring injuries. Additionally, no significant differences were observed in the likelihood of officers drawing or pointing a firearm at different racial groups, or in the use of alternative conflict resolution strategies. Although Black subjects were overrepresented among the weapons/armed person calls, the majority of these incidents were citizen-generated. Notably, a large proportion of weapons-related calls did not result in the discovery of a weapon. The data further revealed that officers were less likely to use force as a means to effect an arrest during incidents with Black subjects as compared to incidents with White or Other race categories. Additionally, officers were more likely to use empty hand techniques as a force tactic during incidents with White subjects than with Black and Other race categories. Finally, the data indicate that less experienced officers were more likely to be involved in use of force incidents with racialized individuals and less likely to be involved in incidents with White individuals compared to more experienced officers, although this was likely due to differences in assignment.

Our analysis also highlighted the limitations inherent in the Ministry's Use of Force reporting tool. Although the Ministry of the Solicitor General of Ontario indicates that the new provincial initiative to collect RBD on use of force interactions has the goal of identifying, monitoring and addressing potential racial profiling, our results indicate that the tool, in its current form, does not collect sufficient information to comprehensively understand the nature of these interactions.^{xiii} Although the Ministry Form does capture a great deal of information about police-public interactions, the absence of additional key data severely limits the ability to conduct the analyses necessary to monitor whether certain processes or procedures at DRPS may be contributing to any disproportionalities or disparities. For example, the Form does not collect information on whether the calls were citizen- or police-initiated, subject behaviour, or what information officers were privy to prior to attending the call (such as history of violence). Additionally, analytical limitations arose when multiple subjects from different racial groups were involved in the same incident, as the Form does not provide space for officers to clarify if force was applied to all subjects involved and/or what type of force was applied to which subject during the incident. This necessitated the extraction of additional (de-identified) information from police records – that being said, post hoc interpretation of officer narratives (for instance, on subject behaviour) may not generate the same results as self reported data from the officers who were present at the time.

Accordingly, DRPS is working on solutions to collect higher quality data over multiple years so that supplementary analyses can be performed that may better help to interpret these incidents. For example,

controlling for variables such as type of call, subject behaviour and number of subjects, weapons, or presence of other officers when analyzing the types of force employed by officers. Additionally, as DRPS expands the Race-Based Data Collection Strategy to all stops, searches, charges, apprehensions and arrests, availability of such data would enable the Service to estimate racial disparities in police use of force relative to all arrests or the likelihood of police-citizen contact rather than general population census data. Further, it could also allow us to analyze the data on police-citizen interactions which did not result in the use of force. The availability of this information may further contextualize findings and aid in the assessment of racial disparities.

Future Methodological Considerations & Next Steps

DRPS has the goal of becoming a leader among Canadian police services in the domain of identity-based data collection. The underlying theme of DRPS's RBD Analytical Framework is that no single methodology can fully capture all dimensions of disparity; instead, it is important to consider the strengths and weaknesses associated with various methodologies and data records used, and their implications on our analysis. Accordingly, DRPS has been working on solutions for better and more efficient data collection and analysis, and as such, our Framework will continue to be developed as we move through the various phases of the Race-Based Data Collection Strategy and accompanying projects. This means developing a Framework that will ultimately:

- Permit an intersectional analysis of various factors (i.e., race, age, gender, mental health status, etc.);
- Consistently account for relevant variables and identify trends over time in multivariate, multi-year analyses with larger sample sizes;
- Utilize key performance indicators, thresholds and more appropriate benchmarks that assist in assessing whether racial disproportionalities or racial disparities exist/persist;
- Incorporate the feedback of members of racialized communities, including on how the data is used, analyzed, interpreted and reported;
- Enable the Service to create action plans to address any issues that arise from findings, including identifying any training needs and opportunities

To achieve the above, there is a need to expand upon the data currently collected from officers for use of force interactions. Through consultations with internal and external stakeholders, and a thorough review of best practices of policing agencies across North America, relevant policy documents, and research literature on racial discrimination and racial profiling in policing, DRPS has identified additional key variables pertinent to identity-based analyses on police use of force and is currently considering ways to collect these data systematically and securely as part of normal use of force reporting procedures. Additionally, leveraging qualitative data in collaboration with Service members, affected communities, and external stakeholders can support the interpretation of data (i.e., to better understand to what extent racial disparities may be due to systemic barriers, biases and/or other factors) and co-development of solutions.

^{xi} Other police services include Guelph Police Service, Peel Regional Police, Hamilton Police Service, Toronto Police Service, Halton Regional Police Service and Waterloo Regional Police Service. Note that Halton Police indicated that in 2020, their Tactical Team took part in a number of large-scale operations on behalf of other police services, which overinflated their numbers.

^{xii} Kramer, R., & Remster, B. (2018).

^{xiii} Ministry of the Solicitor General (2021).

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Appendix A

Ontario Use of Force Framework

Use of Force Framework

The Ontario Use of Force Model is a graphical representation of the various elements involved in the process by which a police officer assesses a situation and acts in a reasonable manner to ensure officer and public safety. The Model assists officers and the public to understand why and in what manner an officer may respond with force.

Use of Force Reports have been received from officers dealing with subjects they have profiled as:

- Active Resistant
- Assaultive; and
- Serious Bodily Harm or Death

Use of Force Options available to officers fall into the following categories:

Physical Control:

- Soft (joint manipulation)
- Hard (Strikes, i.e. punches/kicks)

Intermediate Weapons:

- Oleoresin Capsicum (OC)
- Baton
- CEW
- Arwen (SRU)

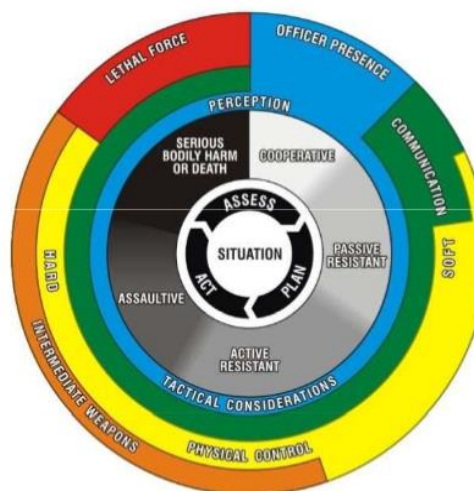
Lethal Force:

- Pistol
- Carbine

In addition to Officer Presence and Communication, officers may respond with the following force options based on the behaviour:

Active Resistant: Physical Control
Soft/Hard, Intermediate Weapon

Ontario Use of Force Model (2004)



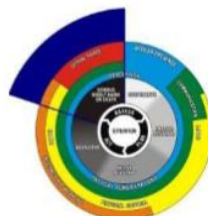
The officer continuously assesses the situation and selects the most reasonable option relative to those circumstances as perceived at that point in time.



Active Resistant: The subject uses non-assaultive physical action to resist, or while resisting an officer's lawful direction. Examples would include pulling away to prevent or escape control, or overt movements such as walking toward, or away from an officer. Running away is another example of active resistant.



Assaultive: The subject attempts to apply, or applies force to any person; attempts or threatens by an act or gesture, to apply force to another person, if he/she has, or causes that person to believe upon reasonable grounds that he/she has, present ability to effect his/her purpose.



Serious Bodily Harm or Death: The subject exhibits actions that the officer reasonably believes are intended to, or likely to cause serious bodily harm or death to any person.

Use of Force Report Requirement

Police Services Act, R.R.O. 1990, Regulation 926 states:

14.5(1) A member of a police force shall submit a report whenever the member,

- a) draws a handgun in the presence of a member of the public, excluding a member of the police force who is on duty, points a firearm at a person or discharges a firearm;
- b) uses a weapon other than a firearm on another person; or
- c) uses physical force on another person that results in an injury requiring medical attention.

Appendix B: Glossary of Terms

The following terms are used by DRPS: ^{xiv}

Benchmark: A benchmark is a point of reference, or standard, against which things can be compared, assessed, or measured (e.g., population census data).

Disaggregated data: In the context of race-based data, this means breaking down composite ("aggregate") categories such as "visible minority" into component parts, such as Black, East Asian, etc.

Disparity: Refers to the unequal outcomes of one group as compared to another.

Disproportionate (or disproportionality): Refers to the overrepresentation of a particular group of people in a particular program or system as compared to their representation in the general population.

Indigenous: A collective name for the original people within Canada and their descendants. This includes First Nations (status and non-status), Métis and Inuit.

Intersectionality: People's lives are shaped by their multiple and overlapping identities and social categorizations. Together, they produce a unique and distinct experience for that individual or group, for example, by creating interdependent systems of discrimination or disadvantage. In the context of race, this means "recognizing the ways in which people's experiences of racism or privilege, including within any one racialized group, may differ and vary depending on the individual's or group's additional overlapping (or "intersecting") social identities", such as ethnicity, religion, language, gender, disabilities, socio-economic status, or sexual orientation.

Perceived race: As it pertains to DRPS's Race-Based Data Collection Strategy and Use of Force Analysis, this refers to information derived from a service member making a determination with respect to the race of an individual by observation, solely on the basis of that member's own perception.

Race: A term used to classify people into groups based principally on physical traits (phenotype) such as skin colour. Racial categories are not based on science or biology but on differences that society has chosen to emphasize, with significant consequences of marginalizing some in society. Racial categories may vary over time and place, and can overlap with ethnic, cultural or religious groupings.

Racialization: Refers to the process by which societies construct races as real, different and unequal in ways that matters to economic, political and social life.

Racialized (person and/or community): A term used broadly in reference to people who have racial meanings ascribed to them as a group in ways that negatively impact their social, political, and economic life.

Racial Discrimination: There is no fixed definition of racial discrimination. However, it has been described as any distinction, conduct or action, whether intentional or not, but based on a person's race, which has the effect of imposing burdens on an individual or group, not imposed upon others or which withholds or limits access to benefits available to other members of society. Race need only be a factor for racial discrimination to have occurred.

Racial Equity: The systemic fair treatment of all people.

Racial Inequity: Refers to a disparity in opportunity and treatment that occurs as a result of someone's race.

Racism: An ideology that either directly or indirectly asserts that one group is inherently superior to others. It can be openly displayed (e.g., racial jokes or slurs, or hate crimes) and can also be more deeply rooted in attitudes, values and stereotypical beliefs. In some cases, these are unconsciously held and have become deeply embedded in systems and institutions that have evolved over time. Racism operates at a number of levels, in particular, individual, systemic and societal.

Systemic Racism: When institutions or systems create or maintain racial inequity, often as a result of hidden institutional biases in policies, practices and procedures that privilege some groups and disadvantage others.

^{xiv} Cole, D. and M. Gittens (1995); Government of Ontario (2017); Ontario Human Rights Commission (2005).

Appendix C: General Occurrence (GO) Report Use of Force Data Collection Template

NA: Not Applicable

Incident Details

Location of incident (municipality): _____

Location of incident (district): _____

Location of incident (zone): _____

Location of incident (atom): _____

Did the police attempt verbal resolution prior to the use of force?

- Yes
- No
- NA
- No information/not accessible

Did the officers warn the subjects prior to the use of force?

- Yes
- No
- NA
- No information/not accessible

What was the nature of police contact?

- Call for service from member of the public (reactive)
- Follow-up investigation (reactive)
- Police stop (e.g., traffic stop) (proactive)
- Police witnessed crime in progress (proactive)
- Warrant execution (proactive)
- Undercover Operation (proactive)
- Already in police custody (i.e., at division, in cell block)
- Other (specify): _____
- No information/not accessible

Subject behaviour at the time the decision was made to use this force type?

- Subject was passive resistant
- Subject was active resistant
- Subject threatened police (no weapon)
- Subject threatened police with a firearm
- Subject threatened police with another weapon
- Subject assaultive towards officers (no weapon)
- Subject discharged firearm
- Subject assaultive towards officers with another weapon
- Subject did not resist, threaten, or attack police at the time decision was made to use force
- NA – Decision to use force was made prior to interaction with subject

Risk of grievous bodily harm or death to self or a member of the public
No information/not accessible

Subject behaviour throughout the use of force?

Subject was passive resistant
Subject was active resistant
Subject threatened police (no weapon)
Subject threatened police with a firearm
Subject threatened police with another weapon
Subject assaultive towards officers (no weapon)
Subject discharged firearm
Subject assaultive towards officers with another weapon
Compliant or cooperative
Risk of grievous bodily harm or death to self or a member of the public
No information/not accessible

Was the subject charged with a crime following this incident?

Yes
No
No information/not accessible

Was the subject charged with resisting arrest, flight from a peace officer, assault of police officer, or assault with intent to resist arrest?

Yes
No
NA
No information/not accessible

When was the weapon identified?

NA – No weapons were suspected, used, or found
Subject only suspected of weapon possession (none found)
Weapon identified prior to the use of force
Weapon emerged during the incident (after decision to use force but before arrest)
Presence of weapon only identified after arrest
No information/not accessible

Subject characteristics

Subject gender

Female
Male
Unknown
No information/not accessible

Subject age: _____

Was the subject experiencing a mental health crisis at the time of the incident or did subject have a mental health illness that was believed to influence the outcome of the incident?

- Yes
- No
- Unsure (on behalf of officer)
- No information/not accessible

Was the civilian drunk or intoxicated on alcohol at the time of the incident?

- Yes
- No
- Unsure (on behalf of officer)
- No information/not accessible

Was the civilian high on drugs at the time of the incident?

- Yes
- No
- Unsure (on behalf of officer)
- No information/not accessible

Does the subject have a history of substance abuse (alcohol and/or drugs)?

- Yes
- No
- No information/not accessible

Did the subject have a criminal record prior to this incident?

- Yes
- No
- No information/not accessible